

WHISTLEBLOWER

THE NEWSLETTER OF THE FARNHAM & DISTRICT MODEL RAILWAY CLUB

August 2019 Edition

EDITORIAL

Wednesdays at the clubroom aren't just about building models and layouts. The recent International day was a prime example – different models, good company, delicious hot dogs and pancakes (thank you Bron and Richard). We have more of these 'special' Wednesdays ahead, as you will see below. Do come along and enjoy them!

Julian Evison (Editor)

COMING VERY SOON: TALK ON LASER CUTTERS – Noel Leaver

At Railex this year there was a stand showing examples of what Risborough MRC have produced using their new laser cutting machine, which impressed several of us. They have made an O Gauge wagon chassis from plastic, 4mm wagon sides from thin ply, N Gauge buildings from engraved plastic sheet, and O gauge leaves from green paper. Two of their members have agreed to give a **talk and show examples of what they have done at our club this coming Wednesday (7th August) at 18.30.**

CLUB MODELLING COMPETITION

The Club Modelling Competition will take place on Wednesday 2nd October, which is only two months away. The categories are:

- 2mm scale locos and rolling stock
- 4mm scale locos and rolling stock
- 7mm scale locos and rolling stock
- buildings, dioramas, accessories, etc. (any scale)

There is a cup for each of the these categories. In addition there are two categories which are open to any entry in the above categories:

- best entry submitted by someone under 25.
- best item produced by modifying a kit or ready to run item ('kit-bashing')

It is fair to say that the competition is not a deadly serious affair, though winners can be rightfully proud of what they achieve. Mostly it is a chance to look at and discuss models and to have a chat with each other in a different way to our normal Wednesday meetings. So do think about what you can enter and get it ready for 2nd October. This truly is a case of the 'the more the merrier'. If you have any questions, ask the 'convenor', Richard Harris.

GREY BOXES – Ian Welch

Have you ever wondered what's inside those grey boxes on the track – in this example a standard point motor? If so here is a little more info (written by someone who is NOT a railway signal engineer so health warnings apply).

Perhaps to recap on railway points (or switches) and three key features

- The switch rails have to be moved physically from one position to the other (e.g. normal or reverse).
- The switch rails need to be locked in either fully closed position to stop a derailment as the train passes over especially a movement in the facing direction (the Facing Point Lock)
- Usually signals will be interlocked so that they can only give a clear indication when the switch is in the correct position and locked – done by Detection of both rail positions

In the simplest mechanical example the signalman hauls a lever to change the points via a rod drive, a separate lever inserts the facing point lock and detector rods from each switch blade are slotted with an adjacent signal wire run so that it can be pulled OFF only if the points are set correctly. All pretty simple so far – basic heavy engineering.



This photo shows the drive rods, stretcher bar between the switch rails and the central FPL.

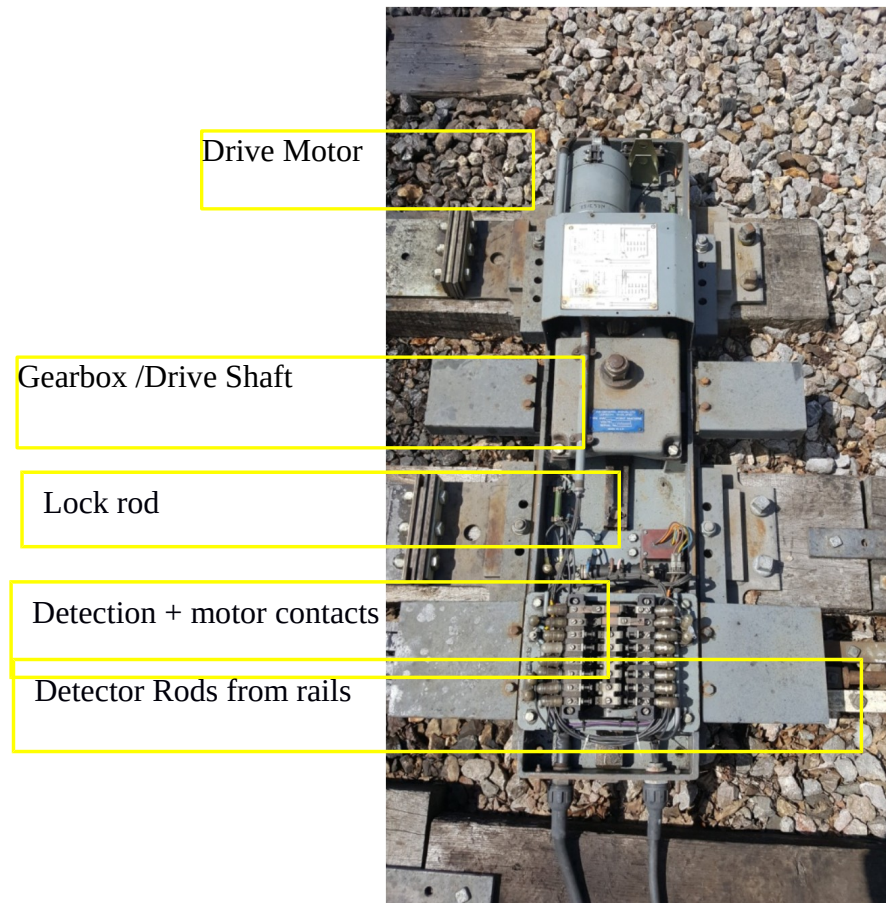
The key challenge was to power the movement so as not to be reliant on the strength of the signalman (operating a two switch crossover from one lever takes a lot of force!) and enable operation of points to be remote from a signalbox over “electric wires”.

So how is it done and what's in the grey boxes?

It is the results of years of ingenious development by the impressive engineering resource the rail industry had at its disposal! The second photo shows a point machine in-situ adjacent to its point.



Effectively all the above three functions are performed inside the ubiquitous grey box, usually controlled by 110V DC controls from a nearby Location Cabinet (also painted admiralty grey). This picture shows the contents of the box...



In the upper part of the mechanism is a 110V DC motor, clutch and gearbox which drives the mechanism. Under the large central nut is an escapement mechanism which moves the drive rod sideways left and right under the two side covers; n.b. the point drive rod is not fitted in this picture.

Below this is the vertical facing point rod which, driven in synchronism by the drive mechanism, moves up and down to engage with the lock rod situated underneath the electrical contacts.

At the bottom are the motor drive and electrical Detection contacts which accurately monitor the position of the switch rails (via detector rods emerging just to bottom right of picture) so as to control the signals.

This is a great example of simple but effective engineering – if the points are operated locally by hand winder a simple but heavy duty switch (top right) isolates all remote operation – this has to be manually reset locally before full functionality can be resumed. Again heavily engineered after years of learning from failures (built like a BSH if you understand my shorthand) and capable of serving for decades with the right spares. Hydraulic drives are also commonly used nowadays, but that is another story.

CLUB DIARY – Andrew Wrobel

Recent changes in **yellow**. Running starts at **14:00** in the Hall.

'Run'g pm' = Priority for use of Hall AND tidy/vacuum Club Room + **if avail** Lock-Up

DIARY 2019		
Date	Run'g pm	Event / Layout at Exhibition/Show
Wed 07 Aug	0	TALK: Laser Cutter 6:30pm by Risborough Club
Wed 14 Aug	N	
Wed 21 Aug	P4/009	P4 extended running session.
Wed 28 Aug	00	
Wed 04 Sep	0	
Sat 07 or Sun 08 Sep		For Info ONLY – a Club Day Out to Statfold will be in 2020 Statfold Barn Railway 'Road, Rail & Ale Day'
Wed 11 Sep	N	
Sat 14 & Sun 15 Sep	--	Kinlochlagen (N) [Mike Le Marie's layout]: TINGS, Warwickshire Event Centre, nr. Leamington Spa Greenfields (00) : REC (Railway Enthusiasts Club) Show, Woking Leisure Centre, Kingfield Road, Woking, GU22 9BA
Wed 18 Sep	P4/009	
Wed 25 Sep	00	GPC meeting at 2pm
Wed 02 Oct	0	2019 Club Modelling Competition
Sat 05 & Sun 06 Oct	--	St.Mary's (7mm NG) [J.Evison's layout]: Fareham MRC Exhibition, Fareham Leisure Centre, PO16 7JU
Wed 09 Oct 7pm	N	Annual Club Show BRIEFING [Noel]
Fri 11 Oct evening	ALL	Prepare the Club Show
Sat 12 & Sun 13 Oct	ALL	F&DMRC Annual Club Show, Aldershot; Wickwar (N); Brixcombe (P4)
Wed 16 Oct	P4/009	
Wed 23 Oct	00	
Sat 26 Oct	--	St.Mary's (7mm NG) [J.Evison's layout]: Expo Narrow Gauge, White Oaks Leisure Centre, Swanley, BR8 7BT
Mon 28 Oct		Haydon Square photo shoot for Railway Modeller
Wed 30 Oct	Any	TALK: Full Layout Automation 7pm by guest Iain Morrison
Sat 02 & Sun 03 Nov	--	Haydon Sq. E.1(0) : Spalding MRC, Springfields Events Centre, PE12 6ET
Wed 06 Nov	0	
Sun 10 Nov	--	Club Open Day 10am to 4pm [date to be confirmed]
Wed 13 Nov	N	
Sat 16 Nov	--	Wickwar (N) : South Hants MRC, Admiral Lord Nelson School, Dundas Lane, Portsmouth, PO3 5XT
Wed 20 Nov	P4/009	
Sat 23 & Sun 24 Nov	--	For Info'n: Warley Show
Wed 27 Nov	00	