

# North East London Meccano Club

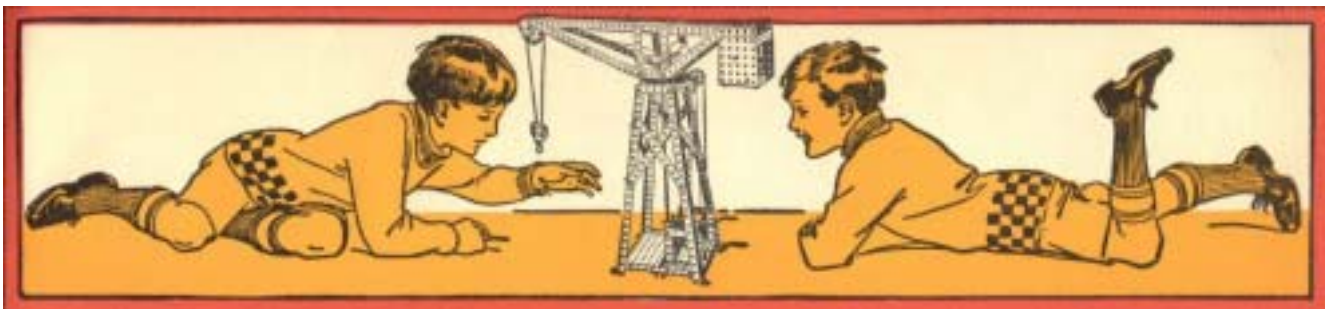
Newsletter - February 2005

The 65th meeting of the North East London Meccano Club will take place on Saturday 12th February 2005 at Hainault Baptist Church Hall, Franklyn Gardens, Hainault, Essex

The doors will open at 11 a.m. for setting up the meeting. Help is needed with moving the tables, and also with clearing away at the end of the meeting. All members and their guests will be very welcome.

## *In this Newsletter . . .*

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Tony Parmee's Railway Service Crane



## CLUB NEWS

### **Report of the AGM - 4th December 2004**

The Chairman began by thanking the Treasurer and Secretary for their hard work, with special thanks to Adam and Kevin Southgate for their excellent provision of refreshments throughout the year. The Secretary then reported on the successful year, with special mention of the Dunmow exhibition which had a high standard of models and attracted a good audience. The exhibition raised £100 for NELMC and for the HRCA, with £400 for the Essex Air Ambulance Fund. In 2005 the Dunmow exhibition will be Meccano only, held at the former venue of the Day Centre, though in 2006 it will be in conjunction with the HRCA again. The Treasurer confirmed that the club's accounts are in a stable position, with income being maintained successfully, so that subscriptions can stay the same for the coming year. Votes of thanks were proposed to Roger Little for booking the hall at Hainault, to Colin Davies for a variety of tasks such as preparing voting slips for the competition, and to Peter Barnard for production of the Newsletter.

### **All change!**

Dave Taylor had already indicated his wish to stand down as Secretary, and Mike Tebbutt agreed to take over the post (for a year, initially). Ron Martin remains as Treasurer. David Smithers had indicated his wish to stand down as Chairman, and Dave Taylor was elected as the new Chairman. In recognition of David Smithers' long-standing contributions to the club he was elected to the newly created post of President.

Simon Greatrex indicated his willingness to take over the job of providing refreshments at the ordinary meetings.

### **2004 Competition**

The December meeting was also the venue for the traditional Annual Competition, with a good variety of models as usual. Peter Barnard won the cup for his Galloway's Non Dead Centre Engine (first time I've ever won anything!); Colin Davies's "S.S. Great Britain" marine engine was second; and Geoff Hall's "Hereward the Wake" loco was third. It was impossible to choose between the two junior modelmakers Luke Whittaker and Kevin Southgate, and the prize was awarded jointly to both of them. More details of the models appear below.

### **Dates for your diary**

The dates for this year's meetings will be as follows:

12th February, 7th May, 9th July and 3rd December. The provisional date for the Dunmow Exhibition is 10th September, but this will be confirmed later by Dave Taylor, who remains as exhibition organiser for the club.

Some sad news recently received: Gordon Leavis passed away over Christmas as the result of a heart attack. He was an accomplished model-builder, and we will miss his presence at our meetings.

A reminder to everyone about paying the 2005 subscriptions promptly if you haven't already done so; anyone unable to attend the February meeting should send the Treasurer a cheque straight away.

## MODEL REPORT - 4 December 2004

### Ron Mumford

An Elevator driven by a No. 1 motor, and a Bulk Liquid Transporter, both from the 1961 No. 5 manual. Also a Big Wheel driven by a Powerdrive motor, from the 1961 No. 6 manual.

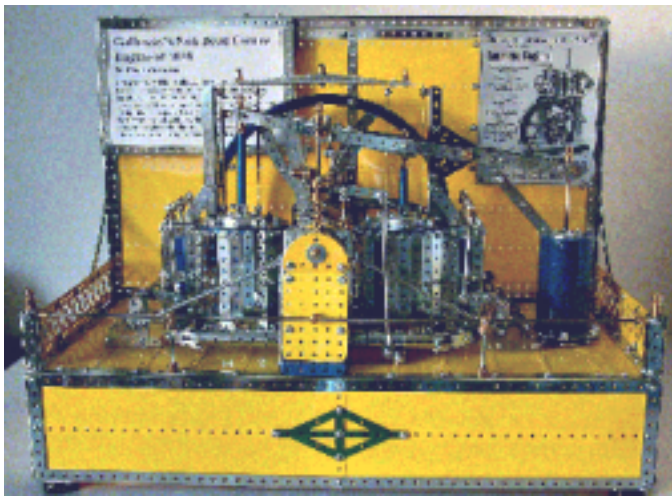
### Peter Clay

A Konkoly Meccanograph, as described in the last Newsletter.

### Geoff Hall

Geoff's "Hereward the Wake" loco was described in detail in the last Newsletter.

(Third in the Annual Competition)



### Brian Elvidge

Three freelance models: Cab over engine traction unit, not motorised but with Ackerman-type steering, together with a twin axle semi-trailer and a twin-axle machinery semi-trailer. Brian also set up a 6' x 4' Hornby Dublo railway layout, which attracted other railway items from Dave Southgate and John Gay.

### Allen Berman

Allen's Giant Block Setting Crane is described in more detail below.

### Barrie Goodey

Triple Expansion Marine Engine, described in a 1980s Midlands Meccano Magazine. At last year's Dunmow exhibition a sailor who had worked on an original engine said that Barrie had "got it about right"!

### Tony Parmee

A rebuild of the 1954 Railway Service Crane (Leaflet 10.1), described in more detail below.

### Geoff Carter

A Bugatti and a Helicopter from designs by Bernard Périer in *Constructor Quarterly*, a Walking Tractor, originally from a c. 1930 manual and revised in *MM* in the 1960s (Geoff's model was built about 30 years ago and spent the first 15 years in his daughter's toybox!). Geoff also showed a Russian construction set, looking like Constructo, but with "spaced holes, and a "Simplified Mechanics" tin, of which only four are known, which Geoff bought at a Watford swap-meet about 15 years ago for £14!

### Eddie Oatley

Eddie's 30-ton Dry Dock Crane has now been strengthened so that it can lift a heavy load with the jib luffed out to its maximum radius.

### Peter Barnard

Galloway's Non Dead Centre Engine of 1838. First patented by Elijah Galloway this engine was self-starting because the two pistons are 90° out of phase with each other, linked by a triangular connecting rod, with no "dead centre". It was very stable and compact, and was re-developed several times through the 19th century. Later versions were inverted, with the cylinders on top, and were compound engines with high and low pressure cylinders. This model was inspired by a series of articles by Anthony Mount in *Engineering in Miniature* during 2001-2002.

**\*Winner of the Annual Competition\***

### Dennis Backler

From a steam engine called 'Caroline'; a module built to one-fifth scale of the valve gear, and undertaken at the request of Mr C. Gurteen of Chantry Mills, Haverhill.

### Roger Little

A working model of the Ffestiniog Railway Double Fairlie "David Lloyd George". Carried on two independent bogies this locomotive is ideal for tight turns such as those found on the Ffestiniog Railway.

### Ivor Ellard

An entirely new and original Meccanograph, built from scratch. It draws in up to eight colours at a time and has an infinite number of possible designs, with gearing and configurations changed to suit. It has a rim-driven turntable; there are no springs or elastic bands, and it stops automatically on completion of the design.

*Main Gear*



**Colin Davies**

Brunell's 1843 Marine Engine – a 1:22 scale model of the original 4-cylinder engine installed in the SS "Great Britain". From drawings in the British Library and Greenwich Maritime Museum, and from engravings in "The Atlantic Steam Ship" (published 1847) and data from the "Great Britain" Museum, Bristol. The "Great Britain" was the first ocean-going iron-hulled steam ship to be driven by propeller.

**(Second in the Annual Competition)**

**Bryn Jones**

A Manual Hoist, with a small trolley running along an inverted 'T' beam, operated by a guarded sprocket and chain, with horizontal pulleys holding it centrally. The hoist, mounted centrally under the beam, is operated by bevel gears, and the load is compensated by a counterweight.

**Luke Whittaker**

Luke's own design for a fixed wing monoplane with belt-driven propeller.

**\*Joint winner of the Junior Prize\***

**Kevin Southgate**

Kevin's own design of an articulated lorry with crane, not motorised but with several operating handles.

**\*Joint winner of the Junior Prize\***



**Building the Super Model Leaflet No. 4 Giant Block Setting Crane**

*by Allen Berman*

As some of you may recall, I built the number 10.7 version of the GBSC (shown at the NELMC meeting last year) but was very disappointed with its flimsiness. I decided then that the Super Model No. 4 was the next project that I would undertake. I also decided to renovate all of the Meccano used to build the model and make it look like the elusive Pinyon version that adorned the front cover of all of the Meccano instruction books of my childhood in the 1950s.

So, armed with Geoff Wright's excellent Super Model book, I set about gathering the required bent, rusty,

scratched and multi-coloured bits that I needed to build the model. I will cover the actual renovation of the parts in another article, suffice to say that you needed a lot of pocket money if you believe the average child in the 1950s could build this model!

The instructions (628/5) run to 12 pages. The most frustrating thing about them is the fact that the illustrations are not on the same page as the text that refers to them (sometimes they are four pages apart). Construction is very modular, so I could be building one section of the GBSC, while renovating the parts for the next section, and sourcing the parts for yet another module. The whole project took about a year, but I am very happy with the result. Some aspects of the design I changed from necessity; for instance I did not have a Geared Roller Bearing, so an idea by Bert Love in his *Meccano Constructor's Guide*, and a Large Toothed Quadrant set from Brian Elvidge made a splendid substitute. Other sections I changed because they made sense; for example the fixed bogies for the 8-wheel drive travelling motion was changed to an articulating version based on an idea that I found on the Meccano Web-Ring. Finally, all was complete except for. . . a giant block! It took me a whole day to make the hardwood block for the Fidler's Block Setting Gear.



This is only my second model since returning to my childhood hobby about 18 months ago, so I was delighted and honoured to be invited to display it at the London Model Engineers exhibition at Sandown Park in the 3 day period between Christmas and New year. It was very well received and a number of experienced model enthusiasts made it clear that it was Meccano that set them on a course of a lifetime of engineering. Many also said this was the one model they always longed to build, but never could – there were never enough parts even in the largest kit. Marketing ain't what it used to be!

## No.10 Outfit Railway Service Crane: a rebuild of 1954 Leaflet 10.1

by Tony Parmee

Perhaps the first model the retired enthusiast builds when he purchases his dream No. 10 Outfit on returning to the hobby of his childhood. This is a very significant model when it is remembered that Frank Hornby wanted to build models of a railway theme, as well as cranes: thus they are combined in the "Railway Crane" (Service or Breakdown – it doesn't matter); and his first favourite model was a rail-mounted Travelling Jib Crane. A fine version appeared as SML30, accompanied by some back ground information, and an article on such cranes appeared in the *MM* for Nov. 1931. In that issue also appeared a model fitted with hinged stabilising jacks, which I've incorporated in my rebuild as being easier than sliding jacks within the Outfit. The first No.10 Outfit version, Manual 10.16, seems a good representation of the steam-powered cranes of the era; but the 1954 Leaflet 10.1 represented a later diesel-powered Cowan Sheldon crane with fully enclosed cab. However, each version had its shortcomings and I will concentrate on those of the Leaflet version as it was in my era, and is probably still extant in railway stock despite most incidents now being catered for by road cranes.

In bright red & green, it was the acme of models in the catalogue of July 1956, so it was one of the first models I built when I finally got to my No.10, and the E20R Motor after 1960. I remember being impressed by the roller bearing – none of these heavy point loads on the edge of a long slotted hole of a Hub Disc! As a result I improved it (*within* the outfit) such that I demonstrated it taking my weight (12 stone at the time) at a HRMC meeting, without harm. Unfortunately, in the Leaflet the hand slewing was pathetic, so I motorised this from the cab, as in the prototype. I decided against self propulsion, however, as I wanted to keep within the Outfit's gears, etc. and drive from an E15R Motor. The Leaflet's mechanism was unsatisfactory, and I have long desired to be able to release an effective brake on engaging the drive. Inspired by the extraordinary skill of the late Mike Brammer, I managed this (both forward and reverse) in my Level-Luffing Crane (MP92) and was impressed by the ease of control. So I succeeded in this Railway Crane with great reliability - just as well as I wanted to be able to lift my 4-6-0 Loco as the test load. At 21 lb (9.5 kg) this is quite a load! This also meant that the supporting bogie bolster had to be well braced and strongly built. The afore-mentioned stabilisers also work very hard. In order to mobilise these, as well as the weight and wheel base of the bolster, the bearing has to be 'captive', which I achieved by clamping the cab through to the bolster via the Ball Bearing underneath, using a Screwed Rod fitted with Threaded Boss locknutt in place each end. My 4-6-0 Loco & Tender (MP114) has sprung axles, which performed so impressively on track, that I determined to spring all those on the Crane, too. The outfit's content of only 4 Face Plates & Wheel Flanges, and 4 1" Flanged Wheels, made stepped bogies 'de rigeur', but they enabled the necessary braces to be present for the essentially deep central box structure, to the bogie support pivots. I managed a nice deep-welled Match Truck, but the essential improvement was to lower the jib support so it would actually be within the loading gauge when in travelling mode – a major fault of the Leaflet version. Most jibs – particularly later prototypes – were plate girders, so I built this type to look the part. Finally, I incorporated the lifting roof flap which operates when lifted by the jib back-stay, so the cab is enclosed when in travelling mode. The restricted loading gauge means that the luffing cord is highly tensioned when raising the jib from the Match Truck, but the rapidly increasing angle between the jib and cords means that the Crane soon has a respectable lifting capacity at almost full radius – very clever! The real thing is rated at up to 80 tons at about 17'-6" radius. Even at the 1:14 scale of the model, this would be 65 lb – far too heavy! My Loco (at the same scale) is 21 lb – quite enough for the model. An 'empty' 4-6-0 loco weighed about 84 tons in practice, so it could have formed a test load in itself. At least my No.10 rebuild does what it is intended to.