

**Autumn 2016**

# TOUCHPAPER

The Newsletter of the Royal Gunpowder Mills Friends Association

**HM Munitions Factory Langwith**

**A Memorable Journey**

**Canal Cruising for Beginners**

**Lego therapy?**

**WARGM Passenger Carrying Railway**

**Anagram Quiz**

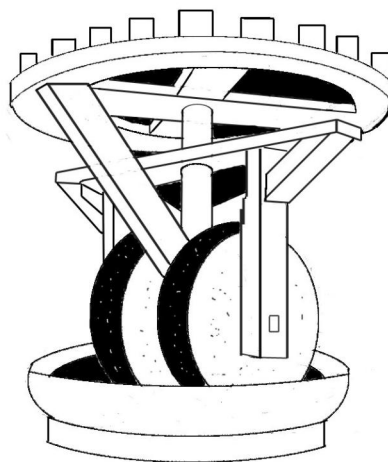
**Julie's Nature Column**

**Obituaries:**

**Paul Dossetter**

**Bob Richards**

**Roy Carter**



**Autumn 2016**

# Officers of the Friends Association

## Chairman

John Wright  
1 Albury Ride  
Cheshunt  
Herts EN8 8XE  
Tel 01992 624210

## Secretary

Len Stuart  
13 Romeland  
Waltham Abbey  
Essex  
EN9 1QZ

## Treasurer

John Cook  
63 Lakenheath  
Southgate  
London  
N14 4RR

[rgm.fa@virginmedia.com](mailto:rgm.fa@virginmedia.com)

**All enquiries relating to this newsletter and articles should be addressed to:**

Brian Clements  
56 Park Road  
Enfield  
EN3 6SR

[wargmfa@btinternet.com](mailto:wargmfa@btinternet.com)

**Deadline for the next issue is 25th November 2016**

## Chairman's Chat

You will all be very pleased to hear that we will have possession of the entire site for the whole of 2017. Nothing is settled beyond that so we shall just have to wait and see.

Attendance over the Bank Holiday was quite good and very good on the Monday. We had a lot of visitors in the Green Hut that day, probably more than ever before to see the restored gunpowder boat and the new exhibits in there, the mobile cordite drying stove and the nitroglycerine wash barrel on which we are coating the steel hoops with grey plastic tape to represent the lead in which they were originally coated to minimise the risk of sparks.

This is written just after the end of the summer season. We have nearly finished replacing the carriages for the cannon outside Walton House.

If you visited the Mills during the summer I hope you enjoyed it. If there were things that wanted improvement please let me know. If you have not been for a while please think about coming to see us either during half term (22nd to 30th October), on bonfire night or during next year.

We are still looking for a new treasurer to replace John Cook. If you might be interested or know of someone else who might be, please let us know.

With best wishes,

*John Wright*

# Editorial

After once more wondering how to fill Touchpaper we have another packed issue thanks to my contributors, indeed I have had to hold over items until the next issue.

There was a thought that there would be plenty of content relating to the PGL plans, however despite both Len Stuart and myself requesting comments neither of us have received a single one.

No letters have been published since the Autumn 2015 issue, this is simply because we have not received any, I am more than willing to publish your letters which you can address to me using the postal or email addresses that appear at the front of each issue.

Volunteers and Friends have heard nothing from the Foundation. As John Wright has written the Operating Company have apparently been told that the visitor attraction can open for the next season and plans are being made for next year's events and attractions.

Hopefully by the next issue we will have some news of our future.

Meanwhile I have been getting used to Windows 10 on a new computer and needless to say it behaves somewhat differently to my old machine. My apologies for any problems with this issue. Please remember that I only test the email version by reading the PDF file with Adobe Reader, I know there have been problems reading it with the Windows 10 default application (Edge) for PDF files.

*Brian Clements*

# **WORLD WAR 1 1914 -1918 SERIES - 3**

## **Ammonium Perchlorate HM Munitions Factory Langwith**

The onset of WW1 brought with it a sudden unprecedented and relentlessly increasing demand for explosives and consequently for the factories to make them.

HM Munitions Factory Langwith was one rather unusual example of the many which sprang up, distinguished by the fact that it introduced a chemical manufacturing process new to Britain – for the manufacture of ammonium perchlorate.

After the war, like so many others there were hopes that Langwith could be sold as a going concern for manufacture of material such as fertiliser or as the basis for an engineering works, but it failed to sell and materials were gradually sold off from 1922. The plant was publicly auctioned off in 1927 and the buildings pulled down.

## **Ammonium Perchlorate at Waltham Abbey Post WW2**

Ammonium Perchlorate (henceforth abbreviated to AP) figures in ERDE's history as the high energy oxidiser which figured, in conjunction with binder / fuel, in many of the wide range of solid plastic propellant compositions for rockets developed at Waltham Abbey post WW2, replacing sodium nitrate employed up to the late 1940's.

In his draft commentary on the history of propellant development at Waltham Abbey post 1945, Bryan Howard cites a basic composite rocket propellant as :

AP	89 %
Binder / Fuel	10 %
Wetting Agent	1%

## **Inter War**

Prior to WW2, AP was the oxidising agent in a gunpowder type composition developed for a new AA fuze in the inter war years – RD 202. Waltham Abbey was able to develop an industrial scale manufacturing process in a dedicated area on the South Site which was successfully transferred to the new munitions factories in WW2.

AP's role extended internationally and has continued to recent times, particularly in booster applications, e.g. in the propellant for the Space Shuttle booster rockets.

## **Commercial market**

Its effectiveness as an energetic material was not lost on the commercial market. It figured in many of the compositions developed in the early 20th. century to compete in the mining and quarrying markets.

Amongst these was 'Blastine', produced by Marpal Ltd., backed by Canadian capital, at Trago in Cornwall. Blastine consisted of 2/3 AP, 1/5 sodium nitrate and the balance dinitro-toluene and paraffin wax to reduce sensitivity to a safe level.

## **Ammonium Perchlorate in WW1**

### **(1) Land Mines - Blastine**

The onset of WW1 brought with it a totally unpredicted role for Blastine.

By 1917 the war in the trenches had reached a complete stalemate and one of the ideas in an endeavour to break it was the employment of massive land mines placed in tunnels under the trenches. The high explosive filling indicated was TNT. However British development of TNT was late in the day and production was below demand. TNT was therefore supplemented by the product

Ammonal– a mixture of TNT, ammonium nitrate, charcoal and aluminium and by other alternatives, one of which incorporated Blastine in the mine filling. One of the few successes in partially breaking the stalemate was achieved by the British firing of several massive land mines on 7 June 1917. As an alternative to TNT, one of these – ‘Peckham’ was charged with 15000lbs. of Blastine, 65000 lbs. of Ammonal and 7000 lbs. of guncotton. Peckham blew a crater 240ft. in diameter and 46ft. deep.

## **(2) Sea Mines**

AP played an important part in the sea war against the U-Boats which seriously threatened vital supplies of food and war material to Britain. By April 1916 only 6 weeks of wheat were left in the country.

The main operational areas for the U-Boats were the North Atlantic, the English Channel and the East Coast and extensive mine fields were planned to protect them. The locations were the Dover Strait, the entrance to the Thames Estuary and along the East Coast, with the later addition described below. The Dover Strait field would protect the English Channel and at the same time block the shortest U-Boat route into the North Atlantic, forcing them to make an extensive detour round the north of Scotland. It was later decided to further inhibit this route by a massive mine field extending from the Orkney Islands to the Norwegian coast – the Northern Barrage. This last was an American planned enterprise laying American mines.

## **Supply difficulties**

The explosive filling for British sea mines comprised AP and TNT. Possibly because domestic supplies of AP were fully committed to the war in the trenches, the sea mine material was sourced from France and Sweden. Flaws in this arrangement became apparent. The carrying ships were vulnerable to attack by the very U-Boats the sea mines were designed to deter and by 1915 the French were saying



**WW1 Area in which minefields were laid**



**A Sea Mine**



that their total supply would be required for French use.

The entire production of a Swedish plant was being purchased and the Swedes indicated that if a suitable plant could be built in Britain they were willing to train a British chemist in the manufacture of the material which would be produced in the new factory under licence for the duration of the war.

## **HM Munitions Factory Langwith**

In April 1915 a search for a suitable site was duly instigated By the Government Explosive Department.

The manufacturing process required large amounts of electricity. At the time the Power Gas Company was a significant manufacturer of gas based electrical plant and they suggested the Sheepbridge Coal and Iron Company at Langwith near Mansfield as a suitable candidate.

Two factors were of particular significance in relation to the manufacturing process, which comprised electrolysis of rock salt, sodium chloride to produce perchloric acid which then underwent double decomposition to produce ammonium perchlorate and as a by-product sodium sulphate (Glaubers Salts).

The factors were –

- 1 Electricity supply

- 2 Availability of the material required for double decomposition

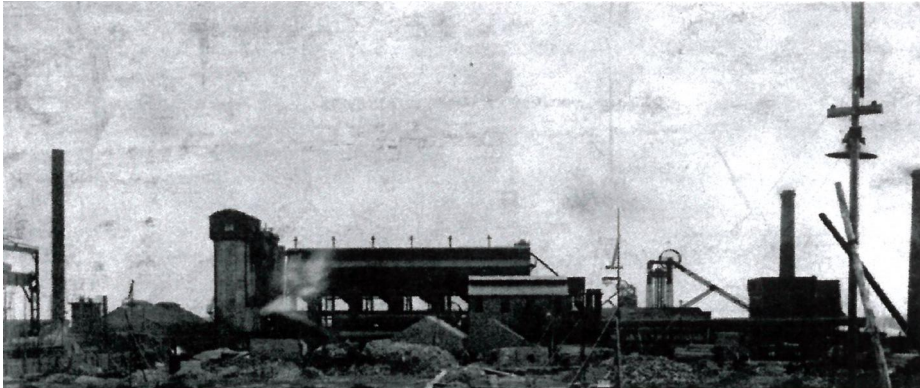
The attraction of Langwith was that both could be satisfied from a particular feature of the existing set up – the Langwith By-Product plant.

The Company had established a by-products plant to utilise the large amounts of slack (coal dust) arising from the brittle coal they were mining.

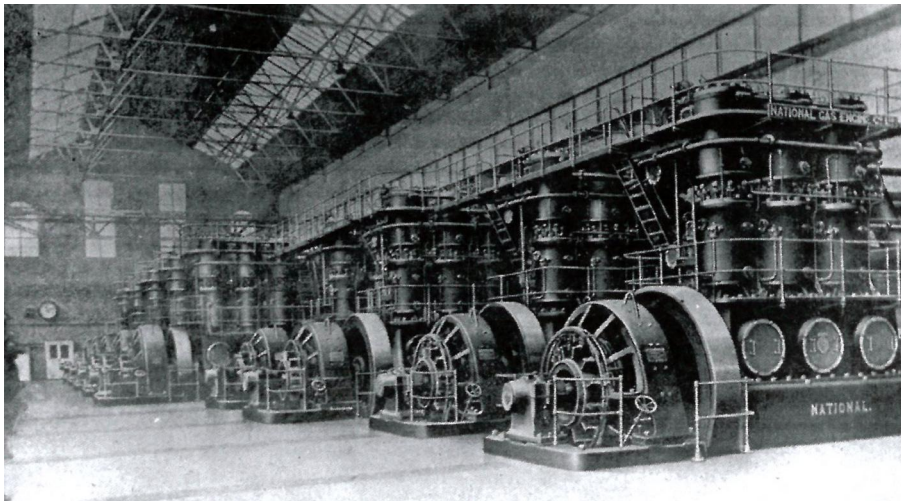
This plant was making producer gas which was being burnt off and

this could be utilised to power electricity generators.

Regarding the second factor, the main product of the plant was ammonium sulphate, being sold as fertiliser, which would be suitable for the double decomposition process.



**The Langwith By-Product plant**



**Gas engines in the Power House**

Reflecting his experience in large factory start ups, Sir Arthur du Cros of the Dunlop Rubber Company had overall control of the construction of the factory. Mr. E. Young was appointed Chief chemist, with overall control of the chemical engineers.

One of these Mr. G.C.Wiles was given the considerable responsibility of travelling to Sweden in conditions of secrecy to undergo a course of instruction in the operation of the process and bring back factory plans.

The National Gas Engine Company started making the engines and generators in August 1915 and building of the factory got under way.

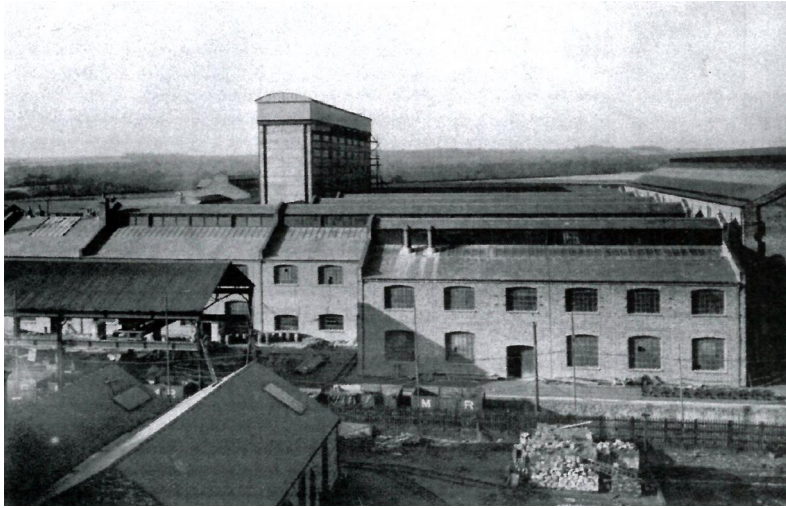
The contractors had great difficulty in finding sufficient numbers of workers and by April 1916 it was necessary to draft in soldiers from the Army Pioneer Corps.

All this meant that building fell seriously behind schedule and it was not completed until October 1916. Not surprisingly there were teething troubles and it was not until June 1917 that production of meaningful quantities was achieved.

Houses were built for workers and management.



**Managing Chemist's house**



**HM Factory Langwith**  
**Rear - Tower Block main chemical manufacture**  
**Centre - Acid House**  
**Right - Power House**

## **Post War**

### **The downfall of Captain Johnstone**

After the war whilst efforts were being made to sell the plant it was designated a depot and a Captain Johnstone was appointed depot manager.

The general air of inactivity attracted pilferers and at the 1922 trial of those caught Capt. Johnstone severely criticised the dishonesty of those stealing Government property. After an auction had left material unsold – steel, glass and some 8000 gas cylinders, he launched into a vigorous and successful sales campaign. This could have been viewed as a commendable effort to benefit public funds. Regrettably the good Captain apparently did not consider that his strictures on dishonesty extended as far as himself as he diverted the proceeds of the sale – 35 wagon loads, to his own account.

In 1923 at Derby Assizes he was sentenced to 12 months hard labour and had to pay back to the Government the proceeds of the sale.

The site of the Langwith factory is now a country park.

Les Tucker

---

## Anagram Quiz

Answers are Fairy Tale (FT), Game (G), or Sweets (S)

1	G	DDASNEHKIEE	(4,3,4)
2	S	BAINSLEEDLAS	(7,5)
3	G	PINKSPIG	(8)
4	G	CARDASHE	(5)
5	G	KOSTPONSCANMK	(8,5)
6	FT	THENPANTHERPIESCASED	(3,8,3,3,3)
7	S	SARPEROPD	(9)
8	G	GELSINGD	(8)
9	S	ROPETPOBSG	(10)
10	G	THINPETTNAILKOHONEYED	(3,3,4,2,3,6)
11	G	DRONESUR	(8)
12	S	BEREHST	(7)
13	FT	REALTELSHANNEDG	(6,3,6)
14	G	SLABREM	(7)
15	FT	PENTREAP	(5,3)
16	S	GLASPENS	(8)
17	G	FLABTOOL	(8)
18	FT	RAREBETTERNUP	(6,3,4)
19	FT	DRILLCANEE	(10)
20	S	CLACKJSKAB	(5,5)

## A Memorable Journey

While looking for info before a holiday in Malta in autumn 2015 I came across a guide book from my first visit to the island in February 1958, it brought back memories from one of my most eventful trips.

The stores were taken to RAF Northolt in the morning for loading onto my favourite WD 493 Hastings that had flown up from RAF Abingdon. My journey started normally with one of the ERDE lady drivers taking me to RAF Northolt. I knew the crew well, I had flown with them many times before on dropping tests and abroad. They were unique in that they were all officers when flight engineers and wireless ops were normally NCOs, I became an unofficial honorary member of the crew and travelled as Pilot Officer Atkins because the Captain, Bill Evans, wanted us all together and not in different messes. Surprisingly the fact that I was not in uniform was never queried at any of the airfields we stopped at throughout the ten day trip. NOBODY asked to see my 1250, the RAF ID card, or my passport. After a night in the Northolt mess it was a very early breakfast for a 06.00 take off en route to Malta for a refuelling stop then onto RAF El Adam near Tobruk in Libya for a night stop.

I took over some of the duties of the second pilot during the flight, I had to keep the rest of the crew well supplied with tea and coffee. WD 493 had a piece of kit unique in 24 Squadron (and possibly in the RAF), a 24 volt hotplate for cooking which also came under my control; instead of the usual mid day meal of sandwiches from the cookhouse we enjoyed sausage, steaks, eggs, bacon or chops with boiled veg or fried bread.

Unlike most of Transport Command crews who planned their flight to arrive at their destination before the bar closed this crew tried to arrive before the bar opened. On several mornings the wireless op used oxygen to clear a hangover. The normal cruising speed of the Hastings was 180 knots, as fuel was burnt the throttles were pulled



back to maintain a constant speed but this crew flew faster at 200 to 220 knots by using higher revs than normal and letting the speed increase as the fuel weight came off. Their justification was that they had less engine ignition problems than the rest of the squadron.

The shortest route to Amman would have been over Egypt or Israel and we could have returned to El Adam the same day but as we were not allowed to overfly these countries we had to go via Aden and then north via Bahrain. Flying to Aden required an even earlier start for a very long day. Flying over the Sahara could be boring but I was kept busy making refreshments and cooking. This trip was after the Suez invasion so the normal route was due south from El Adam to the SW corner of Egypt then a sharp left turn and eastwards to Khartoum to refuel. There is a large rocky outcrop on the corner of Egypt where we normally turned but I could see it on the far starboard horizon, when I asked why we were flying over Egypt I was told not to worry "their jet fighters can't get this far from their bases". On the approach to Khartoum I was surprised to see all the large houses with swimming pools along the side of the two Nile rivers, White and Blue which were both a sort of grey. After refuelling at Khartoum waiting for start-up I realised there was a blind spot at the rear, any unfriendly Arab could toss a bomb into the tail wheel bay and none of us would know about it until after the bang.

After two very long days it was a rest day in Aden, the crew stayed at RAF Khormaksar while I spent two nights at the Rock Hotel at Steamer Point, the poshest in town and at least one star. I can't remember much about the hotel but Aden was the grottiest place I have been to before or since. The main street had half a dozen trees, some dried-up gardens and a few duty free shops to cater for the many ships passing through the port but in the back streets there were chickens running in and out of the houses and the smell was quite strong. The next leg, to Bahrain, passed without incident and after a night stop there we set off for Amman in Jordan.

On arrival in Amman the Jordanian pilots (who had all been trained to fly their Hawker Hunters by the RAF) whisked the crew off to the mess for lunch leaving me alone with the aircraft. By the time I had

finished my job, had the aircraft unloaded and got to the mess lunch was over and the crew were ready to fly onto RAF Habbaniya, 55 miles west of Baghdad in Iraq. My job was done and I could enjoy the rest of the trip.

Next day was a short trip to Nicosia, we had to fly north to Turkey then turn left because we could not fly over Israel, The Lebanon or Syria. "Our man in Cyprus", Tony Brooks, DSO, MC, Légion d'Honneur, Croix de Guerre, took us all out to dinner; Tony was the leader of the Pimento SOE resistance group in the Lyon area whose most notable achievement was stopping the panzers based in the south of France from getting north to the D Day beachheads. We all stayed at the Ledra Palace Hotel which later became the frontier post between North and South Cyprus. When going out of the hotel we had an armed guard, a Turkish Cypriot; none of the Greek Cypriots could be trusted as Eoka was at its heights shooting as many Brits as it could. I still cringe at the Archbishop Makarios Squares and Grivas Streets in almost every town and village in the south of Cyprus.

At RAF Nicosia there was a message waiting for the crew, instead of coming straight home we had to go to Berlin, I could do nothing but go with them. Instead of just refuelling in Malta and back to England we stayed overnight at RAF Luca. The crew had all been to Malta many times so I got the bus into Valletta and spent the afternoon there. It is a very interesting city with some beautiful and historic buildings. It was a Sunday but I was still surprised by the number of people promenading up the main street. It was even odder that most of them were wearing Manchester United scarves and carrying photos of Man U players. As a Spurs supporter I thought it best not to be too obvious. At about ten to six lots of bells started ringing and by six o'clock I was in the street by myself, all the locals had gone to church. When I got back to Luca I learned of the Munich air crash the evening before in which eight United players and three staff were among the 23 who died.

We had an unusual trip the next day, heading north from Malta over Switzerland and Eastern Germany to Berlin. It was a beautiful clear day so we were able to fly through the Alps instead of over them, it



was normally 15,000 feet and as the aircraft were not pressurised in those days wearing an oxygen mask all the way was uncomfortable. I was allowed to open a window on the plane to take some photos, the captain had never flown across Switzerland this low before and he wanted some of my pictures. I can't include any of them here as they are Kodachrome slides.

We used the American corridor from Frankfurt to Berlin which seemed to upset the Russians who sent a Mig up to see who we were; a RAF aircraft using the southern corridor was very unusual so they may or may not have recognised the call sign.

I had a bit of a panic when we got to Berlin, the wheels would not lock down, the crew tried several time but the result was the same, I was getting into a real flap and not looking forward to a wheels up landing. The final solution was to connect the hydraulic system to the compressed air and blow the wheels down. A successful solution but the whole hydraulic system had to be bled before we could fly home adding a free day in Berlin. The crew had all been to Berlin before; Bill Evans had flown there throughout the Airlift, so none of them wanted to go into the city with me. With all the extra days I had run out of clean underwear so I had to do a bit of washing before I could take the bus from Gatow Flugplatz to Zoo Platz to explore, with no street map I just wandered around until my legs told me it was time to return to the airport. I have never had any wish to make a return visit.

On the final day we flew back to RAF Abingdon, a RAF driver took me to the station to return home by train, underground and trolley bus. By the time I got home the large bag of oranges from Cyprus was getting heavier by the minute but they did taste delicious.

**Roy Atkins**

# Canal Cruising for Beginners

In the early 1960's a series of articles appeared in 'Yachts and Yachting' under the title of 'Wandering in Water Willow'. The author was John Seymour and he was publicising canal holidays on behalf of British Waterways.

At that time only 'Willow Wren' boats offered a Spartan scout type holiday on the water.

British Waterways set up three bases, one at Northwich, another at Gas Street Basin and a third at Oxford.

For our 1964 holiday, Bob Brown, Bill Smith and yours truly opted for Gas Street Basin as a starting point. The plan was to go west to meet the Staffs & Worcester (for which we had a booklet). We then would go as far as Worcester then lock up into the Worcester -Birmingham and so back to Gas Street Basin; a nice weeks round trip.

We set off with Tony Barratt plus bike on the first part of the Wolverhampton branch (as we found out later) and as darkness fell we were treated to a nice rainy Midlands night. Tony said goodbye and we were left to wonder what we'd let ourselves in for. We had a meal and 'turned in'.

The next day was a complete contrast as we locked down past the Wolverhampton race course and reached the junction with the Staffs and Worcs. about midday All this time we'd met only one boat and this continued all week apart from a few 'pocket' motor cruisers on the Sunday morning.

We soon started to collect rubbish on the propeller and a coir door mat sheered a pin in the drive shaft which we were able to replace with a six inch nail! (we'd come prepared with a set of tools etc.).

To avoid picking up rubbish we found that the technique on approaching a bridge was to 'gun' the engine, select neutral, 'gun' the engine when directly under the arch and select neutral again until we felt we were clear of the rubble, then continued cruising.



**Bill Smith clearing weed trap**



**Bratch Lock**

All went well until we got to Bratch which is a three lock stair. We happily entered the top lock, closed the gates and wound up the paddles to enter the second lock. What we didn't realise that there is a short section draining into a side pond. The lock keeper rushed out and opened the side pond sluice to save his cabbages being washed out of the ground!

We managed to reach Stourport without further incident as I recall.

Locking down onto the Severn was easy but on the way there are three locks to negotiate before reaching Worcester. As we approached one of the large locks a mini-fuel tanker emerged, much bigger than us. We were going flat out to keep steerage on the following current, That was a white knuckle moment! We were glad to lock up into the basin at Worcester.

While in Worcester we scrounged three tickets for a tour round the Royal Worcester china works (we've never managed that on subsequent visits).

Our next shock was to discover the Tardebigge flight of locks. We started at 10AM and reached the top at about 2PM. Our reward was eating lunch with a splendid view over the Worcester Plain. We met some British Waterways men doing some repairs to one of the locks but this didn't impede us.

We navigated the only tunnel on the circuit, passed Bournville and eventually ended up back in Gas Street basin.

The trip concluded with an excellent Indian meal in a nearby restaurant.

**B C Howard**

# Obituaries

## **Paul Dossetter**

I am writing to inform colleagues of the passing of Paul Dossetter. Details are somewhat sketchy, however I understand that Paul had been fighting ill health for some time.

Paul worked at RO Waltham Abbey in P2 Branch and Quality Assurance during the 80's up until the site closed. He then stayed on to assist Dave Tisley in the decommissioning and site clearance activities. Paul subsequently moved to RO Summerfield where he continued to work in the development and manufacture of composite propellants – notably for the Asraam motor - and in developing the process for under-seat rocket charges for Martin-Baker. Latterly he moved into a role within the Health & Safety Dept. He was granted early retirement from RO due to poor health at around the turn of the millennium and moved to Sidmouth on the South Coast to be near his Mother, whom he predeceases.

**Paul Burnham**

## **Bob Richards**

We regret to announce the death of Bob Richards following a long illness. Bob worked for many years in the materials 1 section with Arthur Stoke and later with Dave Sims. When the Materials 1 department went to Kidderminster he worked out his remaining years in ISRG. He was a very quiet methodical chap who rarely spoke of his life outside of the Ministry. He had no family and his wife died several years ago.

# Roy Carter



It is with great sadness that we record the passing away of Roy Carter. After a brief spell in ICI (Paints Division) and then General and Industrial Paints Ltd, Roy went to Loughborough University, taking a Masters Degree in 1972/73. He then came to ERDE (latterly PERME) where he stayed for ten years, and then on to Royal Ordnance Research and Development Centre, designing

and installing a new processing plant for energetic materials. He had by then teamed up with Frank Baker to form Carter-Baker Enterprises, a company that they jointly ran up to 1991. He then joined a series of companies, mainly in the polymers business before taking up full time consultancy as Roy Carter and Associates in 2003, mainly giving advice on materials processing and rheology, also advising on custom instruments for special purposes. He was always bubbling over with energy and enthusiasm, a very convivial drinking companion who brought light to any gathering. Colleagues may recall that, thanks to the good offices of Roy, the Friends Association acquired a “Wheelbarrow” back in March 2011. Dave Sims and I went up to Leicester De Montfort University to collect it, having been alerted shortly before by Roy as to its existence. There was a handover ceremony at which the head of the School of Engineering, Professor Bogumil Ulanicki, entrusted the machine to the Friends’ safe keeping. The “Wheelbarrow” is now working well and it is a regular attraction on the site.

**Geoff Hooper**

## Lego therapy?

As I am sure you all know, I have and still am building the Bangs Galore and Gunpowder Creek Railway at the Royal Gunpowder Mills, Waltham Abbey, but what you may not know is that I am also building a Lego railway in the living room at home.

I got hooked on Lego earlier this year, as a therapeutic relief from the worry about the future of the Mills, thanks to the Foundation and PGL's plans to effectively destroy the visitor attraction.

What really triggered my interest was the number of adult posts on YouTube, try JangBricks, Alex Nunes and All New Bricks; showing their efforts, but there are literally thousands of sites to look at and see their efforts at building Lego Cities, Machines and phantasmagorical worlds.

My humble attempts were aimed at building a High Speed Train kit 60051 (see photos) comprising a power car, passenger car and dummy power car. There was also a level crossing and station plus three Lego people, bicycle and a 1.5" gauge oval track.







Once built and running I was hooked and decided the railway needed to be expanded, so the purchase of a 60098 Freight set was purchased, which came with Diesel loco, three freight wagons, a traveling crane, helicopter and six People. Having built the Freight Train and accessories, I needed 4 sets of points and extra track to expand the layout to a standard oval, surrounded by a much larger oval with freight siding, twenty six more people, three buildings and a play area, after all, even Lego people need to relax.

What's next, I hear you ask. Well the station supplied with the High Speed Train is too short, as it isn't long enough for passengers to board or alight, as only one car can stop at the station with the front a rear units overhanging. I also fancy the City Square kit, which comes with more buildings and an urban tram. Only problem is space, as I have already lost a big chunk of the living room. Still, who needs a dining table and chairs?

If you are stressed out, need a hobby, sick and tired of the rubbish on TV, then build a Lego World and bring out that child in you.

**John Wilson, a 72 year old kid**



# **WARGM Passenger Carrying Railway – Myth or Reality?**

Most of you have heard that we are building a passenger carrying railway to enhance the attractions the site has to offer to visitors and hopefully attract more of them. However, do you know the scope of this project and what has been achieved to date?

It seems not, as folk are always saying to us “What do you do up there besides having a ‘cuppa’”? Our reply, which is to encourage the myth that we only have a ‘cuppa’ usually, is “not a lot”. Anyway I have been asked to put an epistle together to either expel the myth or enhance it. So without further ado let’s do this and let you, the esteemed reader, decide.

First a little bit of history, is always good to set the scene. The railway was originally going to be 18” gauge as the Trustees had purchased the existing engines and rolling stock from Bicton Gardens in Devon. This changed to 2’ 6” gauge when Shoeburyness track became available together with some rolling stock.

About 8 years ago the railway volunteers agreed with Trustees that they would lay track from 83A area down to the roundabout where John Wilsons 7¼” railway station now stands. This proved to be too expensive as it would have to cross a number of waterways. So back to the drawing board we went which resulted in the route we are following today. Namely from behind 83A to the proposed northern end of the overflow car park with access to the platform via bridge BR7 opposite the Blue Laboratory. The only waterway to cross was the sluice bend at the northern end. The materials were on hand for the track and the Trustees promised money for crossing the waterway plus other items. The track was completed to the Southern Platform area but there the project stalled as money was not available for a couple of years

On the start of the project after a budget was approved and money made available the Office of Railway Regulation were contacted and they sent not just a railway inspector but the principle inspector of railways for the UK, no less, to visit us to review, discuss the project, advise on and ensure that the relevant regulations were going to be adhered to. We have been in contact with him throughout the project and he has given invaluable advice and comments while reminding us “you’re not building HS2” when we got too enthusiastic on our interpretation of the regulations.

There are many aspects of building a passenger carrying railway that if we had known this at first would probably have made us reconsider, as not one of us had built a railway before, except perhaps those we played with in our formative younger years.

Building the permanent way and track, modifying locomotives braking systems, Designing and building track, permanent way, carriages, platforms, etc., fitting a recognised fail safe braking system to locos and rolling stock, refurbishing Locos and rolling stock. Documentation. Finding suppliers. Directing a multi skilled volunteer work force. Liaising with the site and others. Recruiting, training, competency training and certification, and last but not least, managing it all and the budget.

We have 18 volunteers on the railway books and we normally get up to 8 come along on a Wednesday and up to 11 come along on a Saturday although the figures vary as do the skills. Once they have had their ‘cuppa’ and a chat they enthusiastically get stuck into various jobs (I had to put that in to ensure their cooperation in the future!) We are a cohesive team who take pride in our work the site and the railway.

The above is all very interesting, I hear you say, but what have you achieved to date?

Well despite drinking gallons of tea and eating mountains of cakes and doughnuts quite a considerable amount I would say.

We have rebuilt bridge BR7, laid track and permanent way from 83A station area to Southern Platform. Completed the Southern Platform and are two thirds through completion of the Northern Platform, Given the Baguley Locomotive a thorough overhaul, modified its braking system and given it a completely new paint job inside and out, built one passenger wagon from scratch and fitted it out with seats (redundant church pews) another passenger carriage is 50% completed. Written and issued the Rule Book (which was based on the 1917 one for the Royal Gunpowder Mills. 80% completed the Safety Management System.

There is a lot still to do to get where we want to be but we had two railway inspector visits in August with the result that once we complete recruitment and training of drivers and guards, documentation, track ballasting etc. we can run a modified service

This will have the capacity to carry 18 passengers with 1 driver and 1 guard. It will run the full length of the track and back but passengers will not be allowed to disembark at the Northern Station. They will stay in their seats and watch the locomotive change from the front to the what was back of the train so it is always pulling the train for the ride back to the Southern Platform. Once we have finished the second carriage this will add another 12 seats, or 10 seats and 1 wheel chair to the overall capacity.

Now for some statistics, to date we have:

- Spent about 3,000 man hours per year on the railway.
- Laid around 0.9 miles of track
- Built 1.7 platforms
- Used 7,000lb of rail, 1200 sleepers, 4,800 spandrel clips and 2,400 pads
- 200 tons of ballast with another 100 tons to go.
- Over 500 tons of toppings (which we got free from Herts CC)
- Used over 150 lengths of decking
- Used remendous number of screws, nuts, bolts and other consumables

The list goes on but let's stop here.

One most important item I have not mentioned is Health & Safety. We take this very seriously on the railway as we should. We all have a duty of care not only to ourselves but to others to ensure that we work safely and remain healthy. You will be pleased to hear that besides the usual knocks, scrapes and bruises we have had only one serious accident which resulted in one of our number sustaining a broken bone in the top of the hand. This is one accident too many but I am pleased to report that the volunteer has recovered and we also learnt a lot from this accident.

From the above you can now judge for yourself whether it is a myth or not that the railway volunteers do very little but have “a cuppa or two”.

Now for the recruitment part – we are in sore need of people to become railway volunteers and be trained primarily to be drivers and guards. If you know of anybody who would like to do this, or perhaps you would, please contact either Liz Went or any member of the railway.

You are all welcome to come along to the railway to see what are doing and in fact we will be needing folk to act as passengers during our training exercises but more about that later.

**Grahame Browne    Leader WARGM Railway**

## Anagram Quiz Answers

1	Hide and seek	11	Rounders
2	Aniseed balls	12	Sherbet
3	Skipping	13	Hansel and Gretel
4	Charades	14	Marbles
5	Postman's knock	15	Peter Pan
6	The Princess and the pea	16	Spangles
7	Peardrops	17	Football
8	Sledging	18	Rupert the Bear
9	Gobstopper	19	Cinderella
10	Pin the tail on the donkey	20	Black Jacks

---

## Julie's Nature Column

Summer has been its usual busy self with many wildlife sightings including the Hobby, House Martins and a Little Owl.

Unfortunately I was not quick enough or near enough to get any good photos of these, but it wasn't from lack of trying. The Hobby is a summer visitor and I watched it swoop over the lake at New Hill and take a coot chick from the water, thought it was bad enough for them that the Herons wait there for a snack. I have also seen a pair of Buzzards many times around the Press House area, I am wondering if perhaps they bred on site this year. Sticking with the bird theme our resident Barn Owl is still around and I did at least manage a photo this time.



The Fallow deer have spent a lot of time on the Mead and just on the edge in the Alder woodland and I believe that the Mills visitors got quite a few sightings on the land train tour. Just recently I was watching the deer relaxing on the Mead and noticed that magpies were helping themselves to the deer's velvet which covers the antlers while they grow. The deer are now in the process of losing the velvet and the start of the rut is not far away.





It won't be long before the mornings and evenings turn chilly and some of the wildlife will be preparing to hibernate such as the toad. This year I have seen more toads than usual which I'm pleased about as I have gone a couple of years without finding many. I managed to capture a toad and a vole sharing a secret moment, or perhaps just comforting each other at the thought of me finding them and yes there has been jokes about "toad in the vole"



I have spotted many more animals, too many to mention, but this year for me it was a welcome sound to hear the Kestrel back on numerous occasions as sightings had been few in the last couple of years. Fingers crossed that they stay for good now. I am hoping to get some better photo opportunities in the Autumn, I'll keep looking wherever I am whatever I do and look forward to sharing some more with you all

**Julie Matthews**  
**Mills nature conservationist**

More of Julie's photos on the back cover.     Ed.

