Autumn 2023

TOUCHPAPER

The Newsletter of the Royal Gunpowder Mills Friends Association
Registered Charity No. 1115237

MoD Fire Service

Life in Small Scale

Mills Historic Information Summary - 6
Anti-Aircraft defences at RGPF in WWI and WWIII

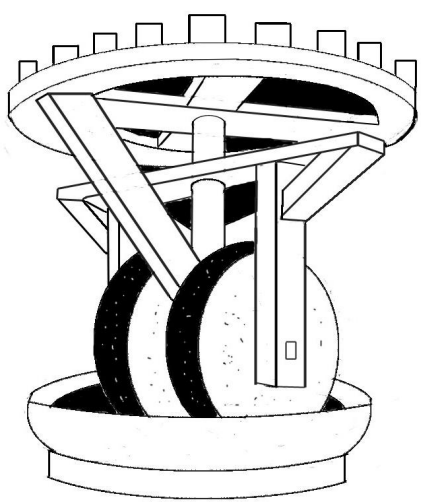
"Changing of the Guard" at the Powdermills

George Cross Medals
Presented to RGM Staff (1940)

John Wilson Railway
Report

Doctor and Daleks

Adjourned AGM New Date



Autumn 2023

Officers of the Friends Association

Chairman

Len Stuart
13 Romeland
Waltham Abbey
Essex
EN9 1QZ

romeland13@gmail.com

Treasurer

John Cook
63 Lakenheath
Southgate
London
N14 4RR

rgm.fa@virginmedia.com

Secretary

Len Stuart
13 Romeland
Waltham Abbey
Essex
EN9 1QZ

romeland13@gmail.com

Membership

Friends Association
Royal Gunpowder Mills
Beaulieu Drive
Waltham Abbey EN9 1JY

wargmfa@btinternet.com

All enquiries relating to this newsletter and articles, not membership, should be addressed to:

Brian Clements
56 Park Road
Enfield
EN3 6SR

wargmfa@btinternet.com

Deadline for the next issue is 24th November 2023

Chairman's Chat

The Mills summer season has now drawn to a close with a children's activity day featuring transport on the site. This included the two railways and a visit to the powder boat in the Green Hut. For the autumn and winter the Mills are planning Halloween and Christmas events, along with history and evening wildlife walking tours of the site.

The Friends are contributing towards the cost of the 'Discover Waltham Abbey' tourism leaflet which features the Mills along with other visitor attractions in the area. We also continue to support the John Wilson Railway.

We are also looking at the possibility of expanding the Rocket Vault into the Mad Lab now that activities there are either in the open air or in the Spinks gallery. We already have some exhibits there including Sidewinder and HARM missiles and an Exocet motor in its transit case.

I intend to stand down as Chairman so a new volunteer will be required at the adjourned AGM.

Len Stuart

Editorial

In the Spring issue I announced that I would be giving up the job as Editor of Touchpaper and a replacement would be needed. We have not yet had a volunteer to take this on. Once more I have been able to put together a full newsletter thanks to the usual contributors who have supported my efforts so well.

As Len Stuart has mentioned in his Chairman's Chat he is standing down as Chairman and a replacement is needed for Chairman in addition to an Editor. The future of the Friends does depend on its members so it would be in your best interests to attend the AGM if possible.

The revised date for the adjourned AGM is on page 6, any number of members present will constitute a quorum and decisions about the Friends future will be made at this meeting.

The cartoon on the back page originally appeared in Quickmatch September 1989; this can be seen in the online archives:

https://www.wargm.org/archive_viewer/waqm-record.php?record=&item=36

Brian Clements

MoD Fire Service

In a previous Touchpaper Martin Gough gave us a tale about the South Site Fire Service. My claim to fame is that, for a very brief period, I was the line manager for the head of the MoD(PE) Fire Service. To start at the beginning of my relationship with the Fire Service, I must go back to when I first moved to the Safety Services Organisation SSO(PE) it was the headquarters organisation who advised the MoD(PE) on all safety related matters. The Explosives Group, to which I belonged, inspected all explosives facilities in the MoD(PE) and granted them licences. The MoD(PE) Fire Services inspected all facilities including those handling explosives; thus creating a potential for conflict. This had been resolved, to some extent, by exchanging the advice letters that we produced so that both parties were aware of what the other was saying.

Someone in the MOD woke up one morning with the bright idea that we should have a central safety organisation for the whole of the MoD, including the Armed Services. The fickle finger of fate pointed at SSO(PE) as being the ideal candidate. It was realised that there was a legal requirement for an explosives branch to be left to carry out licensing so I, as Chief Inspector of Explosives CIE Mod (PE) and one of my Explosives Inspectors were to remain. CIE MoD(PE) was a rather grand title for what was by now a much reduced role, as the Royal Ordnance Factories had been privatised. I had inherited the post by accident since no one else wanted it. So it was that Colin Pearce and I were left as the sole safety organisation for the MoD(PE) replacing about a dozen people. The rest of the organisation was now to become a new safety organisation for the whole of the MoD. I was transferred to Woolwich with a new boss Colin Lewis. It so happened that almost immediately I went on a month's holiday.

On my return Colin Lewis claimed that my phone had hardly stopped ringing so it was an easy task to persuade him that we needed to reform the SSO(PE), since nothing had changed to reduce our role.

We had a new Chief Fire Officer called Tony recruited from the Navy for our fledgling organisation. My first encounter with him was after a furious row had broken out with Colin Pearce (Ex Army). They had nearly come to blows. Tony had seen an advice letter from Colin that mentioned fire matters. And he was not having any of it. I carefully explained the situation to him, as outlined above, but this did nothing to placate him. Almost in passing I mentioned that if he wanted anything done, say a new Fire Main installed at a particular site, we would enforce it by threatening to withdraw the Explosives Licences. He was stunned. I had to explain it to him at least twice. Suddenly we were the best of friends. I gather that the Navy did not have this relationship.

Later when our new organisation had settled in, our mutual boss who was by now Warwick Brook, was to retire and there was to be a month before Jim Burgess was able to replace him. I was to fill the role on a temporary basis. Therefore I would theoretically be Tony's boss. At some point Tony went off to meeting with the Naval Captain, who oversaw the whole MoD Fire Service. I was luxuriating in my temporary, but very splendid office one sunny afternoon in Empress State. I was vaguely wondering what it was that I was supposed to be doing in this elevated role and worrying about the work piling up on my own desk, when my phone rang. It was the afore mentioned Naval Officer. He was a strange chap and, on taking up his post, he had sent all his new senior staff a photograph of himself in full uniform including a cocked hat and a sword. Presumably they were supposed to put them on their office wall. Anyway, this officer was incandescent. Tony had told this Naval Officer that his idea for a complete reorganisation of the MoD Fire Service was a stupid idea, which of course it was.

I gave the officer a very sympathetic hearing and tut tutted in all the right places and promised the most severe retribution when Tony arrived back in the office, "His annual Report will reflect this incident" etc. He was suitably mollified. Clearly this was what senior management was all about and I was going to enjoy it. When Tony did get back, we both had a good laugh about the incident. I seem to recall that Tony got a glowing report that year for calling a spade a spade.

My temporary role included a PA, a lovely Geordie girl by the name of Angela. She had clearly gone to the Reginald Perrin (remember him?) school of excuses for being late to work. One that springs to mind was that the roof to her flat had sprung a leak, so water was dripping onto her face all night and she could not sleep. But the very best excuse was the man who was having a heart attack. She had encountered him on the way to work and, since her sister was a nurse, she felt compelled to stop and help. On another memorable occasion she used a disc of her own and set off a virus alarm on the office computer. Thus it was that I was introduced the rigours of senior management. Strangely when I talked to Warwick on his return, he had experienced none of these issues.

On a more serious note, I once had a discussion with a very senior colleague about the size of MoD Fire service as compared to that of the London Fire Brigade. He pointed out how many more fires the London Brigade had to deal with when compared to the MoD, but with a smaller staff. However, my feeling is that the MoD role was much more focused on prevention. The problem with this is you can become a victim of your own success; if you have no fires, why do we need a Fire Service? I believe the London Fire Brigade prior to World War II may have had a more advisory role. There was a limit placed on the height of multi storey buildings (24 floors I think) and special construction required (perhaps horizontal tie bars?) to prevent building collapse, such as happened to the Twin Towers. None of these multi storey buildings collapsed during the Blitz.

Had Grenfell Tower been an MoD building it would have had Fire Brigade input into its construction and been subject to a continued inspection regime.

P.S. And finally. Brian has said in the past that he would like Touchpaper to be more of a Newsletter. Most of my news these days involves medical issues. However, I have one piece of news that is not. On Saturday I was walking along a local footpath when I stumbled across a photo shoot involving a beautiful naked girl. I was naturally outraged. I am going back next week in the hope of being outraged yet again!

Peter Stone

Adjourned AGM New Date

We are sorry that the September date had to be cancelled due to circumstances beyond our control. The new date is Wednesday 11th October at 10.30 at the RGM site.

Tea, coffee and biscuits will be provided so, please, let me know if you plan to attend.

Whatever number of members attend shall constitute a quorum.

Daphne Clements

WARGMFA@btinternet.com

01992 717816

Life in Small Scale

Small Scale was the designation given to the area of the plant devoted to the research and development of double-base rocket propellants within P1. The term double-base referred to the fact that the smokeless propellants consisted of a gelled matrix of nitrocellulose and nitroglycerine (NC and NG). Within Small Scale were a series of danger buildings containing incorporators (once described as armour plated food mixers), presses, casting facilities, ovens and a magazine. All of these were very small versions of the facilities located elsewhere on the South Site which were used to make production scale batches of 100 kg plus.

I joined PERME in December 1979 after leaving Queen Mary College in East London with a degree in Chemistry, and was appointed to work in Small Scale as a research chemist responsible for making new extruded rocket propellants, so this was my first serious job (I had spent the previous six months packing clocks in Farringdon for £28 a week).

I was advised by the personnel department to start on a Thursday, two weeks before Christmas as this suited the payroll (no, I didn't understand it either) but I reasoned that if I didn't like the job I had only 2 days to the weekend, and two weeks to Christmas. I had been waiting to hear from them since March, and I joked that my application had fallen down the back of a filing cabinet. My new boss, Peter Stone, confirmed that this was a real possibility.

Prior to taking up the post I had to wait for security clearance to come through, and in that time I was invited to visit South Site to see what I had let myself in for. Both Mike Healey and Eric Baker took the time to meet me and show me around both Large and Small Scale, which was much appreciated by this lowly graduate.

But what did I actually do in my time at Waltham Abbey? I shared an office in Small Scale with Peter, and Ron Craig, whose job it was I had just taken over as he had moved to making Cast Double Base (CDB) propellants. He in turn was replacing John Costin who was shortly to retire.

I planned the work in conjunction with whoever was the technical lead (usually Peter, occasionally others), prepared the paperwork, ensured we had all the raw ingredients and wrote out the work instructions.

But for most of the time that is where my practical involvement finished as the processing work was almost entirely carried out by the experienced industrial grades. The raw explosives were quite sensitive materials, even when the NC and NG were combined, and needed to be handled by competent experienced staff, rather than young and possibly gung-ho scientists. Thus it was passed to safer hands, which for me was a chap called Jim Salter. Jim was an experienced old hand and like most of the industrial workers had had a previous career, in his case as a tugboat captain on the River Thames. In one of our quiet times we considered the possibility that as a youngster I had spent time on the 277 bus waiting because the bridge over the entrance to Millwall docks was raised to let some tugboat through...

Jim and his assistant, Ray, would then weigh up the ingredients, wet mix the propellant, dry it, hot roll it, and then extrude it into strands for assessment of its performance.

The propellants we designed and manufactured ranged from high-energy, high burning rate compositions used for tactical air-air and surface-air guided missiles, to specialist materials for ejector seats, actuator cartridges, and at the other end of the performance scale, cool slow-burning gas generators to run missile systems and inflation devices.

Another sideline if I can call it that was the continuing support to the Royal Ordnance factories in checking the quality of new batches of NC and other ingredients. I should add here that all these activities required the support of many others on site at Waltham such as ballistic assessment (measuring the burning rates), chemical analysis, and measurement of the mechanical properties. The other sections on P1 included the CDB propellants, gun propellant, processing research, and the analytical service touched on earlier.

The working rules were taken very seriously, but even then fires could happen. The most common event was an ignition in the rolling house (as Peter has mentioned in one of his articles for Touchpaper). Usually our first inkling of a fire on the rolls was the loud whooshing noise in the distance as the IR sensors triggered and the machine (and operator) were automatically deluged with several hundred litres of water, effectively putting out the fire. Or at least most of the time.

Another workplace hazard was the toxicity of some of the ingredients, such as the lead and copper salts, and of course the physiological effect of NG, which basically lowered blood pressure, giving rise to the well-known NG headache. My first experience of this followed a trip to the wet-mixing house on Large Scale, where I very unwisely (and against good advice) handled the mixed NC/NG paste with no gloves. It started around 5.00pm, began seriously thudding around 6.00, and I just don't remember the rest of the evening. I'm teetotal, so friends just tell me that's what a really bad hangover is like.

Initially I lived at home in east London and commuted to Essex via bus, train and a half-hour walk from Waltham Cross station. Once I had gotten used to the archaic ways of Waltham I began cycling the last half-mile to the office through the back entrance to South Site along the River Lee, leaving my old boneshaker bike chained up overnight in the derelict magazine building just off of Station Road (this may be the same building mentioned by Peter in Touchpaper Autumn 2022).

After a year or so I took up a house share in Monkswood Avenue along with Richard Morrell and Tony Kosecki.

In November 1982 I escaped to the Ordnance Board (then based at Earl's Court) on a temporary promotion to work with Roy Stenson on hazard assessment of propellants, and to set up a database of energetic materials in UK service.

When I started at Waltham fresh from QMC I felt very fortunate to fall into a job that suited me almost perfectly, requiring as it did some chemistry, understanding of processing, an application of technical/military knowledge, and a more than an average serving of practical common sense required to stop the roof being blown off! In retrospect it was also quite interesting to be one of the last folk in the Scientific Civil Service to have had my initial training in what was still a fully functioning specialized R&D establishment. This is something that I imagine is almost unavailable to most current MOD technical graduates (other than those at AWE).

I spent just under three years at Waltham, but this gave me a thorough grounding in energetic materials, as they came to be known as. The work at the Ordnance Board and later Fort Halstead filled in the gaps in hazard assessment and high explosives, but that is another story.

Footnote:

Some months after my career came to an early end ('released' from QinetiQ at Fort Halstead), I attended a leaving 'do' for an ex-colleague, where to my surprise I was presented with a leaving card signed by many of the folks I had until recently worked with. They explained that it has been misplaced for a while. It seems that my career finished as it started, stuck down the back of a filing cabinet.

Bernard Garaty

Mills Historic Information Summary 6

Anti Aircraft, AA, Defences of the Royal Gunpowder Mills

Waltham Abbey WW1, WW2

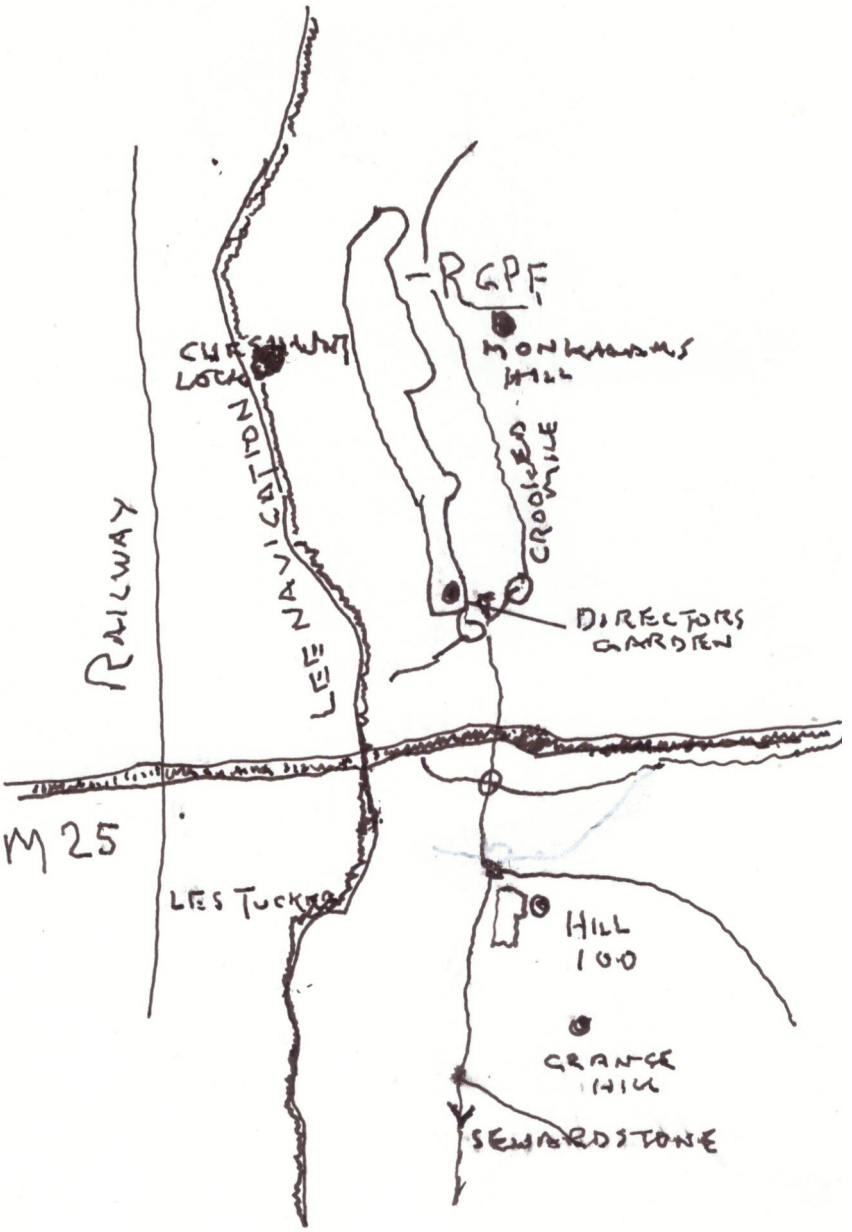
The Lea Valley was of vital strategic significance. It lay in the path of enemy bombers approaching London from the north east and housed major munitions industry, including the Royal Gunpowder Mills at Waltham Abbey and the munitions factories of Enfield, including the Royal Small Arms Factory.

The new form of warfare - attack from the air, was therefore certain and at the beginning of WW1 AA defences were speedily organised. The Lea Valley was protected by three gun barrages. One line ran down the Valley on the west, one from Enfield to Loughton and the third east closer to the Waltham Abbey Mills,

AA guns were sited either in fixed emplacements or in a mobile role mounted on lorries or later specialised chassis's or in lorry towed trailers from which the gun was dismounted at destination.

The location of some of the WW1 sites was still relevant to WW2 and these were brought back into use in the second conflict.

Inevitably many AA sites have disappeared. Fortunately although sketchy there is sufficient information / evidence available to enable the following summary of the five AA gun emplacements and their guns in the area of the Mills.



AA Gun Emplacements in RGPF area

1) AA Gun Emplacements in RGPF area

Hayes Hill

Emplacement demolished, Gun mounting ring embedded in concrete apron

Gun: WW2 Bofors 40mm

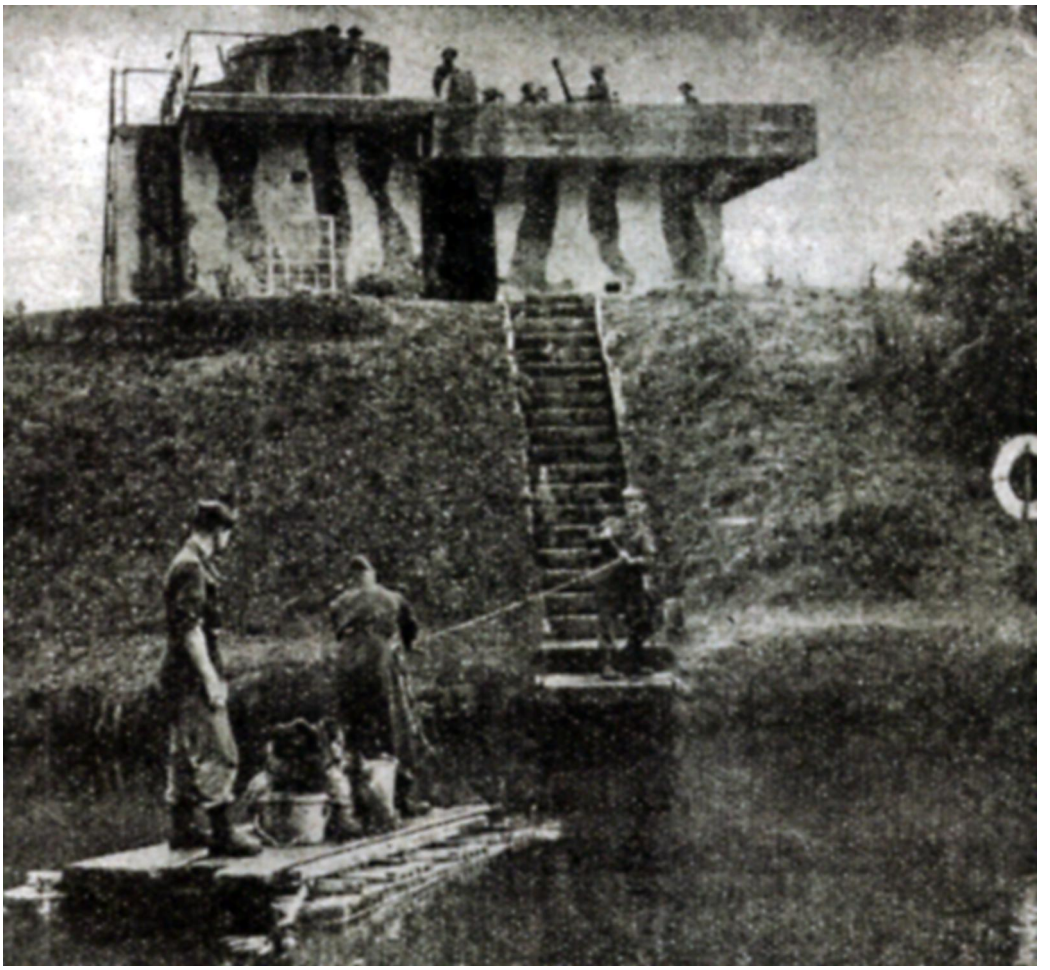
Hayes Hill Farm is a Lee Valley Park visitor centre. When we visited we were allowed to go through a sheep paddock to gaze down at this mute reminder of war. There is something unreal about these war relics in peaceful surroundings – did it all really happen?

Cheshunt Lock

WW2 Bofors tower survives

Gun: WW2 Bofors 40mm

Built in 1942 on the east bank of the Lee Navigation close to the Powdermill Cut join to the Navigation is a very rare surviving example of a full scale concrete Bofors gun tower, this site and the technology which it contained is of high interest, Again the contrast between the present peaceful surrounding and the wartime function of this monolithic concrete structure is almost surreal. The site is inaccessible, but unfortunately this has not deterred modern graffiti vandals (someone told me it is n fact now a sanctuary for bats, run by a bat society, but I have been unable to verify this).



Cheshunt Lock Bofors tower under construction

Monkhams Hill

Some brick structures and concrete gun platform with embedded mounting ring survive

Gun: WW1 3in - 20 cwt

WW2 40mm Bofors

Again a marked contrast between present day circumstances and war. The site is on the hill near to Monkhams Hall and can be reached after negotiating / crossing a short stretch of the Crooked Mile from the Cornmill Meadows car park to get to the Eagles Gate House and the track upwards. Its location gives a peaceful airy panoramic view of the RGPF and Enfield / Valley and is well worth the walk on a sunny afternoon and even a picnic.

Hill 100

Emplacement demolished – no trace

Gun: WW1 3in QF 5cwt

WW2 Bofors 40 mm

This site lies on the 100ft contour, hence the title, on the east of the South Site. The WW1 gun, made by the Elswick Ordnance Company, was a technical curiosity but operational failure, with low muzzle velocity, only fourteen examples were made.

Grange Hill

Emplacement demolished

Gun: WW1 3in– 20cwt

WW2 Bofors

This site is now just a concrete apron in a grassy field with mounting ring removed

RGPF Waltham Abbey

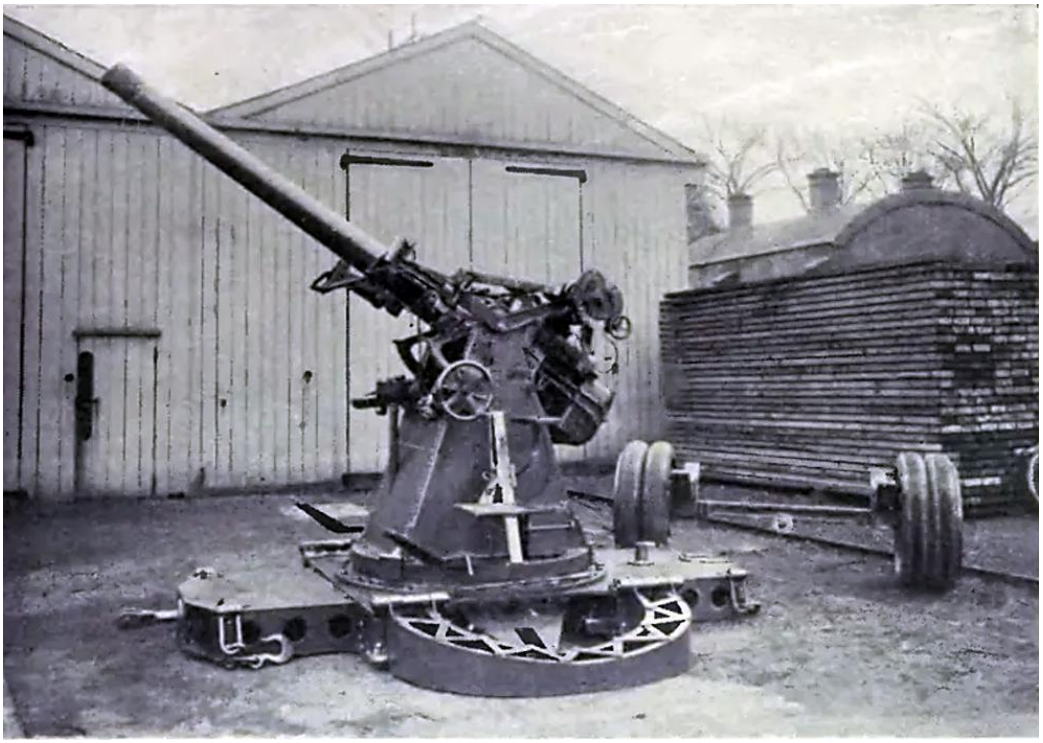
Emplacement demolished

Gun:? Correspondence from an RA gunner exists which talks about an 'experimental' gun, but with no further detail, The Bofors was hardly experimental by 1942, stemming from the 30's, but was new to Britain in 1942, which could account for the description,

An octagonal brick built emplacement in the factory area itself – actually in the Director's garden! The main features including gun mounting ring survived until demolition of the site fairly recently.

2) The Guns

The advent of fast moving motor torpedo boats from the late 1880's and later the new aerial warfare created a need for rapid firing guns – termed Quick Firing –QF, The French were quick off the mark with the introduction of the 'cannon rapide' in 1886.



3in – 20cwt AA Gun

3in – 20cwt QF WW1

Although the Navy already had a QF gun, in 1914 a design was produced for Army use, termed 3in- 20cwt

The 3in gave good service and was the staple of British AA defence in WW1 and on into the 1930's, even surviving over WW2 in a home defensive role. It was superseded in 1938 by the 3.7in heavy HAA gun and for lighter conditions the LAA 40mm in 1942.



Bofors 40mm Gun L60

Bofors 40mm Automatic Gun L60 WW2

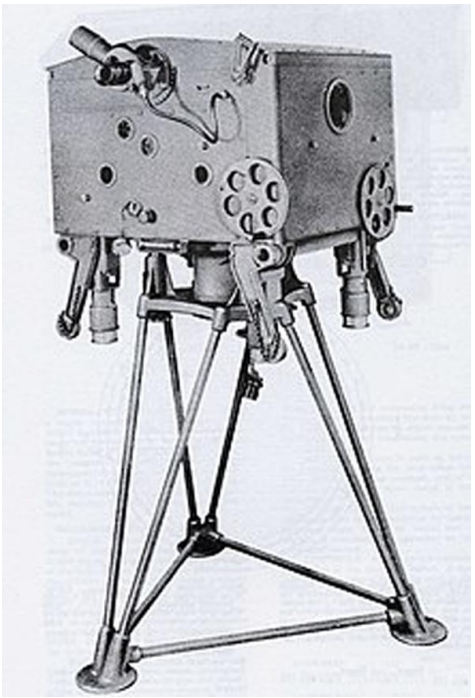
In WW2 anti aircraft regiments were formed into Heavy Anti-Aircraft regiments – HAA, designated by numbers preceded by HAA, operating the new 3.7in gun and Light Anti-Aircraft regiments – LAA, with numbers preceded by LAA, operating the new 40mm Bofors.

This gun was designed by the Swedish AB Bofors company in the 1930s; a British version was designed and manufactured in large numbers under licence and in Canada.

Brought into British service in1942, it was extremely effective and was generally regarded in its day as one of if not the leading AA guns in the world.

Kerrison Director

The fundamental element in the Bofors automatic system was gun aiming, initial tests revealed that the Vickers Predicitor already in use for aiming on Navy ships was not suitable for the Bofors – it was designed for higher altitudes than the Bofors. This problem was identified around the same time as the enemy had introduced low level high speed tactics.



Kerrison Director on tripod

Over the 30's Army Major A.V. Kerrison had been working in Army Liaison at the Admiralty Research station on aiming devices for Navy ships and he was deputed to find a solution for the problem. He produced what became the Kerrson director or Predictor, Basically an electro mechanical analogue computer took input from optical telescopes operated by gun layers of target range, speed etc. and performed the calculations necessary to predict the target's position for fire control. The data was then transmitted via gear wheels to elevation and traversing mechanisms to operate the gun without manual intervention,

Major Kerrison's device created a totally automated B0fors gun system, and was notably successful against the demanding conditions of short engagement high speed low level attacks.

His endeavours were recognised after the War, being appointed director of Research and Engineering at theAdmiralty.

Les Tucker

Footnote:

The WW2 anti aircraft regiments were formed into HAA or LAA units. Members of AA Command had a rather imaginative sleeve badge logo in the shape of an archers up pointed arrow.

I well remember it and excitedly going round after a raid picking up still hot what I imagine were pieces of shell shrapnel.

What fun war was for schoolboys.

There is a document in the Waltham Abbey Special Collection on WWI air defences:
https://www.wargm.org/archive_viewer/wasc-record.php?record=&item=3280

Ed.

“Changing of the Guard” at the Powdermills

There have been a number of significant changes of staff at the Royal Gunpowder Mills over recent months.

Andrew Macdonald

In order to sort out the long term future of the site, the Foundation Trust has appointed a Chief Executive Officer to map out that strategic direction of travel. He is Andrew Macdonald.



He took up his appointment at the beginning of July 2023, initially on a part time basis, moving up to full time in October 2023. His early career had been as Senior Foreign Editor for Channel 4 News from 1994 to 2004, including coverage of the invasion of Iraq in 2003. This was followed by two years as a freelance journalist. He then moved on to become Deputy Director at the Art Fund and subsequently a similar appointment at the Dulwich Picture Gallery. Andrew’s most recent appointment has been as Project Director for the Society of Antiquaries of London. Previously he had been Director of Strategy and Finance at the Museum of the Home at Kingsland Road, Hoxton (formerly known as the Jeffrye Museum). Here he was responsible for an £18 million pound refurbishment programme for the museum, so he is well placed to address the challenges of the Mills.

Helen Hamlyn



Helen Hamlyn has moved on to pastures new, having served as Learning and Outreach Manager from 2019 and subsequently as Site Manager from 2021onwards.

She has gone to St George's University in Tooting. Since she joined the Mills in 2019, she has been instrumental in steering us through the COVID pandemic of 2020 and 2021 and out at the other side. She has been a tremendous asset to the site and will be sorely missed.

John Malone



Colleagues will recall that John Malone was our temporary General Manager during part of 2020 and 2021. He oversaw the delivery of the programmes of work funded by the National Lottery Heritage Fund for recovery from the impacts of the COVID lockdown.

It is a decided pleasure to have him back again with effect from 24th August 2023 for another stint as Interim General Manager, filling the role between the resignation of Helen Hamlyn and the appointment of a successor. His expertise and knowledge of the site and its people will be invaluable during these "interesting" times.

Jo Sweeney



Unfortunately, but for wholly understandable reasons, our Learning and Outreach Officer Jo Sweeney has accepted a job elsewhere. This is because her commute from Camberwell to Waltham Abbey by bicycle and train has become unsustainable. Recently she has heroically overcome cancellations, strikes, diversions and biblical weather to get to us unfailingly.

Prior to COVID we employed several casual staff to assist with the delivery of the education programme. Now Jo has not only managed but also delivered the education programme herself without these casual staff saving us a lot of money. Jo leaves the learning programme in a good place to hand over.

Isabella Crook



Following on from the departure of Jo Sweeney, our new Learning and Outreach Officer is Isabella (Izzy) Crook.

Izzy started with us on Monday 5th June 2023. She previously worked at Elmbridge Museum in Esher, Surrey. We are delighted to welcome her aboard. She has rapidly grasped the nettle and is following very effectively in the footsteps of Jo Sweeney. The education programme is a growth area at the Mills and Izzy is the right person to take us through the expansion process.

Geoff Hooper

George Cross Medals
Presented to RGM Staff (1940)



On Thursday 18th January 1940 there was a massive explosion at the Royal Gunpowder Factory. 6000 pounds of nitroglycerine, guncotton and mixed paste had exploded in No. 5 Mixing House. Five men were killed. Plate glass windows in Waltham Abbey shops were shattered; ceilings in private houses collapsed and scores of glasshouses in the surrounding neighbourhood were wrecked. Windows in the Abbey church were broken. Initially sabotage was suspected, but this theory was later discounted. 150 yards away from the Mixing House was No. 2 Wash House where three men, William Sylvester, Leo O'Hagen and Stanley William Sewell were working on a critical stage of the process. The structure of their building was little affected by the blast, but the liquid in their charge was very susceptible to shock and the men could have left their post for a safer place. William Sylvester was watching over more than a ton of nitroglycerine while the other two oversaw the process of bringing the material to a point of relative stability. All three men stayed at their posts for a further two hours. Each was awarded what was then known as the Empire Gallantry Medal (EGM). Later on the George Cross was instituted in place of the EGM and each man subsequently received this.

William Sylvester's son John visited WARGM on 18th August 2007 and presented his father's medal to the Mills. The picture below is from the September 2007 issue of Touchpaper, recording Trevor Knapp accepting the medals, which included the George Cross.



John Sylvester presenting the medals to the Company Chairman, Trevor Knapp.

On 12th August this year Len Sewell, the son of Stanley William Sewell, visited the site with several relatives, one of whom had come over from New Zealand for the visit. Len is now 87 and remembers his father working at the Mills. They lived at Ponders End. Len has an excellent memory of the Waltham Abbey area in the forties. Below is a line drawing of his father; sadly his George Cross was sold off some years ago.



Stanley William Sewell GC, explosive worker (1st grade) Royal Gunpowder Factory,

It was a decided pleasure to welcome these visitors to the site, where they saw the Main Exhibition, the Armoury, the Rocket Vault and had a Tractor Trailer tour of the site, including the location of the ill-fated explosion in 1940. Len's niece Alison Crossman subsequently wrote:

"Thank you so much for the hospitality shown by all of the volunteers on Saturday. It was a very special day for our family and we all thoroughly enjoyed the experience. Everyone was so friendly and welcoming, and we were completely overwhelmed by their generosity of time and knowledge. Having Geoff as our personal tour guide was absolutely fantastic. My uncle was really moved by the visit and I am so happy we were able to take him, as he does not get out much nowadays".

Geoff Hooper

Obituary

We have been advised of the death in April of Doctor George West a former Trustee of the Kaiser Foundation and long standing member of the Friends.



Opening of the Mills to the public has been severely restricted this season. The JWR has been in action on 5 occasions, in July and August, for 3 children's workshops and 2 open days. Regretfully, due to staff shortages, only a limited number of visitors could be accommodated at each event. Booking was in advance and online. However, visitors were enthusiastic and enjoyed their visit.

In order to provide the visitor attraction, repairs and improvements have been necessary. Originally, John Wilson funded most of the cost himself; the Friends have since been providing financial support.

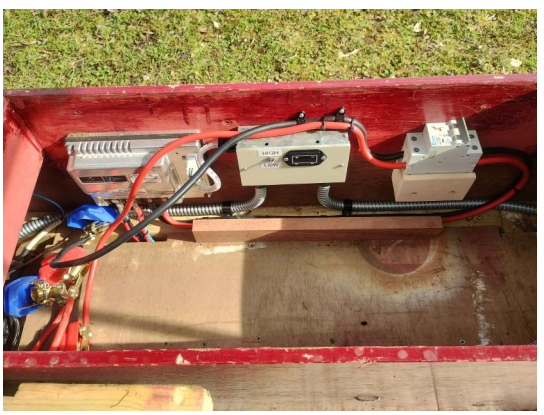
As mentioned in the 2022 Winter Touchpaper, the rotting wooden sleepers have all been replaced by plastic ones; these had to be cut and drilled from recycled plastic planks, purchased by the Friends at the end of last year.

During the Covid shutdown, mice destroyed the wiring of the tram control system so last season it was operated by an old replacement, which failed at the end of the season. The original was to be reinstalled and the Friends purchased wire for this. Luke's father in law Brian Pegram has rewired the tram electrics to repair the rodent damage ready for this year's opening. A few weeks later, the mice turned their attention to the tram brake airline which Luke has also repaired.

The JWR crew have carried out track maintenance, replacing sleepers and adding ballast. Luke has been building a new maintenance carriage to be pulled by the 'single man loco'; this will carry materials and tools when working on the track and stations. We have been working on adapting one of John Wilson's unused carriages to be pulled by the 'Sir William Congreve' loco; this has required the purchase of airline couplings for the braking system, again funded by the Friends. When complete we will have a choice of trains to carry visitors.

Both stations are now in need of some TLC, so, if anyone is willing to come and help with preparation and painting the fence etc., please let us know. We meet on a Wednesday morning to do maintenance work on the JWR.

Daphne Clements





Rewired tram electrics and with batteries fitted



Maintenance wagon





JWR Engine Shed



Wagon for Sir William Congreve

Contents

Hooperman

The story so far...
The peaceful monks at Waltham Abbey are under threat from the Warlords of the planet Rationalisation. Already the southern territories have come under the influence of Davrof. In the night of the long documents, the rationalisation committee have put out an extra-terrestrial contract on a group of Federation Daleks to persuade the monks to leave. Will no-one save them from a Fort worse than death? But wait! Is it a bird? Is it a plane? No, it's

Doctor Hooper and the Daleks

