

WEALDEN RAILWAY GROUP Newsletter

January 2022

Password this month:~Hornby

<http://wealden.weebly.com/>
Wealdenrailway.awk@gmail.com

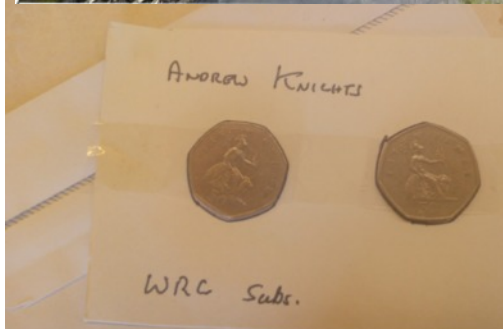


Reconstruction, Construction & Subscription

Left Richard Hood's revisit of an exhibition layout (Picture R Hood)

Bottom: Andrew Walters details from a completed project (Picture Andrew Walters)

Bottom left: 2022 WRG subs, in this format please!
(Picture Andrew Knights)



station building and row of trees

Editorial

Another year, and some shows have been appearing, I actually had cause to enter a couple of dates into my latest calendar, something not done for close on two years. Maybe we will have some chances to meet in the near future? Time will tell.

First things first. This being January our subscription year has started, as we have no show this year, the hall is fully occupied as a jabbing station, I have two lots of news. Good one, as we have no planned events the subscription will be minimal this year. Less good, I suppose, there will be a subscription for this year, please note it is 2 x 50p. To save David, our treasurer having to go to the bank, and you from writing a minimal cheque, please do the following:- attach TWO 50p coins to a piece of card, sticky tape works fine, put the card in an envelope and post it to:-

Wealden Railway Group Treasurer, Mr D Willett, 122 South Farm Road, Worthing, West Sussex, BN14 7AP.

The reasons for this, seemingly odd demand are; fifty pence coins are thin enough not to make a letter too thick for basic postage and they are, significantly, not magnetic, so should cause sorting machinery no problem. As usual, you have until the end of March to pay up, after which the new mailing/membership lists will be made up. Those in deficit will not be placed on the new membership

list, this covers our listing for GDPA responsibilities. One last note on subs, this subscription applies to all members, postal or web based. I will put a reminder in February and March editions.

Apart from putting up and then taking down several Christmas trees, lights, and trains, what have I been up to? A new table top centre piece has been made and put away ready for next Christmas. Lornton has been stripped of unwanted scenery, the old print works siding has been removed. A new building has been, mostly, constructed for the printer's and also for the car refurbishment plant. These sit at the rear of the Castle Rock Salvage/scrap yard siding at Lornton. The replacement buildings for the new scenes have been placed, and await completion. At least I now have an idea how to progress this bit. Also on the MaP the usual Christmas films have been replaced by a new pair of films for the current season; the main one being the 1963 release: "Mouse on the Moon"!

Wandleford junction, the currently, and seemingly forever, under construction module to fit The Fiddle Yard, has made some recent steps towards eventual completion. Main buildings are being painted and detailed. A major advance toward completion is the construction of the stock for the garden railway, a working train and two stationary locomotives.

These last were made on my latest addition to the "toolbox". A 3d FDM printer. Since Christmas a fair bit of time has been devoted to learning how to, and not to, design models to be printed. There will be some articles on how and what, but suffice to say that passengers stepping from the cars down to the low level platforms at Lornton Jct, can do so safely due to a number of steps being provided for their use. A "simple" first project to make a start on the 3d road.

I have subsequently printed some chassis, again I have written a detailed account of these, for use beneath the rest of the Whisky Blue wagons awaiting cutting down to HO for Mertonford Summer 1983 HO. I am also looking into printing some timber carrying wagons for the same line. One of the Calendar entries made, could well be for the first outing of this layout or Wandleford. So at last there is reason for some impetus to complete these projects in a more timely fashion!

Another project to benefit from the printer's purchase is the use of 9g servo motors as point drives. Formerly I have used scraps of ply wood, cut up tin lids, and assorted scraps to make the bases for these. After quite a degree of experimentation, yes there is ANOTHER article in waiting, I have come up with a simple servo mounting base plate, which can facilitate the fixing of one or two extra switches for crossing nose polarity and or signal operation. In fact while writing this, and looking at almost the first print done, I have come up with a new base to make the use of slider DPDT switches simpler. I think that details of the servo point base and these will be in this issue.

I am planning to put "useful" files for these onto the web site. It will be in .STL format, so that those who have printers or access to one can make their own G_code files for their specific printer.

Un powered, manual operation, continues on the Kitland's Light. This is being used for the usual cutting back and general manuring of the flower beds. There was no Christmas Day service this year due to the general precipitation that persisted for most of the day. I did not wish to soak drive chains and such for the sake of a single return trip. With No1 out of action and awaiting a strip down, for testing, I have had some more thoughts on how to rebuild the garden train. I am hoping that the driver will be positioned such that he (I?) is always forward facing. I will also ensure that any further servicing or testing does not require dismantling of most of the engine! Live and learn? Well, eventually I hope. I am also hoping that the failure is not any serious bit of the system. However a more powerful motor would be useful in this vehicle. As such I am looking around for a reasonably cheap disability scooter, to strip out or modify. This would allow parts of No1 to be put into store as spares for No2.

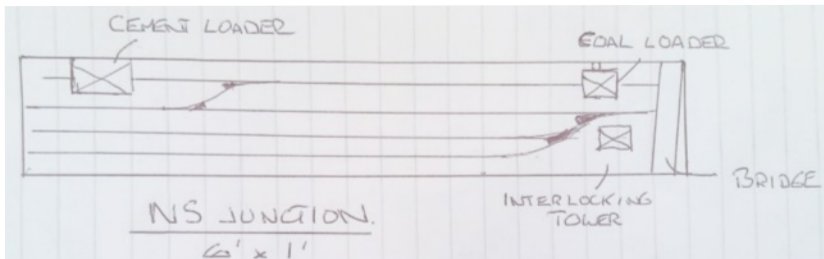
If all continues in the current vein, we may be able to hold a Kitland's Light Open day this year. Some time over the summer, assuming we have one, before the afternoons cool off too much. I will mention dates nearer to as and when.

One last thing, we are running low on member's input for future editions. Whilst I have several articles on file about projects I am working on, it is good to read what YOU have been up to. So; e-mail, text, or even write your thoughts and such for the rest of us to enjoy.

Norfolk Southern Junction Revisited

Richard Hood

Norfolk Southern Junction has been around for a long while as a 10 foot long by about 2 feet wide HO American switching layout. Due too lack of space it was bound for the tip when I decided to re use one end of it. It ended up 6 feet by 1 foot with a coal loader at one end and a cement loader at the other. The main line is effectively a head shunt at one end that can take one loco and a freight car. Operation consists of moving cars from the loaders, one car at a time to the train make up sidings and back.



Rebuilding

Les Coleman

Last year I built a small American O gauge layout, Debsburg Northern, intending to exhibit it a few times. Due to the circumstances of the current situation, it only got exhibited once and then put into storage in a dry but unheated shed. It was only an inglenook, but it was one of my favourite layouts and having moved on with another project, I got it out again to see if it had survived the winter of 2020/21.

It had, and still ran, but the buildings, all 4 of them, had been built of card mounting board covered with brick-paper etc. and had not fared so well. Condensation had caused the mounting board to deform in places, and the paper finishes (which had not been treated to a coat of matt varnish spray) were peeling off. I debated whether to try to refurbish them but decided the best thing to do was to replace them completely using MDF instead of card, which should make them much more robust and resilient in the long run. I usually dislike going back over old ground and repeating what I've built before but this time it seemed like the most sensible course of action I have a stock of 3mm MDF, obtained free from Ikea, Lakeside, who put any unusable or broken wood, chipboard etc. in a shelter on the far side of their car park for people to help themselves. The MDF cuts with a Stanley knife,

although it takes about 12 passes compared with 3 for mounting board. It can also be sanded of course, which is helpful if you're not a very accurate cutter, like me! The corners of the buildings are often reinforced with 1/4 inch square timber (rocket sticks) and makes for quite a strong construction. UHU is used throughout as an adhesive, sometimes supplemented with superglue cured in seconds with a blast from an aerosol accelerator. This is helpful for joints which can't be held or clamped while waiting for the UHU to set.

The window glazing bars are made from the mesh sold in pet shops for rabbit hutch doors. One panel of this stuff has probably given me a lifetime supply of model glazing bars, handrails etc.



I've used brick paper again but this time have made sure I sealed it with matt aerosol varnish, actually Halfords matt lacquer, which is excellent and dries completely flat. And instead of covering the roof of the factory building with slate paper again, I've used strips of plastic card slates which was a long job but does look a bit more realistic. Hopefully these buildings will be longer-lived than the last set. Two done and two to go.



Servo and switch switch control...

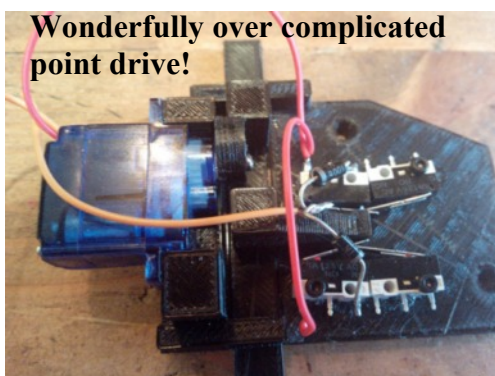
Andrew Knights

After setting up the Anycubic 3d FDM printer I embarked on this voyage of discovery, things mostly went sort of well! I have had a couple of failures, mostly down to insufficient care or attention during measurement taking. The most spectacular was when I reduced the size of an item and did not think to look at the file after slicing. The height reduction came from the bottom up, not sure how or why. But in effect the item was "hanging in mid air". Fine in the virtual world, much less so in reality with gravity. A wonderful display of 3d printer spaghetti resulted. With due deference, much of the structure was there, the printer made a game effort at making a mid air moulding.

Any way, I thought that I would try and make a servo drive base. As usual design took over from simplicity or practicality. I decided that the result would be a point motor and thus had to have an operating bar, to which the point tie bar could be attached. This would be moved by the servo motor, doctored to remove its limited rotation and Futaba interface (an important stage if you wish NOT to use digital control. It will be covered in a future article). Thus the base would need to hold two micro switches as limit sensors. It has one extra added, to switch point crossing polarity and a position for a fourth switch, for interlocking, signals, or the such.

When I made up the motors for Wandleford or the MaP I cut a base from tin can lids, and bits of plywood. In reality this is quite quick, compared to two and a half hours printing time. However each of these is a one off, the printed ones are nearly identical. So replacement should be simpler.

On the former models I have used a cut down arm supplied with the servo motors. Another constructional variable. This time I made up a circular eccentric, 12mm in diameter with a 5mm hole towards one edge to accept the servo output shaft and screw. Now all of the motors, however assembled can have the same throw.

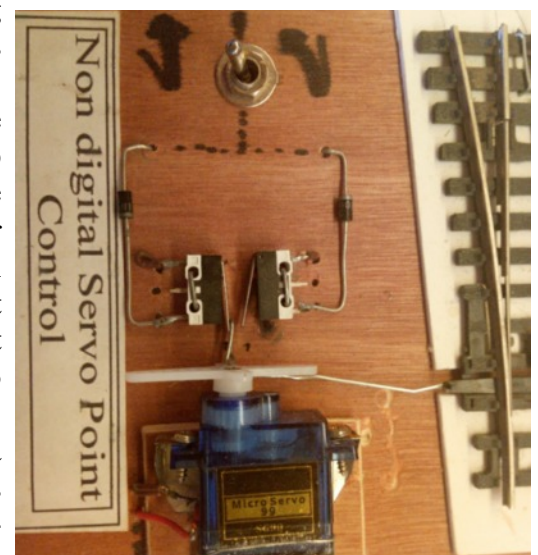


The downside, apart from long print time, is that these motors are quite large 80mm x 50mm. I did have a play at making one with the servo mounted tabs up and down. This could have been shorter but it was the other "failure" or at least sub optimal end state. I forgot that the shaft sits atop the gear tower. This meant that the design as such would not work. It could be modified, but the result would be large and square so no great saving.

It was at this stage that I returned to the original design, made as a demonstration piece to be shown to those asking about the servo points on The Fiddle Yard. The design parameters changed for ease of assem-

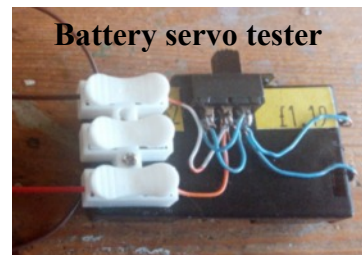
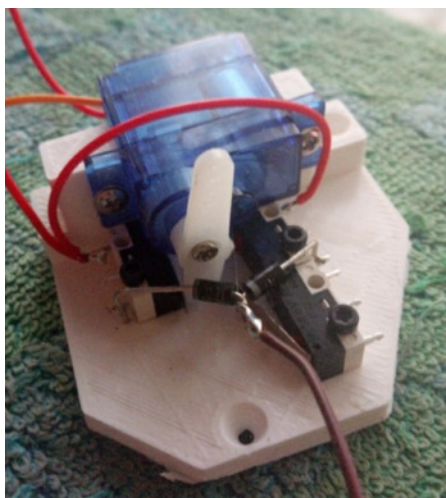


blish. I did have a play at making one with the servo mounted tabs up and down. This could have been shorter but it was the other "failure" or at least sub optimal end state. I forgot that the shaft sits atop the gear tower. This meant that the design as such would not work. It could be modified, but the result would be large and square so no great saving.



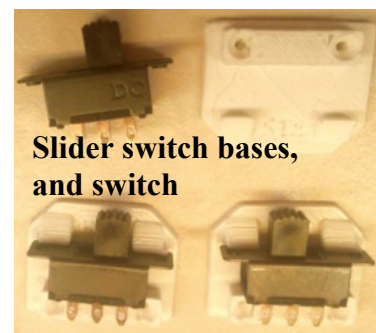
bly and printing. Basically what I have now printed, in around an hour a piece, is the replacement for plywood and tin. Uniformity of fixing, both of the completed drive and the component parts is assured. It is also much quicker to assemble and test than previous large and over complicated designs.

Simply put the 9g servo is screwed to the lugs on the base plate, screws are supplied with the motor. An operating arm is selected and the bottom three holes removed. This is secured to the motor, again using the supplied screw. Two micro switches are selected and fitted, tab away from the motor and opposing each other. The switch is held to the base and the motor arm pushed towards it. Once the switch clicks, the switch is secured to the base with a 2mm screw. Swing the motor over to the other side and affix the other switch in the same fashion. Two diodes are twisted together, nose to tail fashion. The twisted ends are shortened and have a wire attached. From the back of the switches,, nearest to the motor, a wire is run from the “common” terminal on the switch. From one switch to the



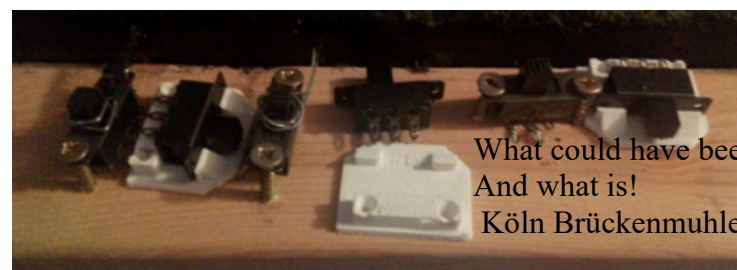
other motor brush connection. Supplying power to the diode pair and the motor tail wire, and touching one end of the diode pair to a switch terminal on the outer end of the switch, distal from the motor (normal closed) the motor should move away from that side of the switch machine. If it does not then you may need to reverse the connections to the motor. All that is needed to operate the switch machine is 3v and some means of reversing polarity. I made up the tester shown in one of the pictures, a DPDT slide switch and a spring connection block. Another switch may have its operating arm nested with one of the motor limit switches, used to switch live frog crossings. A fourth could be added for signals, interlocking or dead frog switching.

While looking at this simplified design, I had another look at the slider switches, of which I have quite an “elegant sufficiency”. If I use these to drive a home made point, I usually solder the switch to an extended sleeper, connecting the toggle to the point tie bar. Retro fitting is not quite so easy,. My usual method is a bit of rail or copper clad stapled to the board and the switch soldered thereto. A few minutes doodling on TinkerCad and I came up with the first version of the slider switch base. The switch is a firm clip fit, but a belt and braces dab of glue could be added. The base itself may be screwed, pinned, or glued to the board. If used as a fixing of switches to a thick piece of timber, as on my Köln Brückenmuhle layout then a substantially neater effect would have been achieved with these bases rather than the drilling and wood screws that were used!

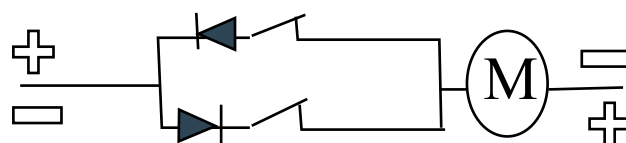


The .stl files for both switch base and servo base are soon to be found on the web site. You will need to slice them with whatever software is needed for your printer’s operation, be that yours or someone you know who has one!

In 2021 when I last bought servo motors, micro switches, and screws from Amazon, servos were £1.80 each (if you bought 10), switches 40p each (20 per bag), screws £6/100. The diodes came from ESR near Tyneside at 4p each, another 100 bought, they also supplied the dpdt toggle switches at £1.20 each. So a single point, for components costs around £4, whether you use a printed base or plywood and an old tin lid (this will use more screws!).



What could have been
And what is!
Köln Brückenmuhle



Circuit used with NON digital servo motors
(De Futaba)

Looking ahead

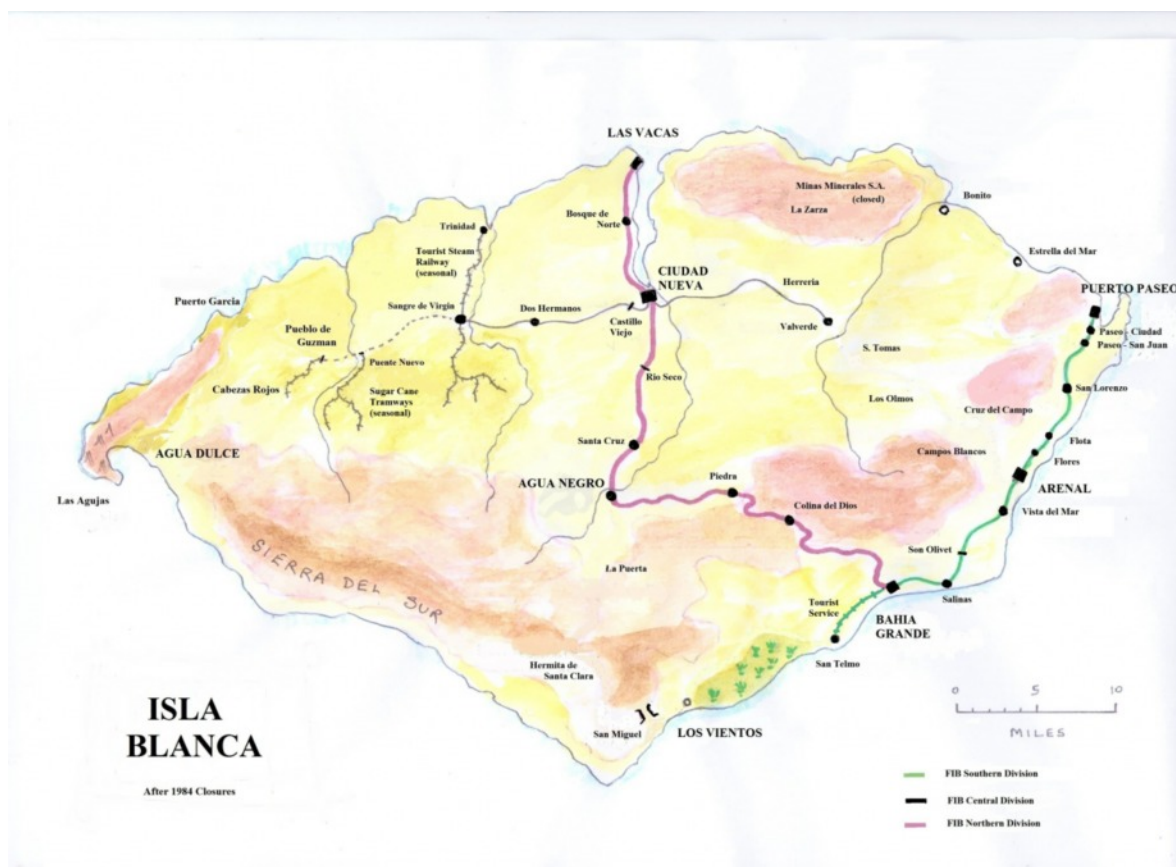
Giles Barnabe

It is customary at this time of year to make predictions for what may come next. As part of modelling the railways on Isla Blanca I have created a history of the island up to the period in which the layout is set – the 1950s. The recent past has seen the island's prosperity drop with the cessation of much international trade during WW2, and the railways have felt the brunt with a diminution of goods traffic over several years although freight traffic is now slowly returning while passenger traffic has held up owing to petrol shortages. However, equipment and infrastructure have become run-down, and the FC Central y Oeste in particular, has been badly hit and is facing bankruptcy. However, there is some hope for the future. So, what will happen next?

1956 sees the end of road for the FCyO, which is nationalised. Services are rationalised and diesels, often bought second-hand, start to make an appearance in regular traffic – the daily mail train between Ciudad and Puerto Paseo being replaced by a railcar at the weekend. Since the War a trickle of visitors has re-started, and plans are in hand to develop the southern coast along Bahia Grande. A holiday village is planned at San Telmo, with plans to re-open part of the old route to Los Vientos. This will be used by a Tren de las Playas, consisting of many of the small railcars that the FC Este has acquired over the years – perhaps a new coat of paint will make them appear more modern. The scheme opens in 1964 and is an immediate success with visitor numbers climbing steadily. However, the 1966 election brings in a new government and when the FC Norte and Este ask for their annual subsidy, they are told that the price will be total government control. In 1968 the three main railways are nationalised as Los

Ferrocarriles de Isla Blanca (FIB). The new policy sees more traffic being dieselised and the start of a cull for the steam fleet.

The new government initiates a Transport Review in 1969, resulting in the withdrawal of steam across the island in 1970. A major change hits the island's rail freight as goods workings are



rationalised and containers are introduced. To implement this as cheaply as possible, the FCyO's bogie freight stock is stripped of its bodies to make the necessary flat cars, which limits the containers to a maximum length of 20 feet, although some are only 12ft 6ins long, for use with four-wheeled underframes, reflecting the sparse nature of some traffic. Container handling facilities are only provided at strategic station – Paseo (Puerto) and Bahia Grande on the FC Este, at Arenal, Valverde, Ciudad Nueva

and Sangre del Virgin on the FCyO, and Las Vacas and Rio Negro on the FC Norte. For the remaining wagon-load traffic, the more modern steel rolling stock from the FC Norte is used, while the Este's elderly, wooden wagons are mostly scrapped apart for a handful retained for track repair work. Passenger traffic is now wholly by railcar, with second-hand stock being imported from other countries. However, even this cannot sustain some of the more far-flung parts of the system, which are now more easily accessible following road improvements, and in 1975 the old FCyO route west of Sangre to Agua Dulce, and the Norte line from Agua Negro to Los Vientos are closed and passenger services transferred to buses.

These changes do not affect the independent sugar-hauling tramways, which were omitted from nationalisation, as they mainly operate only seasonally. The Tranvia de Trinidad (the largest of the sugar lines – and 2ft gauge, unlike the rest) reinvents itself as a heritage line in 1978 with steam services for the visitors, while as continuing to handle the annual harvest with a mix of steam and diesel.

As with many schemes devised by accountants rather than railway staff, the FIB's containerisation plan soon shows its weakness, as the containers are limited in size and the new handling facilities still mean the first and last miles of the journey are by road. The service is gradually scaled back and by 1980 a full goods service only operates during harvest time while for the rest of the year services are run "as required". Developments in road haulage soon mean the scheme becomes hard to justify, and in 1984 all railway goods traffic ends. On a brighter note, the island's increasing tourist trade makes the FIB's southern route along the coast very popular, and 1984 also sees this route electrified as a high-capacity passenger carrier. Meanwhile, the success of the Trinidad heritage line leads to a preservation movement for the rest of the railways, and a railway museum is planned on the site of the former goods yard at Ciudad Nueva, to display the surviving steam-age equipment, while the old yard can be used for short steam train rides. This opens in 1985, with the occasional steam train running to and from Los Vacas on public holidays.



The crystal ball is clouding over; time to head back to reality.....

The Start of Something Small – Practical oo/HoPart 9 Low-Relief Detailing for Narrow Baseboards

by Andrew Walters

This part of the article describes how I have added low-relief detailing to the narrow baseboards of the layout. There is completely low-relief detailing on the backscene, and lowish=relief detailing at the front of the layout. This article describes why the approach was taken, and then how it was done. As always, this is how I have approached the subject, and I appreciate it might not be the only way of doing it, but it suits my design ideas and also fits in with my skillset.

Concepts : The low-relief detailing idea started with a different requirement which was to have exchangeable detailing for the British or French versions of the layout, and was described in Part 5 of this series. When the detailing of the baseboards was started, the idea of the visual benefits of low-relief detailing was sown. The choices of what detailing to place where were made to try and keep the detailing prototypical as well as producing a balanced and pleasing effect. It's not always possible to achieve both!

Approach Taken – Backscene : I have always preferred to have completely plain backscenes painted sky blue (using emulsion paint). However, the low height of the backscenes on the layout, plus the narrow baseboards, made the ensemble look like a row of blue shoeboxes. This was the prompt to

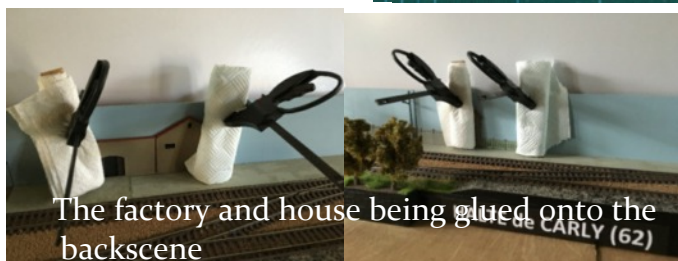
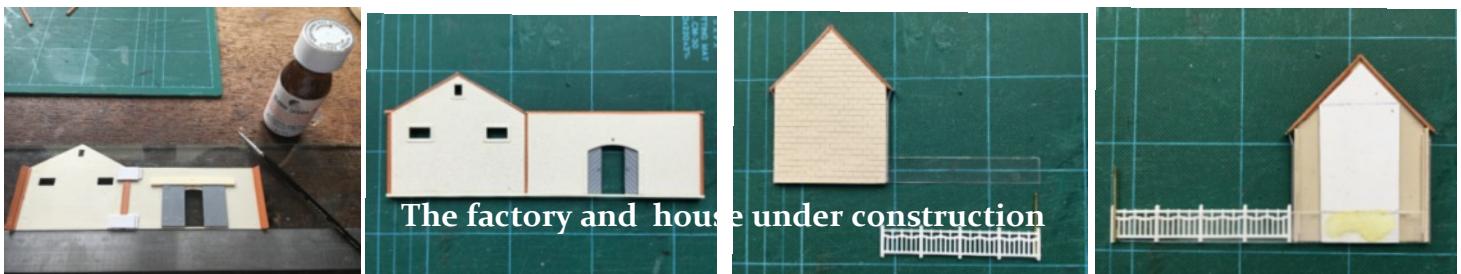
have some detailing on the backscenes. The Ho scale buildings don't look too small in the oo scale format presentation, as being at the back they provide a small amount of decreasing perspective.

Approach Taken – Front of Layout : The original details were a station building using a grounded coach body, plus a row of trees. Once these were placed, it was decided to have additional rows of trees and bushes that could be placed at the front of the layout, so give the eye something to “ look round “ when viewing the layout, and to give the trains something to pass behind.

How it Was Done – Backscene : The house was made from the end piece of a Jouef semi-detached house kit, with a piece of concrete fencing placed next to it. The fence was glued onto a strip of plastic that was painted green to (crudely) represent growth and avoid seeing blue sky through the fenceposts. The roof was made from the kit's roof, sawed to one tile width with a razor saw, then glued on, and short pieces of gutter plus downpipes were added. The ensemble was glued together on a sheet of glass to keep it aligned, then sprayed with automotive grey primer from a rattle can. Colour washes of matt acrylic paint were then applied. Once dry, the house was glued onto the backscene with contact adhesive, and gently clamped overnight until the glue had dried. Some kitchen rolls was wrapped round the piece of wood holding the house against the backscene, to minimise the risk of the paint being scuffed or marked.

The factory was made from the front and one side of an SAI goods shed kit. Brick piers were added at the edges, and as with the house, the kit's roof was reduced to one tile width with a razor saw and glued on and some moulded plastic coping was added. Downpipes for rainwater were added, plus the shed doors part-open. The ensemble was painted the same way as the house. Before glueing onto the backscene, thin pieces of card painted matt black were glued behind the windows and part-open doors. The factory was glued onto the backscene the same way as the house

How it Was Done – Front of Layout : The station building was made from a Wills grounded coach body kit, badly painted (!) to give a weatherbeaten appearance. The trees and bushes are of various unknown makes collected over the years, mounted in wooden blocks that have been painted and have earth / grass flock powder applied to the tops. Other than the station building that needs to go next



to the platform, the other details can be placed in different places.

Conclusion : I'm pleased with the visual results. They have helped make the layout look bigger and I'd like to think more interesting.

The finished result :

detailing at the front and the back of the layout

