

The News Sheet

This Month...

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The Chairman's Notes

Now that the New Year exhibition 'season' is over it is time to get down to some hard work. Our efforts at both Sandown and Alexandra Palace seem to have been particularly well received and the photos in the last news sheet showed them to their effect. Well done and thank you Nick, Jim and Mike for the photography and the excellent write ups.

It seems that whatever the Club does it is well done and with panache. An instance of that was the hosting by the N. American Section of the NMRA (BR). The British Legion willingly housed several displays from Clubs together with a plethora of trade stands with the bar open all day. The OO section put on an immaculate show of running on the newly refurbished and redesigned track. The building including the lecture theatre was used to good effect. The day went off very well considering the cold weather and the competition from Alley Palley. A big thank you to Tony and Clive for your negotiations, hard work and those of your willing team.

Last year at an EGM in May we voted by a narrow majority to put the subscription up to £52 for the year. Thinking back with perfect 20:20 vision the vote for the rise should have been unanimous but it was not so. Perhaps we were not listening to the figures or perhaps the figures were not presented in the correct manner; I just don't know. Without a doubt we are probably the most vigorous and diverse club in the country. We are by far the largest and I would venture to say 'the very best'. So why should we need to fork out £52 for that privilege? Well here's **why**.

Which model engineering club has its own headquarters building which is theirs to carry out any activity they wish and is complete with ample car parking space? Why ours of course.

Which model engineering club has its own lecture theatre complete with the latest and not so latest visual aids which is instantly warm in winter with a library thought to be worth at least £2,500? Where there is a very varied programme of lectures and demonstrations. Why ours of course.

Which model engineering society has its own rooms dedicated exclusively to OO gauge, Slot car and North American HO gauge tracks, where

the members can come and go whenever they like and where there are no outside influences dictating what should be done and where there is also a kitchen to make teas and anything stronger? Why ours of course.

Which model engineering society has a superb ground of about five acres set in the countryside where within certain parameters we can do what we like at any time we like? Why ours of course.

Which model engineering society has a dual gauge raised track which is free for enjoyment by all members of the club without having to make prearrangements? Where on Sunday afternoons in the summer children are given rides for free? And which is the second longest raised track in GB? Why ours of course.

Which model engineering society has a boating lake, an extensive garden railway layout and an embryo ground level railway for the exclusive use of its members, with ample ground for the running of traction engines? Why ours of course.

Which model engineering club has a splendid coach complete with modern kitchen and rest/meeting room, a workshop, steaming bays and stores where stock can be stored securely away? Why ours of course.

And which model engineering club has an excellent 16-page magazine published and mailed to all the members each month and not an occasional bi-monthly sheet of paper? Why ours of course.

I challenge anyone to find me another club in the UK that has exclusive facilities that get anywhere near in the same league as ours. Many clubs seem to have to share their tracks with the public and many can only meet in a hired hall, that is if they meet at all. I know that they may have lower subscriptions and that they can make a bob or two by charging for rides, but we have declined to charge for rides. In the words of the late Tom Luxford 'We charge folk all week at work so let's not have to do it at weekends also.'

But keeping a superb club running does not come cheaply. When you consider rent, insurance, rates, electricity, water, gas and day-to-day re-

pairs there is not a lot of change out of £40 per member. When the further development of capital facilities is taken into account and the need for a sinking fund, you will see that we are getting an absolute bargain for £52. **That is if we take advantage of the wonderful facilities we have.**

That leads me onto a slightly related topic in that not all members take advantage of events. Mike Chrisp went to some trouble to welcome Keith Catchpole to the HQ to give an absolutely fascinating talk on Edwardian Phonographs but only about 10% of the Club attended. The same goes for Mike Hodgson and his well-prepared and enjoyable workshop evenings when less than 5% turn up. I expect that many of you have other fish to fry on a Friday evening, but if all you do is watch telly then you are missing out on something

special.

Some weekday afternoons I go to the Tyttenhanger site just to experience the peace, solitude and quiet there and to reflect on the days gone and to reflect on how lucky I am to be a member of such a sturdy club; long may it last.

Next month I hope to tackle the problem of the differential subscription rates.

I am sure that Nick would welcome letters and comments from members about topics that I have aired and of course anything else that takes their fancy.

Have a good month.

Ian Johnston

Secretary's Snippets

The Society has received notification of a Garage Sale of a model engineers Workshop at 8 Lissel Road, Simpson, Milton Keynes, on 4/5 March 2006, 10.00 am to 4.00 pm. Details and maps are available at both HQ and Colney Heath.

The Society has received a £50.00 donation from Meridienne Exhibitions as a 'thank-you' for our efforts at Alexandra Palace.

There will be a meeting of the Society's Boiler Testers on Sunday, 5 March 2006, at 11.00 am to discuss the new national requirements for the testing of miniature boilers.

From 31 August this year the second class postal rate for an A4 format envelope mail will rise from 21p to 35p; an A5 envelope continues to be charged at 21p. Thus staying with A4 will cost the Society nearly £400.00 extra per year. With the invaluable assistance of Nick Rudoe, our Editor, a prototype February News Sheet in A5 format has been produced and shown to the Council. This format was enthusiastically received and

Nick has been asked to adopt this format by August. Not only does the format change, but the weight limit for second class mail goes from 60 gm to 100 gm, allowing up to 12 more A5 pages to be used. Nick would be pleased to receive plenty of copy to fill these bigger News Sheets!!

The Council thanks Nick for his efforts and his support for this change. The Council also thanks Robert Oldfield for his continuing support in despatching the News Sheets to our members via his Company organisation. We are well served by these two chaps. Many thanks.

The Council also agreed to purchase a new Boiler Test Equipment, as our older model has now become faulty. This new item will be available for the traction engine boiler test day on 19 March.

The Society has received an invitation to attend the Annual Miniature Traction Engine Rally on 3 and 4 June 2006, at the Vale of Aylesbury MES.

David Harris

Cover picture:

One of Jim MacDonald's photos which accompanied his talk to the Loco Section; a nice shot of the Rochdale Canal in Manchester. The castellated bridge (on which a train is visible) carries the old Midland Railway line from Piccadilly Station (formerly London Road) to Stockport. To the right are seen some arches supporting the G.C. line from the old Central Station to Warrington and Widnes; this line now has trams. In Manchester, the railway lines all run at the 'upper level', with waterways beneath them.

The February General Meeting by OMAH

We were welcomed to the meeting by our worthy Chairman Ian Johnston, who enquired if there were any matters arising. Adrian announced that the next Loco Section meeting would be an illustrated talk by Jim Macdonald on Manchester history. He then passed over to Mike Chrisp who said what a pleasure it was to welcome our speaker for the evening, Keith Catchpole, after a regrettably long interval.

Once upon a time Keith's chats were almost an annual event; taking us from his war service, initially at Longmoor Army transport training camp, followed by trundling 15in. (and other calibre) long-range ex-naval guns, mounted on suitable trucks, pulled by ex-GWR 0-6-0 Dean Goods tender locos. The intention was to respond to the German guns firing at Dover etc., but this was rather more of a propaganda exercise than an actual war-winning activity, since neither side was sure of what, if anything, it was hitting. Tonight he was repeating a more peaceful subject: the history of the Edison Phonograph. I have been present at all of Keith's talks, on a variety of subjects but was gobsmacked to hear him say that it was 25 years since he last spoke to us; I suppose he ought to know, but I must be older than I thought!

He began by noting that way back before 1900 various folk had noted that it was possible to represent sounds on various surfaces, for example the tuning fork at middle C could be shown on a piece of smoked glass as a sine wave at that frequency. In February 1877 Edison invented and patented a method of recording sound on a cylinder coated with tin foil, ("Mary had a little Lamb"), but could see no profitable use for it at that time. However, he persisted,



The 'Gem' phonograph
Photo: Mike Chrisp

changing to wax cylinders which were more durable than tin foil, and in 1895 produced a model for the home market, the Gem A, and by 1900 some thousands had been sold. Initially they had a copper diaphragm with a diamond stylus driven by a mandrel which added to the life of the cylinder; the stylus was not driven by the groove in the cylinder which would have worn quickly, as did the later flat disc gramophone. The information on the disc was imparted by an up and down motion, 'hill and dale' as it became known. (It is ironic that all these years later we have the CD which uses 'hill and dale'.) After a while it became apparent that wax cylinders were very vulnerable and Edison came up with aluminium cylinders coated with a forerunner of bakelite; these were used throughout the remaining life of the phonograph. The Gem A, or standard model, lasted the life of the machine (I thought I had a note of the dollar and £ equivalent but cannot find it. The cylinders were 1/- or 5p each). Although a continuous improvement program evolved it always centred on the 'standard', much the same as one could move up a level with "Meccano" by moving from set No. 3 to No. 4 via set No. 3A. The quality of the mechanism is more like that of a quality clock than a domestic device.

The first cylinder which Keith played was "Colonel Bogey" played by the Sousa band c1909 with remarkable clarity for a disc of that period. In 1909 Edison



Ron Manning, Keith's 'driver', helps him assemble the 'Cygnet' phonograph; note the support 'arm' rising from the rear of the cylinder housing.
Photo: Mike Chrisp

faced competition from flat discs which had the advantage of a longer playing period, typically 4 minutes against the cylinder's 2 minutes. Edison dealt



View of the innards of the 'Cygnet'
Photo: Mike Chrisp

with that problem by increasing the number of grooves from 100 to 200 per inch, with the cylinder revolving at 90 rpm. This evolved into the 'Cygnet' which had a much larger horn supported to take the additional weight on the stylus. Following 'Colonel Bogey' we had Billy Williams singing 'I must go home tonight', indicating the advantage of a voice with clear enunciation. (Ever since I heard this song I can't get it out of my head). We then had 'Toy Town Parade' which reminded the older members of 'Toy Town' on Children's Hour with Larry the Lamb, Mr Growser, Mr Mayor, Ernest the Policeman, etc. Another piece played was "Babyface", much against Edison's wishes since, as a Quaker he believed jazz to



Keith adjusts the 'Opera'
Photo: Mike Chrisp

be sinful, but had to give way to disc competition. After some more examples Keith concluded with "Mary had a little lamb", much copied from the original cylinder and now available on audio cassette.

In 1912 'The Opera' was introduced, which had the advantage of a moving cylinder with a stationary stylus, with suitable support; this meant that a larger horn needed no additional support. This model continued until the end of Edison's involvement in 1916. He did make a few versions of the Opera in cabinet form, the 'Rolls Royce' of the cylinder era. He then sold the rights to HMV who immediately set about smashing

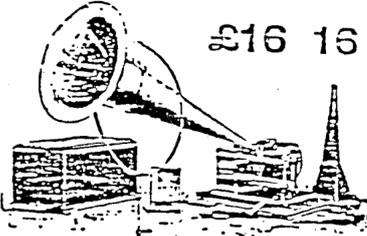
the cylinders on the basis of an everlasting cylinder not being good business.

Keith played several more treasures, mentioning in passing the problems of recording such as the overwhelming piccolo which had to be placed at the rear of the studio, and that if one wanted a 'fade-out' it had to be achieved by the whole ensemble walking backwards. No mean feat when you think of Sousa's collection, particularly a row of Sousaphones moving backward soundlessly!

As well as applause at the end of each piece, Keith received a well-deserved ovation and thanks from Mike Chrisp.

A1 GRAND

£16 16 0



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The RECORDS for what are known as "GRAND" Machines are 3½ in. in diameter; those in general use are 2½ in.

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Its Musical Reproduction and Expression are clear, distinct, and pleasing. It also reproduces especially the small items in ordinary use.

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Left: a handbill advertising one of the Edison Company's phonographs, circa 1910.

General Meetings Update

Unless otherwise stated, General Meetings are held at our Headquarters in Legion Way, North Finchley, 8 - 10pm. Ron Thorogood provides welcome refreshment at around 9pm - many thanks, Ron.

3 MARCH 2006 – DOWN MEMORY LANE

Founded more than sixty years ago, our Society has a fascinating history. Few, if any, current members survive those early days, but existing photographic and other records provide an intriguing glimpse of the past.

In our trip Down Memory Lane, I hope to bring together some early images and recollections. The most obvious changes have been moves between various meeting places and improvements in our facilities. I very much hope that some of our longer established members will be on hand to recall brief details of these and other related matters.

If you have anything to bring to this meeting in the way of film, video, slides, photographs, documents and/or reminiscences, please let me know beforehand so that I can attempt to organise the evening.

7 APRIL 2006 – MIKE FOREMAN: HOLIDAYS ON THE FOOTPLATE

A train spotter and longstanding, active and knowledgeable member of our Society, Mike Foreman has a keen interest in and considerable knowledge of

railway matters. This passion has taken him on a great many visits – some official and others less so – to many and various engine sheds. He has also met a number of ‘real’ railwaymen from whom he has learned much.

Mike has enjoyed recent holidays involving steam locomotion in full size and model forms in Poland and Germany. These and other associated topics dating back to 1963 will form the subject of Mike’s presentation which he prefers to describe as “a brief review of time spent on the footplate by a non-railwayman”.

12 MAY 2006 – ANNUAL GENERAL MEETING

The May General Meeting, which will take place on the second Friday of May, will be our Society’s Annual General Meeting. From an administrative point of view, the Annual General Meeting is the most important of the year. An opportunity to review the recent past and to look forward to the future, it is also the time when those involved in the day-to-day running of our Society are elected to office. If you have an interest in Society affairs and the way they are managed, you should attend the Annual General Meeting to air your views.

Mike Chrisp

Loco Section & Tyttenhanger Committee News

Railway Development Project

At the February Loco Section meeting the “Railway Development Group” presented by Les gave an update of its findings. Les explained the basic parameters discussed, and updated us with various recommendations. It was felt in the short term that a ground level running loop around the mound in the new area was recommended. The loop would be constructed in such a way as to enable future development to take place. There will be a **special EXTRA Loco Section Meeting on the 10th March** at HQ. There will be presentations of plans for the extension of both elevated and ground level railways. These will be based on the lie of the land and take into consideration the findings looked at by the “Railway Development Group”. I will be presenting the

“Amalgamated Members’ Plan” that I have been working on. This is based on many of the ideas that were submitted in September last year, and is a working document that will evolve as members get ‘stuck into’ the development work. Some alternative members’ ideas will also be shown. There will be an open discussion, and hopefully a positive plan will emerge that we can all support, thus securing the long-term future of our club.

Winter Work Parties

YOUR CLUB NEEDS YOU
9am Every Sunday Morning. 11am Tea Break.
Come and join in, many important projects still to be started.

Now that the milder weather is coming we all hope that more members will come along to help. Those who have already been taking part have made very good progress. Members are getting on with jobs and enjoying the comradeship. I for one have greatly enjoyed getting to know more of the members. If you are a new or long-standing member you will be very welcome to join in. Each job however small makes such a valuable difference.

Steward Rota

Behind the scenes the new Steward Rota has been evolving. I started afresh with a complete list of members from the last published members' list in a spreadsheet. I then started to eliminate those that would not appear for various reasons. This now enables us to have an extra steward compared to previous years. Also there is an opportunity to have a further extra steward making a total of six track and two tea stewards, by asking those core members that said in the questionnaire that they would be prepared to do an extra duty.

So as not to delay publication there are still some spaces in the rota included in this newsletter. I have still to ask more of those who said they would be prepared to do more. If you are willing and have not yet spoken to me, please pick an empty slot and let me know as soon as possible.

- 1 If you cannot attend on your allocated slot for whatever reason, arrange a swap with another member. **BUT PLEASE LET ME KNOW** so I can amend the published list.
- 2 If you appear on the list and you do have a valid reason why you should not. **PLEASE LET ME KNOW**.
- 3 If you notice someone who has died, left or has a valid reason not to be on the list **PLEASE LET ME KNOW**.
- 4 Most importantly if you do not appear on the list and should be on the list **PLEASE LET ME KNOW**.

I also ask that **ALL TRACK and TEA STEWARDS SIGN THE RUNNING BOOK** for monitoring and insurance purposes.

It is not much to ask to do your duty, **but to just not turn up is unreasonable**. It is your responsibility to yourself and your club to make sure this season runs smoothly, so we can carry out our responsibility for health and safety for all those that visit and enjoy our wonderful facility. The Tyttenhanger Committee thank you all in advance for your help.

Events

We have been approached by a number of clubs who would like to visit our track. As you know we already hold two club visit days which are already full. Does the Loco Section wish to hold a third club visiting day? To do so we would need a few members to organise the event.

Friday 10th March 8pm Extra Loco Section Meeting at HQ.

Presentation of Plans for the extension of ground and elevated railways. This extra meeting by popular demand is to present Plans, have open discussion and make positive decisions for the development of both railways.

Friday 17th March 8pm Loco Section Meeting at HQ. Steam in China by Gordon Massey who has been to visit China many times over the years and has taken some of the most stunning video shots of steam locomotives working hard. He has made some of the visits during the winter just for the steam and snow effects and they are fantastic. This will be a night to remember.

Sunday 16th April Colney Heath: start of running season.

Friday 21st April 8pm Loco Section Meeting at HQ. Work in Progress. Your last chance to show us what you were up to in the winter. So if you were not ready in November, now is the time to show the Club your prowess.

Friday 19th May 8pm Loco Section Meeting at HQ. To be arranged

Friday 16th June 8pm Loco Section Meeting at HQ. The British-owned railways of Argentina by Ralph Copnall, who lived his early life in Argentina and has returned on visits. He will give us a brief background to Argentine railway history, leading up to comments on the preservation scene. He will enliven the talk with personal reminiscences illustrated with stills spanning sixty years. This is a must for all sections of the Society.

Sunday mornings 9am

Come to the Sunday morning winter working party. 9am. Support your club!

Adrian

(Loco Section Leader)

Track Steward Rota 2006								
Date	Senior Steward	Track Steward	Track Steward	Track Steward	Track Steward	Track Steward	Tea Steward	Tea Steward
16-Apr	Ron Price	Maurice Cummings	Graham Price	Steven Don	Chris Platford	Peter Weeks	Ron Thorogood	Mrs Thorogood
23-Apr	Brian Apthorpe	John Amos	Mark Braley	John Waldoek	William Mason	Dick Payne	David Metcalf	Mrs Apthorpe
30-Apr	David Harris	Adrian Newson	Derrick Franklin	Keith Ashman	John Shawe	David Snellgrove	R Lidzey	Mrs Harris
07-May	Nigel Griffiths	Geoffrey Bullock	David Jones	John Beesley	John Fitzgerald	Chris Vousden	Merwyn Smith	Mrs.Griffiths
14-May	Jack Edwards	David Spencer	Jeremy Deans	Adam Gorski	Reg Piper	Mike Foreman	Robert Hatton	Raymond Goss
21-May	Grahame Ainge	Peter Foreman	Simon Pearson	Richard Hesketh	Kevin Wilson	Brian Baker	Ray Smiles	Nicholas Griffin
28-May	Mike Collingwood	Peter Precious	Guy Ellerby	Grahame Gardner	Peter Sheen		George Case	Mike Chrisp
04-Jun	Robert Oldfield	Frank Hills	Richard Castle	Michael Dear	Owen Chapman		Mrs Hills	Mrs Chapman
11-Jun	Les Brimson	Roy Hall	Roger Brown	Jack Sanson	Arthur Rixon	Derek Eldridge	Richard Deal	Ken Wilsher
18-Jun	Keith Hughes	Jim Robson	Victor Burgess	Philip Rowe	Reginald Axton		Dave Lawrence	Frank Inman
25-Jun	John Squire	Ian Buswell	John Riches	Richard Cross	Frank Adams		Peter Prior	Mrs Squire
02-Jul	Mike Ruffell	David Snellgrove	John L Morgan	Naughton Morgan	Peter Berkley	Ian Johnston	John Morgan (M)	Mrs J Morgan
09-Jul	Mike Avery	John Winson	Jonathan Avery	Mike Hodgson			Colin Bainbridge	Ron Peirce
16-Jul	Roy Chapman	Nick Rudoe	Peter Brewster	Anthony Mason	David Burman		Graeme Brown	Mrs Brewster
23-Jul	Ian Clift	Peter Lancaster	John West	Richard Hall	Bob Gamble		Harry Henderson	Mrs Clift
30-Jul	Keith Bartlam	John Cattle	Gerald Moore	Peter Fraser	Jeffrey Bolton	Maurice Cummings	Raymond Randal	Harold Barrow
06-Aug	Mike Chrisp	Ian Reddish	Alex Chapman	David Foster	Paul Godin		Alexander Robinson	Jim Robson
13-Aug	Ian Johnston	Brian Baker	David Marsden	Brian Kennedy			Chris Dean	Marcel Bolle
20-Aug	Mike Foreman	Alan Marshall	Geoffrey Mogg	Mike Franklin	David Broom		David Morgan	Mrs Foreman
27-Aug	Donal Corcoran	Lawrence Steers	Philip Hyde	Mark James	R. Thompson		Peter Funk	
03-Sep	Tony Dunbar	Colin Thomson	Geoffrey Eccles	Peter Lancaster	Lawrence Wood	Derrick Franklin	Maxim Sarche	
10-Sep	Brendan Corcoran	Peter Davies	Peter Brown	Alan Harmer	Larry Cheeseman		L Brooks	Mrs P Corcoran
17-Sep	Jim MacDonald	Chris Reynolds	Peter MacDonald	Peter Badger	Tim Bittleston	Ian Reddish	Mrs. MacDonald	Mrs Badger
24-Sep	Adrian Reddish	Dick Payne	Nicholas Bone	Martin Ginger	Peter Fox		Mrs Kate Reddish	Laura Reddish
01-Oct	Stephen Smith	Roger Bell	Paul Lacey	Barrie Davies	Alex James		Mrs Smith	Julie Davies
08-Oct	Kieran Corcoran	Gavin Lang	John Mills	Roger Woollett	Mike Avery	Jonathan Avery	Rai Fenton	Mrs Betty Fenton
15-Oct	Chris Vousden	John Sandwell	Ron Todd	Malcolm Reid	Tim Clementson	Brian Apthorpe	Derek Perham	
22-Oct	Terry Baxter	Peter Weeks	Derek Smith	Derek Eldridge	David Harris	Roger Bell	Dave Green	Mrs Baxter

The February Loco Section Meeting by Roger Bell

There were two parts to the meeting, the first being a talk with slides by Jim MacDonald from his stay on business in Manchester. The first picture was of the city centre taken in 1830 and apart from the traffic little has changed. Despite being born out of the industrial revolution with all its subsequent decay followed by slow regeneration, it has always had a prestigious outlook. The Town Hall was a case in point; in order to ensure they had the biggest they waited until all of the surrounding towns had built theirs; inside, pictures of these smaller Town Halls adorn the walls.



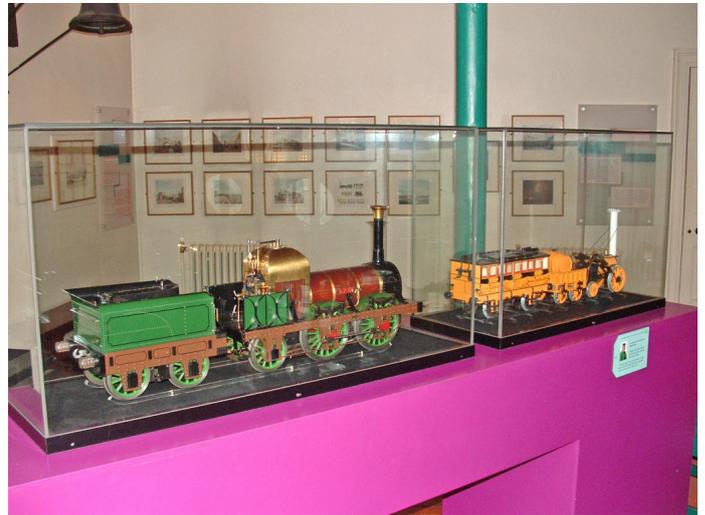
The full-size replica of the L & M Railway's 2-2-0 engine 'Planet', which was built by the Manchester Museum in 1992
Photo: Jim MacDonald

The new Manchester has many magnificent old buildings like the old Refuge Insurance building, and the Midland hotel built in 1904 - rooms at £140 a night, where Rolls and Royce met on 15th May 1904 to discuss their business venture together. Piccadilly station is more like Gatwick airport with its shopping concourse and from where one can visit the high street stores or place a bet in the gambling casino. Everywhere is spotlessly clean; the new buildings are made from glass and stainless steel with many works of art type sculptures. One of these, a hook and chain going high in the air has had to be greased to deter the drunks from climbing up it and falling off.

They have their own Millennium Bridge spanning Mancunian Way. Under construction is the tallest building outside of London at 53 stories and over 600 ft to the top. A workman advised that with two lifts holding 40 of the workforce in each, it can take at present 35 minutes to reach the top. Their tram system has been very successful and is now too small; the

trams travel at 30mph in the city and 60mph outside although they don't half shake.

We toured the Museum of Science and Industry which had exhibits from the area's hat, printing, mechanical and electrical engineering factories; names like Avro, Crossley, Metropolitan Vickers, Belsize, Vulcan works, Ferranti, the list is endless. The Museum contains the building which formed the original Manchester terminus of the Liverpool and Manchester Railway.



Models of the L & M Railway's 'Lion', and of Stephenson's 'Rocket', as seen in the Museum.
Photo: Jim MacDonald

One engineering phrase 'it's knocking off time' or 'its time to knock off' came from the days of overhead shafting that drove the machinery; when finishing work the belt would be knocked off the pulley to disconnect the drive.

We thanked Jim for his talk which aided by the pictures taken by digital camera, edited on a computer, and shown from the computer by the overhead projector (all now commonplace) made for a superb presentation.

The second half of the meeting was a presentation by Les Brimson from our Railway Development Group (RDG). The four topics were its Formation, Members, Meetings and Purpose.

The members are Les Brimson, Tony Dunbar, Jim Macdonald and Adrian Reddish.

Les said that there were no great revelations; it's just

an update of where we are. We are very keen and want to move this forward very quickly. The first meeting on this was in 2000, and there have been a further three meetings since. All meetings are minuted.

Original purposes.

- 1 To produce an engineered and costed scheme for the extension of the ground level railway including development changes to existing GLR from pond to new land.
- 2 To superimpose on this scheme a proposal for extension of the elevated main line.

An additional purpose is:-

- 3 The whole of the site as may be expanded from time to time by the Tyttenhanger committee.

The basic considerations are:-

- 1 The sixteen concepts presented at previous meeting.
- 2 Two further concepts submitted since.
- 3 The "amalgamated members' plan" compiled by Adrian.
- 4 Existing topographic information.
- 5 To be a good neighbour.

The design criteria are:-

Ground Level

- Maximum Gradient 1 in 70
- Minimum Radius 50 Ft
- Embankments 1 – 1.5
- Cuttings not to penetrate underlying chalk.
- Follow recognised guidelines (regarding railway clearances etc).
-

Elevated mainline

- Maximum Gradient 1 in 100

- Minimum radius no less than existing (50ft).

A topographical map of the site from ordnance survey data was shown.

All decisions will be made by the membership.

The Water Company draws 9000 cu. metres of water a day from the site, enough to supply a town the size of Hatfield; we cannot just go tunnelling into the ground as we are mindful of the fact that there are wells underneath.

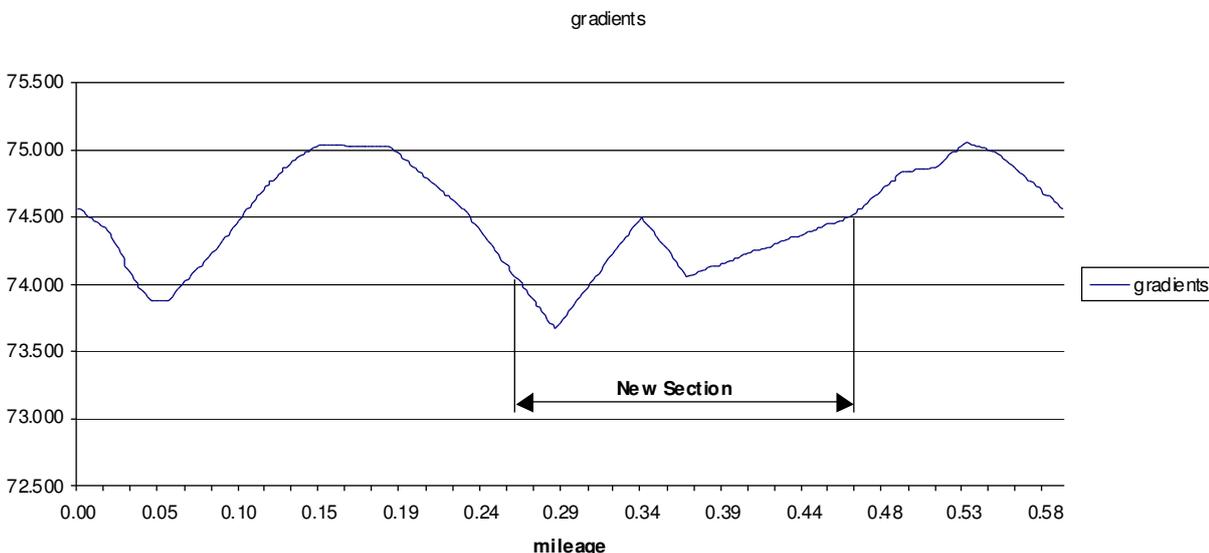
We were shown Adrian's "amalgamated members' plan" of extended ground level and raised tracks; there is only one place where the raised track can go over the ground level due to the fall of the land. The existing track length is 839 yds. (880 yds is half a mile). With the new scheme the length would be 1042 yds. The raised track is 1.38 metres above the ground at its highest point at Dingley Dell. Where the raised track passes over the ground level there would need to be a height difference between the tracks of about 2 metres. If we built a bridge the design would have to be proven with calculations and conform to legislation. This scheme involves a lot of work.

Tony has produced a ground level extension scheme which gives optimum utilisation with minimum work. The track would be maximum length possible and space reserved for a future extension of the raised level track.

One view from the floor was 'we have been looking at this for months, let's get on with it now whilst we have the enthusiasm'.

Another meeting has been arranged to discuss this further on Friday 10th March at Headquarters.

Revised Gradient Profile:



Mercury-Arc Rectifiers

by Ian Johnston

What a dull title for what is going to be an exciting item in this wonderful tome; the *News Sheet*. Perhaps it should be called 'Merry Mercury-arc Rectifiers'.

Mike Hodgson held us all spellbound at the 'workshop meeting' on 25 March 2005. He talked at length and in detail about the intricacies of the mercury-arc rectifier. Unfortunately not one of our little clan had the faintest idea what he was going on about as we all had just finished a hard day working at the coal-face. Later in the nicest possible way Mike gave me the literature and said also in the nicest possible way, that if I thought I could do better, then I should bloody well get on with it! So here we go with an explanation; not only for the loyal group who frequent the Headquarters on the fourth Fridays of the month (including Good Fridays) but for the wider readership of the *News Sheet*.

Are you seated comfortably? Then I will begin.

In years long gone by there were two turf wars, one for the making and supply of electric current and another in the use of it. The wars were between the Crompton Direct Current (DC) gang and the more sophisticated Ferranti Alternating Current (AC) mob.

For many years the DC boys held sway in the use of their current for traction in all its forms, be it trams, trains, trolley buses, lifts or escalators as well as the fifty volt GPO exchanges. However the smart AC kids got in at the source and found that they could make electricity far more economically by the use of alternators than with generators; and that when it came to supplying the punters with a bit of juice, it was very easy with the thin, light weight wires that suited the AC and not the great lumbering cables needed for DC.

Soon you can see that there was a problem. The DC boys had persuaded great chunks of British and American Industry to invest heavily in DC equipment which would cost an arm and a leg to replace with AC gear. (Rather like buying a lathe and finding that it needed three phase electricity.) So when the AC came to the factory gate it had to be converted into DC before it was of any use. This is where the mercury-arc rectifier comes in rather like Dan Dare of the Eagle without the Mekons.

In 1902 a chap who knew a thing or two called Peter Cooper-Hewitt played around with mercury and vac-

uum bulbs with a few terminals and found to his surprise that electric current would only pass in one direction in his little containers. Maybe he stood up in his bath and shouted 'eureka', but perhaps he did not as he would have probably been electrocuted and would have just managed a stifled 'help'.

Anyway Cooper-Hewitt soon realized that he was onto a winner. He had solved the problem of converting AC to DC, and the chap could have become a rather wealthy man owning strings of race horses, pearls and grey top hats, but alas he was already very well off as his dad was Mayor of New York and an extremely successful business man and engineer

Before Cooper-Hewitt came on the scene, rectification of AC to DC was done by rather cumbersome rotary converters. For those that don't know a lot, like me, Alternating Current alternates from a plus voltage to an equally minus voltage at a rate agreed and in a sine curve formation (see sketch at end), whereas the Direct Current stays at the same voltage plus or minus all the time. In Britain we alternate at fifty cycles per second. But I think it ranges in different parts of the world from sixty cycles down to ten in Panama where you can almost see the light flickering as the voltages alternate!

Cooper-Hewitt made a large vacuum glass container with a pool of mercury in the base. Sticking through the top were a number of electrodes (anodes), say three for three phase electricity although more were often fitted for more economy and a smoother conversion. The pool for mercury (cathode) was heated by a means that we need not get tangled up with here and a furious arc created in the mercury vapour when electricity was passed in turn from the electrodes. As stated the electrons would only pass in one direction through the rectifier, so hey presto the alternating current was rectified. Rather like current passing through a thermionic valve.

As Teago and Gill put it:- 'When the arc is struck the emitted electrons immediately ionize the mercury vapour molecules and the hot spot is maintained at its electron-emitting temperature by the bombardment of the massive positive ions. The hot spot on the cathode which gives out a brilliantly white light is not stationary but travels swiftly and erratically over the surface of the cathode pool'. So there!

Cooper-Hewitt constructed his rectifiers in all sizes from tidy little ones for telephone exchanges to gi-

gantic models for the Southern Railway and some of the electrified lines in the States. Some were in glass and the largest ones made of steel with demand vacuum pumps attached. Peter associated with Westinghouse and English Electric and according to the literature lent to me, his firms supplied rectifiers to all in the land from royalty to the poorest Bronx movie house.

The mercury-arc rectifier had many advantages; it was almost maintenance free, flimsy foundations were only needed as it was of light weight construction, it was cheap to build, almost noise free and simple to operate, with only meagre current losses during conversion.

I believe there is still a mercury-arc rectifier existing at Belsize Park tube station to power the emergency lift and there are still four or five at work in Sweden, but most have now been superseded by very modern and super efficient solid state converters.

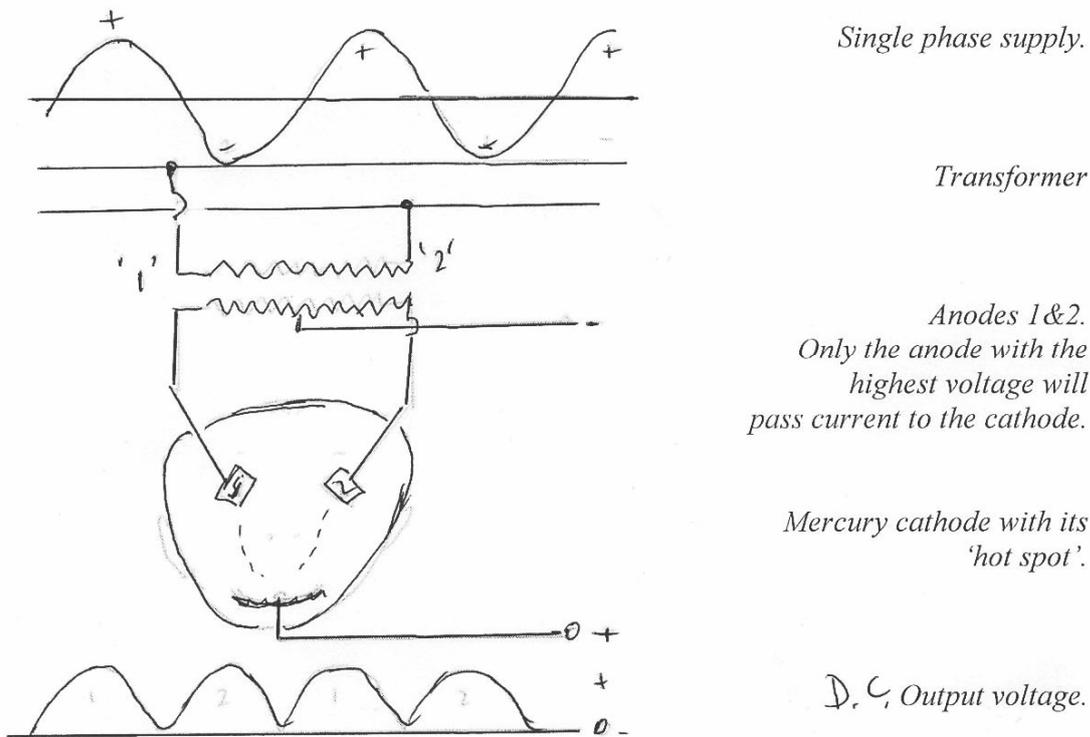
I expect that many of us will have seen the rectifiers at work in years gone by; I know that I have. But then I did not know what they did, because I did not have the benefit of reading such a useful article like this!

So there we are. The mysteries of the mercury-arc rectifier have been laid bare. You may never be the same again, now that you possess this invaluable knowledge of our industrial past.

References:

Molloy, Say, Walker *“Electrical Engineer” Reference Book*. (1954. Geo Newnes London) 10.2.
 Teago & Gill *Mercury Arcs*. (1949 Methuen London) P 4.
 Neale (ed) *Whittaker’s electrical engineer’s pocket book*. (1947, Isaac Pitman London). P853.
 Andre Mohammed. *The Forges & Manor of Ringwood*. www.ringwoodmanor.com

A two anode (biphase) Rectifier



The alternating current passes through the transformer. The mid-point forms the negative terminal. In the first part of the cycle the '1' will be positive and current will flow to the '1' anode. During the second part of the cycle '2' will be positive and current will flow via the '2' anode. The resulting rectified output voltage from the cathode can be seen in the diagram below the rectifier.

Slot car Racing News by Mark Harwood

The new year kicked off with Production 32 and ten people attending made it a competitive night's racing, Paul TQ into the final from Greg, Mark and Ian joining them from the semi. Mark took the win by 2 laps from Ian, Paul and Greg.

The first Saloon night of the year produced a cracking night's racing with Bob Hallums making a welcome return and Brian Church racing for the first time in 2006. Paul wins the final from Mark, Greg and Ian. Brian was 5th and Bob 6th

Week 3 and onto Formula One, Mark wins from Ian, Paul and Michael Ovens.

Week 4 and the turn of Sports GT or Eurosport! Another ten people attend to make a fine night's racing; Paul setting the fastest time of the evening 44.60 and taking victory from Greg and Mark, and Ian was 4th.

Week 5 and the much awaited North London GP series. This is the first time we have had a club class – all the cars are 1/24 formula ones powered by wasp armatures, but still produced very close racing and a good laugh was had by all (except John Ovens). Ian took victory from Mark, Greg and Michael.

So with most classes underway at the club it looks another close year. The build up to this year's National finals is underway as well, having already had one area round at Luton in early January. Wins for Mark in Formula One and James Cleave in Saloon and Sports sets us on our way to Bedford this year; the Nat's are being held in the same venue as last year.

Other racing coming up will be the BOC at Coulsden in mid February; a good entry is expected and I know this meeting is going to be well supported by North London racers. Good luck to those who attend.

March clubnights :-

- 2nd: Production 32
- 9th: Saloon
- 16th: Formula 1
- 23rd: Sports
- 30th: NLSME Group

On another note can I remind you all that it is that time of the year when NLSME subs are due; as outlined in the last news sheet the subs have gone up this year £52.00 for a full member. Please make sure you have paid up by 1st April.

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Improving English

EC PRESS RELEASE

Having chosen English as the preferred language in the EEC (now officially the European Union, or EU), the European Parliament has commissioned a feasibility study into ways of improving efficiency in communications between Government departments.

European officials have often pointed out that English spelling is unnecessary difficult; for example: cough, plough, rough, through and thorough. What is clearly needed is a phased programme of changes to iron out these anomalies. The programme would, of course, be administered by a committee staff at top level by participating nations.

In the first year, for example, the committee would

suggest using 's' instead of the soft 'c'. Certainly, sivil servants in all sities would resieve this news with joy. Then the hard 'c' could be replaced by 'k' sinse both letters are pronounsed alike. Not only would this klear up konfusion in the minds of klerikal workers, but typewriters could be made with one less letter.

There would be growing enthusiasm when in the sekond year, it was anounced that the troublesome 'ph' would henseforth be written 'f'. This would make words like 'fotograf' twenty persent shorter in print.

In the third year, publik akseptanse of the new spelling can be expekted to reach the stage where more komplikated changes are possible. Governments would enkourage the removal of double letters which have always been a deterrent to akurate speling.

We would al agre that the horrible mes of silent 'e's in

the languag is disgrasful. Therefor we kould drop thes and kontinu to read and writ as though nothing had hapend. By this tim it would be four years sins the skem began and peopl would be reseptive to steps sutsh as replasing 'th' by 'z'. Perhaps zen ze funktion of 'w' kould be taken on by 'v', vitsh is, after al, half a 'w'. Shortly after zis, ze unesesary 'o' kould be dropd from words kontaining 'ou'. Similar arguments vud of kors be aplid to ozer kombinations of

leters.

Kontinuig zis proses yer after yer, ve vud eventuli hav a reli sensibl riten styl. After tventi yers zer vud be no mor trubls, difikultis and evrivun vud find it ezi tu understand ech ozer. Ze dremms of the Gu- vermnt vud finali hav kum tru.

Ein Reich, Ein Volk.....

Dates for your Diary

Friday 3 March	8.00pm General Meeting; Down Memory Lane - photos etc from the Society's earlier days; HQ, Legion Way, North Finchley
Friday 10 March	8.00pm Special Loco Section meeting; Presentation & discussion of plans for the extension of ground and elevated railways; HQ, Legion Way, North Finchley
Monday 13 March	8.00pm Council Meeting; HQ, Legion Way, North Finchley
Friday 17 March	8.00pm Loco Section meeting; Gordon Massey's videos of Steam in China; HQ, Legion Way, North Finchley
Sunday 19 March	Traction Engine boiler testing at Colney Heath
Friday 24 March	<i>Deadline for copy to Editor for April News Sheet</i>
Friday 24 March	8.00pm Workshop Evening; HQ, Legion Way, North Finchley
Tuesday 28 March	8.00pm Tyttenhanger Committee Meeting; Loco Section Leader's house
Friday 7 April	8.00pm General Meeting; Mike Foreman: A Holiday on the Footplate; HQ, Legion Way, North Finchley
Monday 10 April	8.00pm Council Meeting; HQ, Legion Way, North Finchley
Saturday 15 April	Birthday Party (Wright)
Sunday 16 April	Start of running season at Colney Heath
Monday 17 April	Bank Holiday - members' running day at Colney Heath
Friday 21 April	8.00pm Loco Section meeting; Work in Progress; HQ, Legion Way, North Finchley
Friday 21 April	<i>Deadline for copy to Editor for May News Sheet</i>
Tuesday 25 April	8.00pm Tyttenhanger Committee Meeting; Loco Section Leader's house
Friday 28 April	8.00pm Workshop Evening; HQ, Legion Way, North Finchley
Saturday 29 April	Birthday Party (Tinsley)
Monday 1 May	Bank Holiday - members' running day at Colney Heath
5/6/7 May	National Model Engineering Show, Harrogate
Saturday 6 May	Birthday Party (Townsend)
Monday 8 May	8.00pm Council Meeting; HQ, Legion Way, North Finchley
Friday 12 May	8.00pm Annual General Meeting; HQ, Legion Way, North Finchley
Saturday 13 May	Birthday party (Stephens)
Friday 19 May	8.00pm Loco Section meeting; to be arranged; HQ, Legion Way, North Finchley
Friday 19 May	<i>Deadline for copy to Editor for June News Sheet</i>
Sat/Sun 20/21 May	Steam Fair 2006 at the Royal Gunpowder Mills, Waltham Abbey
Tuesday 23 May	8.00pm Tyttenhanger Committee Meeting; Colney Heath (in the coach)
Monday 29 May	Bank Holiday - members' running day at Colney Heath

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Every Wednesday	Miniature Railways, British and American and Video Group at HQ
Every Thursday	Slot Cars Section at HQ
Every Sunday	Morning work parties at Colney Heath (start 9.00am).