The L.B.& S.C.R. Modellers Digest

Issue 2
Christmas 2015

A journal of the Brighton Circle, for those modelling the “Brighton” in all scales and gauges.

Contents

Editorial

The release of a 7mm scale model of a Terrier by Dapol, in full Stroudley livery, opens up a whole new range of opportunities for Brighton modellers - and, hopefully, opens Brighton modelling to a whole new range of enthusiasts! This edition of the LB&SCR Modellers' Digest seems to have been largely taken over by 7mm scale modellers, so I hope that all those new Terrier owners will find plenty of inspiration.

4mm scale modellers have hardly been neglected over the last few months, with the release of the Bachmann E4 and the OO Works I3, both in umber livery. Sadly, manufacturers of ready to run equipment seem much happier to produce pre-grouping locomotives than rolling stock, so, for the time being, if you want a train for your new loco, you must resort to kit building. Fortunately, for the Brighton, the range is extensive and well supported by suppliers. I hope that the LB&SCR Modellers' Digest will help to provide some ideas.

The next edition of the Digest should appear on line in mid summer and I should be grateful for any contributions - or feedback - by the end of May, please.

Eric Gates

Modelling Steward, The Brighton Circle

7mm scale outdoors

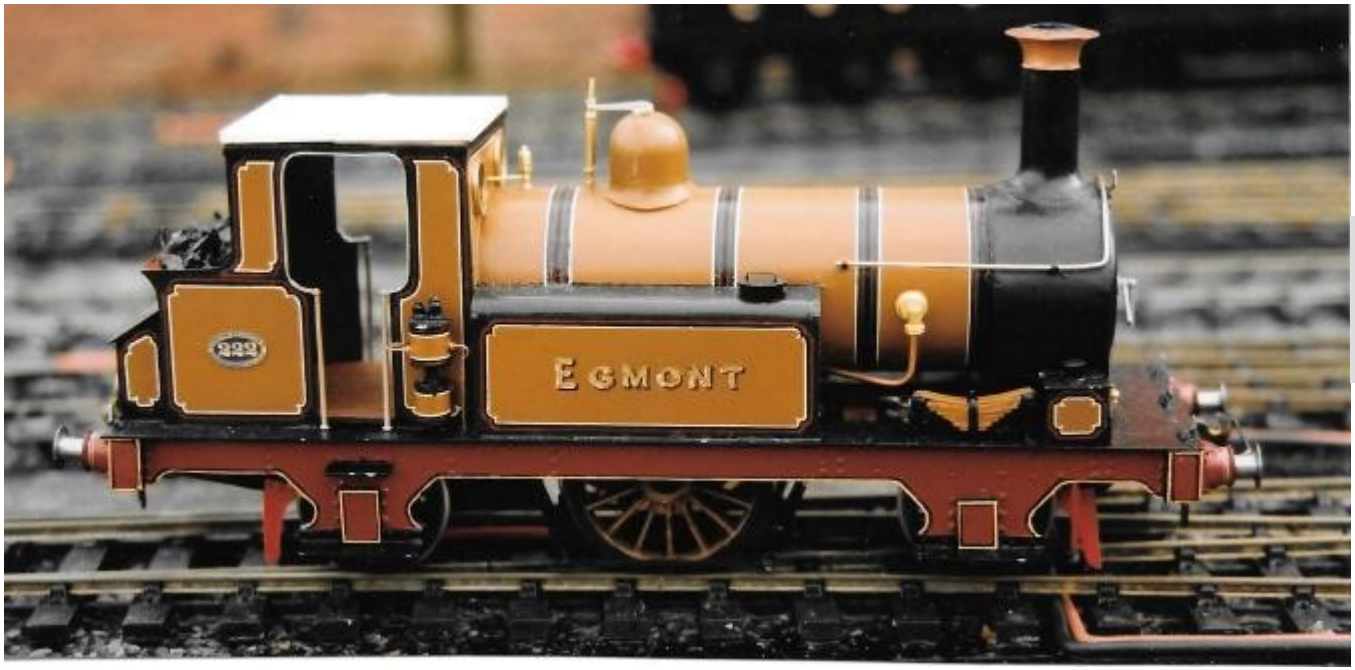
By Mike Cruttenden

The following photos provide a selection of scenes and motive power from Mike Cruttenden's garden railway.

K class mogul, dating from the 1950s and by an unknown builder. It has been rebuilt and repainted by Colin Hayward and is currently owned by the MSC group.

Royal train carriage set, built by Colin Paul on empty stock working. Please note no Royal train head code boards.

Two pictures of the single Southbourne, built by Bernard Miller for the Norris layout and owned by Colin Hayward.



Egmont, built by Colin Paul and painted by Colin Hayward.

Hayling Island, built and painted by Colin Hayward.

The life and times of a new etched kit

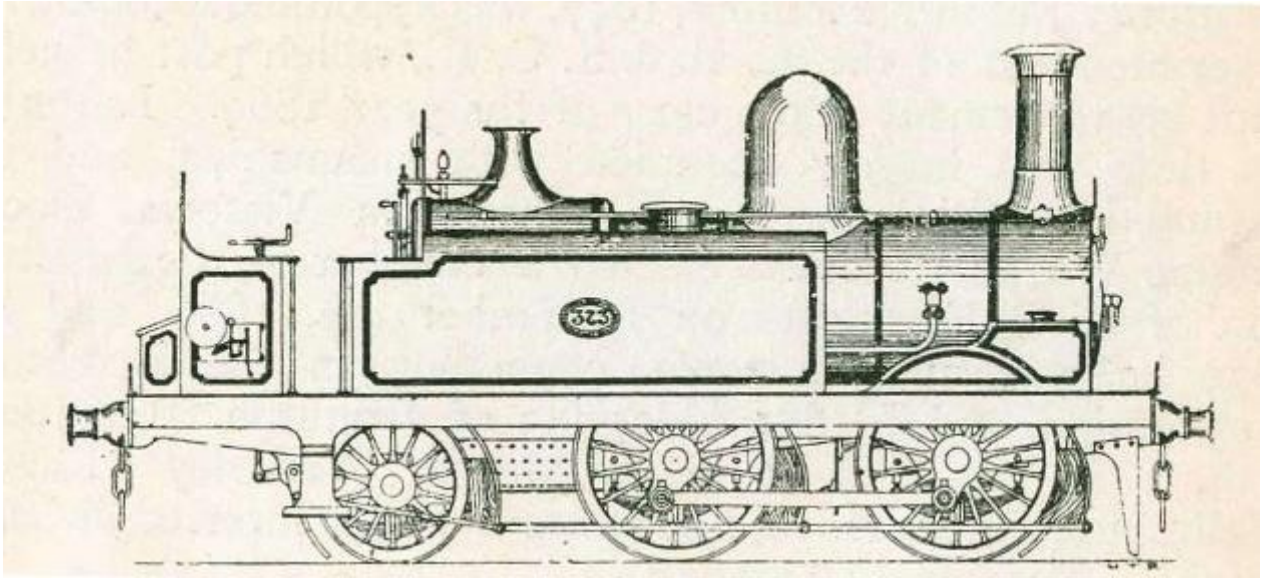
by Mike Waldron

Having come more or less to the end of a long, but extremely rewarding, few years of being able to provide Stroudley kits for fellow Brighton modellers to build and enjoy, I was looking back with a certain degree of personal satisfaction. Not only had I succeeding in filling what was then a sizeable hole in something of a niche market, but I had been able to give something back to those who have become firm friends in the Circle, and to the hobby in general, having been, in the past, a bit of a by-stander and taker, rather than a contributor.

Then, in the Autumn of last year, (2014) I paid a visit to Eric Gates, and he happened to pull out a folder, containing a plan, sketches and calculations and push it my way. I found myself driving back to Tewkesbury with another kit to design. Truthfully, it did not take much persuasion, as it is quite fun to sit down at a computer screen, draw up 4mm scale elevations and plan, pull parts off it to form a fret, email the results off to Scotland and have two sets of pristine etched sheets arrive on one's doorstep a few days later. It still leaves me a little in awe of the whole process, even though I have done the same thing at home myself in simpler form, with some Saxby and Farmer signal box windows.

What goes into the process?

Well, ideally, you begin with an official General Arrangement drawing of your subject. Here was



the first hurdle, as there was no such plan available. All we had was the small H.T. Burtt line drawing, as published in some books, a copy of a large A1 part elevation and part plan clearly sketched out by someone, and one solitary known photograph. Not the ideal start! The first thing was to get the HTB drawing imported as a background into TurboCad - a wonderfully intuitive CAD package I find perfect for drawing the artwork. Unfortunately, the etchers don't agree.

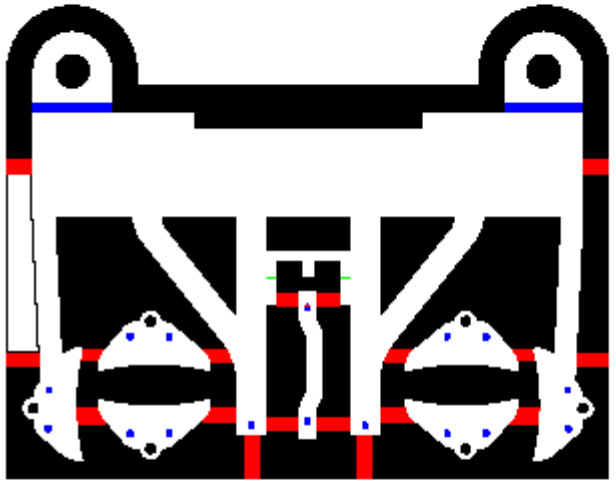
Gradually, with reference to the photo and large plans, I begin to build up a side elevation, plan view, and front elevation. I always project construction lines down and across to the other views, to ensure that the views almost draw themselves, as each line from one view bisects those from the others, via the all-important 45^0 line drawn from the front corner of the elevation, and a shape begins to appear, Typical of this is the plan of the footplate, derived immediately from the length of the footplate on the side elevation and the width from the end elevation. Most parts are basically either rectangular, cylindrical or circular, and soon the position of cab sides, boiler and smokebox are plotted. So it goes on, with individual items being drawn on individual layers, the visibility of which you can turn on and off; and so you draw up one item on another - whilst at the same time not disturbing what is already drawn. Once the wheels are in place, just circles with centre

crosses, and the crank pins as tiny circles at 45^0, the coupling rods are drawn on - a matter of more circles and rectangles, 'trimmed' by those circles, and 'modified' with long, shallow arcs to form the fish bellied rods. Similarly, but parallel, the brake rodding.

One vital piece of information you have to be familiar with is the etch allowance - which is the minimum size of 'eye' on a rod, or closest a hole can be to an edge without etching through the 'land' or 'meat' and breaking out. This is all due to the fact that the Ferric Chloride (etchant) does not only eat the metal away forwards, but sideways as well and actually produces what we call the 'cusp' on all the edges. Most of the time this merely means we have to wipe a smooth file along the edges after cutting a part from the fret to restore a clean edge, but, for the kit designer, it is a matter of knowing the process and ensuring that parts are thin enough to look good, but not so thin that a drill breaks out and chews up the end 'eye' on the rod.

The two classic items that show, or spoil, a quality model, in my view, are outside brake rods and coupling rods. They need to be delicate-looking enough to set the loco off well, but also there must be enough 'meat' on them to be strong enough to work well; the latter with commercially available types of fitting crank pins, i.e. the bosses must be large enough. Romfords are much more useful than I imagined - being plain on the pin side, with a central boss and one variety with a threaded shank to go into the wheel, and another plain type - now that Sharman Wheels are no longer available. Gibsons use a threaded pin with a brass bush, which, while allowing future replacement, rather adds to the amount of variation that can exist at a critical part of the wheel quartering. My personal preference is for the simpler, plain Romford ones. Also a pet hate of mine is removed - the use of hexagon nuts where a plain taper-pinned ring was used in reality. Ok, you

have to solder them onto a 1mm pin, but it is also possible to form cylindrical nuts made from 2mm nickel silver rod, drilled and tapped if you really want to go that far. So long as wheelsets can be dropped for servicing, there's no reason why well set up axleboxes, rods and pins should need to be disturbed, even if dropped out.



Once all the necessary details are drawn on each elevation, it is simply a matter of highlighting these items and copying them and pasting them somewhere else on a 'palette' that will ultimately be morphed into your fret. Each outline is surrounded by a 'moat' consisting of a 0.5mm wide black border, which will be etched right through, interspersed by red rectangles, which denote the tabs - which are half etched - and stop the parts all dropping in the brew during etching.

Rivets are represented either by red dots - which will be areas you builders need to punch out from the front, or blue ones which, while they would appear in the same place on the drawing, etch on the back. Another way is to spread a whole area with red, but leaving white dots; these will be ready-made rivets - as on my Craven tenders - in which you overlay a half-etched rivetted outer side-sheet onto an inner frame already folded up.

Most parts are designed with tabs and slots to locate them easily and accurately during building, as far as possible, or just to fold up. Sometimes this is not possible; sometimes it is a brilliant success - witness the smokebox wingplate and folding round splashers and multi-fold tops, where the sand boxes are.

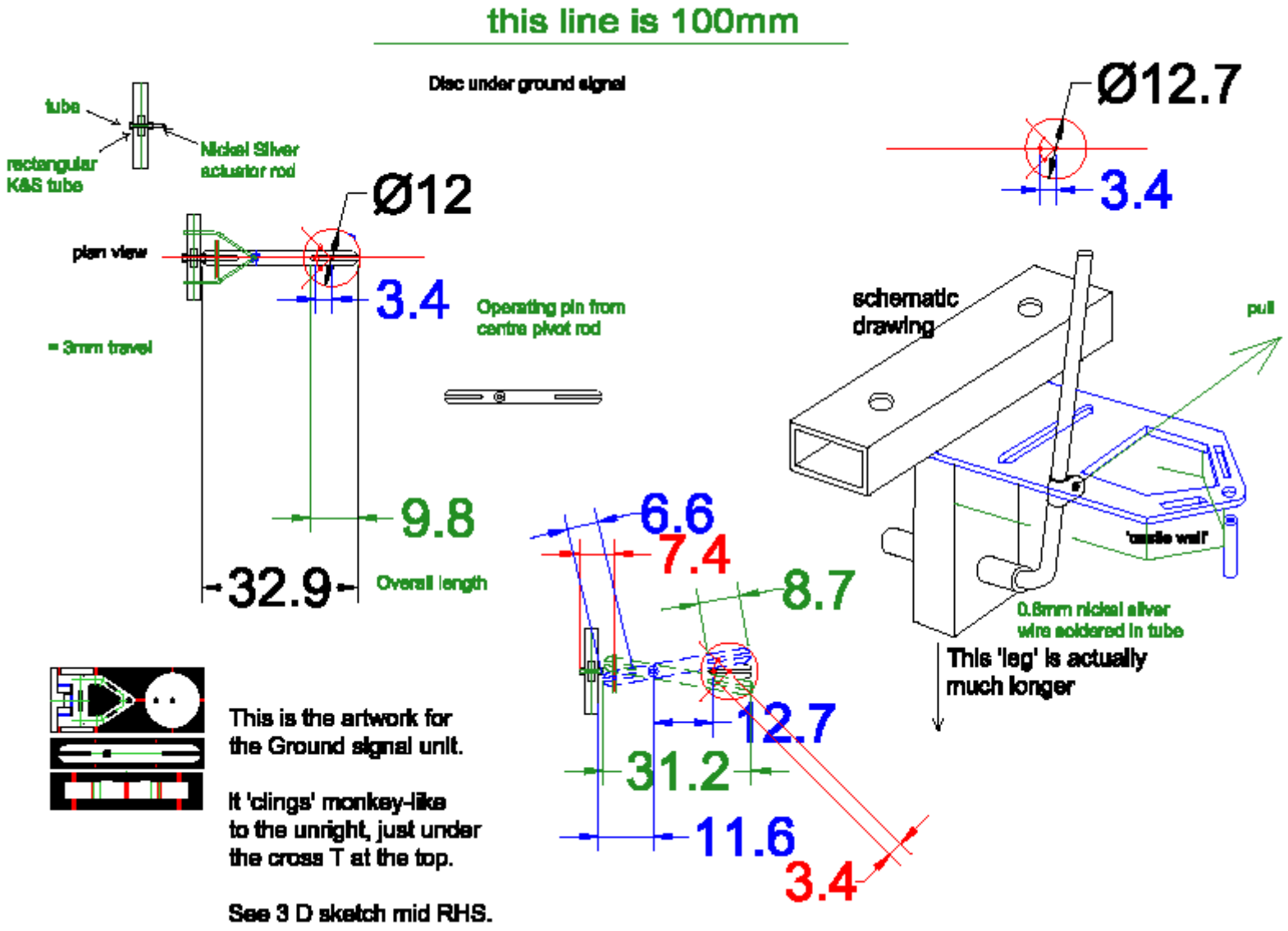
When I designed the G classes (incl Grosvenor and Abergavenny), followed shortly afterwards by the D2 and Richmond, I had a novel idea - I drew the basic parts common to each class once, and then simply built up each drawing from the others, and then did much the same by copying and pasting the same parts onto the other two locos artwork. It saved a huge amount of time, and enabled three locos to be released in a very short space of time - about a year - whereas often one would take several months of drawing and test building, before being released.

The next stage is checking through the artwork to see if anything has been forgotten - usually there is something; sometimes quite a lot of things! Often is it the Salter valve levers, lamp irons, even half the brake gear (as with Richmond's unique arrangement) or something like that, or not noticing that balance weights were missing, or brakes were not the same shape on every wheel! When you work so closely on something, it needs a 'proof reader' to notice what you've missed! Often going away and coming back a couple of days later lets you see the errors for yourself; reminding me of a saying of my late Father's - "Make haste slowly."

Once all final checks and/or replacement frets have been drawn, sent away, received and retried, then the final test build is done. While all this is going on, of course, one arranges for the castings - which get a bit easier as some classes of loco naturally have the same parts as others - all part of Stroudley's standardisation - great for us model makers! Past experience usually means you don't need to complete every last detail, as you already know that certain parts have been tried and tested, and you know they 'work'.

Collection together of all the bits and bobs, like brass or nickel silver wire, rod and tube for flexichas beams etc., tube for the boiler comes next, and then the challenge of writing and

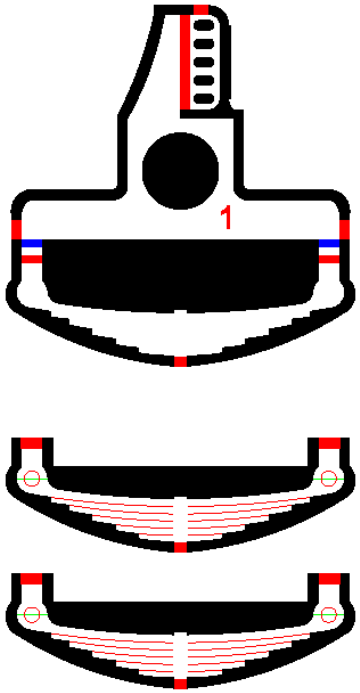
drawing instructions. Being an ex-D&T teacher, I like both to explain with a minimum of words, and (as a sketch is worth 1000 words) to give a series of diagrams to explain simply what needs doing in particularly difficult-to-describe spots. Even these can be drawn with CAD.



Tips like annealing (softening) and what tools to use to bend well - whether right angles, or cylindrical bends are put in, or wrinkles gleaned from experience and even other builders - are added; all intended for you the builder to build your kit with the best possible result!

Boxing up, with all the bits - some taped down so they don't rattle round the box and scratch the pristine etchings, a copy of the instructions and the bags of castings, axleboxes, top hat bearings, screws and the like, and, finally, selling and posting completes the story.

This spring/CSB etch mounts on the short tubular spigot at the back of a brass MJT/High Level axlebox, and allows wheel sets to be dropped out, instead of being totally trapped by a spring etched as an integral part of the frame.
The spring has to fold forwards and then backwards in a sort of flat 'S' shape so that it aligns with the frames.
The tag above enables various heights for a spring wire to pass through.
It is handy that almost all of Stroudley's locos had 3' 6" springs! Coil outline springs are provided for the centre axles, as the master did.
This will be released when the latest carriages, 7mm 18/21 kit, the final number sheet and some oddments have been done!

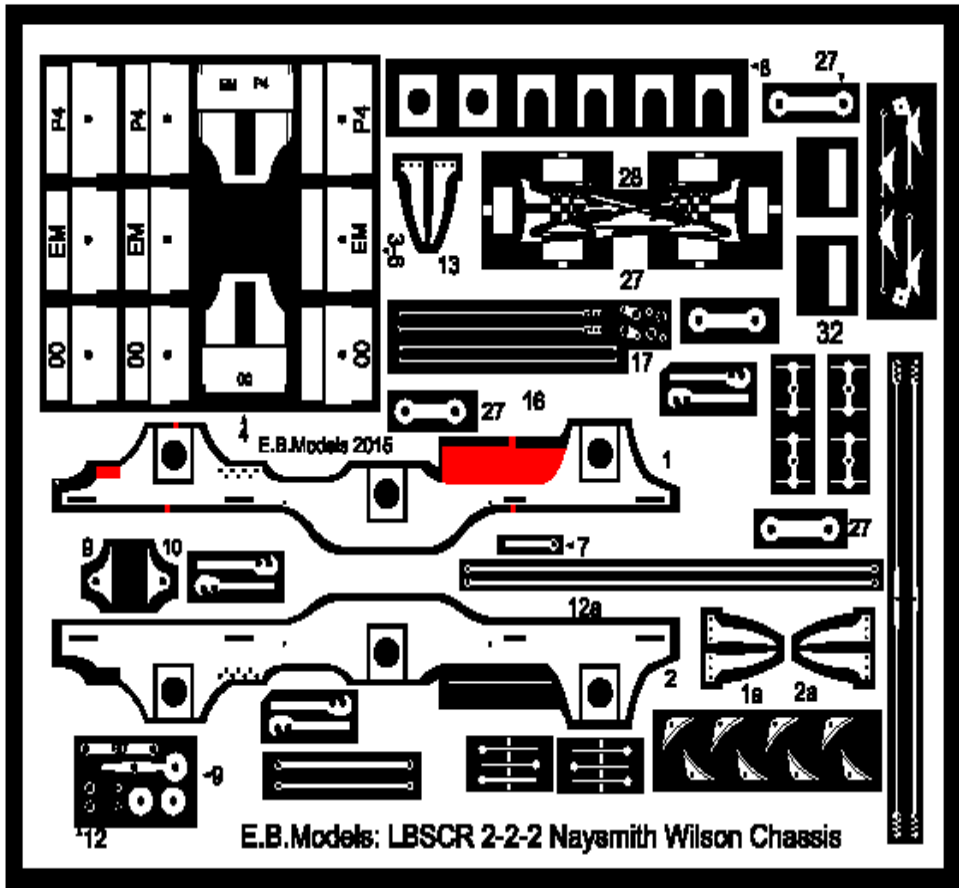


Resources for builders and potential builders of etched brass kits:

- Etched brass kits - by Iain Rice - Wild Swan Publictions
- Activity Media DVDs Building Loco kits - cast whitemetal and etched brass vols 1 / 2

These DVDs are well worth viewing, even though Tony Wright has a rather cavalier attitude towards his loco building, it still works! Seeing someone do it, gives a real insight for beginners, and even seasoned modellers - after all it's what we love doing!

Section of the fret for the chassis of a Nasmyth Wilson Single - see elsewhere in this edition.



LB&SCR Open D 959 of 1884

by Simon Turner

Another example of “a typical Brighton wagon”, that might be seen on neighbouring systems.

Issue 1 of LB&SCR Modellers’ Digest included a drawing of a 5 plank round ended Open A, as the standard Brighton goods wagon. However, there were also a significant number of four plank opens, with low round ends, that stood one plank higher than the sides, which were classed as Open D. These were also built in various slowly evolving styles, with additional brakes and strapping. Construction ceased in 1897 and only a few survived until Grouping.

Models of the Open D have been available in 4mm scale from Woodham Wagon Works and 5 & 9 Models and now in 2mm scale from Eddie Poole’s range on Shapeways.

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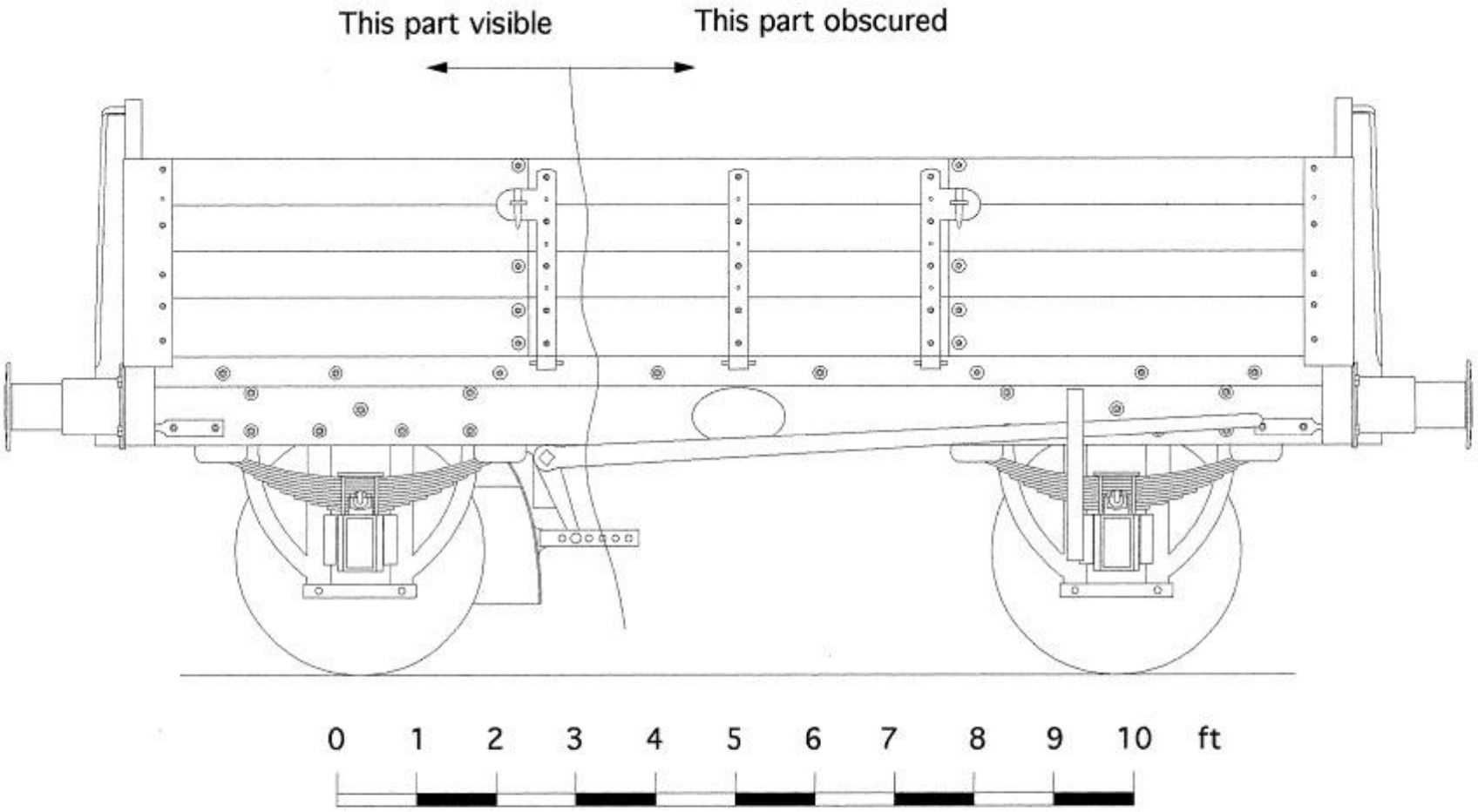
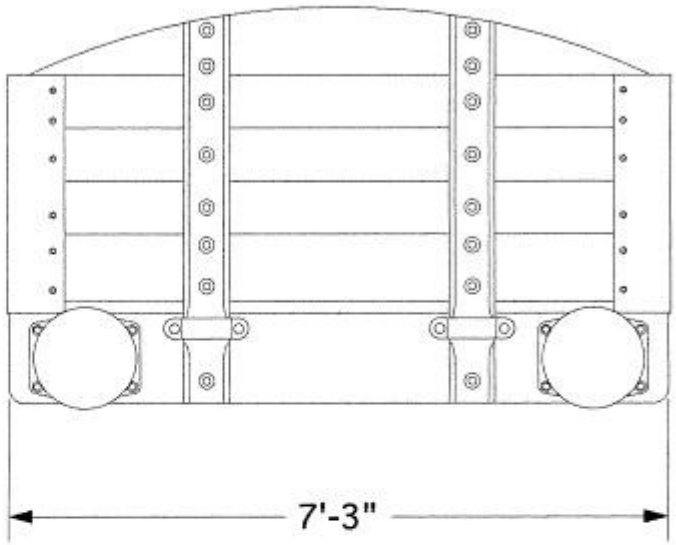


LB&SCR D class Open Wagon
As per No.D959 (1884-1903)

Drawn by S.T.Turner *May 1998*

D959



(Inferred)

End view
Wagon D959

Notes on Wagon No. D959

Wagon No.D959 was constructed in the half year to December 1884 and was replaced in the 1903.
Judging by the photograph of it a substantial amount of second hand ironwork was used .
One unusual feature is that the sill is only 4 1/2 inches deep , an inch less than the LB&SCR "standard". This seems to imply that the floor boards were only 1 1/2 inches thick (unlikely) or that they protruded above sill level (also unlikely). There is no obvious answer to this enigma.

Goods Department 10 Ton, 6 wheel travelling hand crane No.19 in 7mm.

Part 1: Scratch building No.19`s Match truck

By Colin Paul

Prompted by reading the LB&SCR Brakedown Crane article in Modellers Digest No.1 (page 28-33), and seeing the actual rake of them at the 2015 spring meeting, it has re kindled my interest in the LB&SCR travelling hand cranes all over again. Although still interested in the steam cranes, my personal interest lay solely with the 5 & 10 ton, and 4 & 6 wheeled, travelling hand cranes the company owned, which were purchased from Booth Brothers, Rodley, Leeds between 1903-4. The photo on Plate121, page72, in An Illustrated History of Southern Wagons (OPC) has always interested me since buying the book in 1985. Not seeing a drawing of it in the book disappointed me, as it would have made a nice model to construct (then modelling the LB&SCR in 4mm EM). Then in the late 80`s I moved up to 7mm F/S working closely with Rod Hayward on LYNCHMERE which was a joint LB&SCR/SR branch line set at the grouping in 1923 (see MRJ No.67,1993). We did discuss the possibility that I would build one of these cranes for operation on the layout, as the terminus did not have a static yard crane, but nothing came of it as there were no drawings of them. In the early 90`s having scratch built half a dozen or so LB&SCR goods wagons, including

two brake vans and some small ballast opens and sleeper wagons, the 20Ton, 6 Wheel, ballast brake van (No.327) came next. In the back of my mind I still wanted to build No.19 to expand my own Engineer`s and Good`s Department fleet. So I sat down in 1992/3 and started to draw it in 7mm.

The match truck was drawn first from known dimensions and pretty straight forward. The basis for it appeared to be a standard cut down Stroudley wooden underframed Diagram 8 van that measured 18` 4” over buffer beams, 7` 10” over headstocks, 7` 8½” wide over body, with a 9` 9” wheelbase. The van is also fitted with shallow radius 4` 6” leafsprings and grease axleboxes, which were a standard fitting on these early vehicles. One strange feature shows there weren`t any crown plates on the solebars above the W-irons. Another feature that looked slightly odd was that there was no outside strapping piece on the outside face of the legs close to the top.

The crane was drawn next alongside. Not knowing it`s precise length, it was estimated at 19` 0`` over headstocks, with a wheelbase of 5` 6” + 5` 6” which was again estimated based on the wheel diameter of 3` 1”. This first attempt looked fine and acceptable, but it did not look quite right to my eyes. The jib looked too thin and too narrow at the curved (top) end, and the sideframe of the crane itself was too thin and high. A second drawing was prepared based this time on SR Crane No.307s in Plates 123 and 4, page73. This, having a shorter jib and shorter match truck threw me totally as I thought, at first, both were the exactly the same. This drawing looked slightly better than the first one, but I still wasn`t happy. Two final drawings were started and quickly binned. By this stage the whole project ground to a halt.

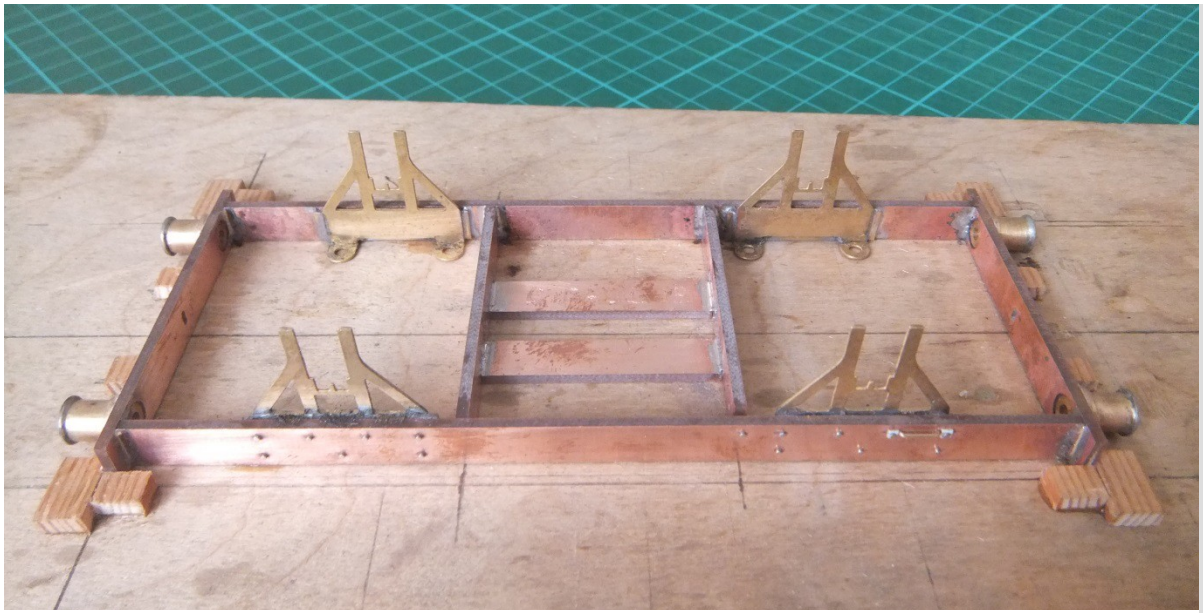
Over the last twenty years or so, no new information has come to light on these travelling cranes via the internet or any new publications. Then by pure chance, I looked on the National Railway Museum website (www.nrm.org.uk/research). For two days I trawled through hundreds of pages of info trying to track down anything on them. Nothing jumped out so I gave up. Looking at another section a week later, I thought I`d finally struck gold. On Page166/Southern-carriage-wagons, it mentioned LB&SCR/SR Cranes but no more details. An email to and from the research team revealed they were indeed the LB&SCR cranes. They agreed to photograph the schematic drawing and send a copy to me. The sent image was very poor and blurred, but it clearly showed both the 4 & 6 wheel travelling hand cranes, along with two match trucks. There in front of my eyes was what I`ve been waiting for these past 25 years, but more importantly it showed all of the relevant measurements, which, as mentioned before, had all been estimated. A payment of £25 (at the time of writing) for the download was quickly paid and, in due course, a better copy was emailed to me and printed off (A detailed article on construction of the Crane will be in Part Two).

Whilst I was working closely with Mike Waldron of EBM (www.mike@mjwsjw.co.uk) on getting pukka Brighton Carriage, and Goods W-irons designed and etched, I enquired as to general castings for them and could he help? He kindly put me in touch with Brighton Circle member Philip Elverd, who lives in Shrewsbury (**01743 351126**). Philip makes patterns and was working at that time on producing some 7mm LB&SCR grease and oil axleboxes, along with 3` 6” and 4` 6” leaf springs cast in lost wax (Castings mentioned above should be available shortly. Phone Philip for details and prices etc). Talking to Philip about the crane project, he kindly sent a set of grease axleboxes and 4` 6`` leaf springs to try for the match truck. On receiving them, they are exquisite

in every detail. You can clearly make out the individual L B & S C Rʏ letters on the face of the axlebox cover, and the 7 individual leaves that make up the springs are well defined.

Philip said that the masters, from which the castings were made, were 3D printed by Francis Leach of 3D COMPANIONS (www.3d-companions.com), who works alongside him. Philip suggested that Francis might be able to help with producing more of the complicated items for the crane, like gear wheels, pinions, weight box pulley wheels, large oil filled axleboxes and leafsprings etc. I got in contact with Francis and, after numerous phone calls and emails, he agreed to help. During the summer months he has made a start on preparing some working 3D CAD drawings from information I have given him, and from the clearer photo on page29 (Digest 1). At the time of writing this article (Nov 2015), the majority of the items mentioned above have now been solid printed in resin and sent to me. They too are exquisite to look at. Both Philip and Francis have said they would be happy to help any Circle member that requires their services.

Making a start on the match truck. I have used C&L (www.finescale.org.uk) doublesided copperclad sleeper strip (Ref:7ZC101B) for the majority of my scratch built models over the years and it is perfect for a wooden underframe wagon (a scale 1` 0`` deep). The match truck was no exception. The solebars and headstocks were cut to length first. Then all bolt detail holes were carefully marked and drilled out to accept 0.6mm brass rod which was then superglued in place. Care was taken when filling them down to 0.5mm though. All ironwork is 10thou Slaters Plastikard (www.slatersplastikard.com). Slots were drilled out in the headstocks to accept the Laurie Griffin (www.lgminiatures.co.uk) coupling hooks (Ref:G1015L), and holes drilled out for the Slaters buffer shanks (Ref:7904). The round base of these buffers require turning down to 6.75mm. Four

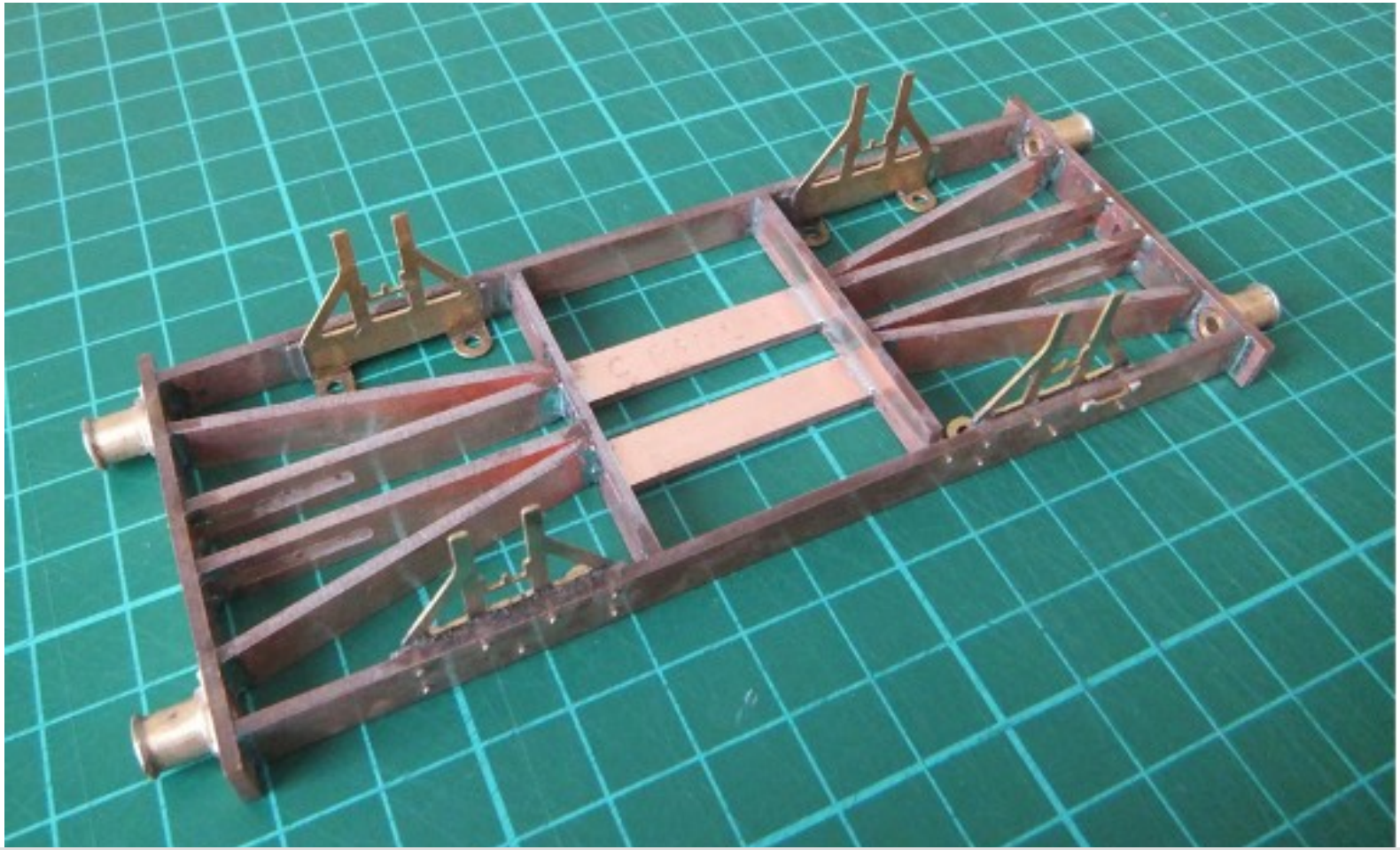


Basic underframe components soldered up within the plywood jig with the end diagonal and parallel cross bracing still to add. To hold the parts in place, small cubes of wood strip were cut and superglued in place keeping everything square and vertical. As the depth of the EBM W-iron behind the solebar is to a scale 1foot (7mm), all that is required is to bend up the two lugs at 45degrees. Notice the small lengths of scrap brass packing pieces sandwiched in between the W-irons and the rear of solebar for the thickness of the leafsprings which are 2.25mm wide.

backing plates were fabricated from 10thou Plastikard and glued into position. The buffer shanks were then Araldited into position. Finally the bolt detail was added from small cubes of Plastikard.

Before soldering on Mike`s etched LB&SCR Straight sided W-irons (Ref:SWW7), thin strips of scrap brass packing pieces (26mm x 5mm x 0.5mm) must be soldered onto the back of the solebars. Only then can the W-irons be soldered onto place on the rear of the solebars which have to be lined up directly behind the W-iron bolt detail on the outside face. Philip`s LB&SCR oil filled axleboxes were then cleaned up, drilled out (2.5mm) for the Slaters bearings, and offered up into the W-iron slots. As they have too have been designed with an integrated 5mm wide hornblock on the rear, they fit perfectly (with only a small amount of

filing) within the W-iron`s hornblock slot which is also 5mm wide. At this stage, the axleboxes must not be soldered into position.

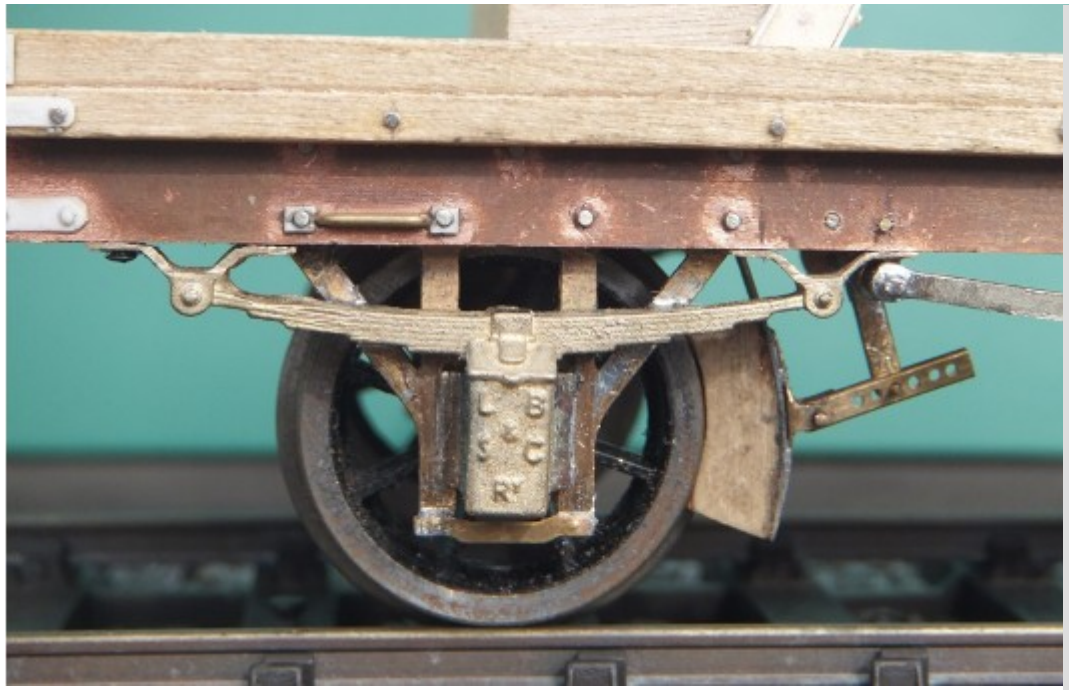


Underframe now completed with the additional diagonal and parallel cross bracing. To represent the characteristic ends on the otherwise plain parallel Slaters buffer shanks, brass tube was cut and filed into 0.5mm wide rings and soldered into place. Next job is to place the axleboxes, bearings, and wheelsets within the hornblock slot for a trial run to check for overall height and levelness of the underframe.

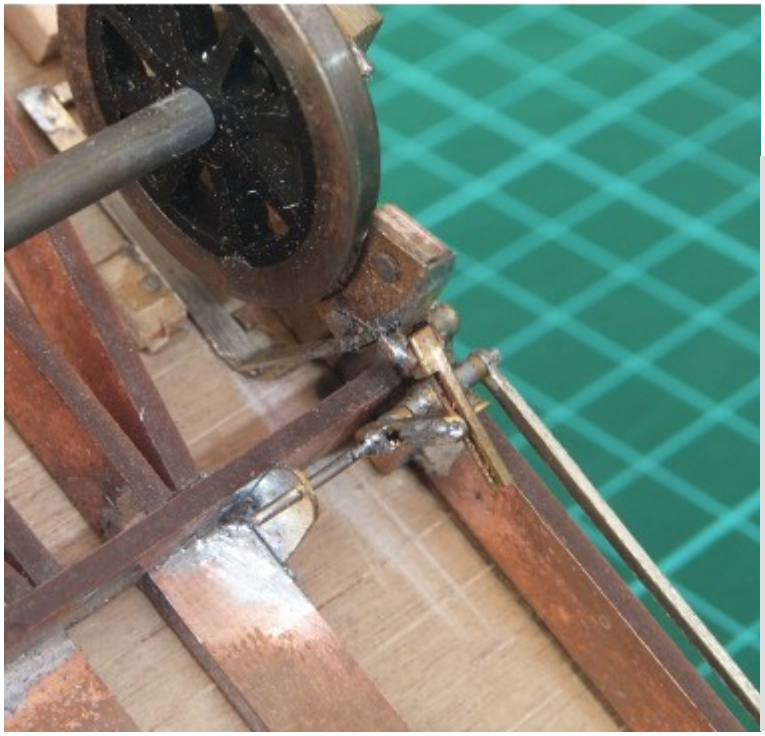
A small jig (on a thick plywood base) was made to hold the four separate items together for soldering up. Small rectangles of wood were used to keep everything square and straight. If, in my case, Slaters 8 spoke 3` 1½" diameter wheels are used (Ref:7121), the inside measurement behind the solebars must be no narrower than 44mm. This gives a small amount of axle movement. The four parts can now be soldered together within the jig. Make sure the sides and W-irons are perfectly upright before soldering proper. A trial fit with the axleboxes and wheelsets in place must be done now to check the axles rotate with no binding. When happy with the position of the solebars, the inner cross bracing members (x12) can be cut to length and soldered into position. The thickness of the copperclad headstock (when viewed from the sides) is too thin, so has to be thickened with scrap brass to an overall thickness of 2.5mm.

The axleboxes, bearings, and wheels can now be re-placed back in the hornblock slots. When removed from the jig and carefully turned the correct way up, no doubt there will be some slight rock within the underframe. File sparingly any part of the W-Irons. If not, pack the top of the axleboxes. Remember, the overall running height from rail to buffer centre should be around 3` 5" (24mm). When happy, the axleboxes can be soldered into position. The four 4` 6" leafsprings were then cleaned up, filed accordingly, and soldered onto the W-irons. Finally, the keeper plates (which are on the W-iron etch) can be added.

From early on, I wanted to have a working brake shoe via the lever. After trial and error, and several attempts, success, it actually works. Materials used were mainly K&S149 (1/16th), K&S150 (3/32nd) brass square section, along with K&S162 (1/16th) brass round section, and 0.7mm n/s rod. The brake block is a thin piece of 1/16th plywood glued onto a scrap brass backing plate which, in turn, is soldered to the bottom of the brake stem. The lever was made from thickish scrap nickel silver along with the lever guard.

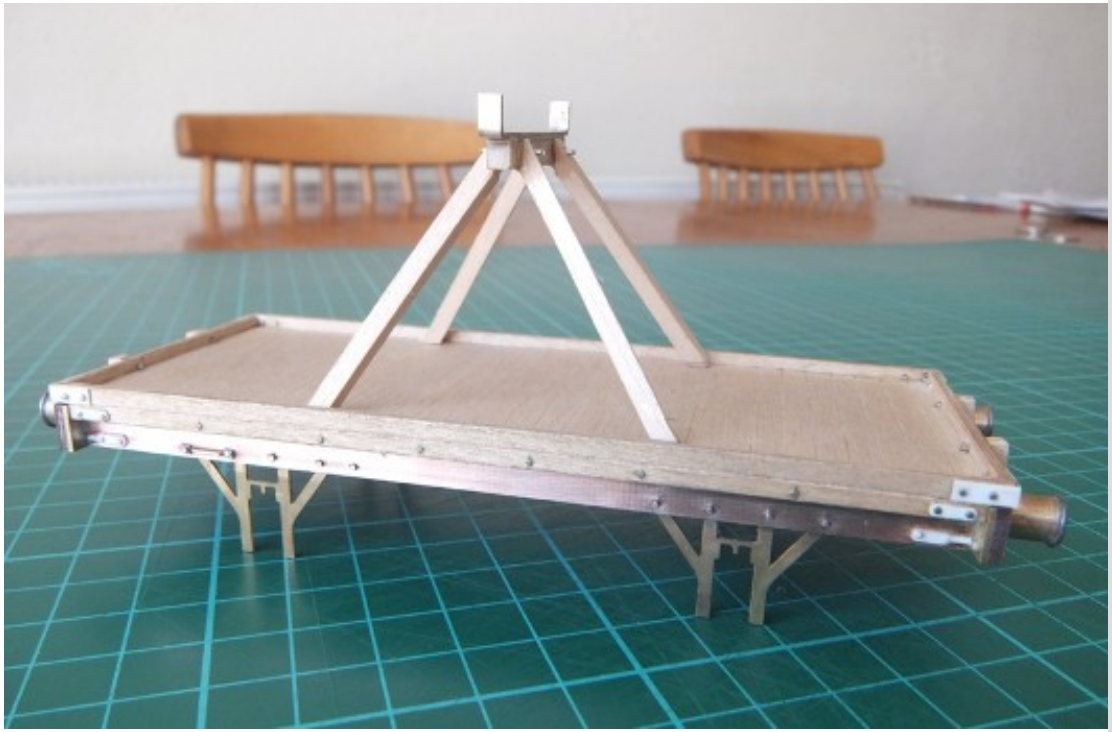


Close-up showing the superb lost wax axleboxes and leafsprings soldered into position with the working brake block acting on the wheel tread. The axleboxes and wheels must be fitted first before the leafsprings are soldered into position. Only very small amounts of filing had to be done to get no rocking movement of the wheels. Only now can the leafsprings be cleaned up and soldered into position proper. To give the very thin supporting straps more security on the ends, small pins were inserted that go through into the bottom of the solebars. The head (on the left hand strap) which is clearly visible will be filed down thinner later before painting.



Close up showing the brake block and linkages. The curved wooden block was cut and filed first to the wheel tread profile. A backing piece (slightly smaller) was then cut from scrap brass and soldered to a 2mm wide n/s strip piece, which in turn was pre curved and bent. The whole assembly was then soldered to the top of the two lugs behind the W-iron. Finally the wooden block piece was glued on reinforced with two tiny pins. Through trial and error, the linkages were made to work (via the lever) from various sizes of K&S square brass section and round tubing.

The sides and ends were cut out from 1/16th plywood, and 1/32nd plywood for the deck. Planks were scribed and spaced at 4mm intervals. Again, 0.6mm brass rod was used for the bolt detailing. I used 1/8th square wood for the jib support trestle legs, which appeared to match the photo perfectly. The angle of the trestle legs though (in both plains) was a nightmare to get right. The finished painted one shown was my third attempt. Note: The trestle won`t be fitted proper until the crane itself is made with the jib in position resting on it. I am not totally sure if it is the correct height, but I`m pretty close. The toolboxes were also made from the 1/16th plywood and incorporate working hinged lids. The hinges were made from small No.16 fishing hooks, with 0.4mm diameter `L` shaped retaining pins inserted. All ironwork overlays are again 10thou Plastikard.



Upper decking almost finished. Two thicknesses of plywood was used in its construction (1/16th and 1/32nd), with 0.6mm brass rod bolt detail and 10thou Plastikard overlays. The trestle shown is my first attempt and was not quite correct (the angle of the legs were too shallow and overall height too low), but it gives an impression of what it will eventually look like. The support for the jib is a piece of nickel silver strip bent up at the ends. Additional packing pieces of scrap brass behind the headstocks have also been done.

As No.19 was in the Goods Department fleet, I have chosen the light goods grey. (Humbrol 27 matt sea grey) as suggested in the text, with blacked up ironwork and running gear (Humbrol 33 matt black). The L B & S C R lettering on the solebar face is approximately 2.5mm high and is available on the HMRS (www.hmrs.org.uk/transfers) 7mm Pressfix Sheet No.13 (SR Goods including pre-grouping wagons).

The TENDER No.19 TRAVELLING CRANE lettering on the sides, and TOOLBOXES lettering on the toolbox ends are slightly smaller in height. I estimated them at around 2mm. I could not find any suitable transfers this high, so I opted for 2.2mm Pressfix ones from Sheet P4P. In the end they are virtually spot-on in style, height, and width which, again, match the photo perfectly.

Brake side (Left hand view)

The finished model has been painted in light grey livery. I also mentioned the iron work was blacked up, but not all has been done. Looking very closely at the photo, it appears there was only blacking up on corner plates, buffer housings, and upper supporting straps on the trestles legs, and none on the solebars, so this has been copied. The brake block, by the way, was painted with Railmatch sleeper grime(1406). The inside faces of the sides, ends, and planks have been left unpainted.

The very small italic lettering running along the bottom left hand edge reads: *Crane must not be used without coupling tender.* This was written by hand using a Bob More lining pen.

Weathering: This will not be done until the crane itself is finished when they will both be done together.

After nearly two months work, or is it 25 years in reality, I am very pleased with the result. All that`s got to be done now is to make a start on the crane. That`s another story entirely.

Brake side (right hand view)

Non Brake side (left hand view)

Non Brake side (right hand view)

Lewes Station 1857 to 1889 — Virtual Models

By David Rigler

Lewes station offers a wealth of choice to the modeler due to its long and varied history of development. Additionally there is a reasonable amount of photographic material available to give a clear picture of these developments.

The first station was a small terminus built in 1846 close to the Cliffe High Street. 11 years later in 1857 the station was moved west and located on the junction of the lines from London and Brighton. In 1889 this second station was completely demolished and was replaced by the current station on the same site. The trackwork and platforms also underwent major rearrangement, while the goods yard remained close to the first station and High Street.

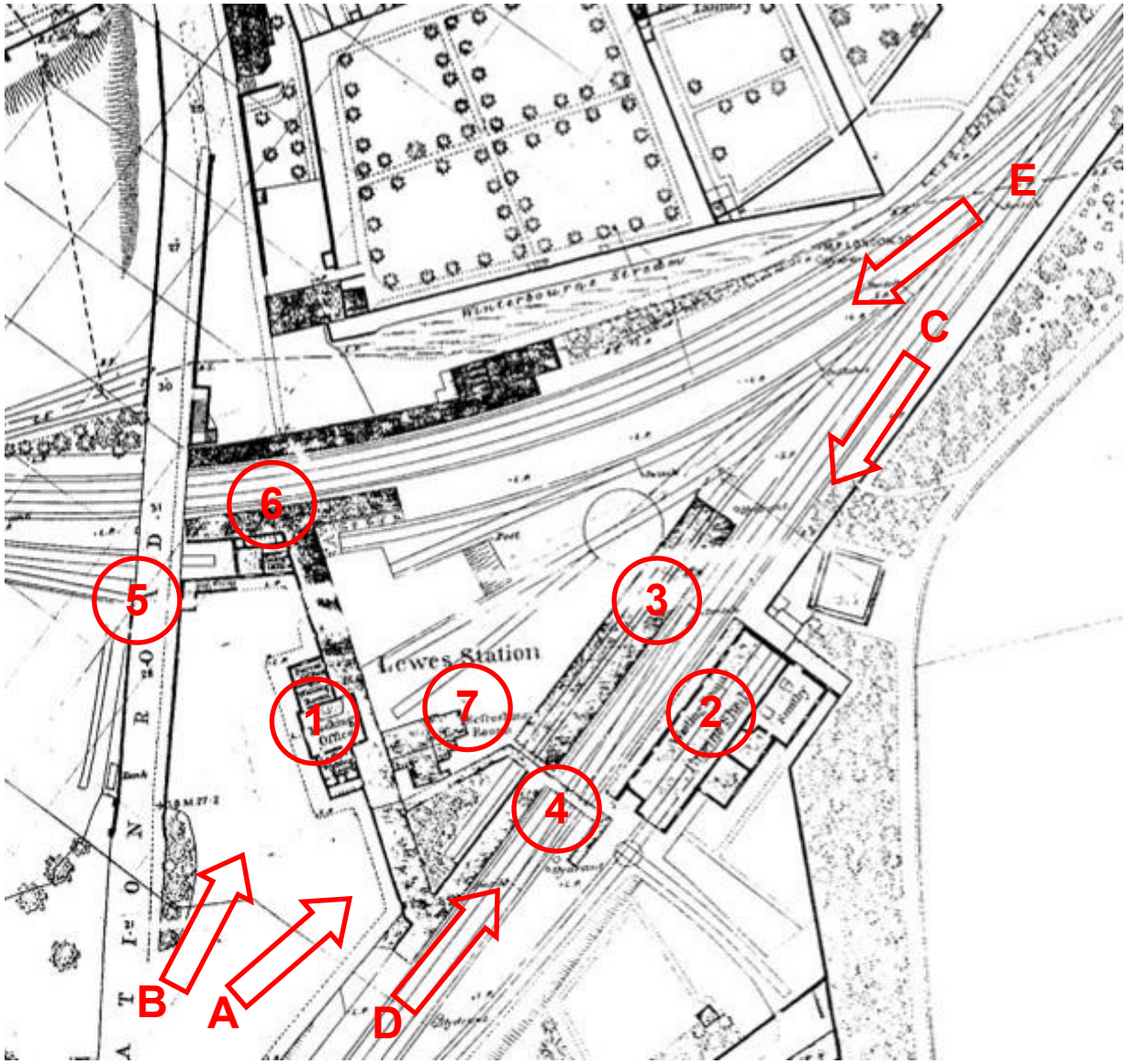
My primary interest is in the 1857 station from both a historical, photographic and a railway modelling viewpoint. To support the railway modeling, I started developing 3D Solid CAD models of the structures, however, over time this has become an interest area in its own right, with the physical modelling barely progressed, and although virtual models do not hold the same fascination as a complete scene of real ones, I feel the work done to date may be of interest to others.

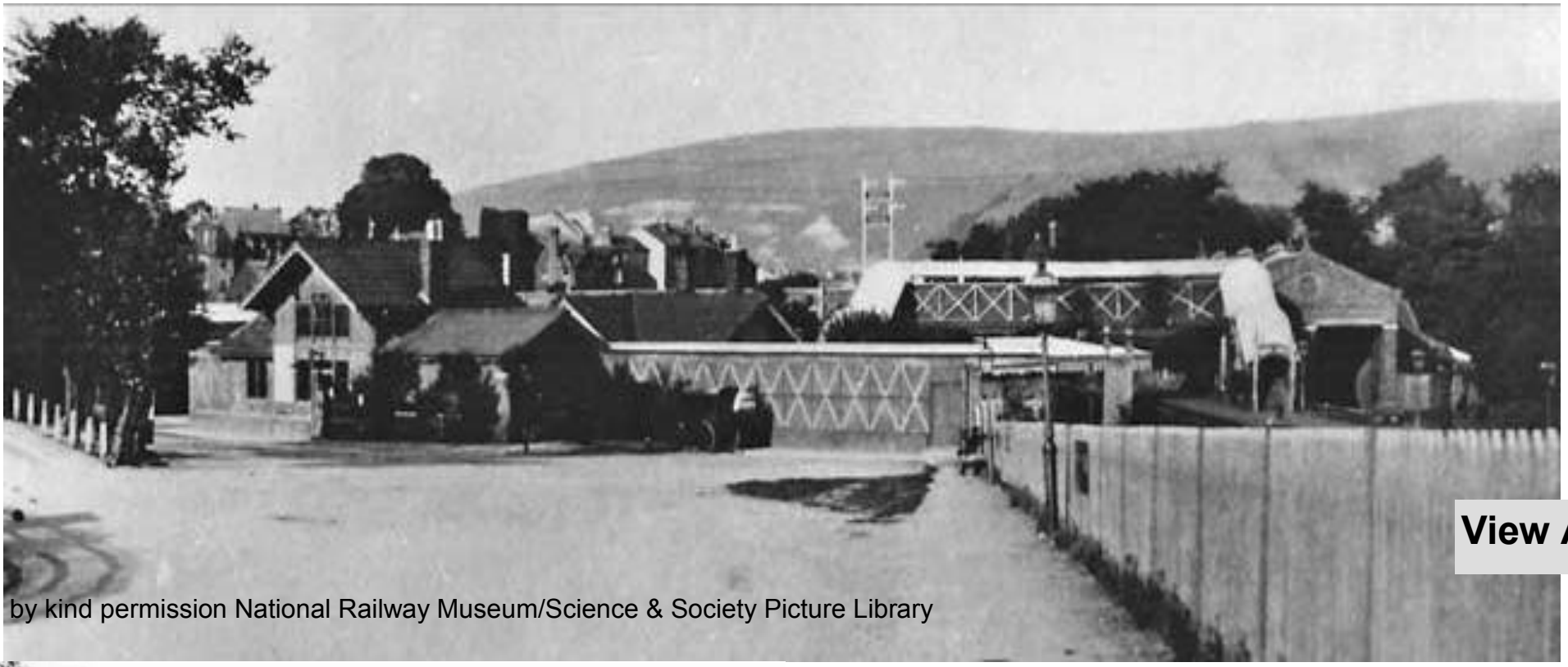
To date I have not found any architectural drawings from the period, therefore the models are developed through using photographs and large scale maps of the period to estimate dimensions and materials. The map is reproduced below showing the basic layout of the station.

The arrows indicate the direction of view given by the photographs.

The structures modelled so far are indicated by the circles

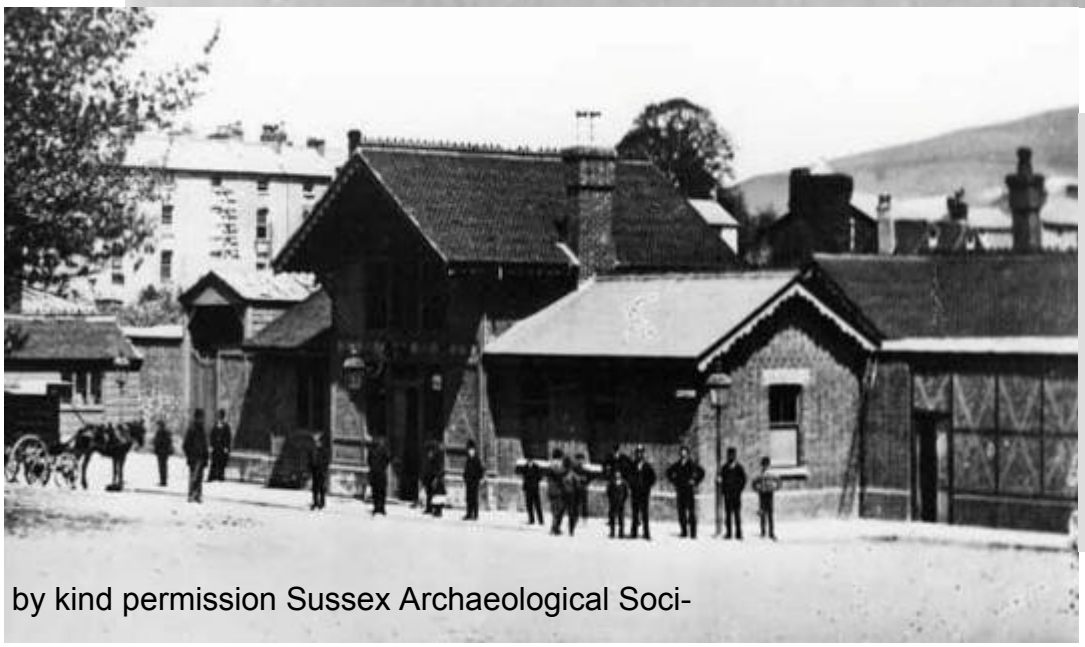
1) Main Station Building
2) Engine Shed
3) Train Shed
4) Footbridge
5) Road bridge
6) Telegraph Office and Goods Entrance
7) Refreshment Building





by kind permission National Railway Museum/Science & Society Picture Library

View A



by kind permission Sussex Archaeological Soci-

View B

Main station building with later modification of the right hand waiting room.

The Telegraph Office and the entrance to the goods yard can be seen in the background.

View C

The rear of the main Station Building and the Train Shed can be seen together with partial sight of the Footbridge and through the shed support legs the Refreshment building.

View D

Looking from Brighton toward Eastbourne and Uckfield.

The Footbridge and Engine Shed entrance can be clearly seen.

by kind permission National Railway Museum/Science & Society Picture Library

View E

The London line curves to the right under the Road Bridge. This is in the earlier period of the station, showing the brick stairs down from the bridge.

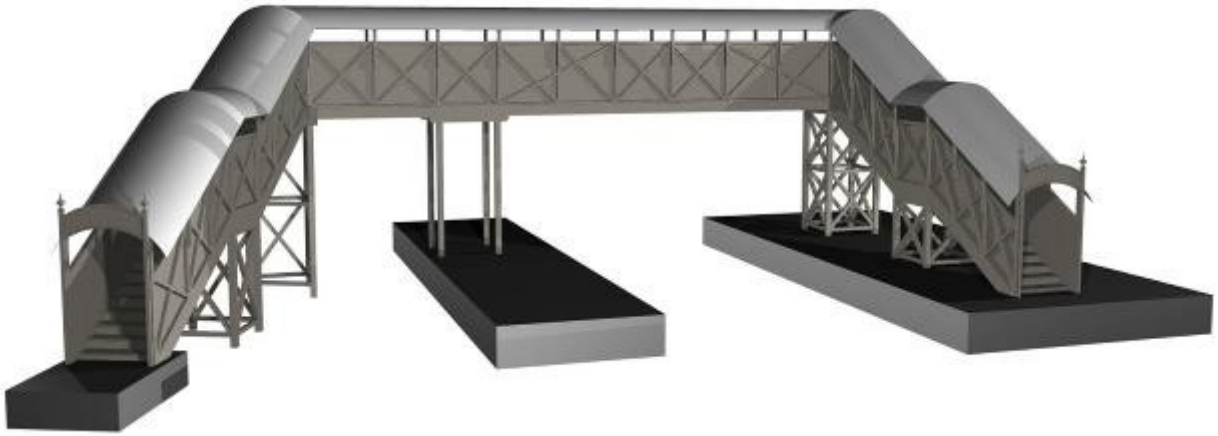
At a later date these were replaced by a wooden foot-bridge in front of the road bridge accessed from the up and down platforms.

by kind permission Sussex Archaeological Society

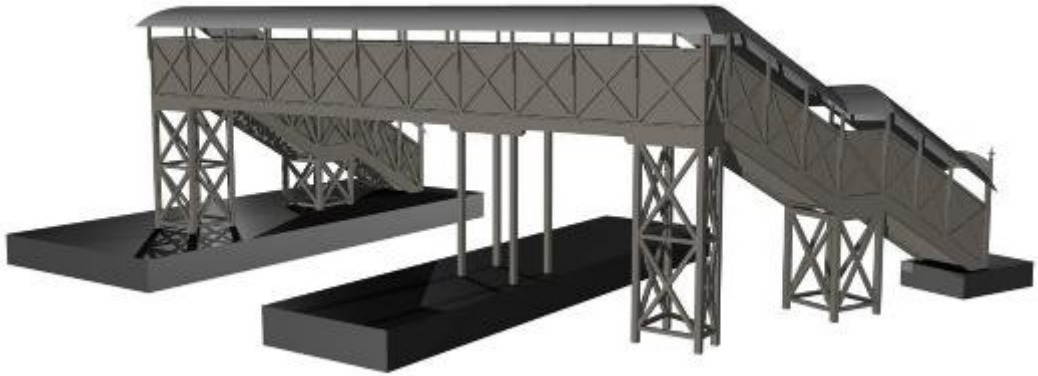
1) The Station Building is described as a "Swiss Chalet" style building constructed from timber frame in-filled with brick at ground floor level. The upper floor cladding is decoratively arranged either diagonally or in a diamond pattern.
I believe from close examination of the photographs that the building was built symmetrically and that later the front right hand side was replaced with an all brick waiting room.
The top picture represent the early building and the lower pictures the later modification (front and rear views).

2) From the map this building appears to house an engine shed , waiting room and smithy. Of all the buildings this one has the least photographic evidence. Views are available for the front (Left) and partially of the rear (Below) but none for the side elevations. A glimpse of the smithy roofs helps compliment the map floor plan but the style of windows is inferred from other LBSCR buildings.

3) The Train Shed is of timber construction with either a slate or shingle roof.



4) The footbridge is all wood construction with corrugated iron roofing. The mid span supports onto the East-bound platform are barely discernible in the photographs and are my interpretation.



5) This model represents the bridge in the earlier years when there appear to be steps down from the bridge on each side to the London platforms. Ground contours are not clear, so the model base is on a horizontal surface; in reality ground contour levels will rise above this in some areas. The arches, for which I have no photographic evidence, have been left open. In later years the steps appear to have been replaced by a wooden footbridge similar to the Brighton line one.

6) The large scale map shows part of this building to be a Telegraph Office. I speculate the remainder is a waiting room with open urinal between the rear of the building and the platform wall.
Construction appears to be all timber with horizontal planked cladding. The main photographic evidence is of the front of the building facing the station court yard.
The roofed entrance gate to the goods loading area is also shown.

7) The Refreshment building is of timber construction with the planked cladding appearing to be laid diagonally in alternate directions to give a herring bone effect.

The technique also allows visualisations of views that were never captured on camera, by mapping together known features.

This image shows the view from the London platform, looking towards the refreshment building.

As time allows I need to complete three more structures. The Waiting room on the London platform, Friars Walk Station building and the road bridge leading to it - this can be seen in the distance in photograph C. After that I hope to start creating a physical model, but don't hold your breath.

If you would like to see more views of these models please visit my website: www.2bdeveloped.co.uk

Railcar No 4

By Peter Wisdom

I was presented with the beginnings of Railmotor No 3 by Arch Overbury, who came by them as a result of buying some of the late Peter Korrison's stock.

As you can see from the adjacent photo, Peter had not progressed very far.

I put an appeal on the e-group and acquired a plan of No 3, which made my mind up to build No 4. The windows were much simpler and as both vehicles shared a common chassis I could use the plan for detail. Unfortunately below the body was blank apart from the under frame and wheels. No engine detail at all.

I had a side on photo of No 4, so I enlarged that in my copier to 7mm thus providing a side elevation. I drew up on tracing paper a side elevation of both halves of the body, pinned them to foamboard and built two of each half of each side using Evergreen

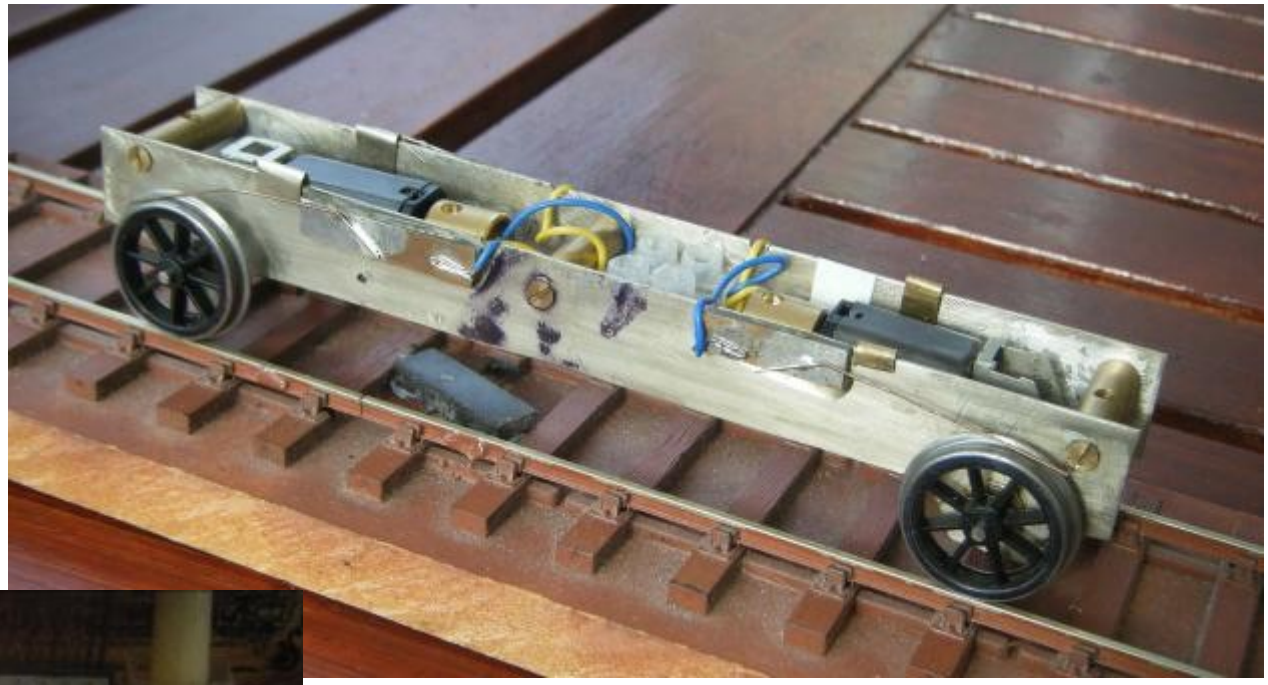
strip. The two identical sides were then joined by a layer of 20 x 30 Evergreen thus leaving a 30 thou gap for the glazing.

A layer of 30 thou formed the inner lower side with 30 thou square under the top and also at the level of the bottom of the match boarding and then a layer of 20 thou scribed for the match boarding was fixed on top with the bottom edge fixed to the inner 30 thou thus forming the tumblehome.

The under frame is heavily riveted and I made two photocopies of the frame from the plan of No 3, Mekpaked them to 10 thou plastikard and riveted them using a GW models riveter. The 10 thou was parted from the paper copy and Mekpaked to the black underframe with the rivets on the outside. The riveted strip was also produced in the riveter using 10 thou again. The springs were from the spares box and axle boxes made up from Evergreen. Four interior partitions were made from 30 thou with doors and windows cut out as appropriate and the body assembled on the floor, having

first made provision to fix the motorised chassis, by way of two 8BA nuts encased in squares of 40 thou Plastikard.

The chassis is simply two lengths of 0.5mm x16mm brass strip fastened together with frame spacers. The wheels are Slaters and there are two Mashima motors plus gearboxes.



Originally there was only one, but a test run on Mike Cruttenden's garden railway proved that, like the prototype, it was seriously underpowered and unable to cope with gradients.

The ends of the body are based on three curved pieces of 40 thou, one on the floor, the next at the bottom of the windows and the third at the top of the windows which were made in Evergreen. The lower half was scribed to represent match boarding.

The drawing of No 3 had a plan of the seating and I made the seats out of Evergreen strip, the tram type seating have a handle built into the corner. The seats are glued to separate floors and then inserted in the body

The upper body was sprayed with a light cream paint having masked off the bottom half which in turn was sprayed Umber using Rover Maple. Lettering and numbers were from transfer sheets supplied through the efforts of Eric Gates and the late Gordon Weddell.

The main body was glazed by using the card blanks that were inserted whilst the body was sprayed as patterns, the ends had the window frames carefully cut to be a good fit, sprayed umber and the glazing glued in behind and fitted in place, with much trial and error.

The passenger doors were built up in layers of Plasticard with the match boarding on the bottom half inserted behind the cut out and similarly the driver's doors. The glazing was glued in once the

spraying was completed. Double handles were made out of scrap brass for the double doors; the driver's doors only have a budget lock (carriage key) represented by a short length of 0.7mm tube.

The Roof is made of balsa glued onto a ply 'ceiling'. Two 8BA nuts are embedded in the underside of the roof and accessed through holes in the ceiling. Two lengths of 8BA studding hold the roof in place. The studding is rather prominent from various angles; does anyone have some better suggestions?

The strip at the top of the body is a separate piece of 20 thou plastikard and applied when the roof is on thus giving a good fit.

In order to meet the editor's deadline, the interior doors need to be fitted, the two driving cabs equipped and the doors on the side you can't see fitted.

A query for the mechanically minded: as there were two engines, was only one engine used when driving, thus each engine had its own gearbox, or was there a combined gearbox for both engines?

Locos for Saltdean

By Peter Smith

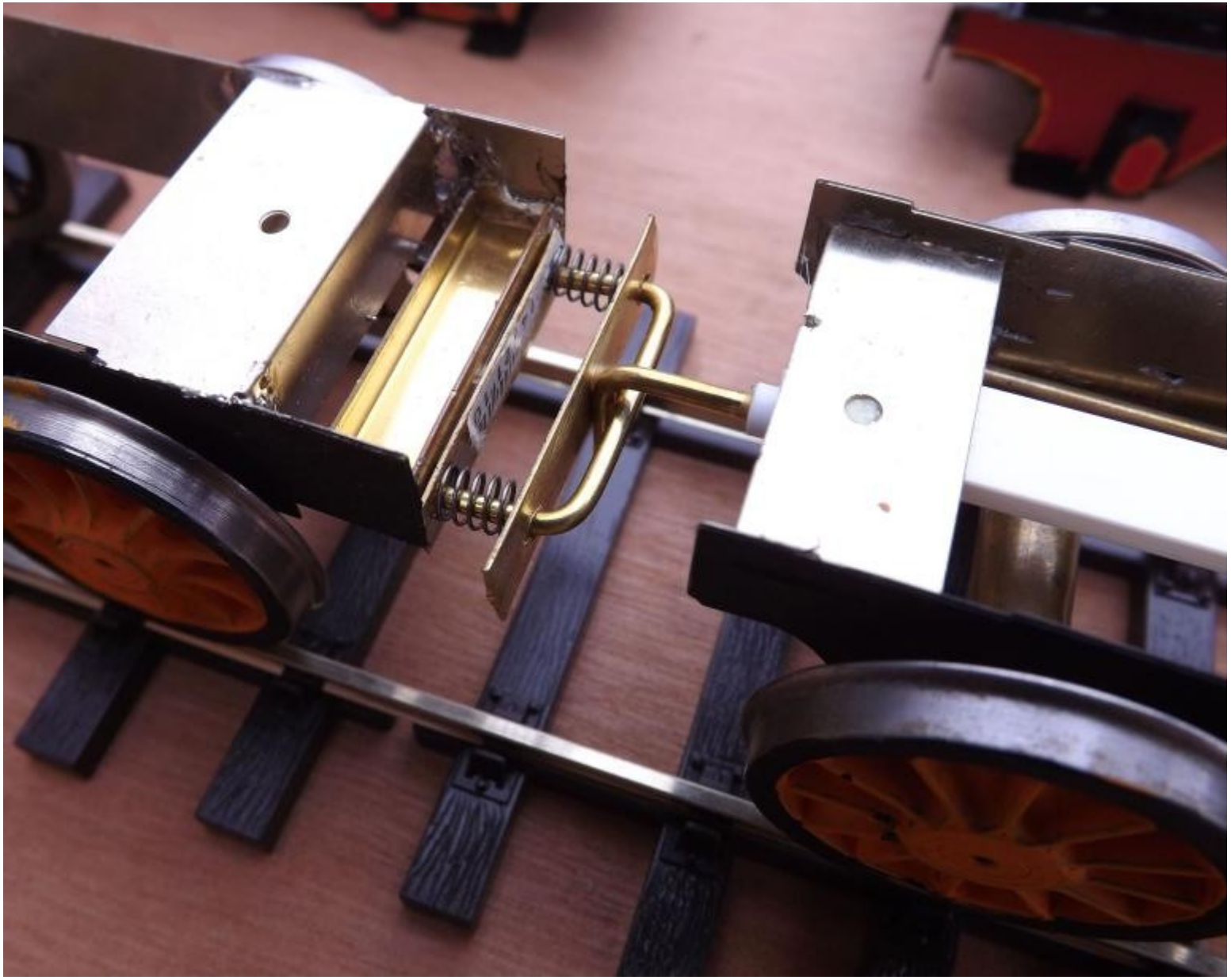
Over the last few months I've had the pleasure of building two 0 gauge loco's from etchings by Mike Waldron, blown up from his 4mm scale kits. They are both ideal for Saltdean in that they are Stroudley locos but are different enough to make the loco stud look varied. The first is the Stephenson Single 'Dieppe', and the second the 18/21 0-4-2 tank, Stroudley's first design for the LBSC. I've had to move my period back into the late 1880's to accommodate them as they were on their last legs by then.

Mike only supplies the etched parts, in a mixture of brass and n/s, so the castings have to be sourced by the builder, which was an interesting exercise! It's really a case of finding something that looks close, though John Birch kindly sold me three sets of his D1 castings which helped a lot.

I have to say that I don't enjoy making engines; I'm more at home with buildings as they don't have to work, but these kits were very buildable. I used a Mashima 1833 motor in each one with an MSC gearbox, and a Zimo DCC sound decoder and speaker..... the only Stroudley sound available, not surprisingly, is the Terrier so that's what I used.

The picture below shows 'Dieppe' in the early stages, sprayed in primer and with the first paper panels glued in place.....I use as little paint as possible and nearly all the coloured areas on both engines are printed on paper as explained in my new book. I built the body first, as I wanted to make sure there was clearance for the wheels with overscale model flanges. I used Slater's wheels, the drivers appropriately from the Stroudley G class single.

On tender engines I don't use pick-ups, which would be almost impossible on a single anyway. The tender wheels are shorted out on one side, the loco wheels on the other, and there is an insulated drawbar as shown on the picture below which transmits the current from the tender to one side of the motor via the decoder. The loco drives on the centre wheels; I briefly wondered about driving the outer wheels via a shaft but sadly they are different diameters so that was that. The driving and trailing axles have a compensating beam resting on the axle bearings, and the front axle is sprung to give some vetical movement. She's never going to pull a great deal, despite adding as much lead as I could fit in, but I don't really mind. She looks lovely.



The third picture shows the finished engine; the chimney is from John Birch's D1 kit, the dome from an LNWR Coal Tank and the safety valve is Midland... they'll do for the time being. The other fittings are mainly John's, with the springs scratch built from plastic. I added the plate under the boiler and a crude representation of the inside valve gear. I have left off the brake rigging as I found the kit parts confusing and the holes were not etched through....drilling out tiny holes in such thin strips is a pain and I gave up. The brakes are there... I might add the rigging at some point but don't hold your breath!

The fourth picture shows the engine from a slightly different angle.

The 18/21 tank, of which there were only two, involves more guesswork as there is only one picture in existence. Hopefully my model captures the look of the engine, which was in many ways the forerunner of the D1's.
The picture below shows the loco under construction, again with the paper panels being added;

I'm not at all happy with the firebox although it fitted into the etched holes in the tank tops. As the next picture shows, a lot of fire irons and assorted clutter helps disguise it!

This picture shows the finished loco on Saltdean; it's appreciably smaller than a D1 and quite appealing, more so than I'd expected while I was building it. This time the chimney is from a Terrier, the dome from a D1, and the safety valve is again Midland. The gong on the bunker side is too big but again it will do until I can find a better one.

Balancing the engine was tricky as the coupled wheelbase is so short, so the boiler was packed with lead and the trailing wheel sprung with movement in the axle bearings.

Both the engines have number plates from Guilplates which are superb. The crew are from Omen Miniatures.... I know Andrew Stadden does correct LBSC crew, but the danger is that you end up with the same people driving all your engines.

Mike Waldron is producing a Richmond kit in 7mm scale next and I can't wait to get cracking on that. By the way, in case you are wondering why all these different engines are working on an insignificant branch line only seven miles long, the answer is that Brighton works used it for running in newly overhauled engines... very conveniently that means I can run anything!

Brighton - and the Paris Exhibition

by Tim Peet

An Albion kit, built by Rob Homer, and the artwork by Aardstorm. Mike Waldron's paint and no. plate shown off to good advantage.

Stroudley tank tops

- exercising a hobby horse!

by Eric Gates

One of the idiosyncrasies of Stroudley locos is the way in which the side tanks on the Terriers, D tanks and E tanks are constructed. Because of the use of condensing gear, the water in the tanks could become extremely hot and would have caused the paint on the tank sides to blister and peel. There are photos of Craven tender locos which demonstrate precisely this phenomenon. For this reason, the metal sheet on the side of the tanks is actually a cladding sheet, which is spaced away from the tank itself.

Photographs copyright Gerry Nichols

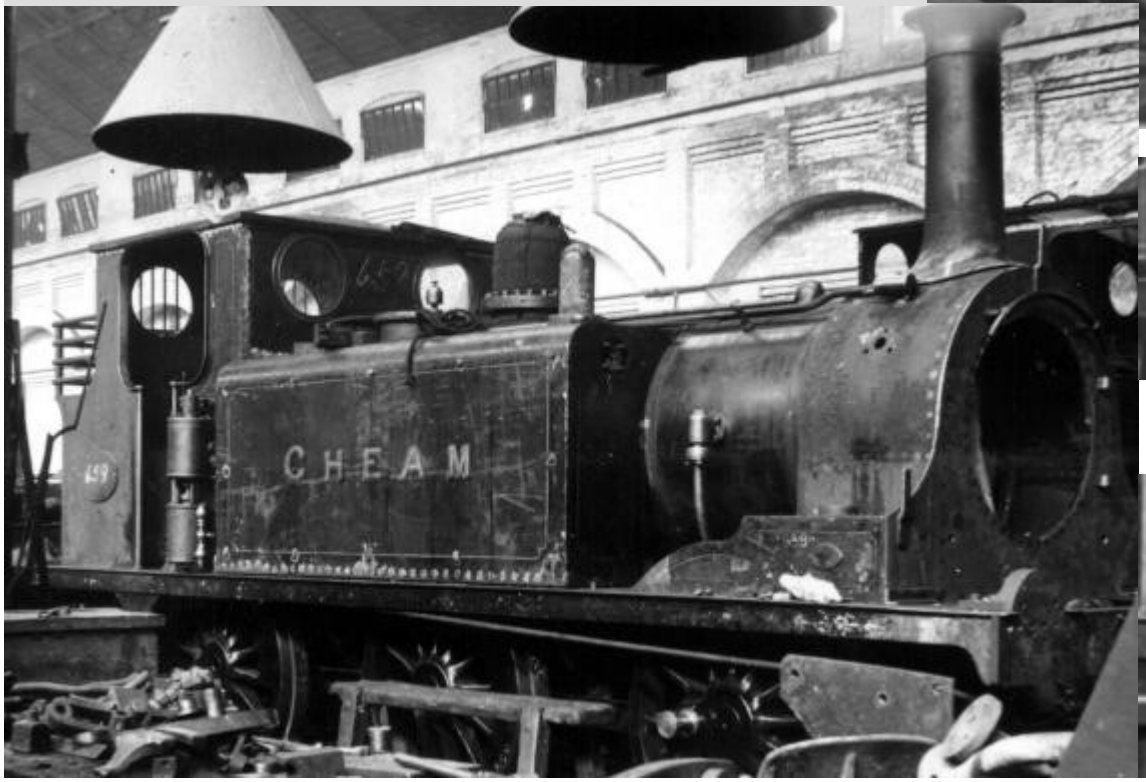
The cladding sheet curves over at the top and rests slightly above the tank top, leaving a quite distinctive lip and airgap between the cladding and the top of the tanks.

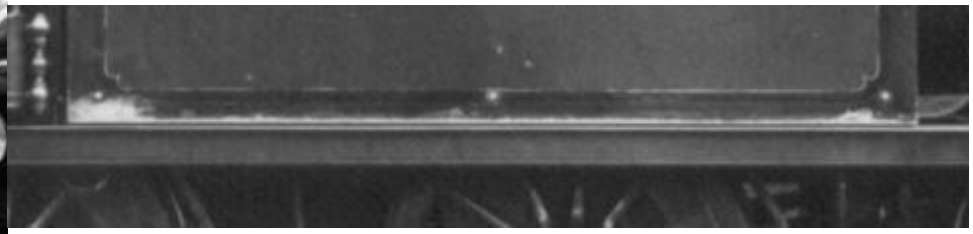
Boxhill at the NRM

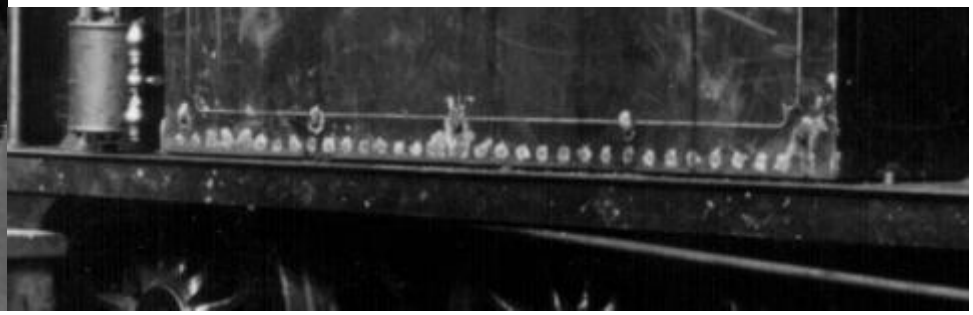
The moral of this - and the point of this note - is that there should ***not*** be a nice smooth top to the side tanks; there really should be an inset area between the cladding sheet and the boiler. Both Albion and SE Finecast kits (and possibly others) make provision for the feature. Irritatingly, it is one of those features that you will always look for, once you are aware of it!

Air could circulate behind the cladding sheet as there was also an opening at the bottom of the sheet, where it stood just clear of the footplate. The two photos on this page illustrate this point.

Photos from the Stephenson Locomotive Society collection







The Dapol Terrier in 7mm scale - a critique

by Richard Barton

If anyone had said a few years ago that it would be possible to buy a 7mm Terrier in Stroudley livery for under £200, or less from some retailers, this would have been met with incredulity. The first impression of the model is that it captures the prototype very well. For the most part the detailing is excellent and the Paris Gold Medal lettering on "Brighton" is beautifully reproduced. Comparing the model with photographs and with published drawings by Colin Binnie and B. C. Lane, the model is accurate. My only reservations is that the tool box is too short. This seems to be because Dapol has moved it back from the end of the footplate by about 1mm, to give room for the

central lamp iron. The angle of the tool box lid is too steep but most published drawings have the same error. Colin Binnie's appears to be the most accurate. Referring to Tom Middlemass' "Stroudley and His Terriers", the illustration of "Brighton" on page 14 is almost exactly to 7mm scale. I think the error is because front of the tool box (ie that nearest the buffers) should be taller.

LIVERY

1/ The main body colour is too pale and flat and this seriously detracts from the model. There are various opinions as to the exact colour of Improved Engine Green but the Dapol

Dapol Brighton next to Bognor, painted by Alan Brackenborough

interpretation is wrong. Someone jokingly said it should be French mustard not English! The olive green borders should also be darker. Opinion so far is that to weather and darken the body colour would spoil the lining, so stripping and repainting may be the only option.

2/ A heavy steel sheet was formed over the boiler with "wings" forming the tank tops and over which the top of the tank sidesheets curved. It is generally agreed that the tanks tops would have been black. At some unknown date, even possibly from the original construction, a thinner sheet was placed over the boiler as far as the centre line of the handrail stanchions and fixed with a row of bolts. This is replicated by Dapol but the wings of this plate, ie as far as the handrails, should

Dapol Thames next to Piccadilly, painted in Precision Paints Improved Engine Green.

be IEG and not olive green.

3/ The lining and lettering has been very well represented but there is a raised boiler band where the boiler meets the cab, lined in black and edged each side in vermilion. This should be an angled strip, which also extends down over the tank tops but rarely seems to have been modelled This angled strip should be body colour.

4/ The Westinghouse pump should be lined and looks very bare.

5/ The centres of the driving wheels should be olive green, as should the balance weights, with the line of the spokes picked out in IEG. The brake shoes would be better painted as wood.

6/ The flanges, where the condensing pipes enter the smokebox and the tank fronts, should be copper, like the condensing pipes. The flanges are also a little too large in diameter.

7/ The safety valve levers should be steel not black. I have sometimes seen them painted blue and I have been told that this derived from a misinterpretation of the engineering drawings.

8/ The colour of the cab interior is wrong and the cab beading should be steel and not a mixture of IEG and olive green. I have always painted the splasher tops in the cab olive green - can anyone confirm if this is correct? The wooded toolbox lid may have been unpainted.

9/ The buffer heads and the ram would better painted as steel.

DETAILING

10/ The screw coupling pockets, both front and back, are raised - they shouldn't be. This incorrect detail seems to have been copied from "Freshwater" on the Isle of Wight Railway.

11/ The lubricators mounted on the front of the tanks belong to a much later date. They can be easily unplugged. This leaves two small holes, that will need filling and the IEG retouched.

12/ The front lamp iron is fitted back to front.

13/ The two lamp irons on the rear footplate, above each buffer socket, have been missed, though they have been included on Dapol's BR period Terriers.

14/ The top of the cab steps are too flared, which has caused the lining on the valances and the steps to be misaligned.

15/ The left handrail contained the blower control rod and has the correct brass fitting, where it joins the smokebox. This fitting is missing on the right hand side:

the rod inside this handrail controlled the on/off valve for the condensing pipes. This brass fitting stayed in position even after the condensing pipes were removed, at least in LB&SCR days.

16/ The coupling rods have been fitted back to front. The large boss (knuckle) should be on the rear coupling rod and not the front one. Strangely there is a photograph of "Ewell" at New Cross c1890 (Locomotives Illustrated No 48) and of "Newington" at Kensington Addison Road (The Bennett Collection) where both have the boss on the front coupling rod. Prior to its sale to the LSWR in 1903, "Newington's" coupling rods had reverted to the standard orientation.

17/ The exhaust steam domes are fractionally too high.

18/ The cab detail is rather sketchy, the colour of the interior and floor inaccurate and the pressure gauges are in the wrong place for the period. After detaching the body from the chassis the cab can be easily removed from the footplate for attention to the interior.

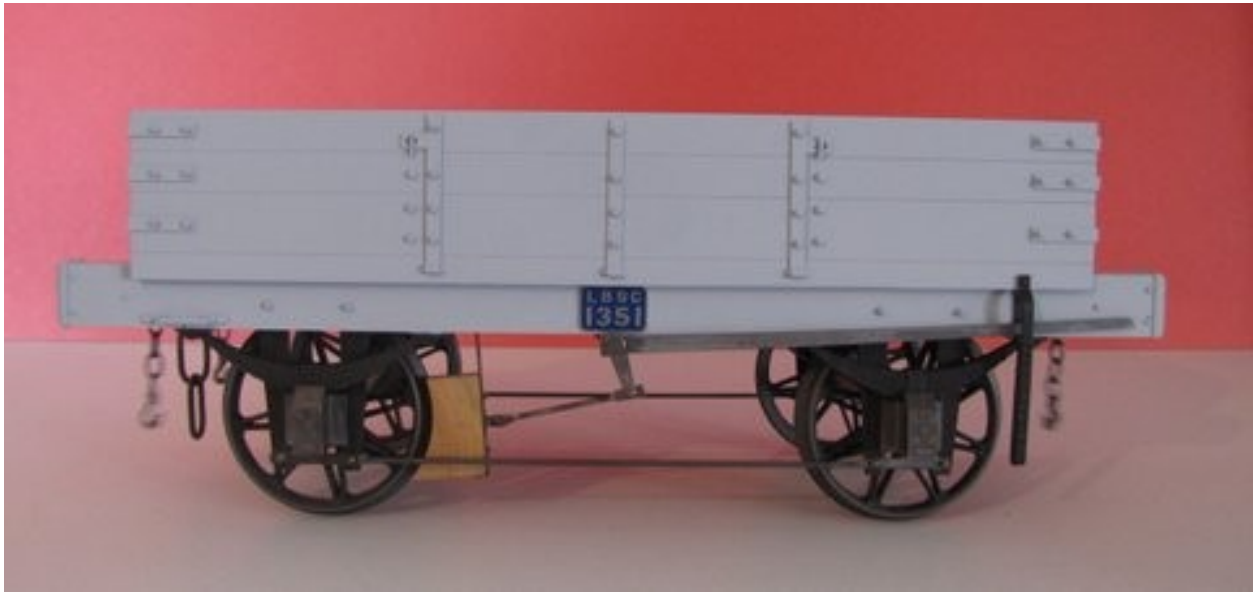
CONCLUSIONS

The models are fantastic value for money and run beautifully and smoothly. My only major criticism is the body colour: most other inaccuracies are easily corrected or not difficult to live with, though some could have been avoided with better research and at no extra cost to Dapol. It would have been helpful if Dapol had provided more detailed instructions: for example how to access the cab interior but this information is available on RM Web. There are also some issues with quality control and packaging: both number plates on my "Brighton" had dropped off in transit. My models are DC but I have heard of some problems with DCC fitted models as supplied. There is footage on YouTube of Terriers with sound - very tempting!

Brighton wagons in 13.5mm to the foot scale

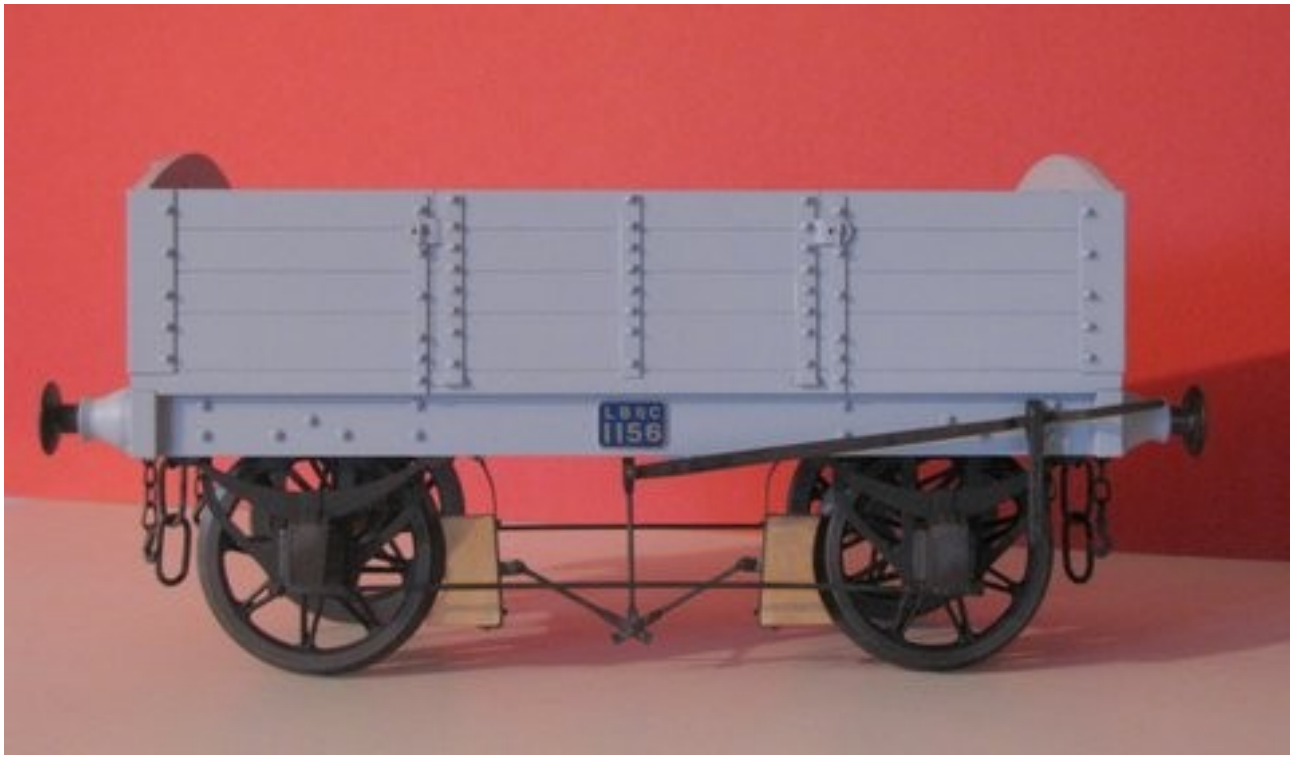
By Jon Nazereth

These two wagons are built to 13.5mm scale – or Gauge 3, so rather larger than your average model railway. Both wagons have been scratch built from styrene with the body sitting on a separate under frame and both from Simon Turner drawings.



I had originally bought the wheels of the dumb buffered wagon as castings from Mark Wood and they were destined for another project. However, I made a mistake in the turning and this set ended up too small, so I kept reducing the diameter until they suited this wagon which is why the tyres look a little 'worn' (to say the least) but then, it is an old wagon after all. Both sets of axleboxes were made by me. I had some etched overlays which I fixed to the dumb buffered version: the round end version being left plain. The safety chains and eye bolts were home made too but I bought in the little hooks. Similarly, the draw hooks were bought in but I made up the chains and silver soldered the joints. The leaf springs, brake lever and brake rack are bought in.

The picture of the underside of the curved end wagon shows the simple device for preventing the buffer beams being pulled off while the wagon is in a train. As the whole thing is made of styrene there is limited strength in the construction and this little gizmo takes all of the strain. I have made six G3 wagons and they all have this type of attachment to stop them being pulled apart. The W irons are separate and bolted on using 14BA bolts with 16BA nuts that have been opened out and tapped 14BA. With the nuts on the outside, I think that they look quite good being that much smaller. Strapping is etched and is held on with 1/32" rivets with a 16BA dummy nut opened out. I have used etched nuts before but these are a fiddly job to fold up so, I stick to the 16BA nuts these days. The hinges are etched but I have soldered a piece of brass tube on the ends with a pin through to represent the working end. I did try a chain and a piece of twisted wire on the retaining pin but neither looked quite right, so I left them off. Number plates are from Guilplates. I spray all of my wagons with 'Acid#8' etch primer and that's it. To me, the colour is a good 'lavender grey'. Where I can, most metal-work is chemically blackened with a minimal amount of painting with brushed on black paint. I know that the strapping is supposed to be black but I do not want to spoil a reasonable paint job by “going over the lines” with black paint. I have also tried transfers but I get them a bit crooked or there is a “backing” sheen once they are dry, which I do not like, so these have been left off.



I may get the hang of transfers one day but probably not hand brush work. Someone suggested blacking the brass straps before fitting but I think that this would be too risky as I would be bound to get glue where I did not want it and I do not think that trying to blacken 1/32" rivets would be very much fun. I ought at least to paint the insides of these wagons, which would help with their appearance; one day perhaps. Others have said that they should be weathered but, after taking so long to build and paint them, I do not have the heart to cover them with a dirty wash of any description.

The buffers and bases are also home made.

I have not run the wagons yet and my loco, a Manning Wardle, is away being painted. I have put in 20m of out and back track in the garden, which is really a sort of test track. There are various G3 members around the country who have their own outdoor tracks and they invite members to run their locos at different times in the year. Yes, they are G3 and rolling stock is available, but not for the LBSCR in the period that I like to model.

The Silhouette Cameo Plotter Cutter – Continued

by Ian White

Issue 1 of the LBSCR Modellers' Digest included a first impressions review of the Cameo Plotter Cutter. This article continues with a specific application.

My interest in plotter cutters was aroused while attending a craft fair. I had spotted a stand selling greetings cards with complex cut-out shapes in them and at first I assumed they must be laser cut. The stallholder was also selling model buildings created from complex interlocking sections of thin card which merely heightened my curiosity. It transpired that computer controlled cutters are now readily available at the sort of price we would have paid for a printer a decade ago. These cutters come complete with a library of patterns for cards and novelties. But could they also do something useful?

It transpired that some could only cut the manufacture's supplied patterns but those branded as *Silhouette* could cut to order. At the time of my purchase the choice was between two machines, the *Silhouette Portrait* and the *Silhouette Cameo*, but there is now also the *Silhouette Curio*.

Portrait – This machine will cut across a 20cm width and is supplied with free, but very basic, drawing software from which the cutter can be controlled. This can import DXF (drawing exchange format) files but there are compatibility problems.

Cameo – This was my choice perhaps over influenced by the manufacturer's information which makes it sound like a major advance on the *Portrait*. As far as I can now tell its only advantage is a greater cut width (33cm). It comes with the same software but I opted to pay a little extra for the *Designer* edition as that allows import of SVG (scalable vector graphics) files, which lack the

compatibility problems reported for DXF files.

Curio – This was introduced in 2015. It has the same platen width as the Portrait but will handle thicker materials and carry out embossing. However, those extras may only be applicable to special materials and apparently its highest cut pressure setting is only the same as the older machines, so it is doubtful if it gives us any advantage.

Needless to say the user guide makes no mention of cutting thin plastic materials but there is always a pioneer amongst model makers and RMWeb hosts an extensive guide to using the *Silhouette* machines for cutting plasticard. The following notes indicate my approach to using the *Cameo* and anyone wanting more detail should consult the RMWeb series.

One obvious question you may be asking by now is, how does this differ to laser cutting? Laser cutting will give a clean cut through even quite thick material but the material to be cut is a special plastic requiring a special solvent to bond it. Plotter cutters such as the *Cameo* can cut the long established model making materials of card and plasticard, but the thickness handled is limited. In theory the *Cameo* is also a plotter but frankly the coloured pens are a joke. Specially adapted biros with thick nibs and very little (or no!) ink. The critical factor is cost as these entry level plotter cutters are considerably cheaper than laser cutters should you wish to have a go yourself rather than subcontracting to somebody with a laser cutter. So what thickness of plasticard does the *Cameo* handle?

5 thou – clean cuts any shape but this is generally too thin to be of practical interest to us.

10 thou – This can be clean cut but it is better for the health of the cutting mat to aim for slightly less (a snap-out cut) by setting the blade set just beyond mid depth (setting 6).

15 thou – With a good blade set to maximum depth this can cut almost clean though, leaving the model maker to snap out the waste (a new deeper knife was also launched with the *Curio* and it will fit the *Cameo*, but the cost is ridiculous).

20 thou – Although this cannot be cut (the limitation being blade pressure, not merely depth) it can be scored. I have used it to cut Slater's embossed brickwork sheets (brick placed face down and aligned to the grid of the transparent cut mat) to produce window and door apertures.

Aside from obvious considerations of scale, my choice for anything that does not require brickwork is to use 15 thou for most layers and reserve 10 thou as overlay material for fine details. The process is illustrated here using a set of examples.

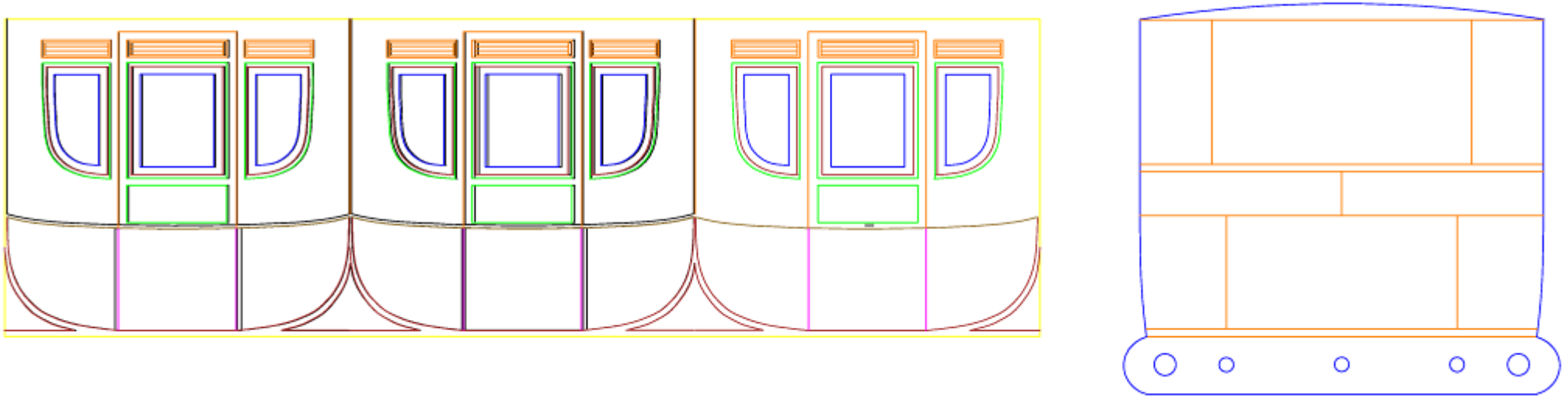


Fig. 1. First create or adapt a drawing using a CAD package (my choice is TurboCAD). I use colours to mark each depth of the carriage structure as they will each be represented by a different layer of plasticard. Orange lines represent ones to be engraved (scored not cut), either as surface detail or as guidelines for Chris Cox (5&9 Models) to use for fixing microstrip mouldings.

Fig. 2. The coloured layers are separated and the colours replaced with just three new colours. One for complete cuts (black); another for engraving cuts (orange); and a third is a box of known size placed around the drawing group (blue). I could have made separate files of bits to be cut in each thickness of plasticard. However, these parts were to be tested by Chris as potential casting masters so I wanted to leave the choice of what was done in each thickness to him, and I cut all parts in both 10 and 15 thou. Finally, all “grouped” lines must be “ungrouped” and then the file saved in SVG format.

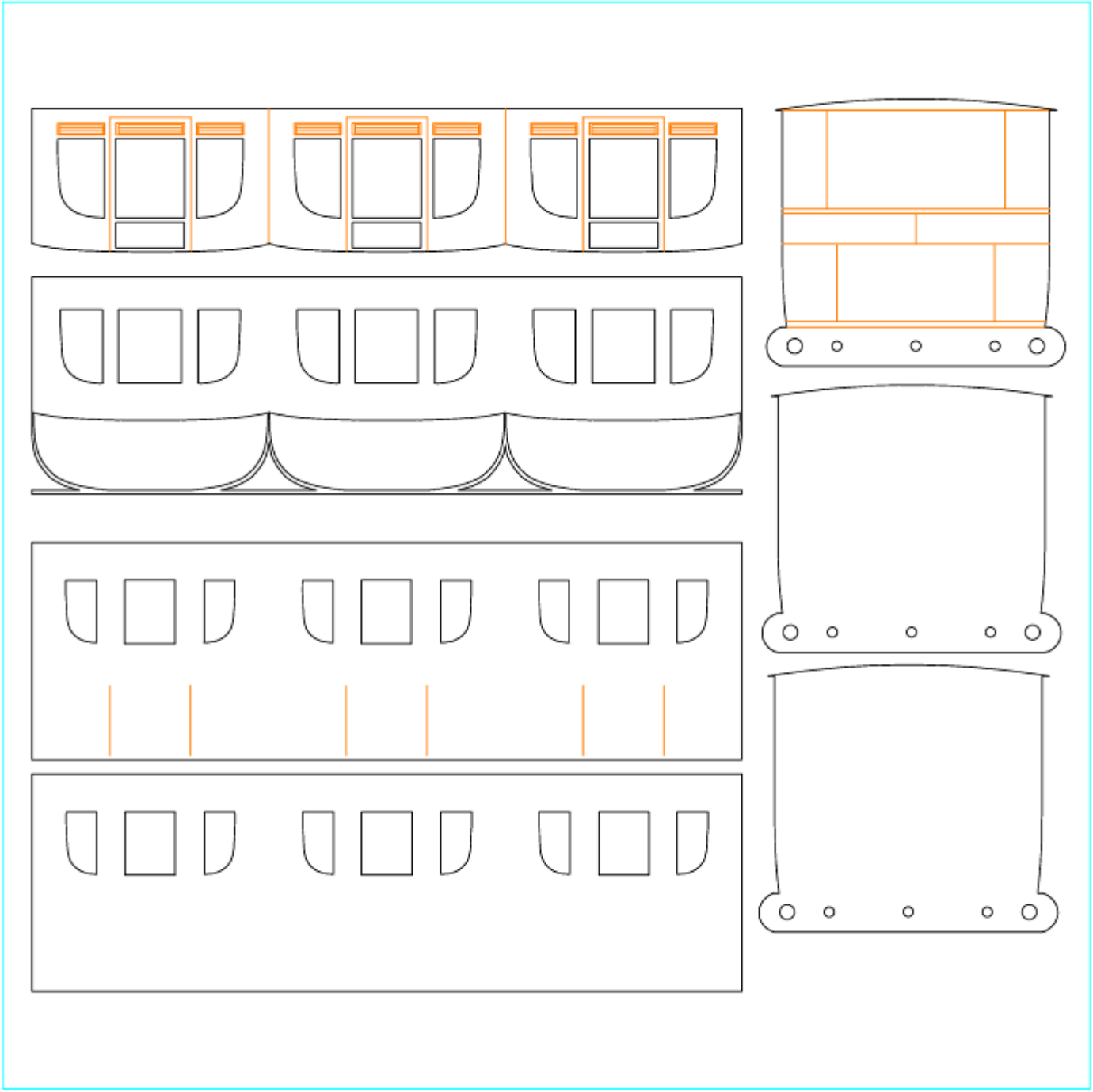


Fig.3. An SVG file, in this case of a small signal box, has been imported into *Silhouette Studio Designer*. The scaling has been lost so the outer box is used to correct the drawing size (use “select all” then “group” first). In this image orange lines, i.e the ones to be engraved, have been selected (T&G boarding and guide lines for fitting tile strips to the roof). I have previously defined settings for each type of cut so a reminder is displayed that I have to remove the blade holder and set the blade to a depth of 2 units. Once done (and it is easily forgotten!) I can press “Send”.

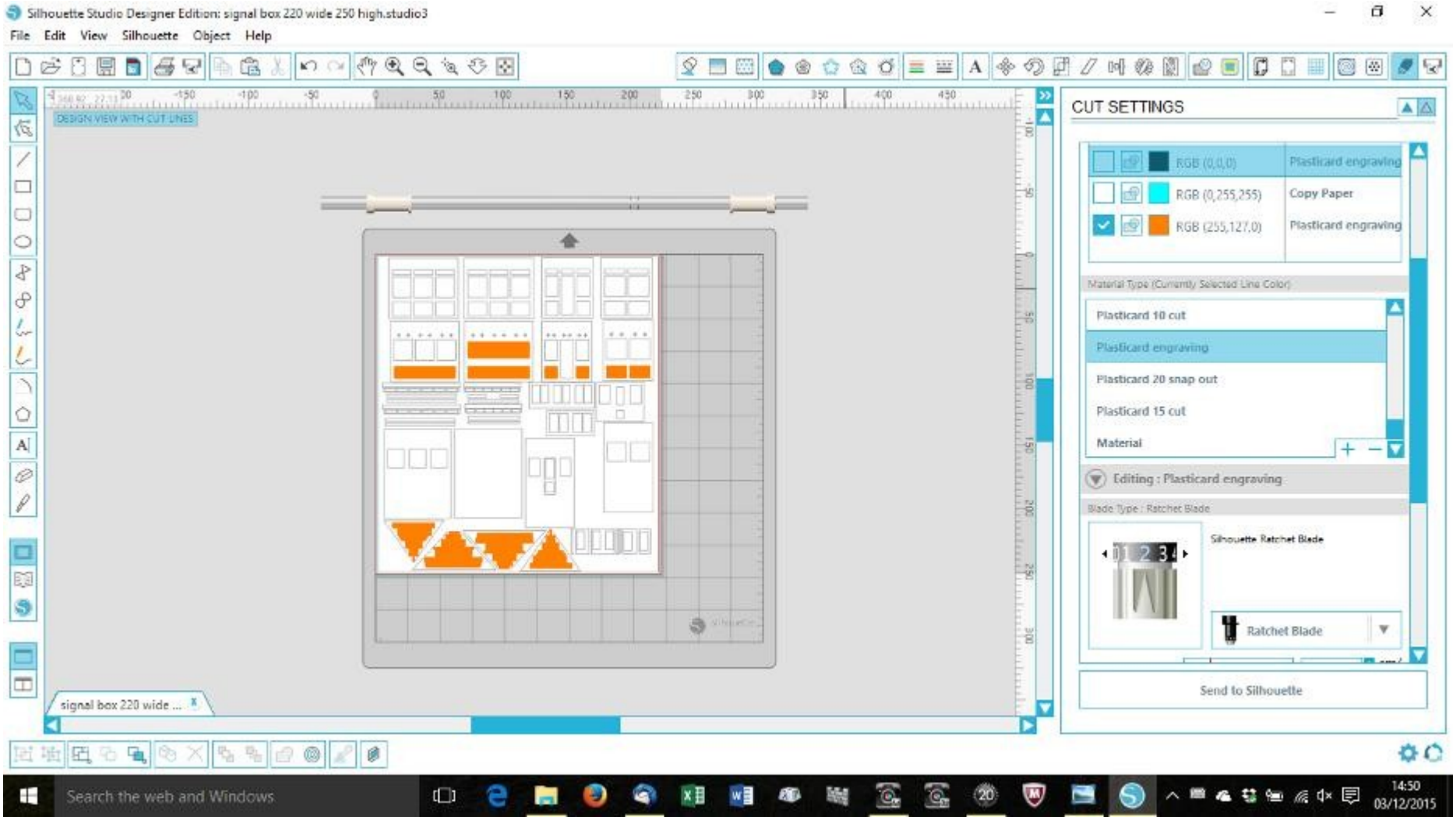


Fig. 4. The black, i.e. full cut, lines are now selected. I'm using 15 thou for this job and I have to remove the blade holder and reset the cut depth to its maximum setting of 10 (9 will suffice if the blade is new). Note that the cut speed is set as low as possible; "thickness" (meaning pressure) as high as possible (decrease for 10thou); double cut is set so every line is cut twice; overcuts of 0.3mm are set to ensure the whole depth of the blade goes to the corners of each cut (decrease to 0.1 for 10 thou and increase to 0.5 for 20 thou). There may be circumstances when some lines should not have this set so an additional cut colour could be defined. In some cases some sections of the work may require re-cutting. In the case of this signal box I subsequently redesigned the windows and cut them in 10thou, and recut the reinforcement layer in cream coloured 20thou.

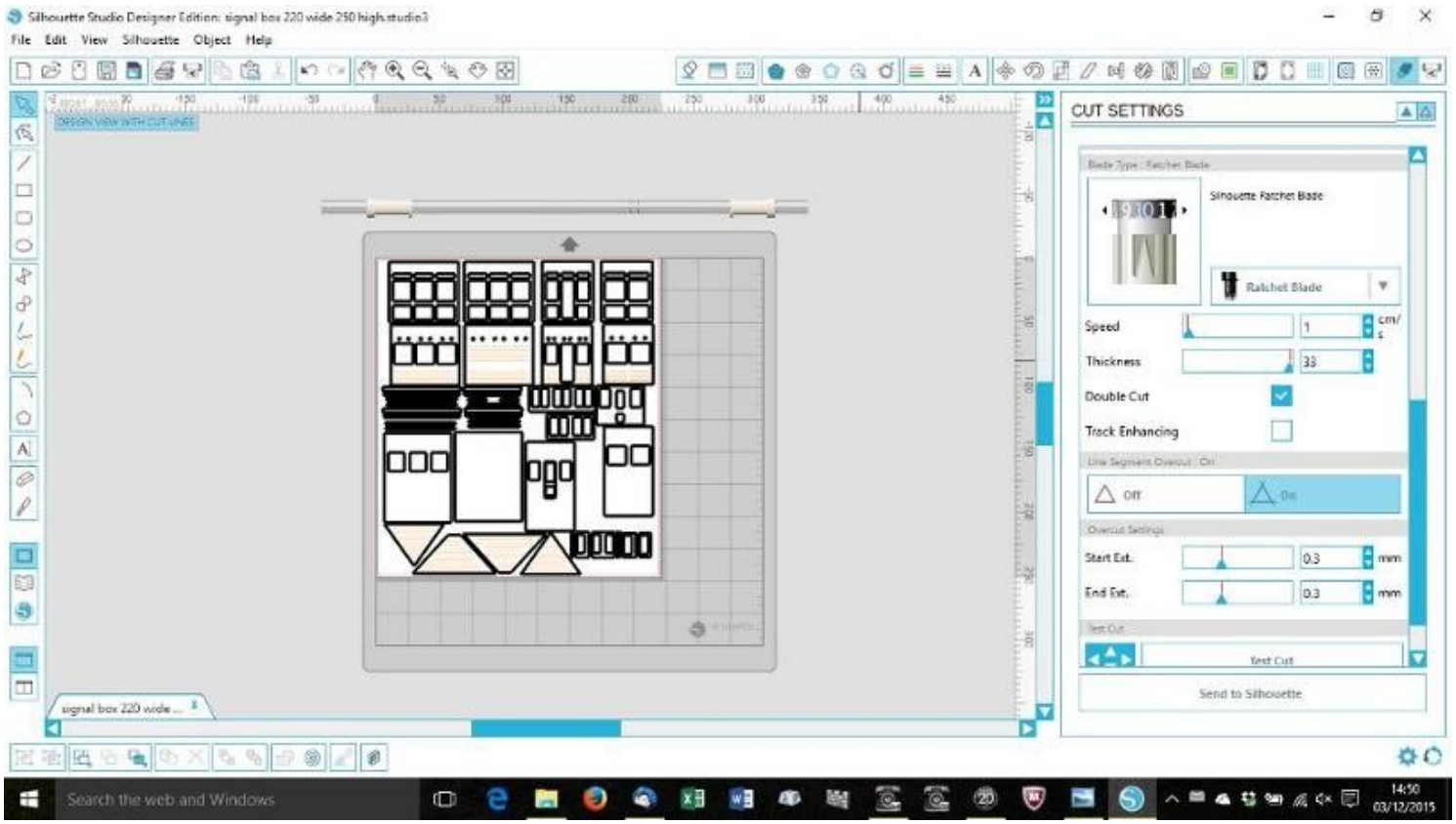


Fig. 5. The *Cameo* in action! The plasticard is carried on a special tacky cutting mat. The blade is moved side to side and up/down; the mat is rolled back and forth; the blade is also turned within the blade holder. Plasticard leaves the cutting mat clean but card leaves fibres so reducing the life of the mat.

Fig. 6. Some of the cut parts for the signal box. The finest details were 0.7mm across but being in 15thou, and cut with a 0.3mm overcut, there were a couple failures when the waste was pushed out. Use of the new deeper knife, for which there is a low cost third-party alternative, would provide a more acute point (60^{o}) thus requiring less overcut. The down side of the third-party blade system (CB09) is that there is no graduated depth setting.

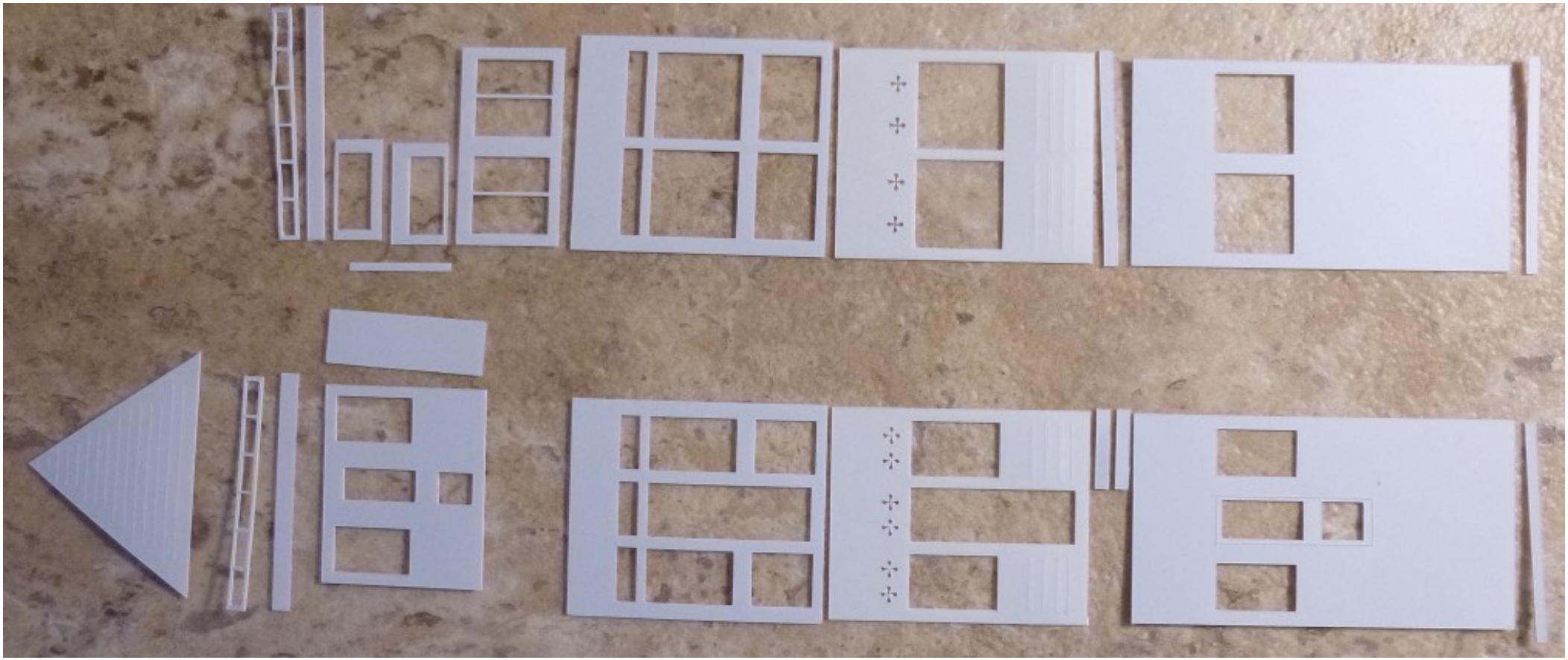


Fig. 7. Parts for a Type 2F carriage assembled by Chris Cox using 10thou thick parts. Chris found that my simple separation of layers was not entirely practical and he carried out some cutting and shutting of parts to achieve this, which merely emphasises the need to experiment. Next time, I will know what to do!

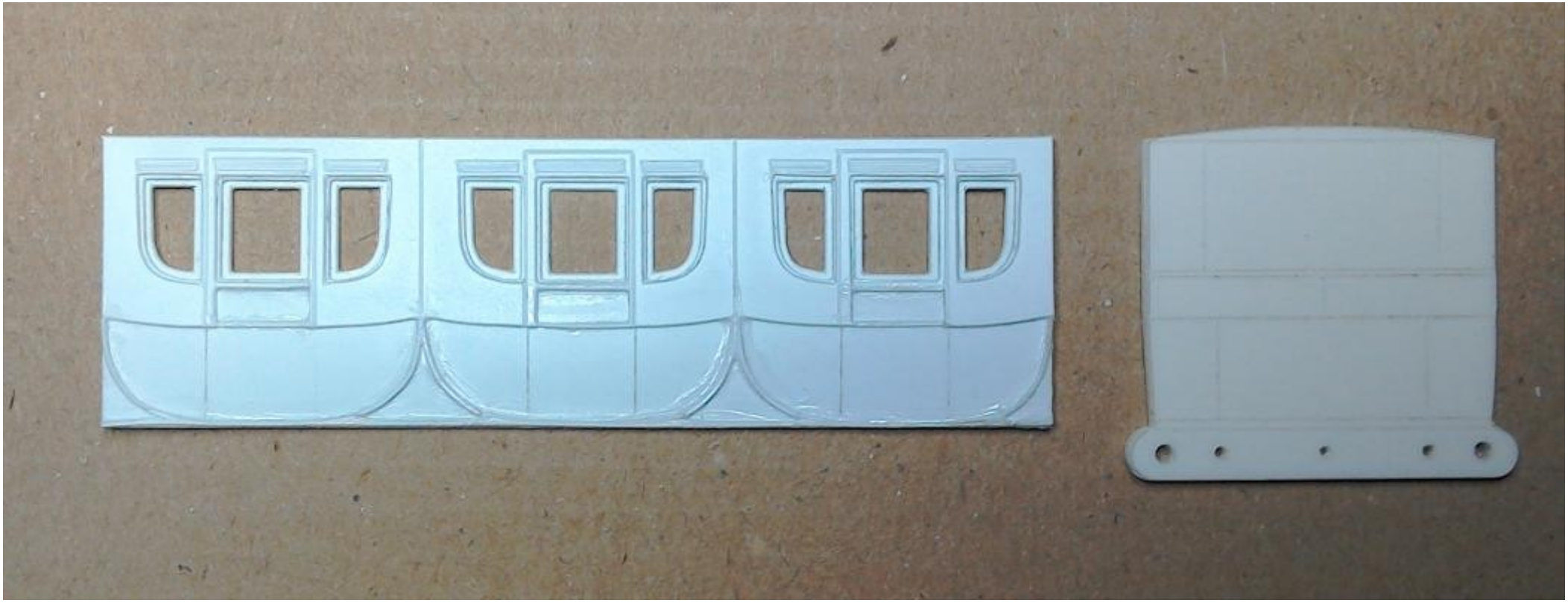


Fig. 8. A near completed building model (Hailsham). The brick sheet was cut on the reverse as noted earlier, and included embossed lintel detail. The lintels were then removed and refitted so the details were on the brick side. The tile strips (most still to be fitted) were produced in 10thou sheet. The window details were printed, as leaded light details are beyond the resolution of the cutter (and etched brass). In theory the *Cameo* could be used to cut brickwork but I would not advise this on anything beyond a very small area. It would take hours and without numerous uses of the pause button quite possible wear or even burn out the machine. Most parts of this building cut well. The only exception was the lantern roof and that was the fault of my poor CAD work. I must have missed school on the day they did tapered hexagons with concave vertices!

Fig. 9. An early 1880s signal box for *Hailsham Common* is another near completed building. The sash windows were cut in 10thou and include 0.5mm details. The model requires further trim items notably gutters and tiles, and a final touch up of paint to cover filler at the corners. The thin roof (15thou) needed reinforcing and that has caused it to sit too high; another lesson learnt! Some interior bits will also be needed but not many, as it will be sited with its back to the audience.

Breakdown trains - a follow up

Issue 1 of the LB&SCR Modellers' Digest featured a number of 4mm scale models of Brighton cranes. The photo below shows a complete breakdown train on Barry Luck's layout, Plumpton Green. The next issue of the Digest will include a more comprehensive description.

...and Overhead Electric

Eddie Carter has been working on some overhead electric vehicles which should feature in the next edition of the LB&SCR Modellers' Digest. The photo below provides a first glimpse of this unusual project.

LB&SCR Modellers' Digest Issue 3 is provisionally scheduled for mid Summer.

Photograph copyright Eddie Carter

Rowfant Station

Peter Smith built this 7mm scale station building, based on Rowfant for the Telford O Gauge show in September. It is not an exact replica but has been simplified to keep the price to £295; an exact replica would be about £395 in 7mm scale. Peter is happy to undertake any building in any scale to commission - details are on the website at

www.kirtleymodels.com

kirtleymodels@ntlworld.com

47 Kestrel Road

Melton Mowbray LE13 0AY

Dieppe

At the EMGS AGM at Chippenham in November, the competition for best scratch or kit built loco was won by this model. It is constructed from the EBM kit for the 1864 Stephenson singles, rebuilt by William Stroudley and, in this case, named Dieppe.

LB&SCR Carriages Volume 2:

Four- & Six-wheeled Saloons, Vans and Restorations

by Ian White, Simon Turner and Sheina Foulkes

Format: 304mm x 217mm hardback

No. of pages: approx 200

Illustrations: approx 200 photographs and drawings, some in colour

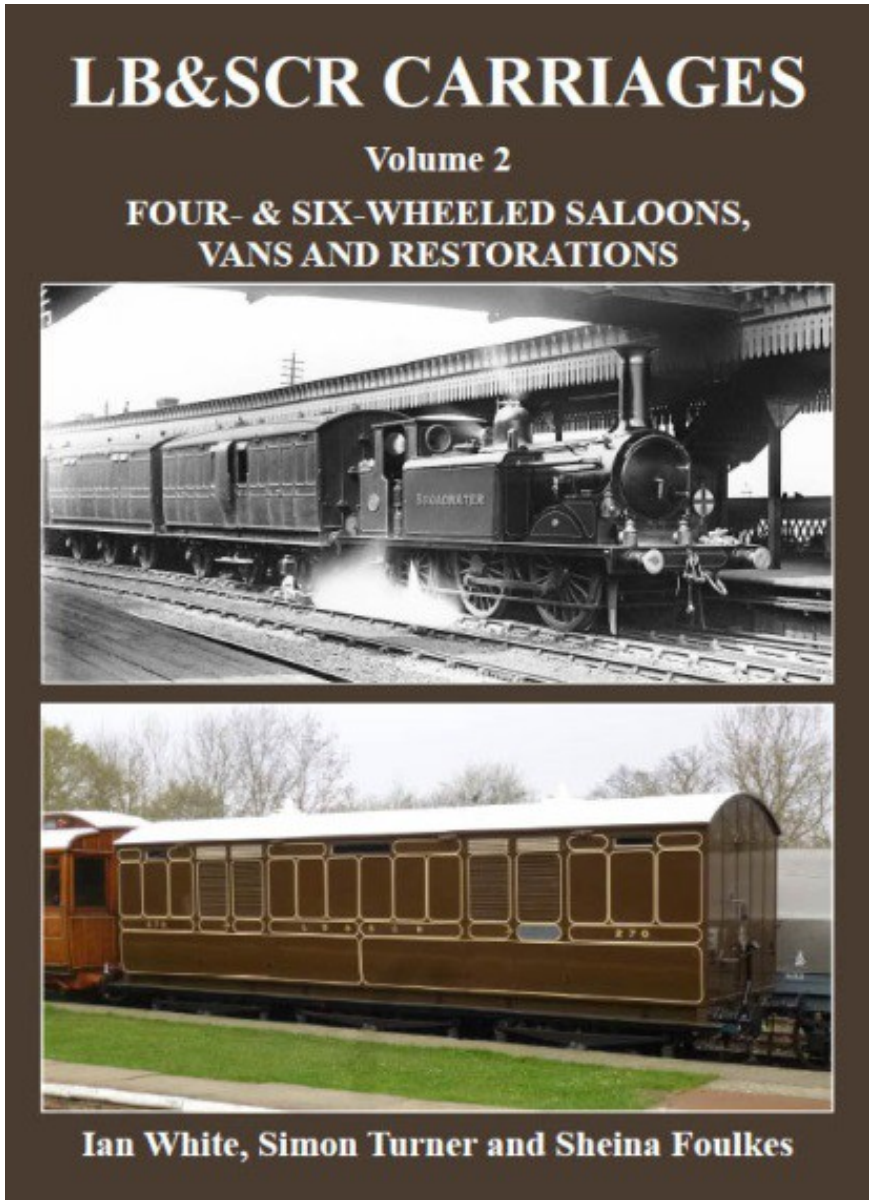
ISBN: 978-1-905505-36-4

Price: £29.95

Publication: 29th April 2016

Distributor: LBS/Ian Allan

New fully-illustrated history of LB&SCR carriages in two volumes, this second volume covers the four- and six-wheeled saloons and vans, and also the restoration of these vehicles



Kestrel Railway Books

PO Box 269, Southampton, SO30 4XR. Tel: 01489 798141

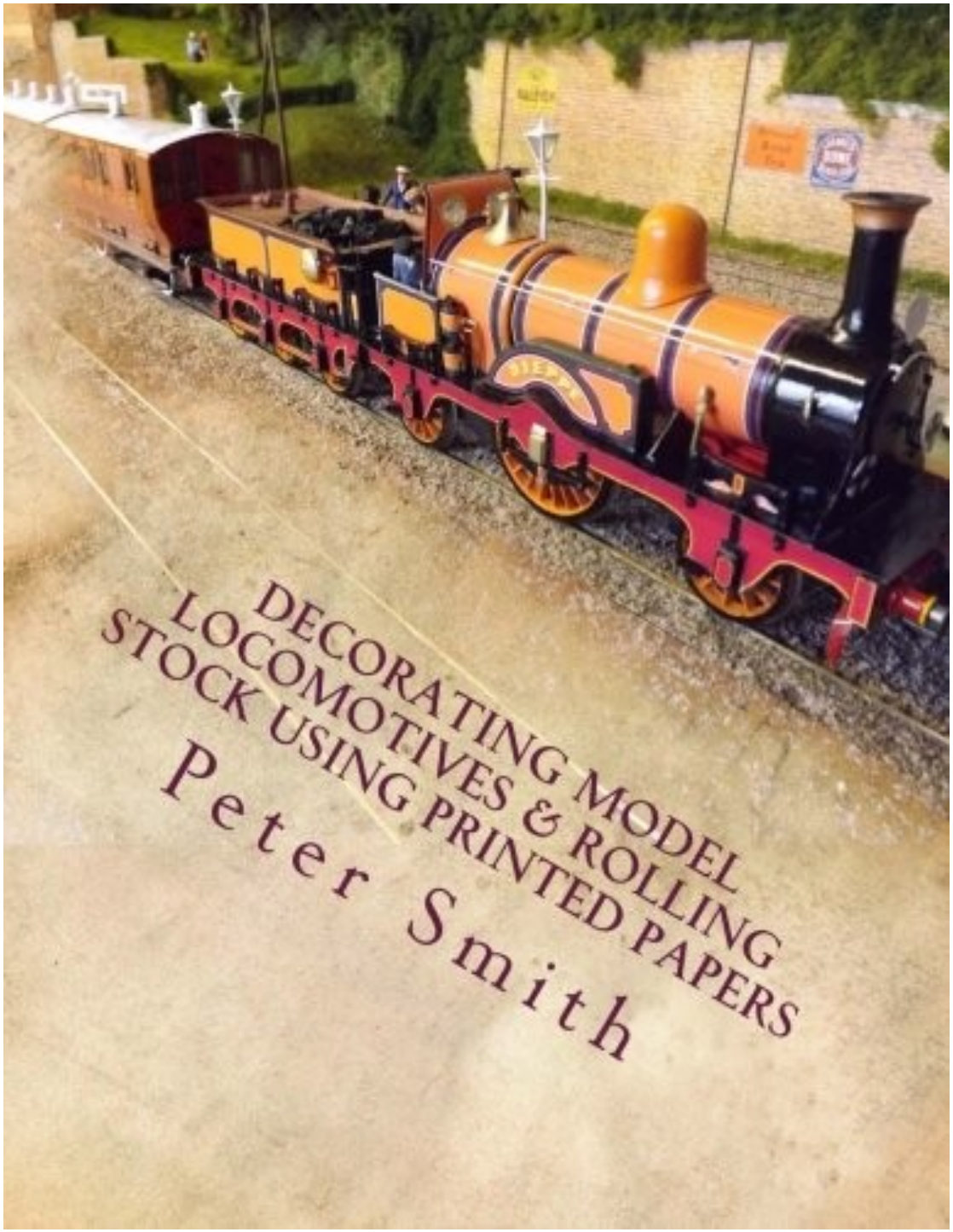
info@kestrelrailwaybooks.co.uk http://kestrelrailwaybooks.co.uk

It is now almost forty years since the publication of *Carriage Stock of the LB&SCR* by PJ Newbury, and twenty since David Gould produced *Bogie Carriages of the London, Brighton & South Coast Railway*. This new book is the second of two volumes intended to complete the coverage of LB&SCR carriages and passenger-rated vans. It describes the four- and six-wheeled saloon and passenger-rated vans, and also gives an account of the restoration of LB&SCR carriages at the Bluebell Railway.

The aim is to provide a “design history” based on contemporary historical documents supplemented by practical knowledge gained through the study and restoration of surviving carriage bodies. The two volumes describe how carriage design developed, and how it followed new developments in train lighting, braking, communication and the social distinctions of the time.

Both volumes are profusely illustrated with photographs and scale drawings, and are produced to the same high standard as this publisher’s *LSWR Carriages* by Gordon Weddell. All royalties from the sale of these volumes are being donated to the Bluebell Stroudley Coach Fund.

Ian White was volunteering in the Bluebell Railway’s carriage works when their acquisition of 1850s-built LB&SCR carriages prompted research at the National Archives. Having moved to Derbyshire, he now volunteers for the LMS Carriage Association at Rowsley. Simon Turner has published articles on LB&SCR carriages and wagons for over 20 years. He is LB&SCR steward to the Historical Model Railway Society and Private Owner Wagons steward to the Brighton Circle. Sheina Foulkes started as a volunteer in the Bluebell Railway’s carriage works, where she is now employed as a coachbuilder. She was largely responsible for the restoration of Stroudley First No 661, and now supervises several other LB&SCR restoration projects.



86 pages and available from Amazon or from the Kirtley Model Buildings stand at 0 gauge shows, priced £10.95. The book is not available direct other than at shows. It covers applying the livery to a simple open wagon, through more complex goods stock, PO wagons, coaches, locos and finally altering an RTR loco. Anyone with reasonable computer skills will soon be able to master the technique, and it applies to any scale.

Some vehicles for a Terrier

Or 7mm scale wagon kits

Furness Wagon Company produces a range of vehicles both as kits and ready to run. Within the range, which covers a broad pre grouping spectrum, there are 4 LB&SCR vehicles which are illustrated here.

Above

FRWC82 3 plank, priced at £50 as a kit or £105 ready to run.

Right

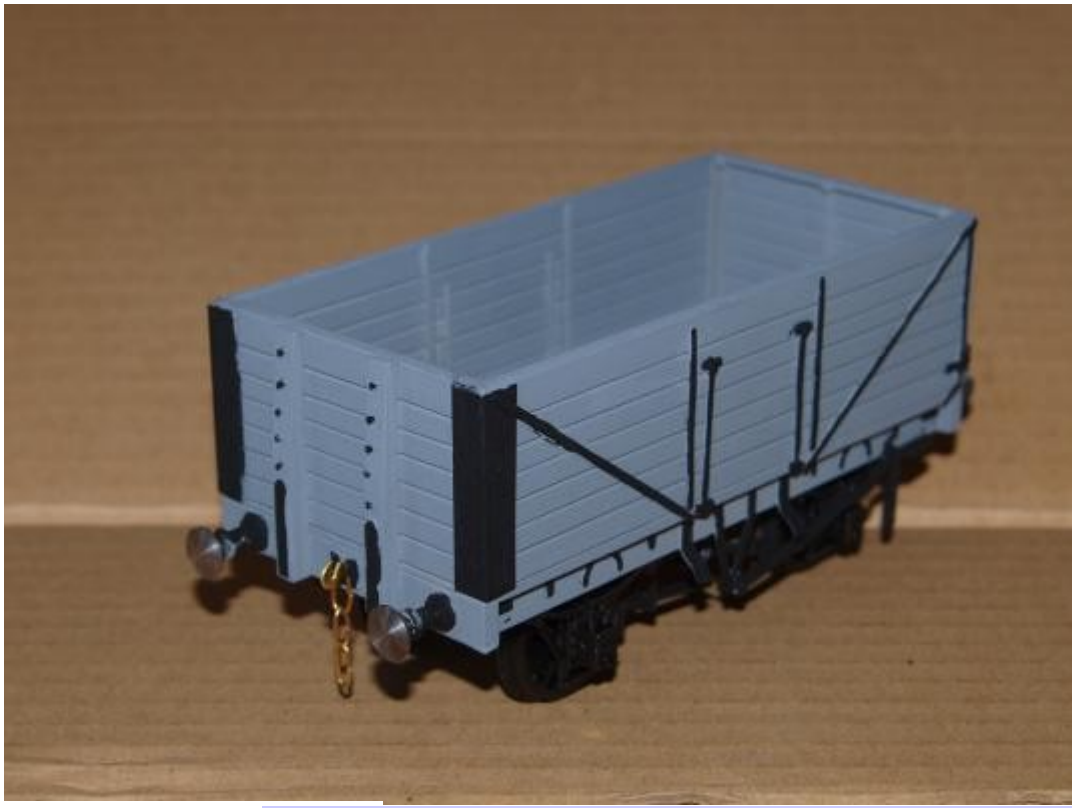
FRWC 83 Open A metal underframe £50 as a kit or £105 ready to run.

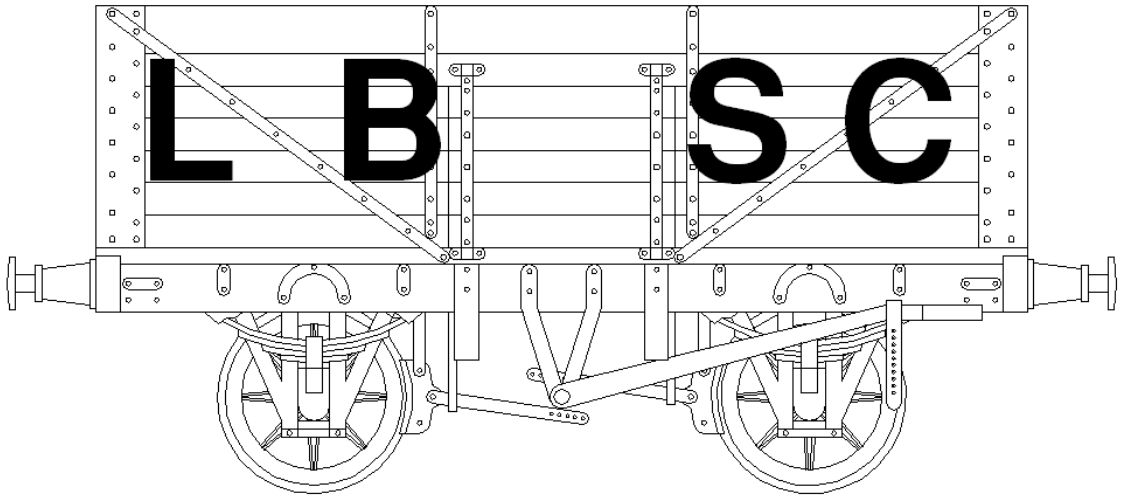
Kits consist of brass and resin bodies with brass and whitemetal fittings.

Right

FRWC48 7 plank coal wagon £45 as a kit or £95 ready to run.

Kits consist of an etched brass chassis with brass or whitemetal details and a cast resin body with etched brass strapping.





Furness Railway Wagon Company
10 Duke Street,

Dalton-in-Furness,

Cumbria, LA15 8HH

Tel: 01229 468206

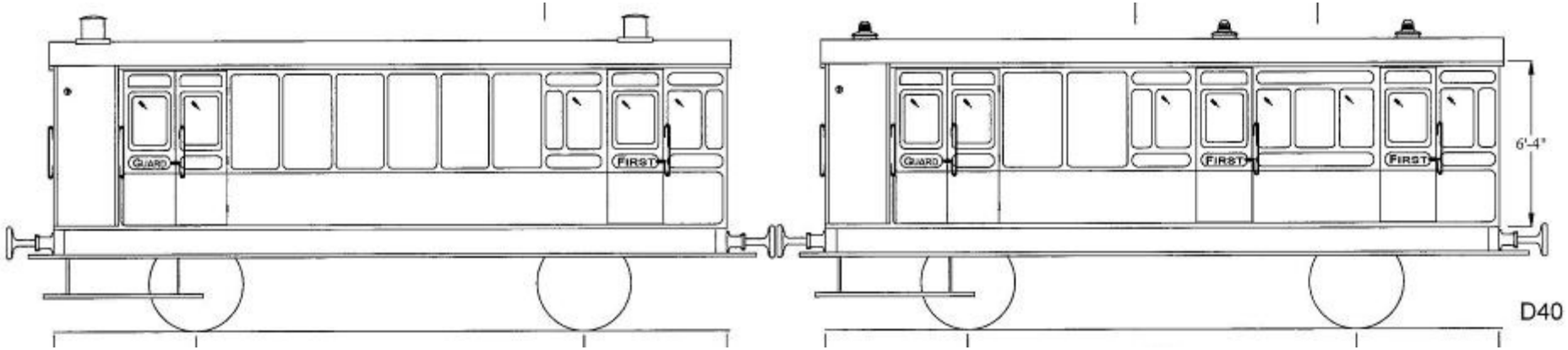
EBM

4mm scale

Mike currently has 5 new Stroudley carriage kits on offer:

4 wheelers @ £38 each:

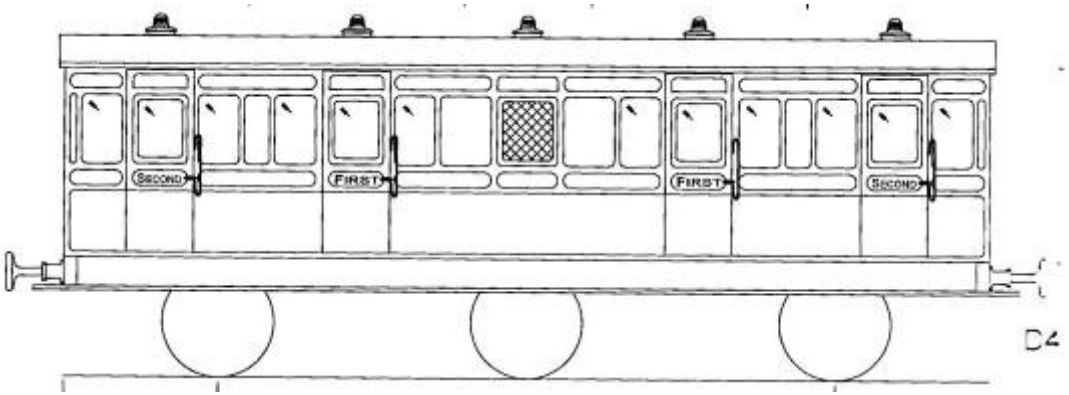
- D40 Bk/1st - 1 compartment and 2 compartment



D40

6 wheelers @ £40 each:

- D37d 1904 rebuild Bk/2nd
- D39 slip Bk/1st



-

D42

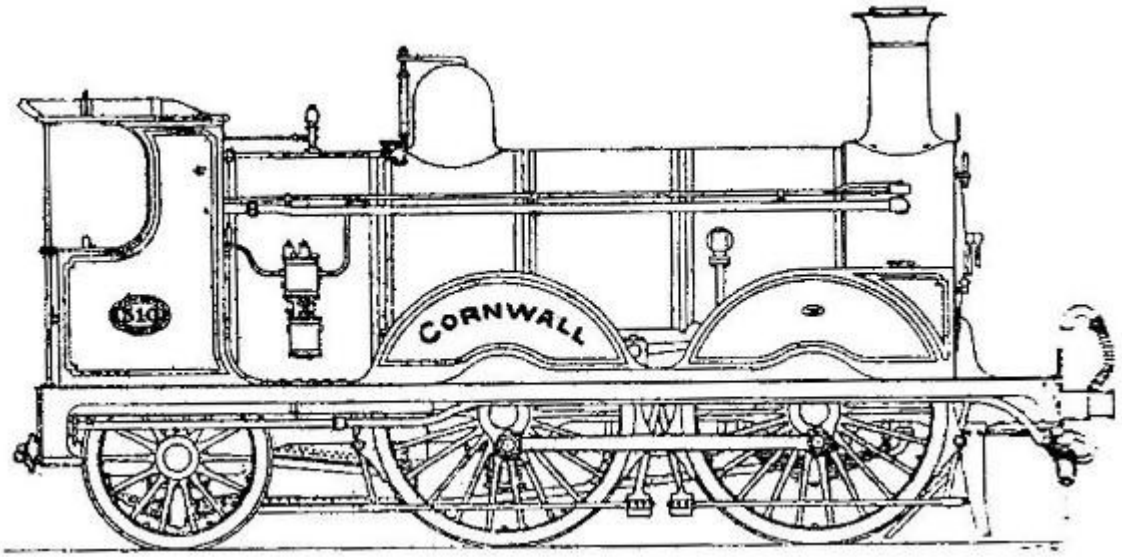
D4 Lav

Mike is also working on an etched spring/CSB fitting to enable wheels to be dropped out without being trapped by an etched spring integral with the frame sides as well as an etched “signal bouncer” mechanism.

A Stroudley tool van may well be on the horizon.

7mm scale

The next project is to do Richmond in 7mm - hopefully for Christmas.

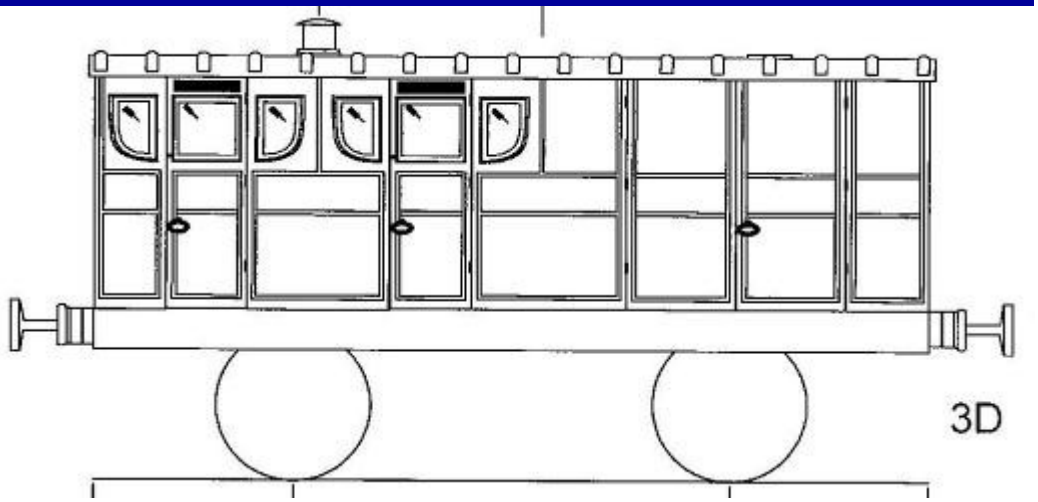


E mail - mike@mjwsjw.co.uk

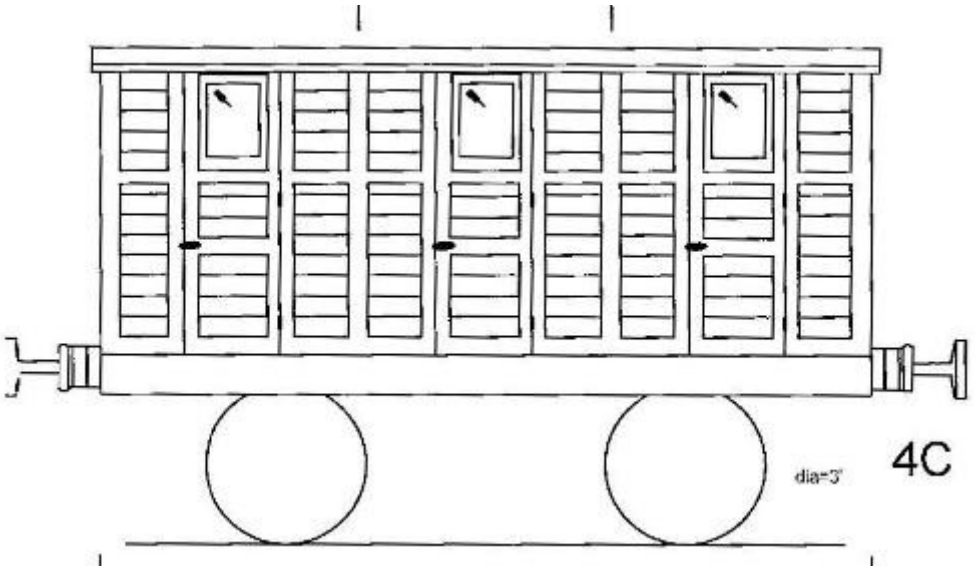
Mike Waldron, 42, Bramley Road, Mitton, Tewkesbury,

5 & 9

Chris Cox will have some new kits available within the next month or two. The first is a London & Brighton Rly two compartment enclosed second with luggage comp as per type 3D in the recent LB&SCR carriages book.



The second is a type 4C (from the same book), which can be built as a 4A or 4B as well depending on how much you decide to chop off!



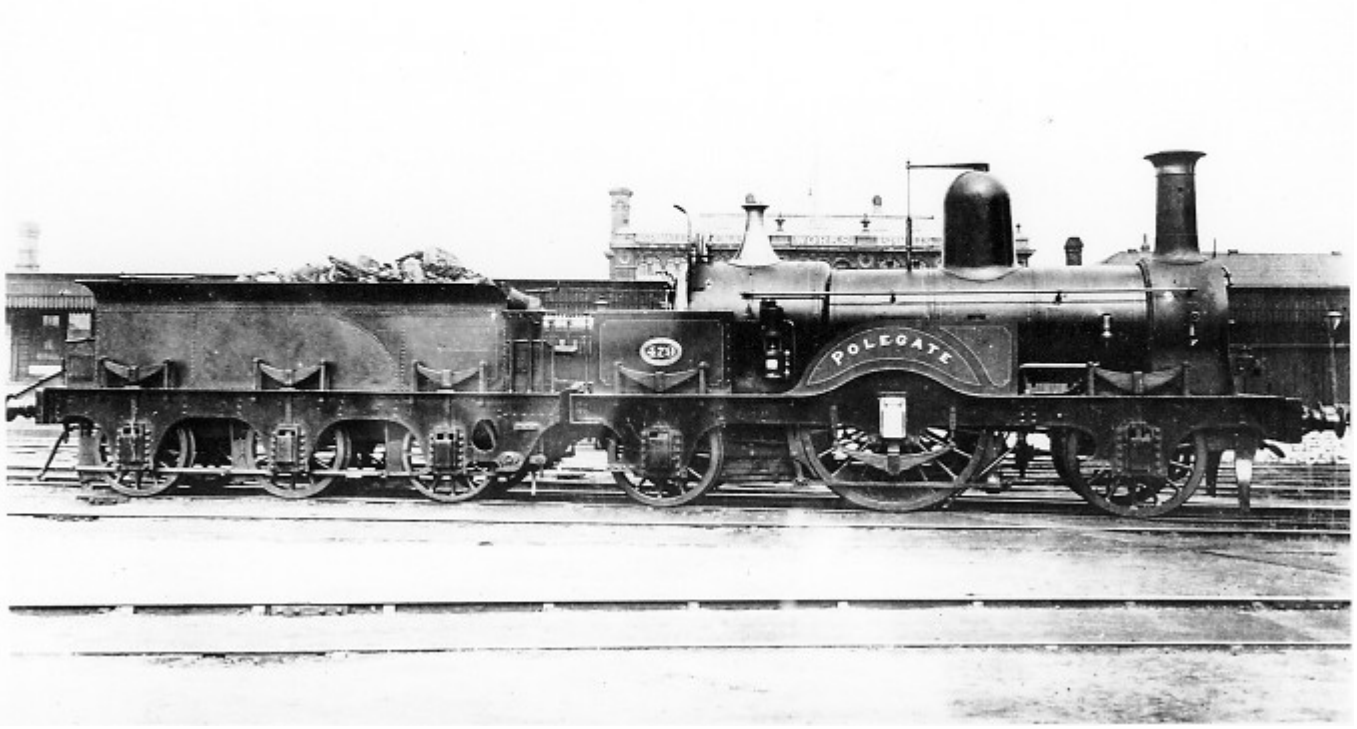
The third is an SER open cattle wagon.

Price per kit is likely to be around £15.

Also in the pipeline is a passenger luggage van by W. B. Adams. The masters are already done, so the mould needs to be made and then a sample built. Updates for all the above are likely to appear on Chris' blog on RMWeb.

http://www.rmweb.co.uk/community/index.php?/blog/1820/entry-16223-london-brighton-open-coupe-second/

The Nasmyth Wilson single is also still on the agenda.

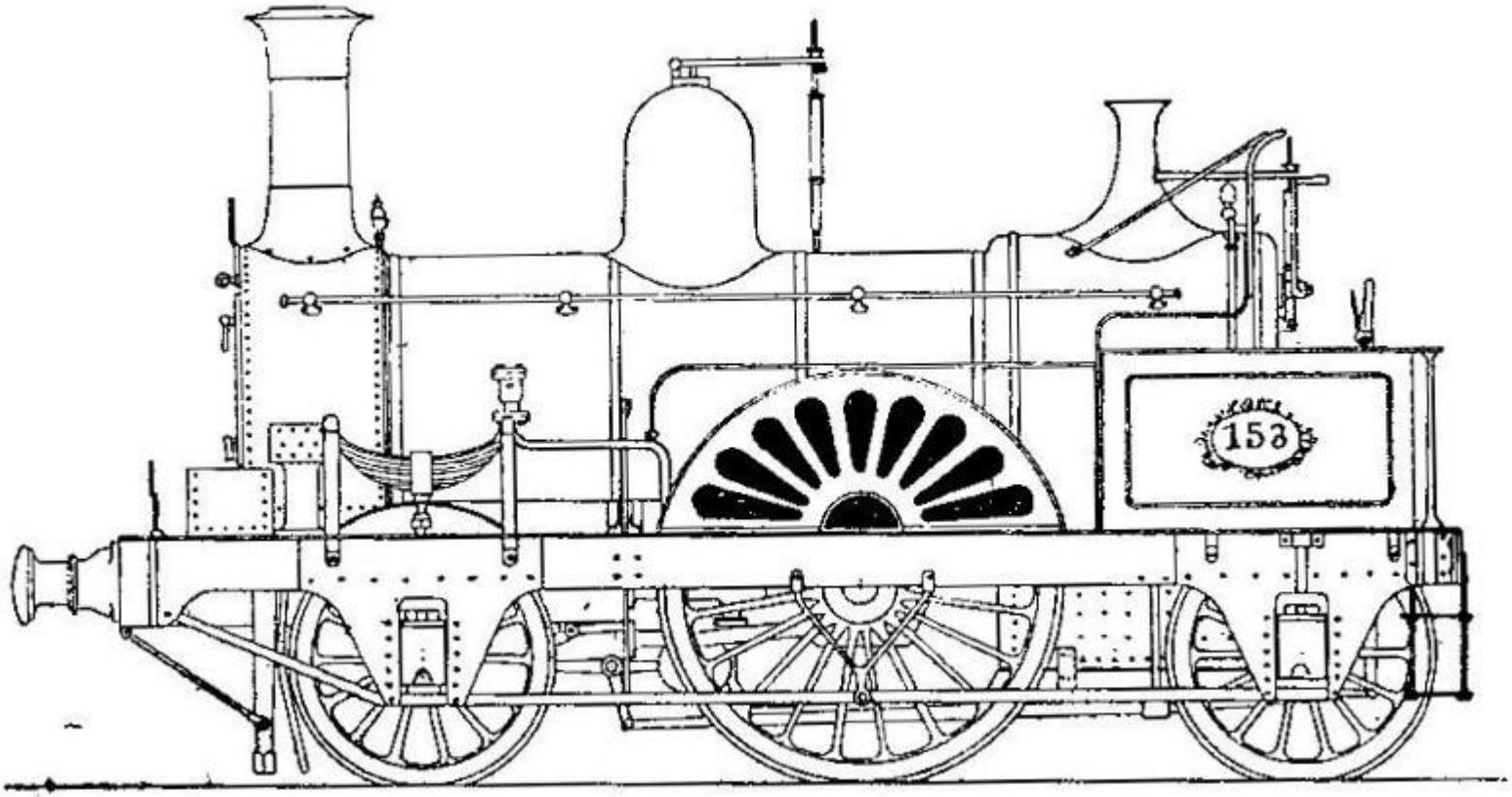


E mail chriscox5and9@gmail.com website - www.5&9models.co.uk

Chris Cox 5 & 9 Models

30 Hodge Bower Ironbridge Shropshire TF8 7QQ

Ian MacCormac Models



Possibly the next project off Ian's drawing board?

http://ianmaccormacmodels.blogspot.co.uk/

ACE

ACE Models 7mm scale

ACE Models is hoping to reintroduce all the LBSCR loco kits that have been have acquired from Meteor Models.

E mail aceproductsinfo@supaworld.com

W.G. Ascough 7 Ringley Park Road Reigate RH2 7BJ

OO Works I3 tank

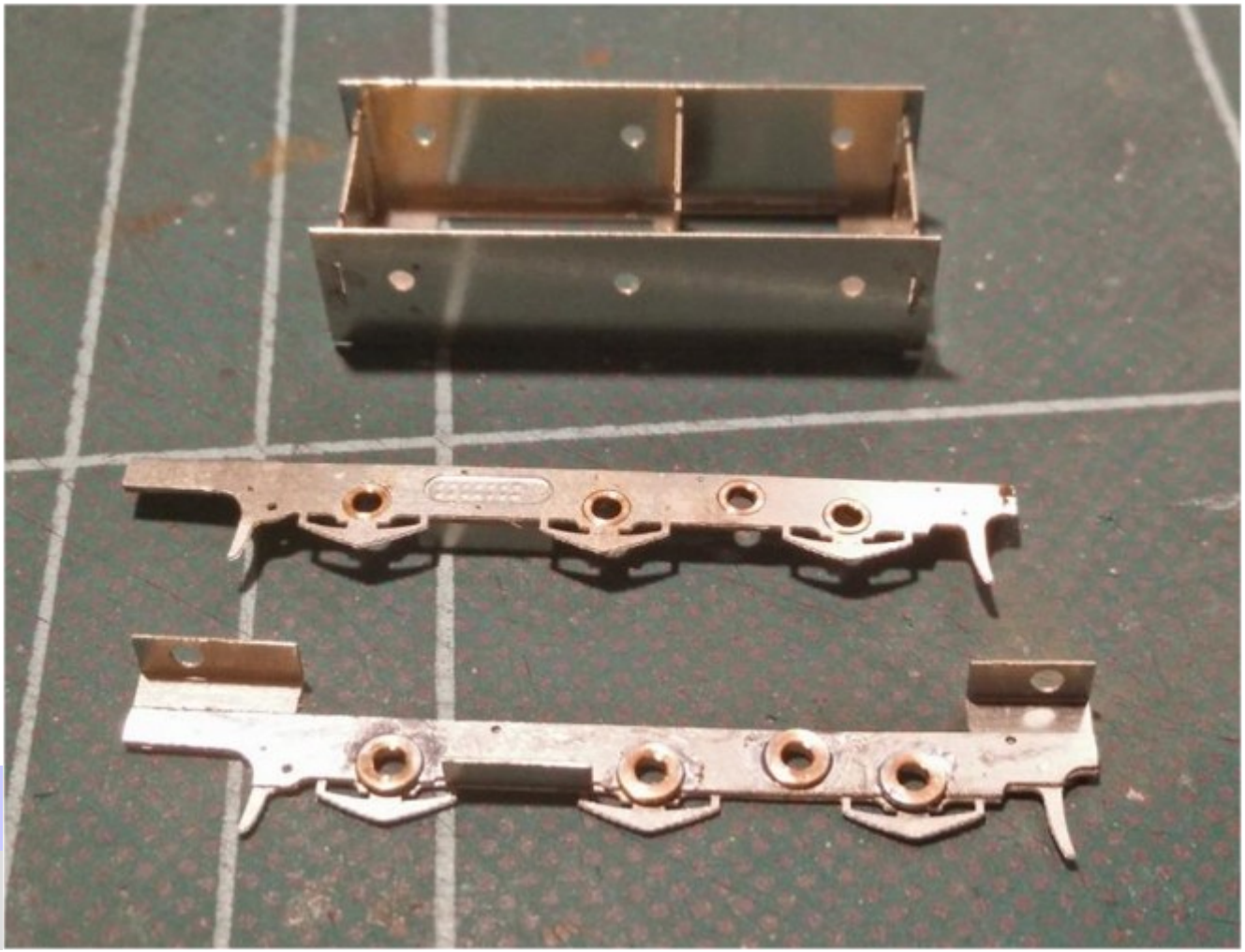
The OO Works 4mm scale model of an I3 tank, which has already sold out. Versions in other liveries are still available at the time of writing.

2mm Finescale Association Terrier chassis

The 2mm Finescale Association have recently released an etch to produce a finescale chassis for the Dapol 2mm scale Terrier. The photo below illustrates the assembly of one by Ian Morgan, which is documented on his blog on RMWeb - A Terrier for Freshwater.

The chassis is available only through the 2mm FS Association sales officer and to members of the Association. The etched fret, together with wheels, gears, motor and other bits total about £65, plus the need to source a spare Terrier body and footplate.

Illustrated are the etched frames and the chassis building jig.



2mm Finescale Association

Brighton Layouts that you may see at Exhibitions

Ferring

East Grinstead see linked website

Plumpton Green see linked website

Hailsham see linked website

Saltdean see linked website

The Brighton Circle

The Brighton Circle is the Historical Society of the London, Brighton and South Coast Railway (L.B& S.C.R.). It is dedicated to the research and publication of information about the company and it produces a quarterly journal entitled the Brighton Circular.

While the Circle is primarily focussed on railway historical research, there has been an important interaction with preservationists, particularly on the Bluebell Line, and with railway modellers. The Bluebell line provides an important source of original artefacts, which contribute valuable information about the company's practice. Modellers have benefitted by access to data about the physical appearance of the company and its operations and, as a result, members of the Circle have been able to produce scratch builder aids, paint and lettering on a limited run basis, which are made available among other members.

Membership of the Brighton Circle for 2015 is

£18.00 for full membership

Applications should be sent to

The Membership Secretary, Peter Wisdom

peter.wisdom.wisdom@btinternet.com

The Circle is also in contact with local historians, industrial archaeologists, family historians and other groups whose interests intersect with those of the Circle.

THE BRIGHTON CIRCLE

An historical society dedicated to the furtherance and publication of original research into the history of the London, Brighton and South Coast Railway

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MEMBERSHIP APPLICATION FORM

To the Hon. Secretary, Peter Wisdom, 76 Woodbourne Avenue, Brighton BN1 8EJ

I hereby apply for membership of the Brighton Circle.

SIGNED..... DATE.....

NAME.....

ADDRESS.....

.....

.....POSTCODE..... (BLOCK CAPITALS PLEASE)

It would be helpful if you could give some idea of your main interests in the history of the LB&SCR and any special interests. Please indicate if you are a modeller and give any details.

I enclose a cheque/postal order for £19.00/£10.00 to cover the joining fee of £1.00 plus twelve/six months membership of the Brighton Circle for the calendar year 2015 (please delete as necessary).

Cheques should be made payable to **The Brighton Circle.**


LV