

'TOUCHPAPER' ©

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Touchpaper

The Newsletter of the
WALTHAM ABBEY ROYAL GUNPOWDER MILLS
FRIENDS ASSOCIATION



September
1999

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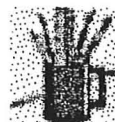
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PLEASE NOTE: Deadline date for submissions for
the next issue is 18th November 1999



EDITORIAL

To all those who have renewed your annual subscriptions, a big thankyou. It is very heartening to see your continued support. At this time we have 291 members who have renewed but are still waiting to hear from a number of you (135). For the latter, I hope this is an oversight and that this will serve as a reminder.

Even though we still wait to hear from some of you I have to report that the Association is thriving and financially sound at this time.

Our value to the project is without question and our contribution is often recorded in the WARGM Board Minutes. Special thanks must go to the band of volunteers at our weekly Friday working parties. These are by no means exclusive - anyone can join in!

My plea in the last issue for articles and feedback seem to had some effect and this issue sees a significant increase in the number of contributions. My thanks to those who responded - please keep them coming in.

Norman Paul Editor



WARGM PROGRESS

A comprehensive business plan has been completed and formally submitted to the Heritage Lottery Fund. At the time of going to press we still await their deliberations.

Nevertheless tender documents for major works have been issued and contractors are currently touring the site. It is expected that a main contractor will be decided on early September. Work is expected to commence towards the end of the year on a 15 month build programme leading up to the planned opening in April 2001. Since the Library (Building A203) is to be converted to a major exhibition centre the Administration Offices will have to be relocated before the end of the year. These are to be moved into the Director's House which will undergo some refurbishment. This also includes relocation of the 'Friends Room' currently in the Library building.

There is now a new WA Town Council representative on the Company Board, Mr Antony Watts. By profession he is an accountant and has already shown his expertise in helping those of us less numerate to understand balance sheets and financial workings.

A group of Board members are also visiting other attractions to learn from their experiences and a first visit has been made to the Chatham Dockyard by Don Spinks, Liz Webster and Antony Watts. They reported that valuable lessons can be learned from the experience there; the venture had come near to collapse but is now thriving. The group intend to visit other attractions soon, including Ironbridge.

The drive for sponsorship has now started in earnest and a number of promising leads are being followed up with one successful application resulting in £10K towards an educational element. Unfortunately many of the major organisations targeted have already committed their budgets but suggest that further application be made for next year.

ASSOCIATION AGM

The AGM will be held in the Lecture Theatre of the Library Building on the North Site on Friday 8th October, commencing at 10.00.

PRELIMINARY AGENDA

1. Chairman's Annual Report
2. Treasurer's Report and Financial Statement
3. Election of Officeholders and Committee

Please note: the existing officeholders and Committee are standing for re-election. Any member wishing to stand should forward their name, proposed and seconded by other members, to the Secretary by 1st October.

4. Amendments to the Constitution.

The following amendment has been proposed and seconded by the Association Committee:

PARA 3. Membership, section (ii) Categories of membership - add "Other Groups or Societies with similar interests may affiliate to the Association but such members will not be eligible to vote or stand as officers or Committee members of the Association".

Following the AGM there will be an opportunity for a short tour of the site. This will probably be your last chance to view the site before major work commences leading to opening in April 2001

REUNION

A reminder to those who have yet to book for the Reunion.

October 8th 12.00 - 16.00
at the Royal British Legion Hall,
Sewardstone Street, Waltham Abbey

Cost is £6 per head which includes a full buffet lunch
Book through the Touchpaper Editor.

MORE TRIALS (and Tribulations!)

This unusual trial was to measure the underwater shockwave performance of a new Poly-X high explosive formulation at charge sizes up to 64lb. At charge weights up to 8lb we could do this comfortably in Newton's Pool on North Site, but sizes above that meant either farming the work out to NCRE at Rosyth, or making use of AUWE's Mining Trials Establishment. This was located on St Thomas' Head (a few miles from Weston-Super-Mare) where the tidal range in spring is an exceptional 40 feet (the second highest in the world). At the planning meeting at AUWE we had been offered (and gratefully accepted) the services of a Navy Trials team complete with a Tank Landing Craft, a Gemini inflatable and sundry other bits of Naval paraphernalia. Their presence was to prove more fortunate than we could have imagined. The trial was planned to coincide with the spring tides, so that the charges could be fired at mid-water when the water depth was some 40 feet. Spring tide maxima and minima occur around noon or midnight so that we were going to have to lay out the charge, transducers and rigging on the beach at the low tide (in this case midnight!), then wait for high water at midday the following morning before firing. The rigging would then be supporting the charges and transducers at mid-water.

The planning of this complicated system of anchors, floats, trots and rigging was done (very competently) by the Navy Trials team, and the day before the trial they strung it all together on the beach and we laid out our transducer cables and attached them to the rigging at the appropriate points. After an exhausting day preparing the charges and setting up and testing the recording electronics, we stored the charges in the magazine, locked up and left to snatch a few hours rest before returning for the midnight operations.

At the pre-arranged time we returned to the site, almost immediately followed by the Navy. We waited for the MTE resident to arrive (an MoD Scientific Assistant who had the magazine key) - and waited - and waited. It soon became clear that we were not going to have enough time to lay out the charges before the tide rose unless something was done quickly.

The 'something' was provided by the Navy. They first attacked the padlock with a hacksaw but it was soon clear that the hardened steel hasp would not yield. Then from their truck they produced an oxy-acetylene cutter and, after a hurried search for bits of steel plate to prevent sparks getting through the cracks round the door, had the padlock burned off in no time. With the fast incoming tide lapping over our wellies, we were just able to complete setting the charges. We found another padlock to secure the magazine for the night and retired for a few hours sleep. The next morning we were treated to an object lesson in skilled boat handling as the Navy checked the layout was sitting correctly. The charges were successfully fired and recordings made. After packing up, we all celebrated in a local hostelry, where the Navy team demonstrated an ability to consume large quantities of the local scrumpy that left the locals - and us - agghast.

(continued >)

Over the years Detonation Section (and its successor, Explosives Performance Section) was involved in numerous trials at a variety of Service Establishments, and we soon formed definite impressions of the relative merits of the three Services. Not for nothing was the Royal Navy known as the Senior Service; without exception we found them intelligent, resourceful, friendly and helpful. The Royal Air Force were also usually helpful, although some of the wartime swashbuckling attitudes were still apparent. As for the Army, the least said the better, their prime consideration seemed always to be find out our equivalent Army ranks, and to be sure that everything was done 'by the book', with a lot of strutting around with pace sticks thrown in for good measure!

Jim Hawkins

YET MORE ROCKETRY

Towards the end of the Second World War Les Cole and I were a few minutes late leaving work in the Main Lab and, as we cycled over the bridge by the 'Searchers Box', we heard the sonic boom of a V2 rocket. It had been raining hard and outside the Stores there was a deep puddle into which a large piece of red-hot metal plunged causing it to vanish in a cloud of steam. We observed to each other "Must be close" but didn't know how close until we turned out of Powdermill Lane towards Waltham Cross. There, in the middle of the road between 70 Highbridge Street (HQ of 56 Battalion Essex Regiment Home Guard) and the Ordnance Arms (an alternative HQ) was a very large hole gushing water and emitting streaks of flame. Les and I looked at each other without speaking. We knew that if we had left on time that was exactly where we would have been.

The front of the Ordnance Arms had vanished and we noticed that the roof was resting on the footboard of a bed which was protesting loudly at the unwelcome load. It was well known that Mrs May, the landlady, retired to bed after mid-day closing to refresh herself for the rigours of the evening, so we decided to investigate and entered what was left of the bar.

The stairs were visible but the handrail and bannisters were gone so we called out and determined that Mrs May was, indeed, upstairs and apparently uninjured. We said that we would come up to assist her. Very gingerly, and singly, keeping close to the wall we climbed the stairs and found Mrs May still in bed, which was complaining more and more about the attentions of the roof. We suggested that it would be a good idea if we all left the premises with all possible speed, only to be told "You can't rescue me yet, I haven't got my knickers on!" We, therefore, had to retire while the necessary garment was located and installed, after which we had some difficulty in persuading her down the somewhat rickety stairs and out into the road. Shortly after that the bed gave up the unequal struggle.

Jim Jeacocke

ASSOCIATION ACTIVITIES

FRIENDS DAY

The special Friends Day on Sunday 11th July was well attended by over 80 members. An exhibition was set up in the main Library building giving details of the proposed developments together with some of the artefacts we have collected. Members were given the opportunity to walk around the site as they wished, although a map and set of guide notes was provided. We were fortunate with the weather and, from feedback, believe that the event was worthwhile.

SITE VISITS

Conducted tours have been given to special interest groups in this quarter. The first was for members of the Capital & Countryside Adult Evening Class from Havering and the second to the Essex Rural Chartered Surveyors Association. Both groups were very appreciative and gave donations to the project. A third visit was by Prof. Roy MacLeod of Sydney University, in Australia. He is writing an history of chemical munitions in the First World War (with an American colleague, Dr Jeff Johnson of Philadelphia) and was particularly interested in the part that Waltham Abbey played.

Further tours are planned for members of the 'University of the Third Age' (U3A) who have volunteered to assist the project, the Construction History Society and members of the Friends of Lowewood Museum in Hoddesdon.

Since work on the site is expected to start towards the end of the year any further visits will have to be curtailed ...EXCEPT FOR:

SPECIAL HERITAGE DAY VISITS 1999

The EFDC Waltham Abbey Museum are taking bookings for 2 Sundays in September. The first, on 12th September is part of the National Heritage Open Weekend and is free. The second, on 25th September is at a cost of £3 per head. All bookings must be made through the EFDC Museum (tel no. 01992 716882). On both days, however, the Association is responsible for reception and tour guides. If you are able to assist on either day please contact:

Ernie Cooke (01992 628904) for 12th September

Dave Sims (01992 711742) for 25th September

All offers of help will be gratefully received.

'MILLENNIUM ATTACK' EXHIBITION

August Bank Holiday weekend event held at the Lee Valley Park Showground on Cheshunt Marsh. This event is sponsored by Broxbourne Borough Council, Lee Valley RP and Inland Waterways and we have been invited to provide an exhibition for the Royal Gunpowder Mills. We have produced a good exhibition stand and, by the time you read this, will have erected and manned it at this event. As well as advertising the WARGM project we will also be looking to attract new members. Full report in the next issue.

WORKING PARTIES

With the excellent weather over the last few months very little has been done on artefact identification. Rather, we have been outdoors doing regular grass cuttings and weed clearance around those buildings in use and in the Director's garden. In this endeavour we welcome Dennis Ashby who has carried out sterling work. Dennis worked for the GPO and was responsible for maintenance of the Establishment telephone system. He has also provided us with drawings and artefacts from that time.

Another regular addition to the band is Richard Beales. Richard has had experience in building works and Health & Safety and has taken on the task of setting up a Building Audit Survey. This will look at all buildings on site on a regular basis and identify any urgent remedial work.

Our main work party organiser, Bryan Howard, has been in hospital for treatment and a minor op. but we hope to see him again soon.

We should record our thanks to Royal Ordnance who, when vacating the South Site provided us with many valuable artefacts. Even before then they realised the value of many artefacts and a few years ago a number were relocated to their establishment at Westcott, near Aylesbury. These items were generally those requiring a safe heated store which was not then available on either North or South Site. Unfortunately, Westcott itself is being closed and sold off and we are in the process of recovering these items.

The first items to come back were stored on part of the site already sold so, in June, through the good offices of RO, very cheap transport was provided for 8 large, very heavy cast iron RGPF Fire Alarm posts. Unfortunately they were loaded on at the other end by fork lift and we only had a palette truck and the tail-lift of the lorry to get them off. After much discussion followed by a back-breaking operation they were safely stored in L176.



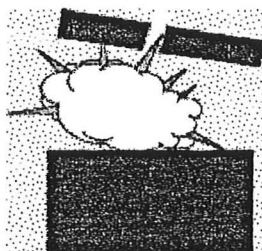
A visit was also made to Westcott to assess the amount of artefacts and size of transport needed. A major problem was the 15 five drawer plan chest, which take up a lot of space and for which we do not have room. During the visit we managed to re-organise the large number of drawings and plans into just 5 chests- although they will need resorting at some time. There is a wealth of artefacts to come back and a number of the smaller items were brought back by car - including the model of the gunpowder sailing barge 'Lady of the Lea'.

NOTHING NEW UNDER THE SUN

Many 'old timers' will remember Ernie Monk, the principle foreman of the Guncotton Factory whose length of service in one factory must be unrivalled. He was taken on as a 'boy', exceptionally at 14, since his father had been killed in the explosion at NG plant on South Site before the turn of the 19th century.

I was working in the Guncotton Lab at the outbreak of war (when we still worked Saturday mornings) and when someone was needed to take of the guncotton VM test Saturday afternoon, I volunteered. Ernie came in for the results and, in my youthful brashness, I told him how important accurate results were to the making of good cordite. Very patiently, Ernie listened and then told me how Waltham Abbey cordite was the world recognised standard and how, in the early days, they checked whether the guncotton was dry enough to use.

In his own words - "We had an iron box made up in the blacksmith's shop with a loose fitting lid with a hole in it. We put a handful of 'cotton in the bottom and replaced the lid, then went to the boiler house and got an ember on a shovel and popped it in the hole. If we got a cloud of steam and brown fumes it was not dry enough. If the lid, and sometimes the box, took off we knew it was ready" (So much for Health and Safety at Work).



The point of this tale is that during my third career I ended up as a representative of the European Explosives Industry in the UN Group of Experts on the Transport of Dangerous Goods, meeting in Geneva. At one particular meeting in 1990 the German delegate told us of a new test they had devised, which consisted of "...an iron box with a loose fitting lid". They were somewhat chastened when I told them that they were at least 100 years late!

Jim Jeacocke

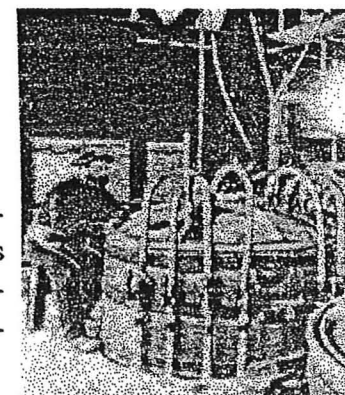
STILL NOTHING NEW UNDER THE SUN

Those familiar with the batch manufacture of nitroglycerine will recognise what I mean when I mention the "NG stool". A little explanation for those unfamiliar.

Batch nitration consisted of spraying glycerol into a large vat of nitrating acid while stirring and cooling. The temperature has to be closely monitored and, if it rose above a predetermined level, the batch was 'drowned' by dumping into a large tank of water underneath.

Watching the thermometer for 8 hours a day was rather soporific and in the early days there was a tendency to 'nod off'.

Since this could lead to a dangerous event the operator was therefore provided with a one-legged stool. If he 'noddied-off' he 'fell-off'.



When Alfred Nobel started his factory at Ardeer in Scotland in the 1880's the NG stool was installed and ever since it has been tacitly implied that it was their idea.

However, in my researches into gunpowder for a paper given at the centenary commemoration of Nobel's death, I discovered that the concept is 2-3 hundred years older. Before charcoal burning was mechanised the burner would make a wigmam of wood, cover it with clods of turf and set light to it. If fire broke through the wood would burn rather than char. To keep an eye on the process the burner would set a log vertically in the ground to sit on. If he 'noddied-off' he 'fell-off'. So much for new ideas!

Jim Jeacocke (Again)

TOUCH -

LETTERS, NOTICES AND

Further to my letter in the last issue I must apologise for a mistake. My Grandfather, William Perry, served 47 years at the Mills and not 37 as I stated. This does not include his return after retirement during WWII. I have his testimonial, written in a very decorative style in a gilt frame signed by G Blackmore and dated 8th October 1938. I also have a copy of the Rule Book for the RGPF Railway which makes interesting reading (*A copy has been kindly provided for us. Ed.*) I am keeping the originals of papers etc which I hope to pass on to my two sons.
Ken Dee (ex RSAF)

It surprises me that there seems to be little in the way of personal material in recent copies of Touchpaper and I wonder why. Is it because the membership has folded or because no one writes? I suspect the latter so here is some personal information from me that you might like to pass on to my old colleagues. I'm sorry that I can't get to visits or the Reunion these days - I'm getting too frail. I had an operation to remove a bit of lung at the famous Papworth Hospital in Feb '98. I was surprised to be given the opportunity but they thought I was fit enough (at 83). I have also had two recent falls during these years and damaged one arm and one leg. Yet I still feel reasonably well and manage to drive myself into town to visit the bank.. I'd like to make 86 in the year 2000 and am still hopeful.
Best Regards, John Gooding, St.Neots

Dear Sir

The article in the Weekend Times prompts me to write with some information which may be of interest to your members..

A recently published book, 'Home Guard' by David Carroll, features a photo of me taken at St.Leonard's Farm, Lower Nazeing which inspired me to do some research of my own.

In my youthful ignorance I had always assumed that the pillboxes we were manning in 1940 onwards were part of a continuous defence chain. From a map in a publication entitled 'Pillboxes: A study of UK Defences in 1940' by Henry Wills, I discovered that our 'line' was only 5 fortifications long and clearly designed to form a screen in front of the Gunpowder Factory. From East to West these were named Forts; Lea, Marsh, Leonard, plus 2 others whose names I can't recall. They were manned by units of the 53rd (Essex) under Lt.Col. S. Shaverin whose recruiting area was Walthamstow. The effectiveness was open to question given that they could so easily be outflanked - I think we might all have run away had we realised at the time.

Hoping this may be of some interest and wishing you well in the project to preserve the old works.

Alex G Wright
Fort William,
Scotland.

- BYTES

SHORT ARTICLES

On an historical note:

I found my interest aroused when watching that short BBC TV programme about the Waltham Abbey Establishment a few months ago- 'One Foot in the Past'. The interviewer held up a small pellet of 'Pebble Powder' but nothing was said about the circumstances, provenance or qualities of such powder. I do recall some conversations I had, back in the dark days of 1942, with a certain Mr Cowtan, lately of Ardeer. He was sent to ROF Risley as HQ Investigation Officer to see how they were getting on with the manufacture of a 'gunpowder variant', RD202 which was invented by RGPF.

Mr Cowtan, then about 64 (and me a mere 28), had been at Ardeer as a young man at the turn of the century and he regaled me with stories about Ardeer's attempts to 'as it were', turn back the incoming tide of NC/NG propellants. He told me of the difficulties of Pebble Powder, uncontrollability of charcoal, smokiness of product and variability of ballistics.

I have never known whether RGPF ever tried to make Pebble Powder.

John Gooding

NOTICES

Paul Bunyan, who worked at Waltham Abbey 1978-91, specialising in thermo-chemistry of explosives, recently married Rita at Enfield Registry Office.
Paul continues to work in his speciality at DERA Fort Halstead in Kent.

Sorry to hear of the recent deaths of two ex-colleagues.

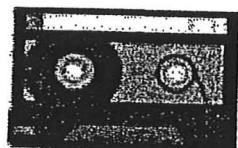
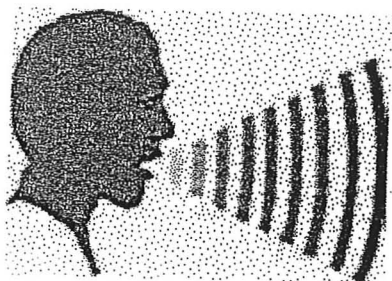
NORMAN FOSTER

Engineer and Toolmaker at Waltham Abbey
from 1950-91.
Passed away 16th June 1999.

LILY GREEN

Laboratory Assistant in Propellants 2 Section
from 1966 -81.
Died 1st May 1999 while on holiday in Australia.

ORAL HISTORY PROJECT



The Oral History project, aimed at recording on tape, for posterity, the experiences and recollections of past workers at the Site, is an on-going programme run by Ron Treadgold.

To date he has interviewed 8 members and produced some very interesting stories. Other members who live some distance away have preferred to submit written contributions.

Ron initially started with his own tape recorder but, more recently the WARGM Company has purchased a specialist recorder designed specifically for such use. As soon as Ron can work out its complexities he hopes to continue recordings; provided he gets some more volunteers.

It isn't just the older member's stories we are interested in recording, although it is perhaps more important that these be given priority (due to age!). Recollections of more recent times are equally important to the project.

Please contact Ron at:

**9 Mark Avenue
Chingford**

London E4 7NR tel: 0181 529 5673

if you can help us in this important project.

FRIENDS ASSOCIATION

MEMBER'S TIE

We received the tie order just in time for the Friends Day in July and sold quite a few there. They will also be on sale at the AGM and the Reunion on 8th October.

Cost of each tie is £6 but, for those unable to attend events who wish to order by post, we have found suitable packaging at an additional cost of 50p.

Cheques should be made payable to the WARGM Friends and can be ordered through the Editor.

The ties come in three colours; Blue, Bottle Green and Maroon, each with a Gold Powdermill logo. The main order was for Blue ties with smaller numbers of the other 2 colours, so if your preference is for green or maroon, get your order in as soon as possible. We won't be re-ordering until we are nearing the end of the 200 received so far.

OTHER POSSIBLE SOUVENIR ITEMS

We have had some feedback from the ladies as to what alternative item might be suitable.

These are; T-shirts and lapel badges or brooches. We are investigating the possible supply of these and costs.

Another item under consideration is a bone china mug with the Association logo and some suitable wording.

Once again we will let you know of any developments in this area.

**DON'T FORGET THE DEADLINE OF November 18th
FOR INCLUSION OF ARTICLES IN THE NEXT ISSUE
DUE FOR PUBLICATION EARLY DECEMBER**