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

The L.B.& S.C.R. Modellers’ Digest

Issue 20

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Editorial

Congratulations to Railway Modeller on its 75th anniversary and thanks for including in the November issue a nicely illustrated 2 page feature, recording the 50th anniversary of the Brighton Circle. I hope that some of those who read the article will have been persuaded to become members!

The back pages of the Digest traditionally include details of new models that are being released, whether from our own cottage industries or from the major Ready To Run manufacturers. I can honestly say that the torrent of new releases from the major companies has made modelling the Brighton in 4mm scale a pretty straightforward proposition. A number of locos are available in pre-grouping livery, the most common types of goods vehicles will shortly be available (together with some appropriate Private Owner wagons) and superbly liveried, generic, pre-grouping carriages complete the scene. I look forward to more and more Brighton layouts appearing - and to more and more modellers wishing to learn about the LB&SCR and, therefore, joining the Circle.

I had always thought that my own modelling interests were a bit niche, concentrating on Mr Craven's engines, from the 1860s. I am beginning to worry that I shall shortly find dumb buffered Stephenson Clarke coal wagons are available out of the box and that Rapido Trains UK is planning to produce an outside framed Beyer Peacock 2-4-0. Whatever next? Perhaps Jason Shron, the owner of Rapido, is muttering "hold my beer" as you read this?

Eric Gates, Modelling Steward, The Brighton Circle,

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Hayling Island in 7mm Scale

Richard Barton

The inspiration for my layout was the well known National Railway Museum photo of the terminus c1880. I have still to build those four coaches (see LB&SCR Carriages Vol. 1 page 109) but have a similar set, part scratch built and part from Ian MacCormac's etches. Ian White photographed that scene for me, which is reproduced above in colour and in sepia on the front cover.

Hayling Island was an attractive terminus but offered little operational interest. The layout depicts the track plan of 1898 but the stock is of two separate periods. The earlier pre 1890 period allows the use of the locomotives that ran on the branch prior to the Terriers' arrival. The other method of providing variety is the use of special workings. This is all illustrated by several of the photos, courtesy of British Railways Modelling, which were not used in Phil Parker's article "Stacking Hayling Island" in Modellers' Digest 17.

"Hayling Island" has the number 359, which it carried from June 1877. The Arun barge at the coal wharf was scratch built by Peter Korrison. The carriages are Luggage Brake 20B No 94, Third 8B, First 13F and Luggage Brake Second 9C. The prototype Luggage Brake No 94 has survived and is in store on the Bluebell Railway.

Standing at the Hayling Island home signal is the second Sharp Stewart to arrive on the branch. “Bishopstone” is depicted as in the photograph taken at Newhaven Harbour and was built using the etches supplied by Redcraft for GWR 1386, later WCPR “Hesperus”. They required only the side tanks set further back into the cab. After transfer to Hayling Island in 1878 it was renamed “Fratton” and that model is in the course of construction.

The Kitson built 0-4-2 “Bognor” is also known to have worked to Hayling Island and is shown departing for Havant with an LSWR excursion.

From 1888 to 1902 young oysters from Whitstable were overwintered in the milder waters of Langstone Harbour. Surviving consignment notes have enabled the correct wagon numbers to be used, the wagons kits having been built from SER Kits.

SER Kits have also supplied parts for a special working from the South Eastern Railway. A First Class Saloon, open carriage truck with Landau and a tiny horsebox (out of the picture) can be added to the branch train for variety. This a useful social history talking point with “non-railway” visitors in showing how the very wealthy could once go on holiday.

By 1866 construction of the Hayling branch was at a standstill and the situation was rescued and the line completed thanks to the efforts of Francis Fuller, a London Estate and Land Agent. He had purchased land near the beach to construct a racecourse and, though this appeared short lived, “modellers’ licence” provides the excuse to run a horse box special working.

Another interesting aspect when modelling a prototype, is research into the local community with an opportunity to identify station staff and local traders from photographs. Twelve years ago two early photographs came to light, which were published in Summer 2013 edition of The Brighton Circular Volume 39 No 2. One reproduced above left, courtesy of Debi Smith, shows guard Robert Outen, who held that post on the branch for 20 years until retirement in 1899. The "ND" visible on the station name board dates the photograph to post 1892, when the station name was changed from "South Hayling" to "Hayling Island". Also of interest is the Stroudley PBV, with the ducket facing inwards and the frustratingly partial view of the water tank and engine shed. I found that scene charming and the second photograph, on the right, is my attempt to recreate it.

Finally a more typical view of a branch train after 1890, with Terrier "Bishopsgate" and a rake of Stroudley oil-lit coaches.

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Progress on Brighton Trafalgar

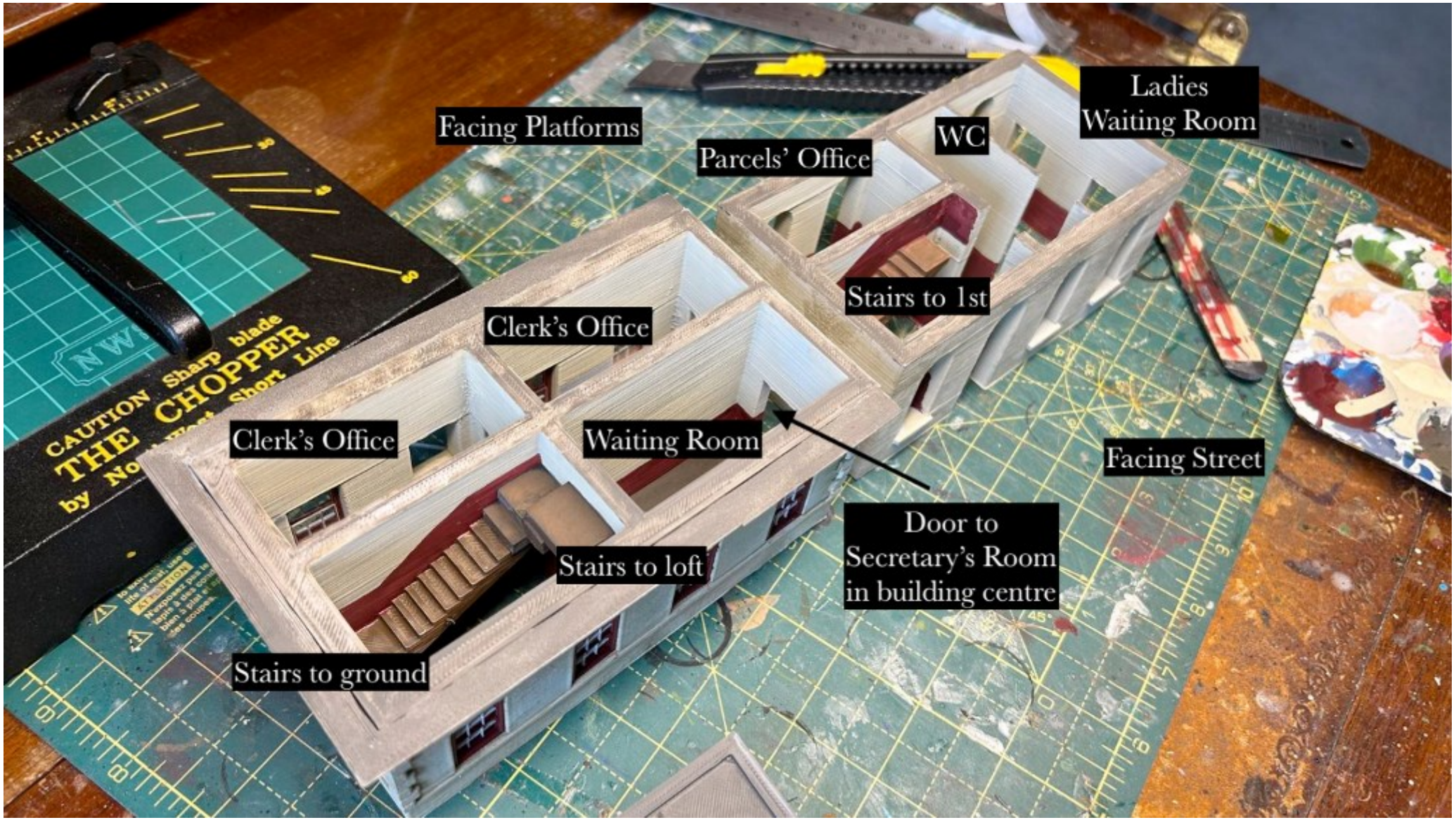
William Ayerst

Details

Having printed the main carcass of the station building, I naturally moved on to other things, but with a little time off work looming I realised that I had a fair run at finishing the building.

Many people may be under the impression that for 3D printing it's a case of clicking a few buttons and parts fly out ready to be assembled, but hopefully my description so far is putting paid to this. There was a long process of iteration with design of details - both plain and sash windows, fanlights of multiple sizes, double- and triple-panelled doors, etc.

A test print showed that a window bar thickness of 0.5mm could be printed in resin and retain structural rigidity as long as it was washed and cured quickly (too long and the weight of the uncured resin would start to bow the thin and still-flexible bars) - so this was used across the board.



Interiors

When painting the interiors I realised that the compression of the building in width has meant some of the rooms end up being rather narrow - but that is a compromise I'm willing to make in order to fit the building into the space I have available.

Lintels

I also modelled the distinctive alternating curved and triangular lintels used on the building, with cornices that span the window void. These were glued in place while the windows were a press fit.

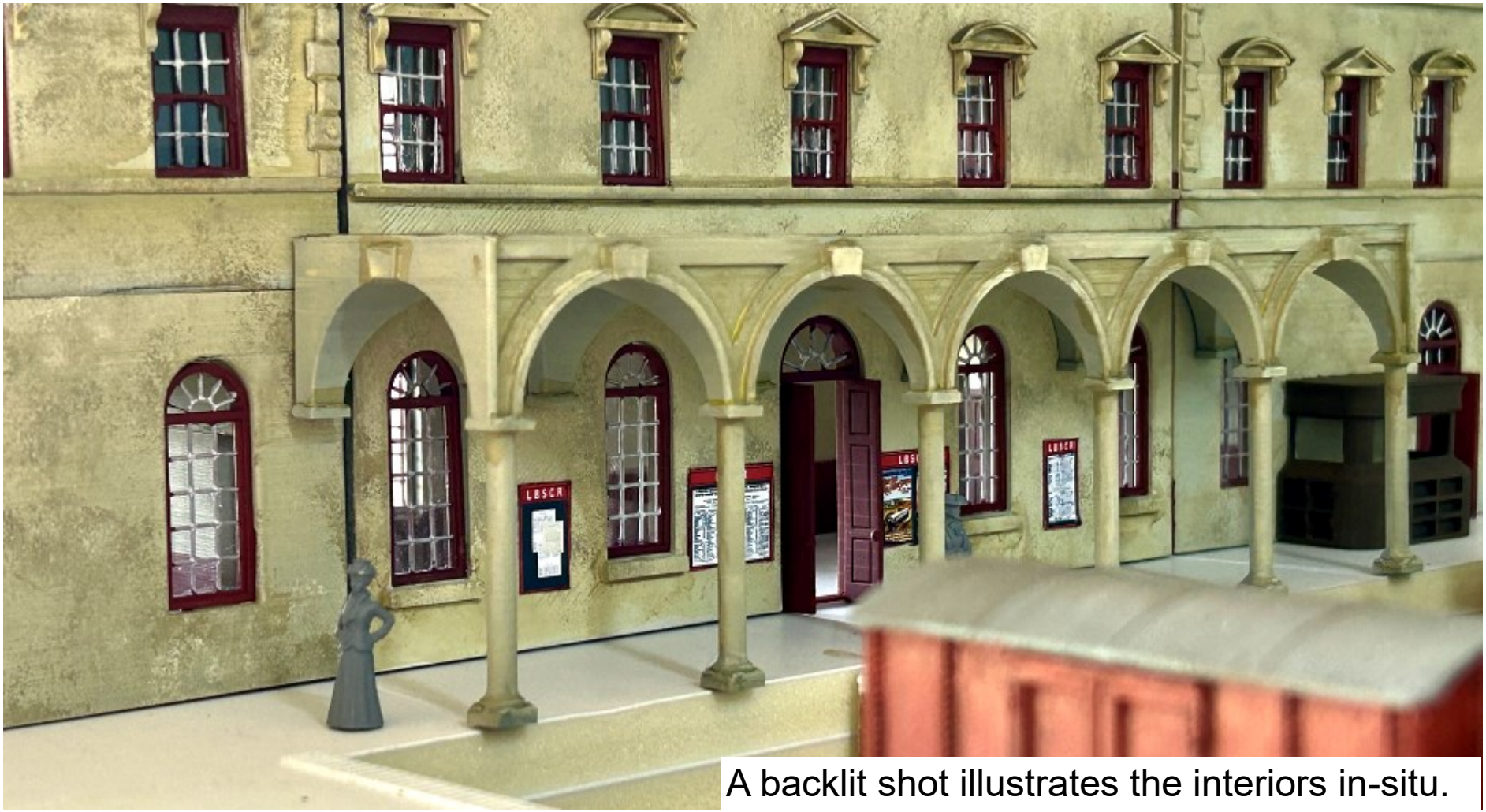
A 'Period' View of the Station building with doors and windows in place.

Vaulted Arcade

Apart from the colonnaded covered walkway, one of the last pieces to be designed and printed for the building was the vaulted arcade that graced the street-facing entrance to the booking hall. I have temporarily sited it on the platform-side as a temporary stand-in for the aforementioned covered way:

The method of construction for this particular piece was fairly straightforward - I superimposed a rectangle over the underlying central hall drawing to outline the arcade, then drew a series of features concentric to the underlying windows (thankfully I had spaced them regularly otherwise this wouldn't have worked at all), followed by a simple series of extrusions to provide the features shown.

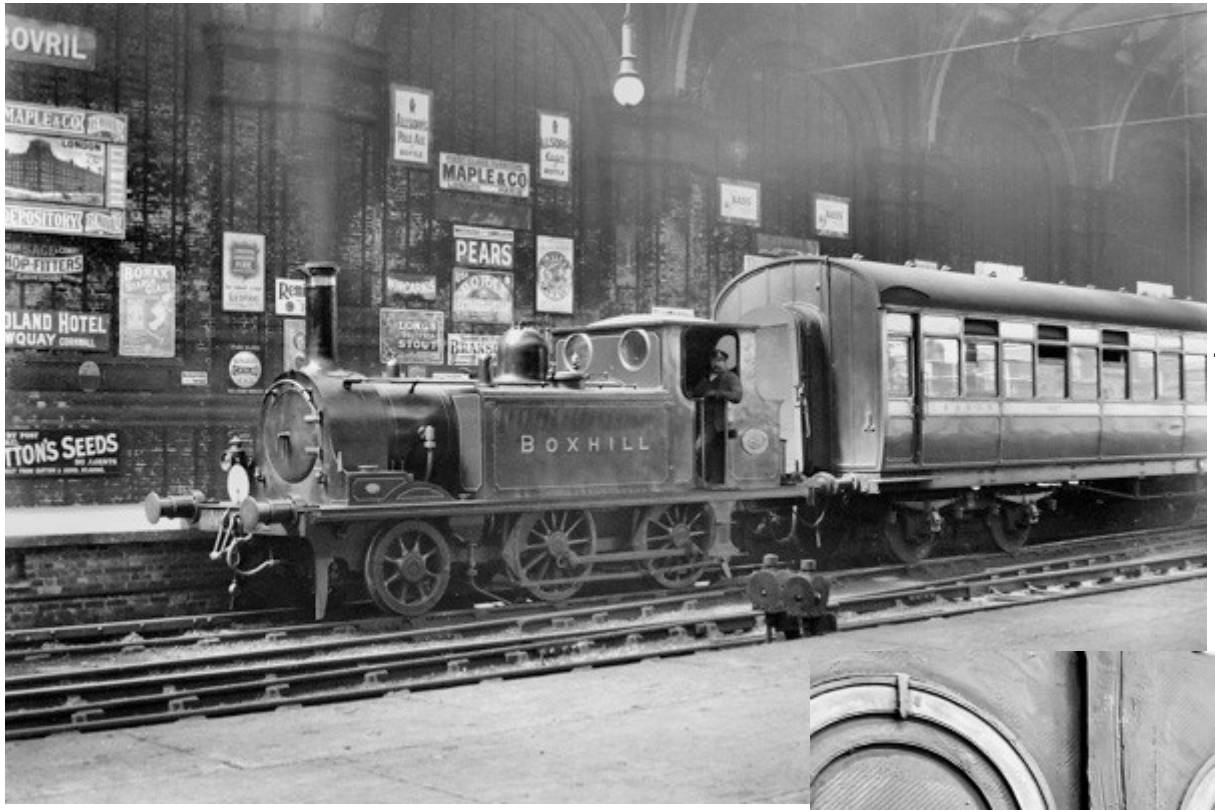
For a building like this there are always infinitely more details to add - more posters, internal room detail, gutters and drainpipes and general clutter - but at this point I considered the station building complete enough to place on the layout.



A backlit shot illustrates the interiors in-situ.

Trainshed Wall

I felt as though the trainshed wall design while not strictly accurate for this use was good enough, and so I proceeded to print and assemble all eleven of them, using 45mm spacers behind to provide a greater contact area for adhesive and to bring the wall a standard distance away from the backscene. I used the CAD software to slice and extrude additional pillar halves to bulk out the ends of the trainshed wall when viewed side on.



I was keen to try to replicate the following shot of Boxhill at Brighton

...with this picture of the former Gipsy Hill at Brighton Trafalgar, in model form.

While not strictly accurate for Brighton (or indeed the LBSCR), the platform office and book-stall were freely available on Thingiverse, a library of 3D files to download at no cost and print yourself.

With two children and limited time, I felt there was a need to bootstrap some of the removable scenic treatments around the layout, and one such easy win was the Bachmann Scenecraft Horsted Keynes signal box. Built to an LBSCR (rather than Saxby and Farmer) design it is somewhat idiosyncratic but at least broadly plausible. The original capacity was for 33 levers, which is just about sufficient for Brighton Trafalgar.

Completely ruining any resale value, I repainted the SR Green livery of the model into the maroon and cream used elsewhere in the layout, and it is shown below (facing the wrong way for the purpose of photography). The rods and cables exiting the front of the base will be boxed in.

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Mike's Might Have Beens

R Billinton's class H of 1904/5

Mike Cruttenden

Before any new locomotive design could be presented to, and authorised by the Board of Directors, the Locomotive Superintendent had to present his proposals to various committees within the company. The principal ones were the Traffic Committee, which naturally wanted larger engines to haul longer trains, carrying more passengers, the Civil Engineering Committee, which was more concerned with what the proposal would do to the infrastructure, particularly bridges, and, finally, the Finance Committee, which, as usual, wanted the cheapest possible solution. No change there!

At the turn of the century, many Superintendents produced designs that were to become known in engineering circles as "combination engines", involving one common design that could be built with either a 4-6-0 or a 4-4-2 wheel arrangement. Robert Billinton's contribution to this trend was the original H class. In this instance, we are indebted to former Brighton Circle member, the late Fred Rich, who discovered the weight diagram, that we have used, in the library of the Institute of Mechanical Engineers. No reason has been found to explain why it was there or how it got there.

The Billinton twins.

Train crossing the King Edward VII swing bridge.

Train crossing the removable bridge that enables wheel chair access to the Board Walk.

The Atlantic, approaching the Queen Alexandra girder bridge.

The Atlantic crossing Anscombe Millpond viaduct.

Guess which this is?

The southern approach to Anscombe Down station, from Ramber Park.

The impossible dream.

H class 4-4-2 meets H class 4-6-0.

...and the Billinton H class 4-6-0.

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Mike's Might Have Beens - Class H Scratchbuilt in O Gauge Finescale

Colin Paul

Following on from the proposed E6 0-8-0T that I constructed for Mike Cruttenden (Modellers' Digest Issue 19), he discussed his next 'might have been' with me. He gave me a 'proposed' weight diagram, that showed a design by Robert Billinton from 1904, classified H Class, for an inside-cylinder passenger locomotive with 6' 7½" driving wheels (Fig.1) and a 3,500 gallon tender (Fig.2). Before the design was developed, Billinton died on the 7th November 1904 and D.E.Marsh took over as CME on the LB&SCR (from the GNR) in November 1904. At first glance, the loco could be confused with Marsh's H1 Class 4-4-2 Atlantic of 1905, with the same raised footplate over the driving wheels, and with the same diameter wheels as Billinton's. We know Marsh brought down with him drawings of the GNR Atlantics, but did he take inspiration from Billinton's design as well? We'll never know.

Mike also worked on his interpretation of a 4-6-0 version, keeping the same drivers and changing the rear axle for a driving axle. The 4-4-2 drawing (in Fig.1) was modified by adding an extra driver, lengthening the raised footplate towards the cab as shown in Fig.3 and keeping the same tender.

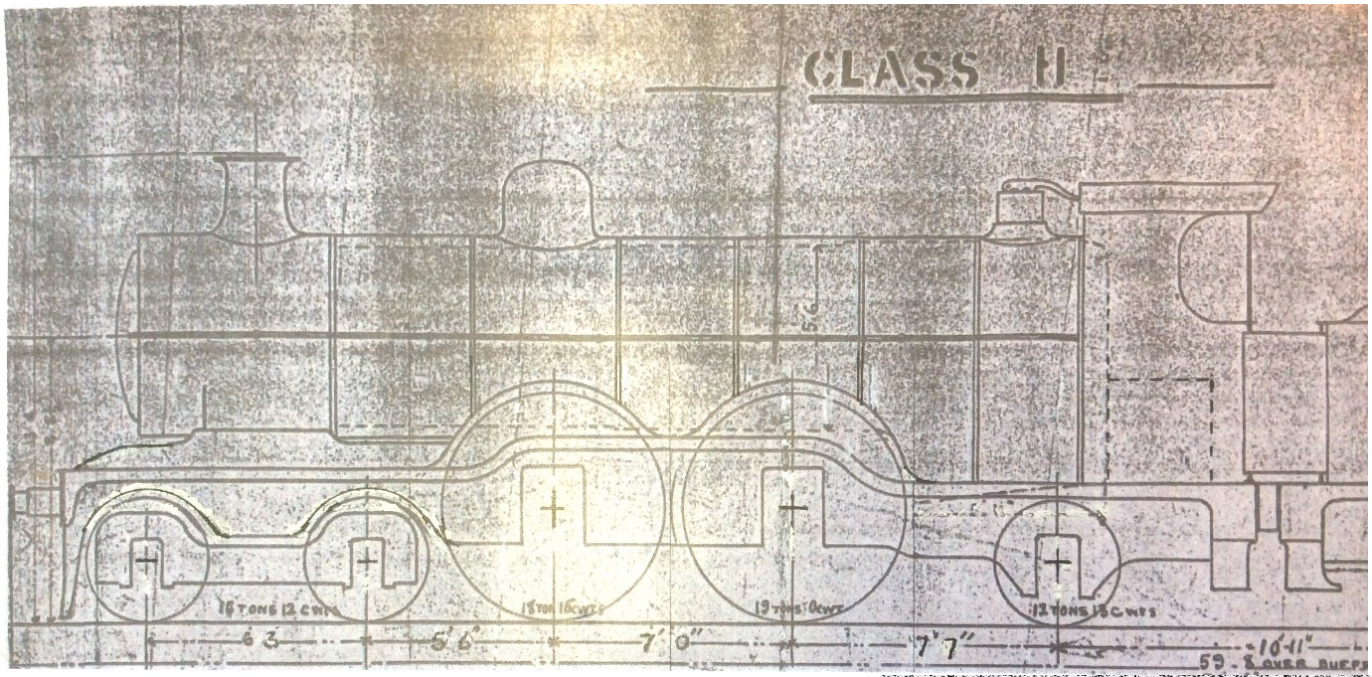


Fig 1 Weight diagram for a 4-4-2

Note - Figures 1 and 3 (on the following page) show the diagrams with the adjustments to the wheelbase for modelling purposes, that are described in the text.

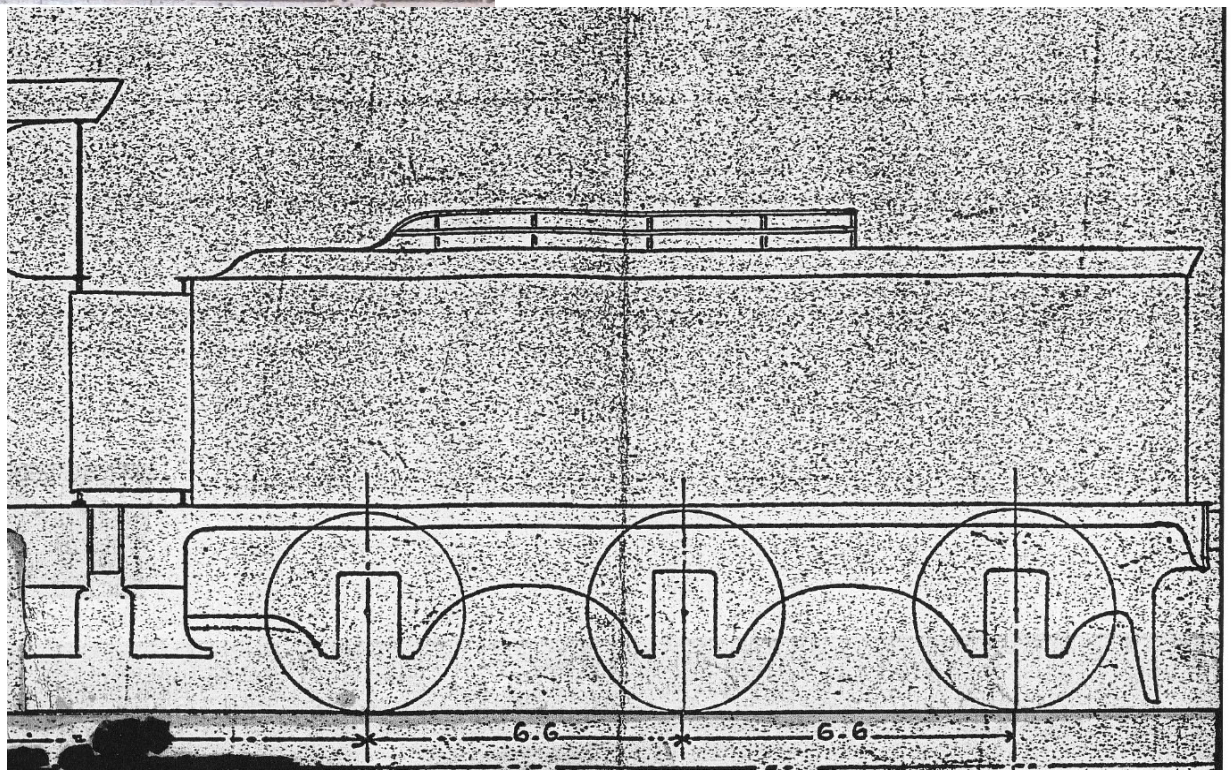


Fig 2 The 3,500 gallon tender

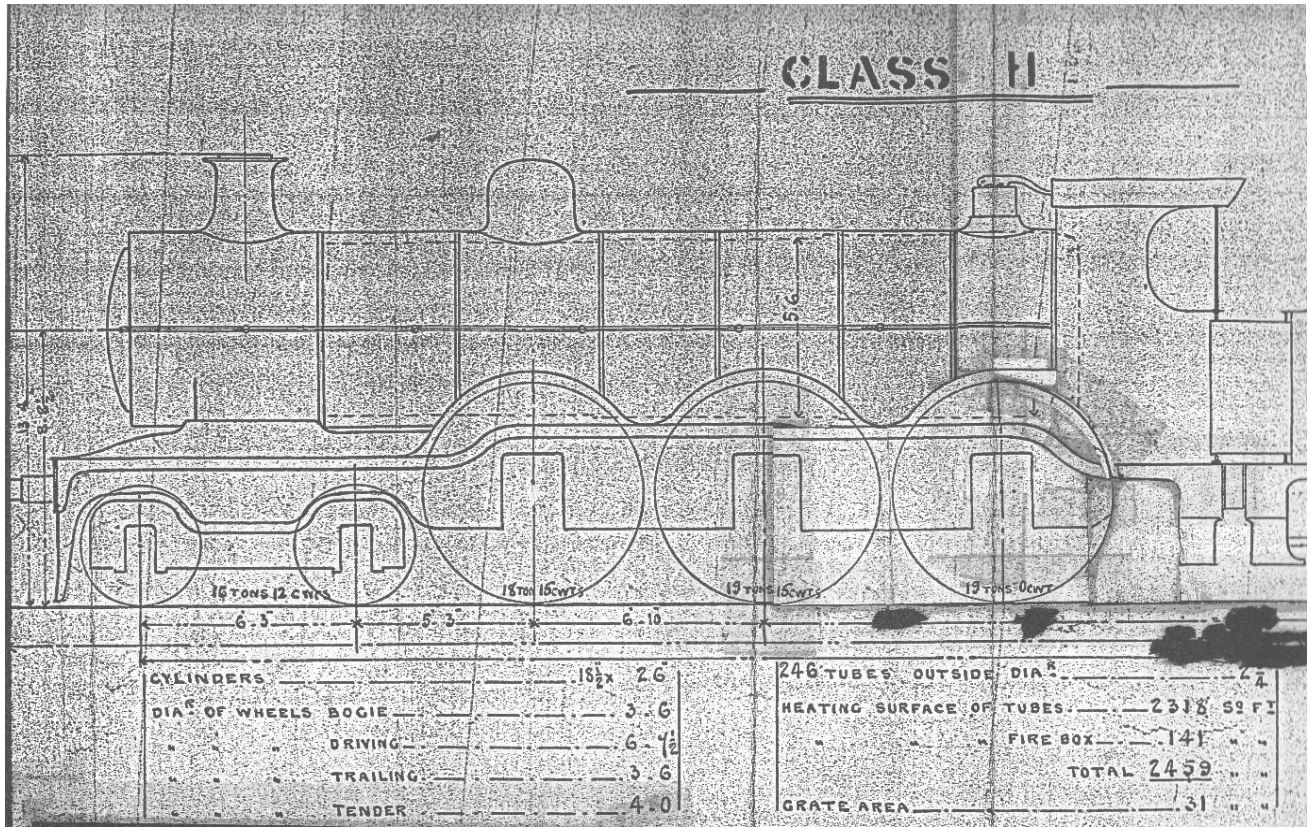


Fig 3 Weight diagram for a 4-6-0

The 4-4-2 Chassis Design

It would appear that the Marsh Atlantic outside-cylinder design had the same 6' 7 ½ " driving wheels with a 6' 10" wheel base as Billinton's. This combination gave the same fag paper's width space between the flanges of the wheels. Modellers have cringed when working to these tolerances. Over the years, on a model, with wear and tear on the bearings and slop inevitably creeping in, the flanges would touch. I feared the same would happen here. Consulting Mike, we agreed to stretch the wheel base from 6' 10" to 7' 0" but keep the 6' 7½ " drivers unchanged. Working in 7mm scale, this gave me around 1.5mm of clearance. I also wanted the four drivers compensated by two compensation beams, with the motor axle floating, which would inevitably lead to more problems. I also had fears that the rear of the front bogie wheels would foul the front drivers, so this spacing was increased from 5' 3" in the drawings to 5' 6". The rear axle is in a 'rocking unit'.

The 4-6-0 Chassis Design

The same issues arose but with a 7' 0" + 7' 0" wheel base, and a 'fixed' rear driven motor axle. The front and middle axles are compensated by the same compensating beam design.

Milled Coupling Rods

At the same time, the late Dave Brooks (of JPL MODELS, Manchester) was approached with a view to milling the fluted rods for the 4-4-2 and articulated rods for the 4-6-0, which he did. Both sets of rods are 1.6mm thick n/s.

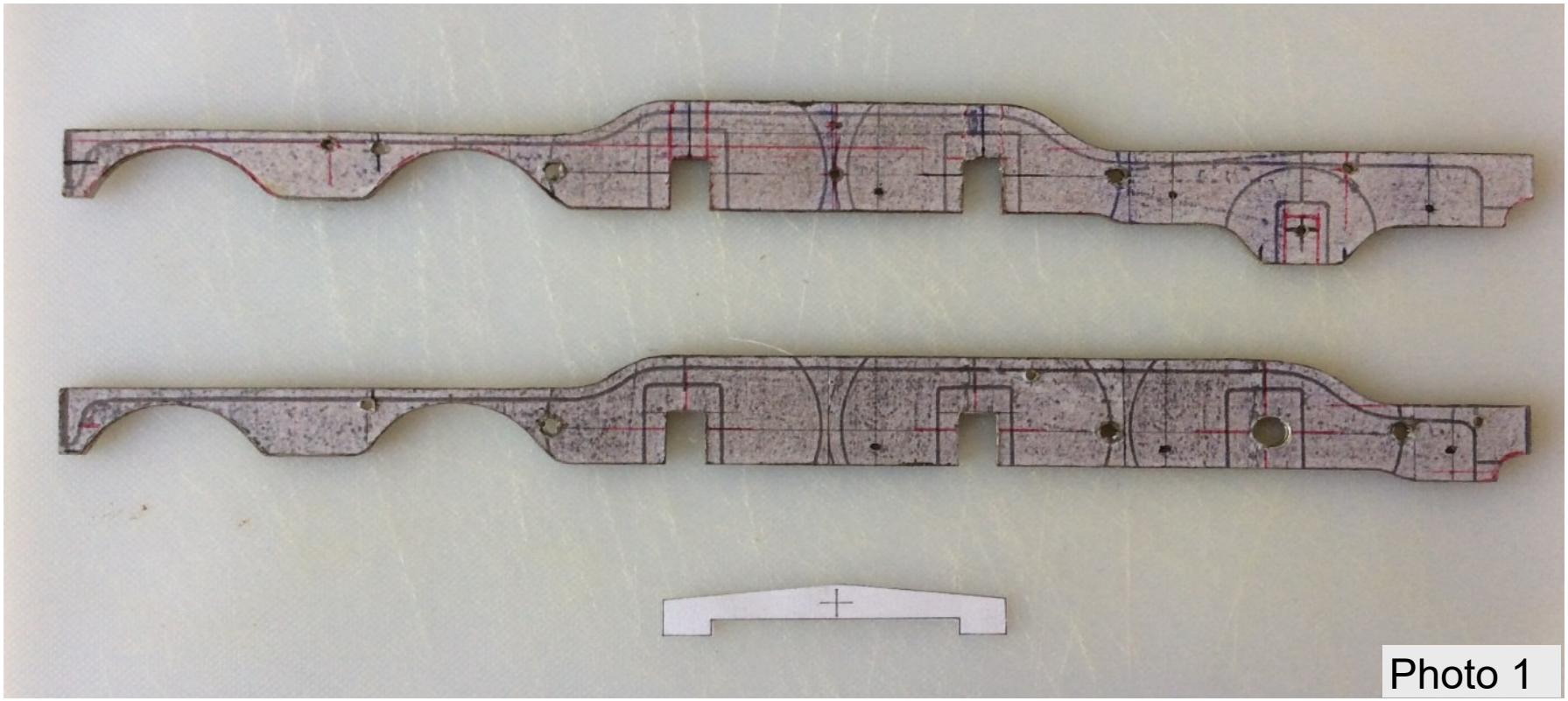
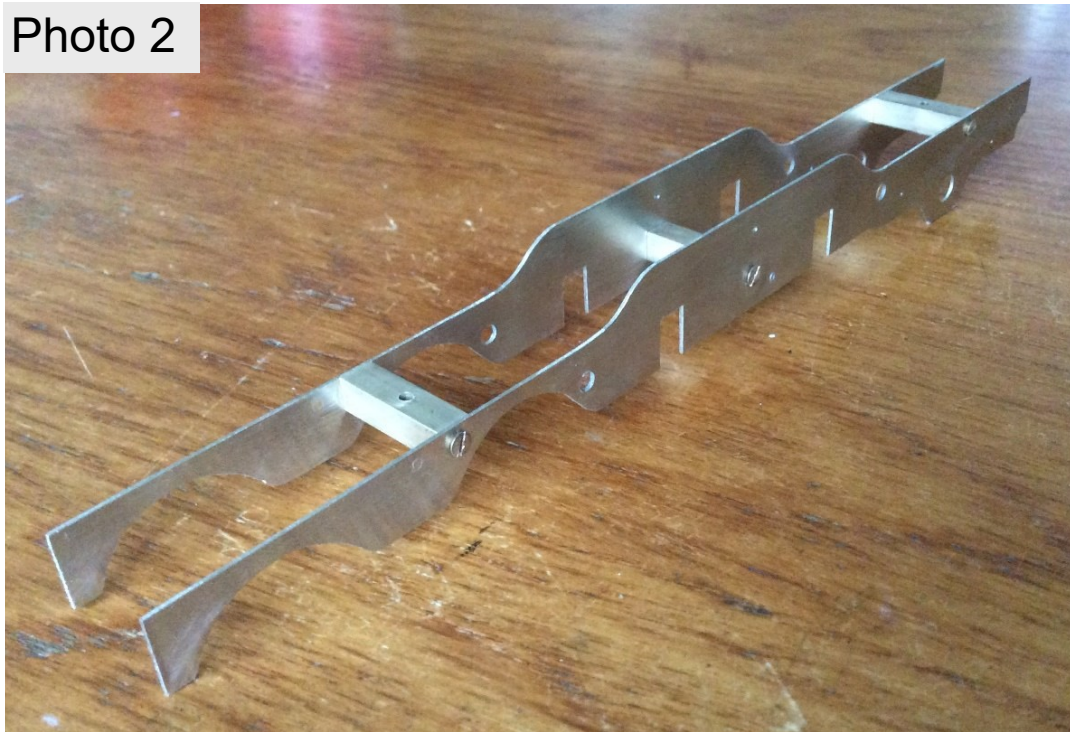


Photo 1

As always, I started with the chassis sideframes and printed off the drawing. Two 28thou n/s strips were soldered together and the prints glued on. Holes were drilled out ready for the frame spacers, brake hanger pivot positions, and Slaters plunger pick-ups. Slots for Slater‘s square brass hornblocks can be seen. Note a paper template compensation beam design, which is common to both locomotives.

Photo 2



The basic 4-4-2 chassis temporarily bolted together using some very old MSC MODELS frame spacers (sadly not available anymore). After checking for squareness, it was soldered together.

The front bogie is identical for both locomotives and they were made up as a pair. They were built up from brass sheet for the main side-frames (four pieces soldered together and cut out as one). The leafsprings are made from individual strips of 1mm wide brass soldered together. Hangers are 0.6mm brass rod. Riveted overlay plates were made from thin offcuts of brass.

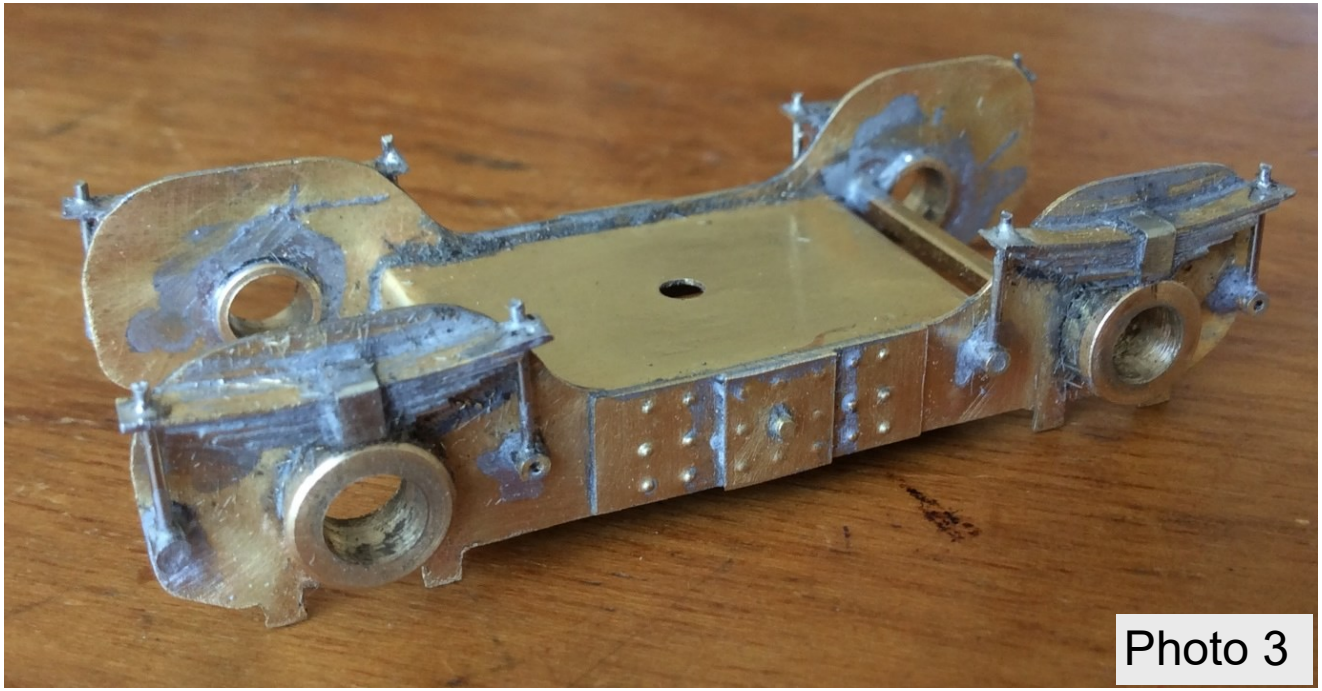


Photo 3

Photo 4

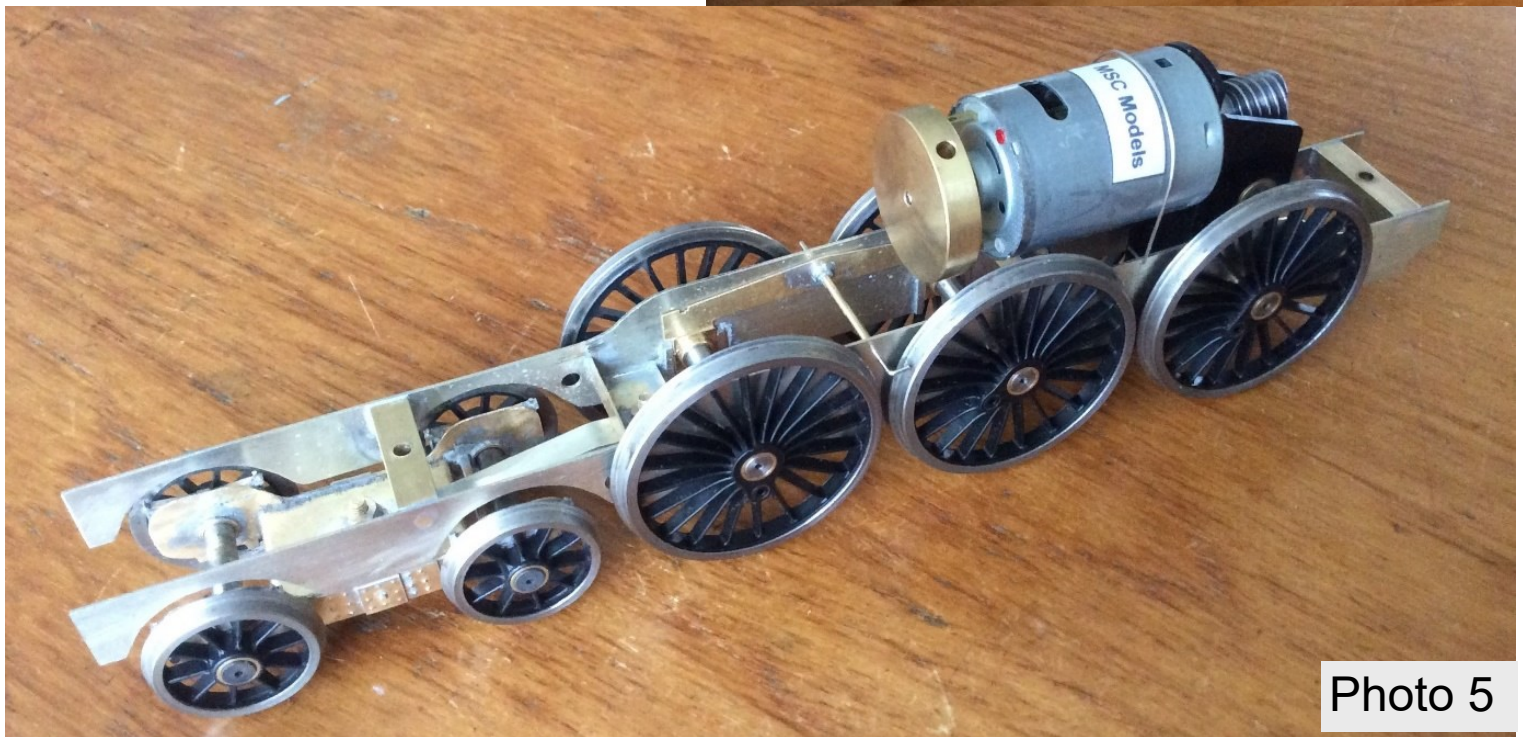


Photo 5

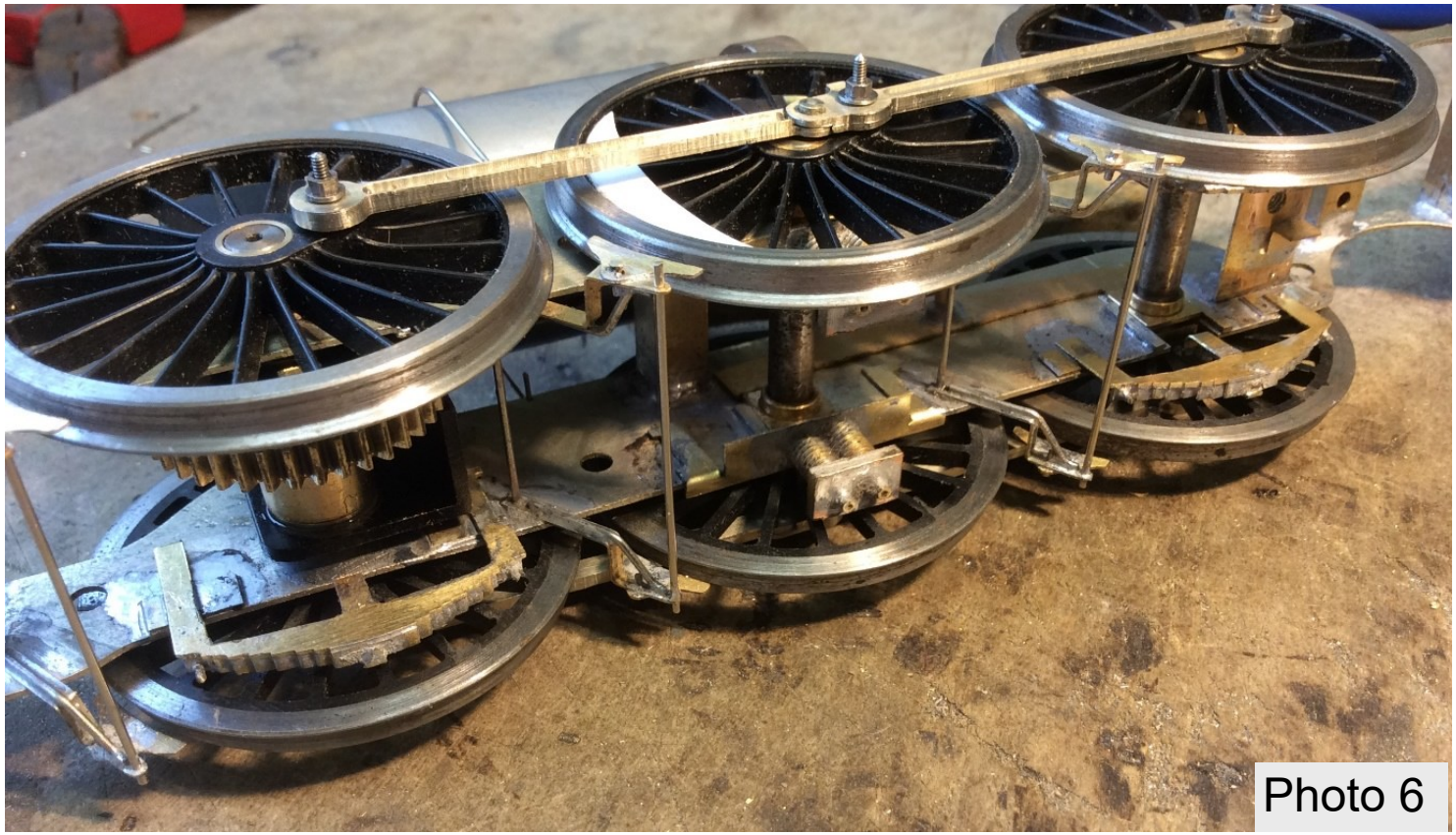


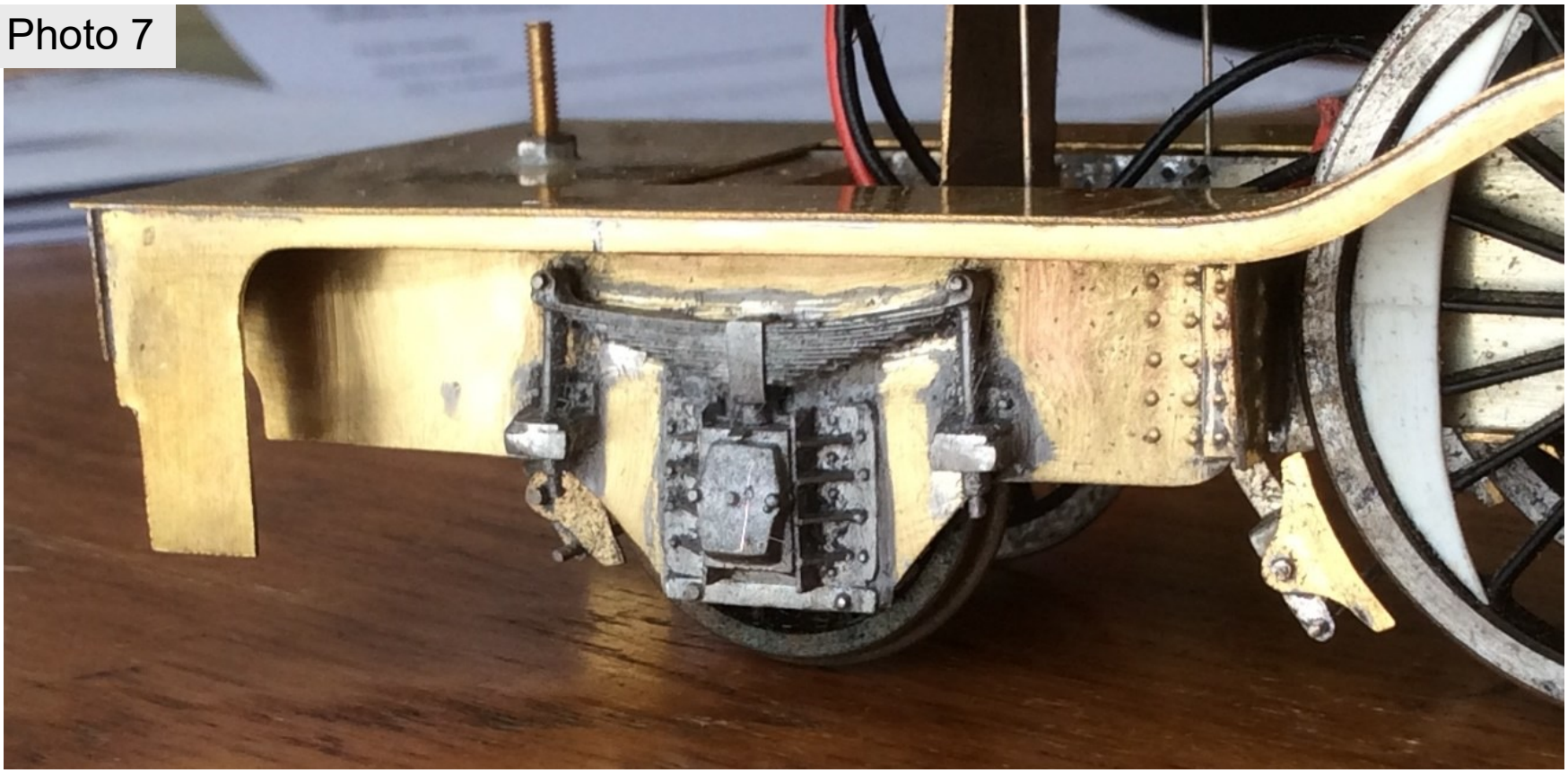
Photo 6

Both locomotives feature an MSC MODELS (www.mscmodels.co.uk) large JH round can motor with a 33:1 double reduction gearbox and 28mm diameter flywheel. Expensive yes, but highly recommended. Wheels are Slater's (Ref:7842) 3' 6" 10 spoke bogie and (Ref:7879SW) 6' 7" 22 spoke drivers. Note: the brass compensation beam of the 4-6-0 just visible resting on top of the hornblocks. The front bogies on both are pivoted via a n/s strip and sprung downwards via a compression spring. Restrictors limit the sideways travel.

When the milled rods arrived, they were duly fitted. Inevitably there were a few tight spots here and there but nothing major, so that they needed only some very slight tweaking of the horn-guides within their respective hornslots. Both chassis were tested on a rolling road.

Also shown are the scratch-made brake hangers, brake shoes, centre driver compression springs and leafspring 'keeper plates'. The latter were again made from nine individual leaves. The plunger pick-ups and brake pull rods have yet to be fitted.

Photo 7



The rear axle cover plates fitted on the 4-4-2's. A simple looking plate yes, but a pig to design. Because of the sideways movement of the rear axle and the rocking unit, it wasn't the easiest item to make. Mike had some Brighton axlebox/leafsprings castings (manufacturer unknown, but may be an ACE Product) which were soldered on. Also added were brass (straight) keeper plates. The brake hanger and brake shoe are very prominent.

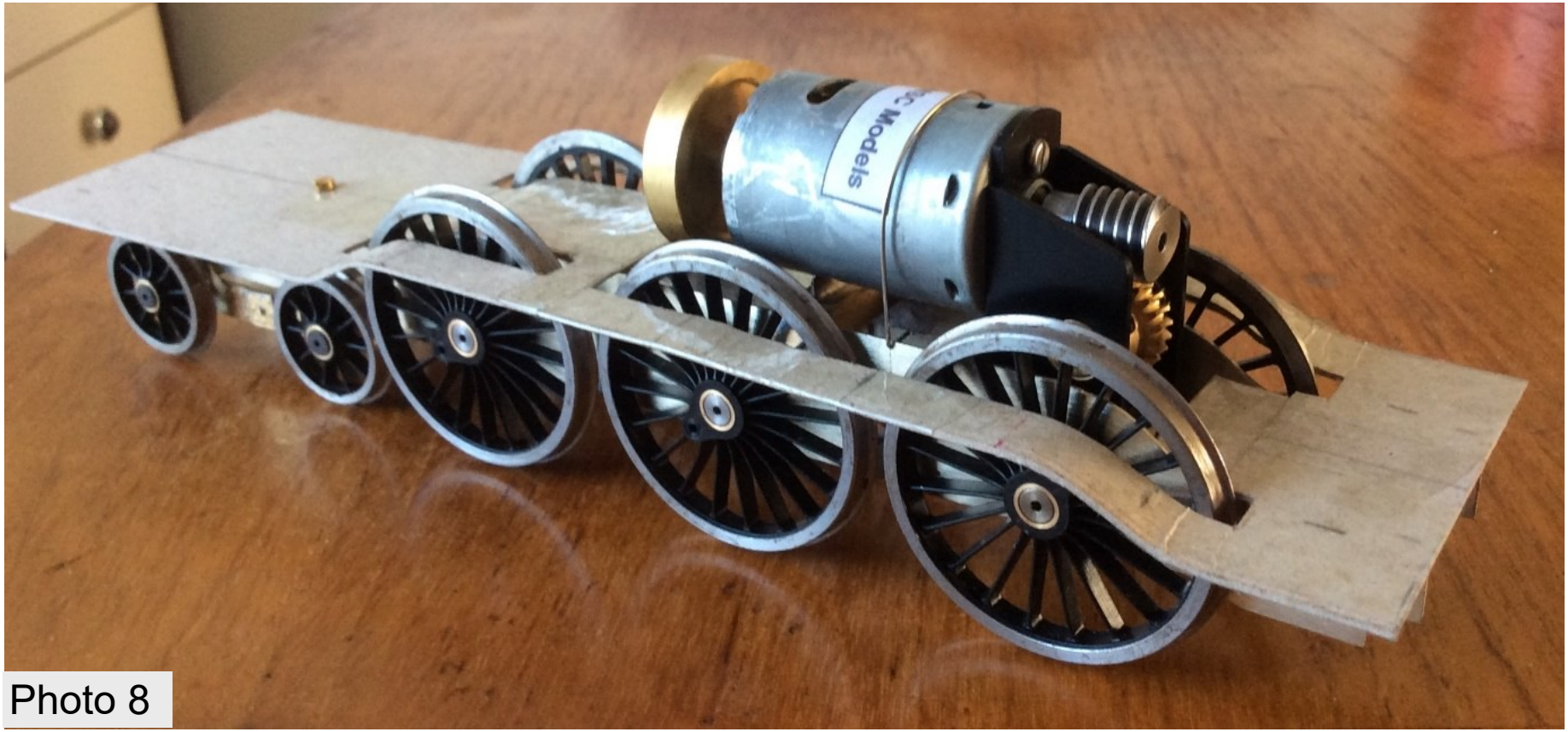


Photo 8

The Body

The design of both footplates took many hours to achieve. The most critical areas were the clearances, to accommodate the drivers' maximum uppermost movement. In the end, after numerous cardboard templates, I was happy and confident to cut out the brass sheet. Erring on the side of caution, the overall length was increased by 2mm each over the ends for filing back later.

Photo 9

The footplates were made from 18thou hard brass sheet, as are the rest of the bodies. After the footplates were cut out, the raised curved sections were annealed, and then very carefully bent matching the drawings. Even after the accurate cardboard template, the slots still required filing here and there for clearances etc.

Two headstocks were made and fitted. The extra length of the footplates were then filed back, leaving a 1mm overhang.

3mm x 0.5mm wide brass strips were used for the valancing. Again, the curved areas were annealed before being bent to shape.

By the time this photo was taken, the saddle sideframes and the curved saddles have been fitted along with the cab footstep backing plates. Just visible are the front guard irons and sand pipes.

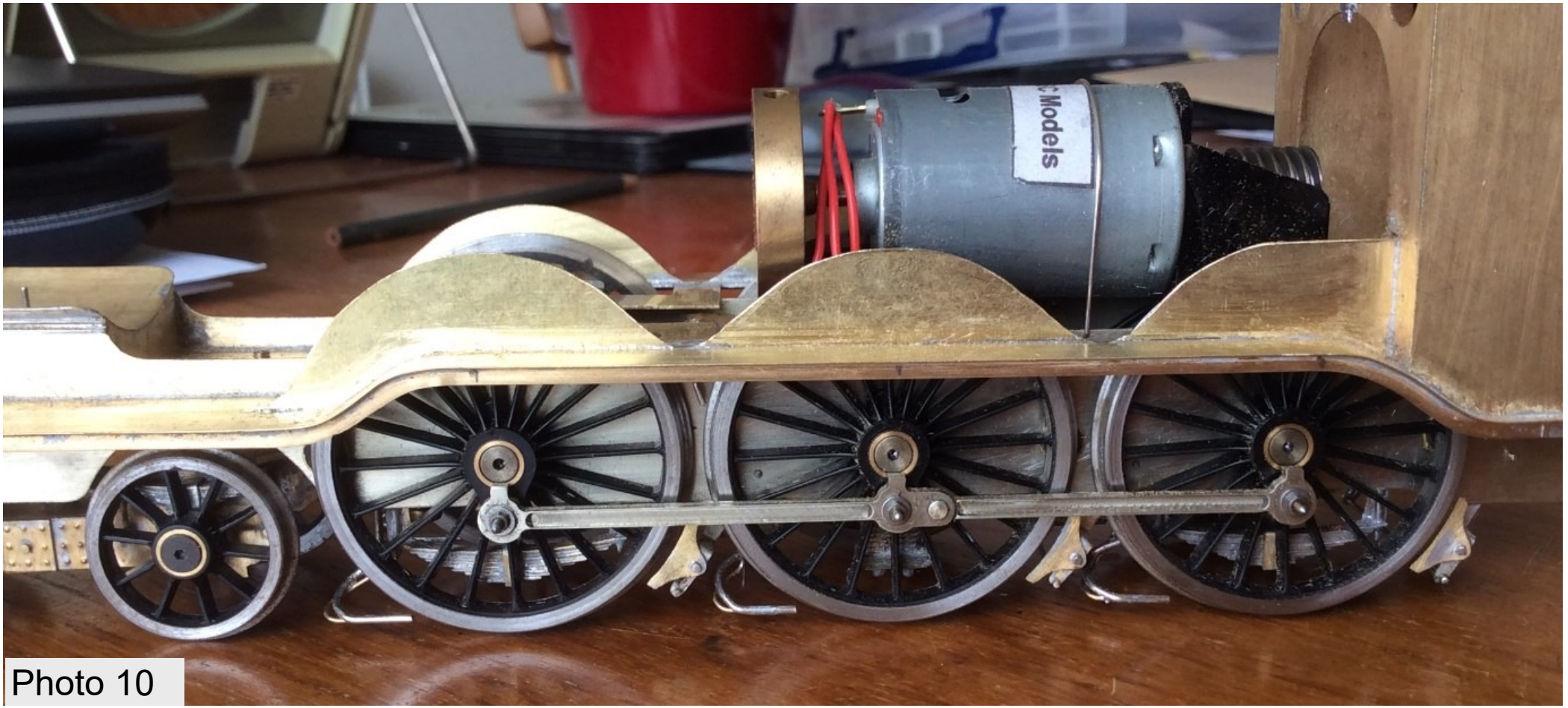


Photo 10

Because of the maximum upward movement (1.5mm) of the front and middle drivers, the splasher sides on both locomotives were increased in radius for clearance. This increase is not noticeable at all in the model, but it is on the drawings. Just out of view, is the cab, which is finished, apart from the roof. This photo provides a better view of the brakes and sanding pipes.

Photo 11

The boilers were by far the most complicated items to make. Again, using cardboard templates, it took many hours getting them to sit correctly on the saddles, exactly horizontal, and clear of the motor/drivers etc, before rolling any brass. The 4-4-2 boiler shown, illustrates the cut-outs for the drivers and the splay of the firebox.

Photo 12

The raised floors were fitted, matching their heights to the drawing. As both cabs are identical, they have matching 'slot-in' backheads (for ease of painting), which I made from scrap brass. Every item, apart from the tiny etched round hand wheels, is scratch made. Pipework is mainly 0.6 or 0.8mm brass rod. The cab beading is 1.5mm x 0.5mm n/s strip with 0.8mm diameter grab handles. The roof is made from 0.5mm thick n/s sheet for strength.

Photo 13

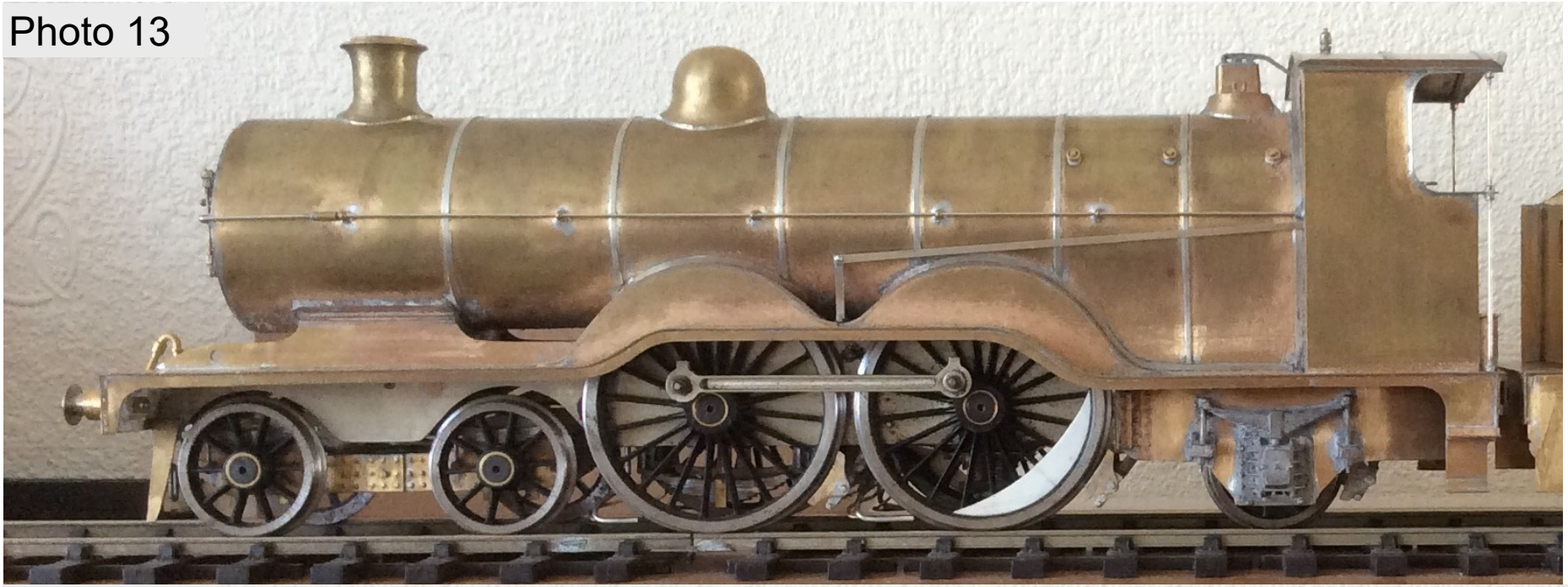
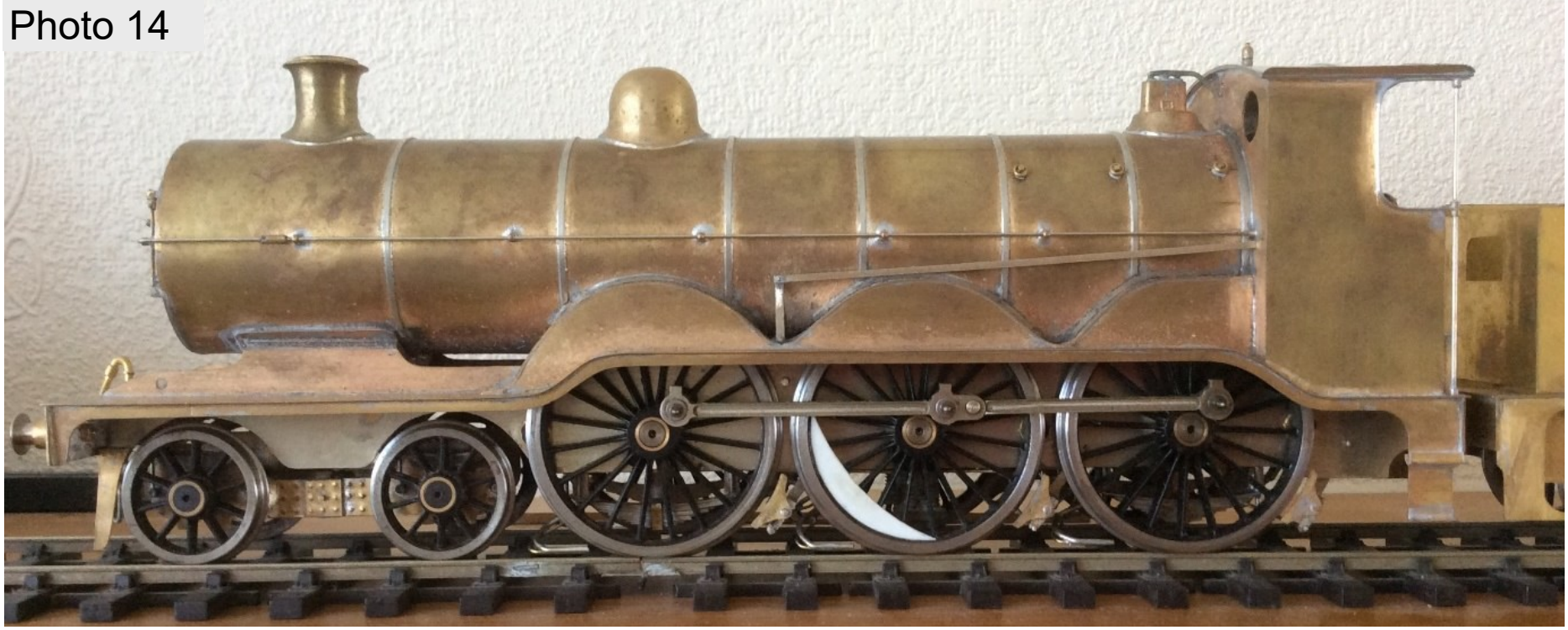


Photo 14



To finish off the models, they were fitted with the excellent casting from the Laurie Griffin Miniature (www.lgminiatures.co.uk) range including:

Ref: 6-068 GWR 45XX Chimney (an exact match on the drawings)

Ref: 14-029 LB&SCR H2 Dome

Ref: 26-042 LB&SCR Smokebox door

Ref: 24-020 LNWR Webb Ramsbottom safety valve

Ref: 32-002 Westinghouse pump

Ref: 17-016 LB&SCR Loco lamp irons

Ref: 32-010 Westinghouse pipes

Ref: 32-011 Steam heating pipes

Ref: 9-004 3 link locomotive couplings

Others

Markits buffers Ref: 7MB007

CSP Models (www.cspmodels.com)

Ref: L&F35 LB&SCR smokebox dart

Ref: L&F38 LB&SCR whistle

The Tenders

The tenders are identical for both 4-4-2 and 4-6-0 locomotives.

Because of the gradients on Mike's garden railway, the tender chassis also had to be compensated. As my double beam compensation works fine for the locomotives, I thought the same would work on the tenders. At first, I did not know which end the beams should face? Facing forward i.e. towards the locomotive or facing backwards to the rear of the tender. If the locomotive were ever to run backwards, the rear (facing) axle would have to follow the track profile, and, as this was less likely, I opted to fix the leading pair of wheels.

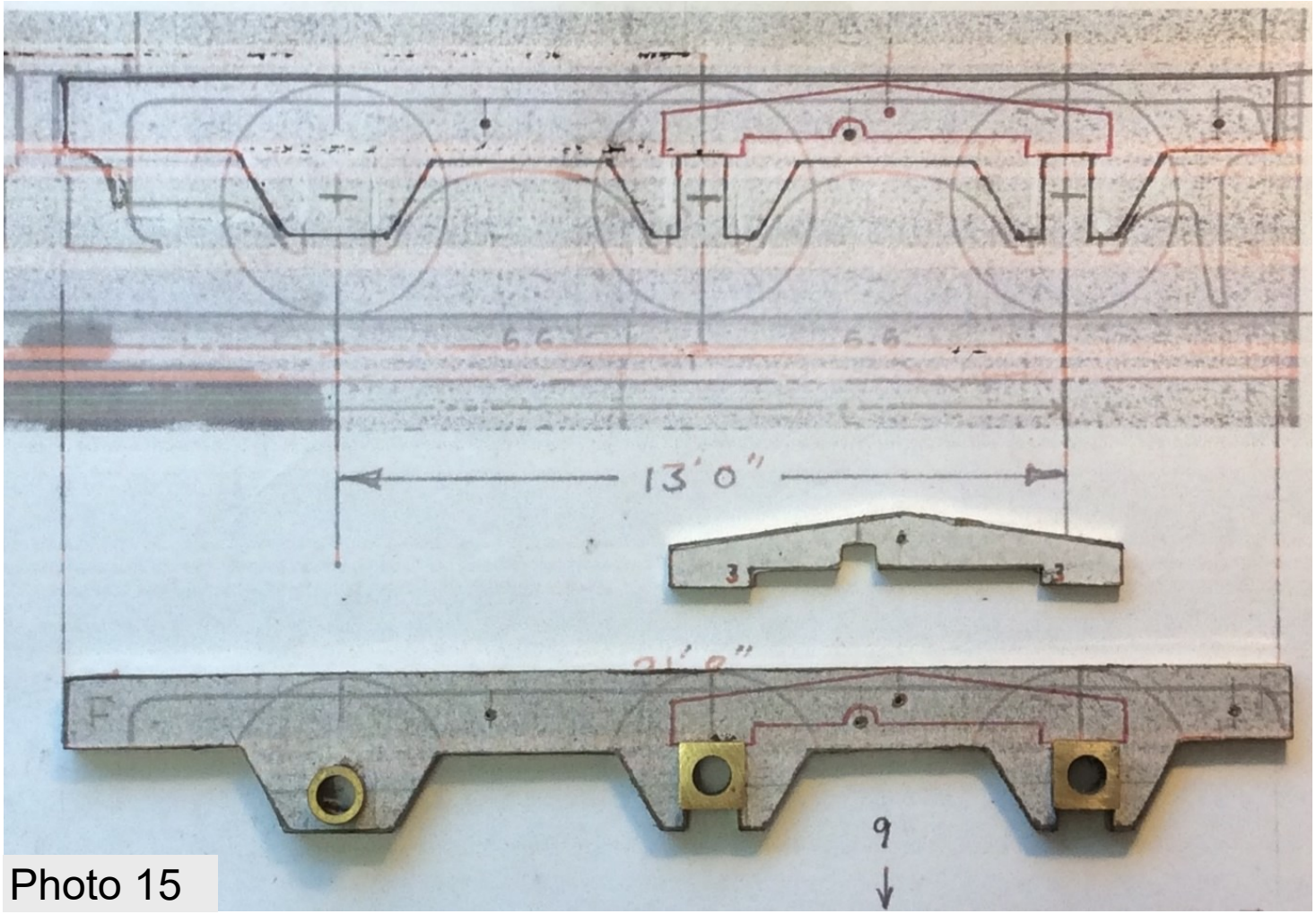


Photo 15

First, I drew out a possible compensation beam design, outlined in red, then cut the beams out as a pair. Another print was prepared and then stuck onto two strips of n/s chassis material. As with the locomotive frames, holes were drilled out, ready for the fixed axle bearing and brake hanger pivots. Slots were cut out ready for the Slater's hornblocks.

Photo 16

The basic frame soldered up using Markits (Ref: RAXF) 25mm long frame spacers. The brass compensation beam can clearly be seen resting on top of the square bearings. Note also the scrap n/s hornguides either side of them. The maximum upward movement of both axles are again 1.5mm.

Because the flanges of the wheels protrude through the top of the footplate, slots were cut out, as can be seen. After the headstocks were made and fitted, the outer sideframes were cut out in pairs and fitted.

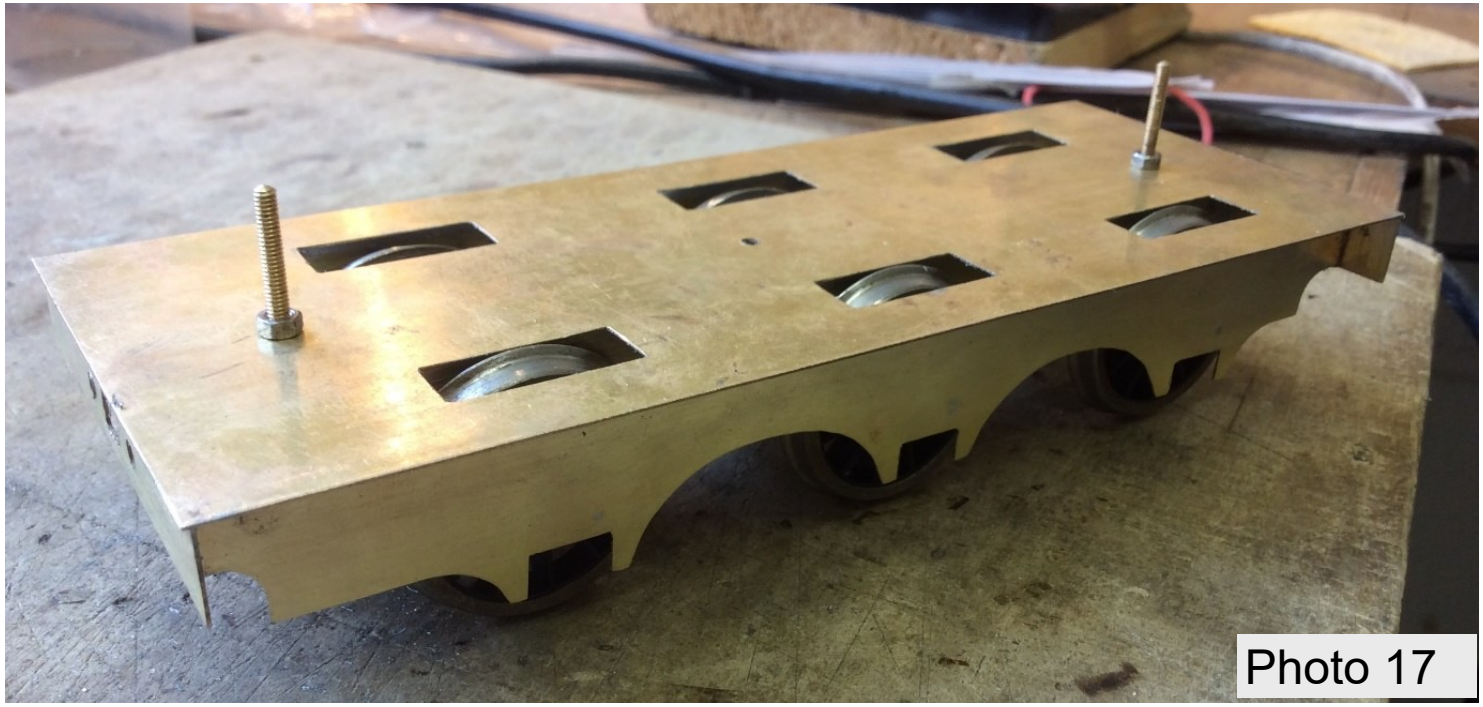
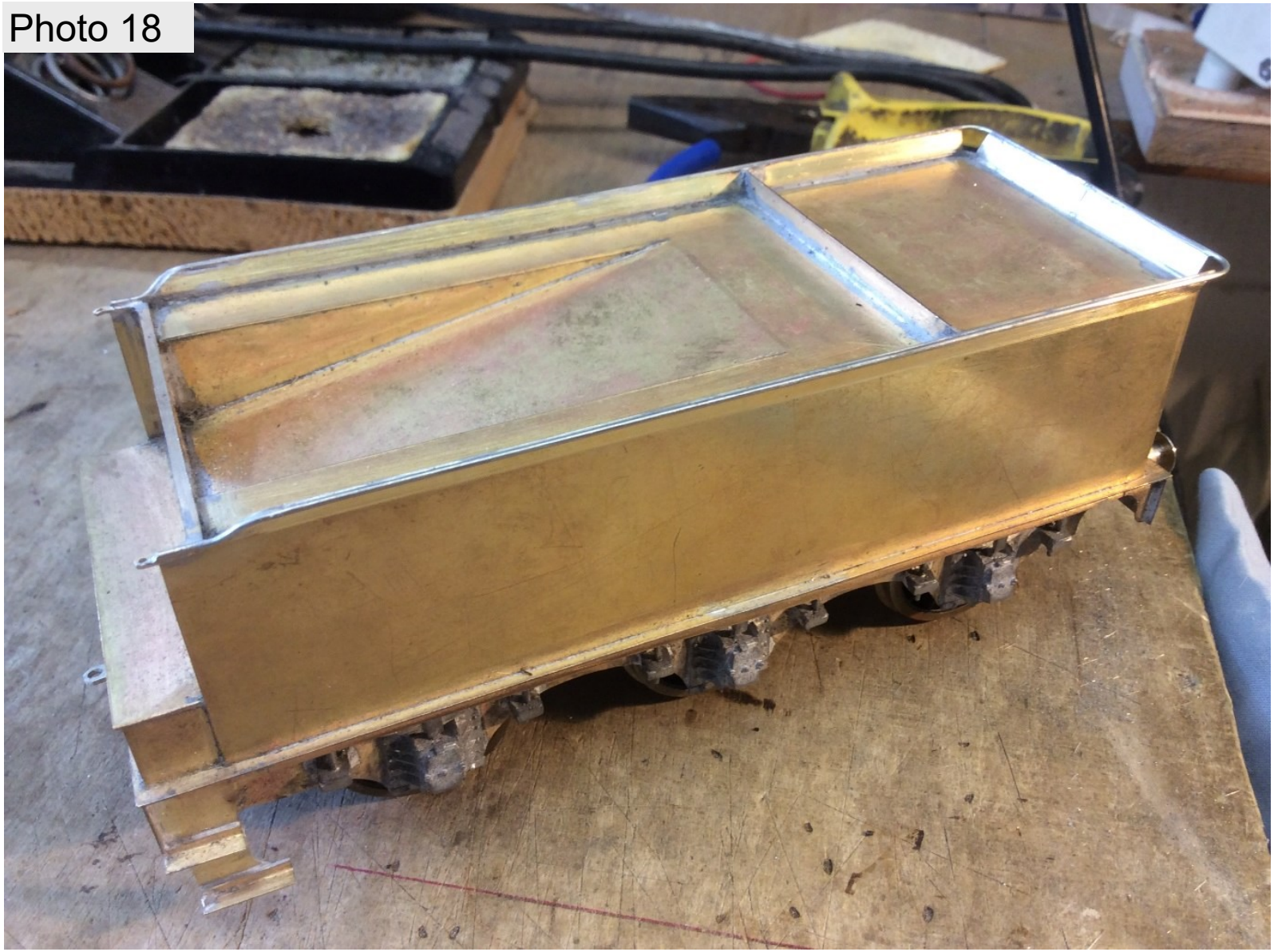


Photo 17

Photo 18

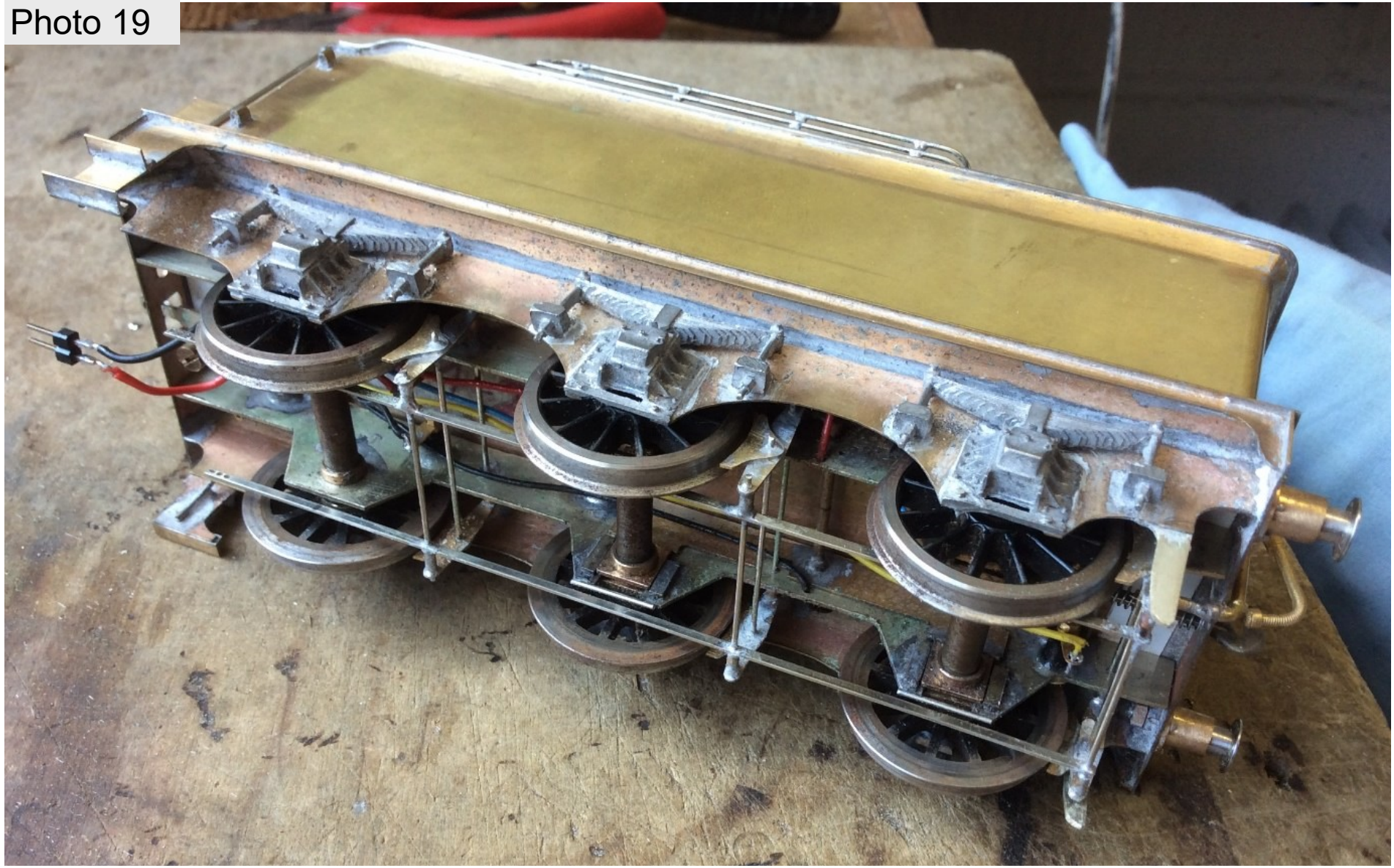


The footplate had the same 3mm deep valancing strips fitted, followed by the foot-steps. The same white metal axlebox/spring castings as used on the 4-4-2 were then soldered on.

Forming the two tender sides was very difficult. The flares were relatively easy, but forming the curved ends, even after annealing, was still tricky to try to keep them square. In the end, all went well. The tender front (with coal hole), raised footplate and top plate with coal chute were then fitted.

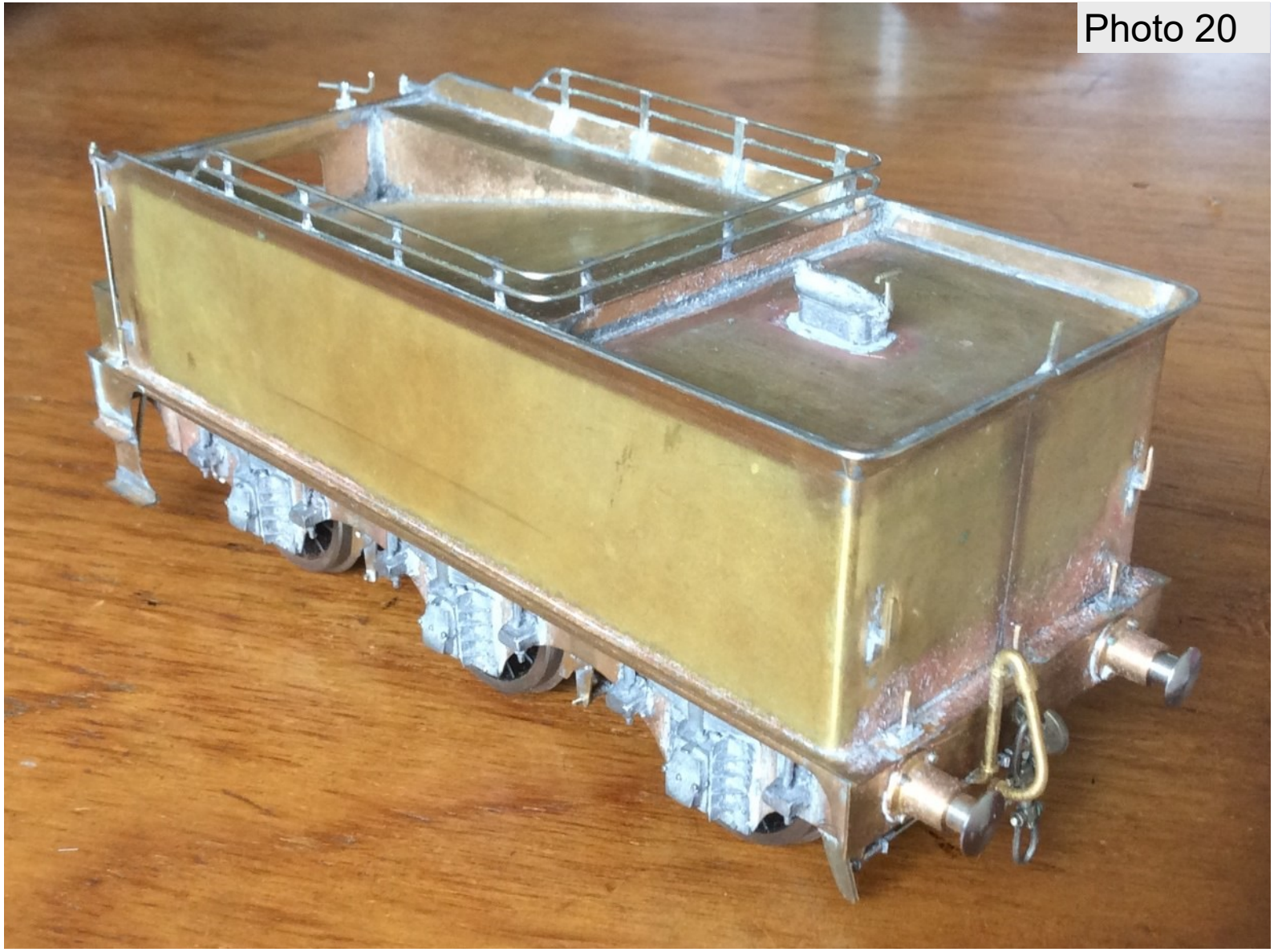
The beading strip (0.8mm n/s rod) was soldered on top of the flare but the corners have yet to be formed. Just visible on the left is the drawbar.

Photo 19



The underside showing the scratch-made brake hangers and brake shoes. Brake pull rods are 1.5mm wide n/s strip. The square hornblock bearings are removable by unsoldering the n/s keeper rods that are just visible. Also added are the two guard irons, buffers and Westinghouse pipes. I have fitted plunger pick-ups on this 4-4-2 tender as indicated by the red and black wires.

Photo 20



The finished tender. By this stage, the coal rails (0.8mm n/s rod) have been fitted and the grab handles. The rear of the tender has all of the lamp irons fitted (judging by limited photos). On the far end I made a brake pedestal (note the handle just visible) that actually rotates. The water filler cap is an ACE Products (www.aceproducts.org) white metal casting. The last item to fit was the Laurie Griffin screw coupling (Ref:9-011).

Mike Cruttenden's preceding article shows the locomotives being put through their paces on Mike's garden railway.

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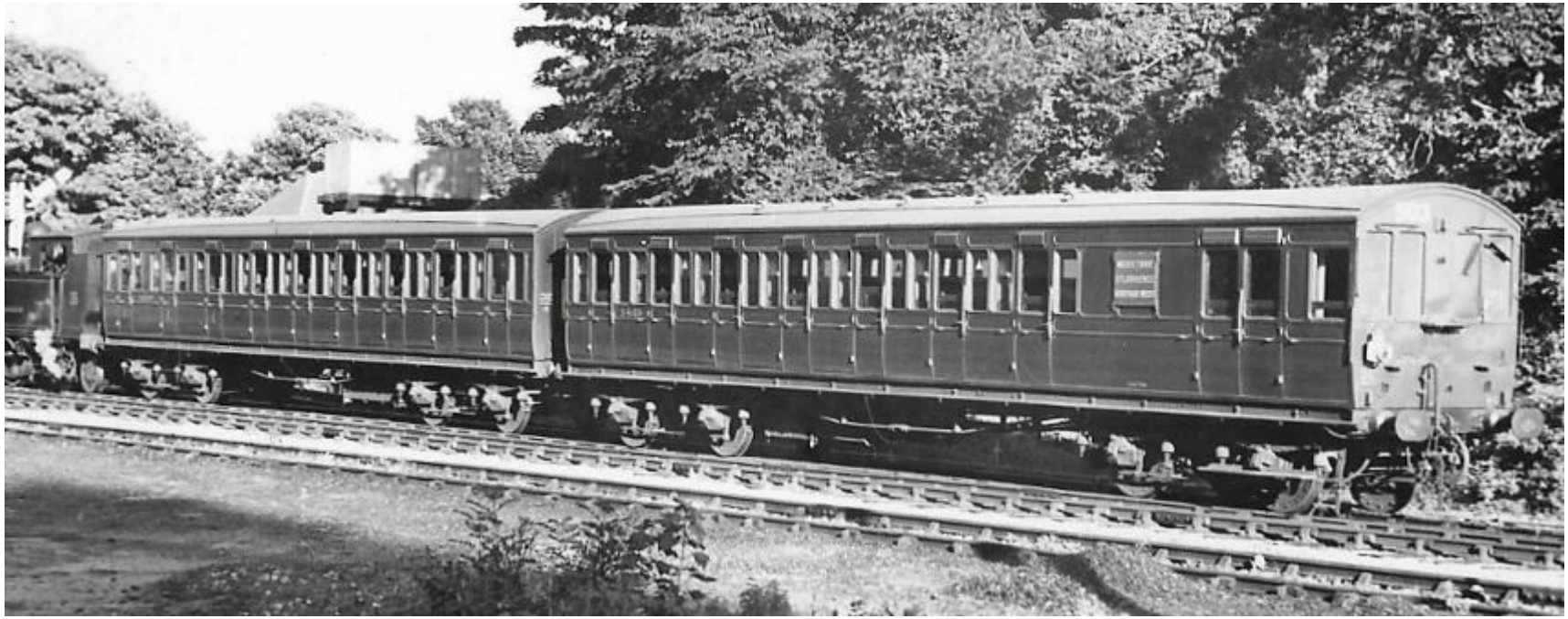
IOW - ex LBSC Motor Conversions

Gerry Bixley

In 1938, the Southern Railway decided to replace the 4 wheeled ex-LCDR coaches on the Isle of Wight Ventnor West – Merstone line with an ex-LBSCR Motor set from the mainland. As built in 1911, this set had a driving brake third, which had sliding doors for the van at the extreme end of both sides, so that the driver and guard were together, and a composite trailer. The IOW wanted outward opening van doors, so the van was rebuilt with the new doors set further back. The modified sides were then re-styled with LBSC style panelling. Renumbering 4169, the brake third and the paired composite 6367 became set 503. The composite required very little work, other than fitting air braking and removal of the SR vacuum brakes.



Set 503

Author's collection

At the same time, a push-pull brake composite was transferred. This was renumbered 6987 and had been converted from a First/Third composite non-driving trailer from a 1921 built unit. The work involved removing two first class compartments and substituting a van and driver's facility. Its appearance was very similar to 4169 and it, too, was numbered as Set 503. An S.R. diagram indicated an intention to operate Set 503 with a loco between the two parts, although this does not seem to have happened.

No 6987, push-pull driving composite.

Photos by J H Aston

In 1947, the Southern Railway carried out a similar conversion to another 1911 built two coach set from the mainland and numbered it Set 505. The composite coach was the same as in Set 503, but the van end, although similar to 4169, had sides which were partly steel sheeted. Van door handles were different as well. The pair were numbered 4167 and 6366.

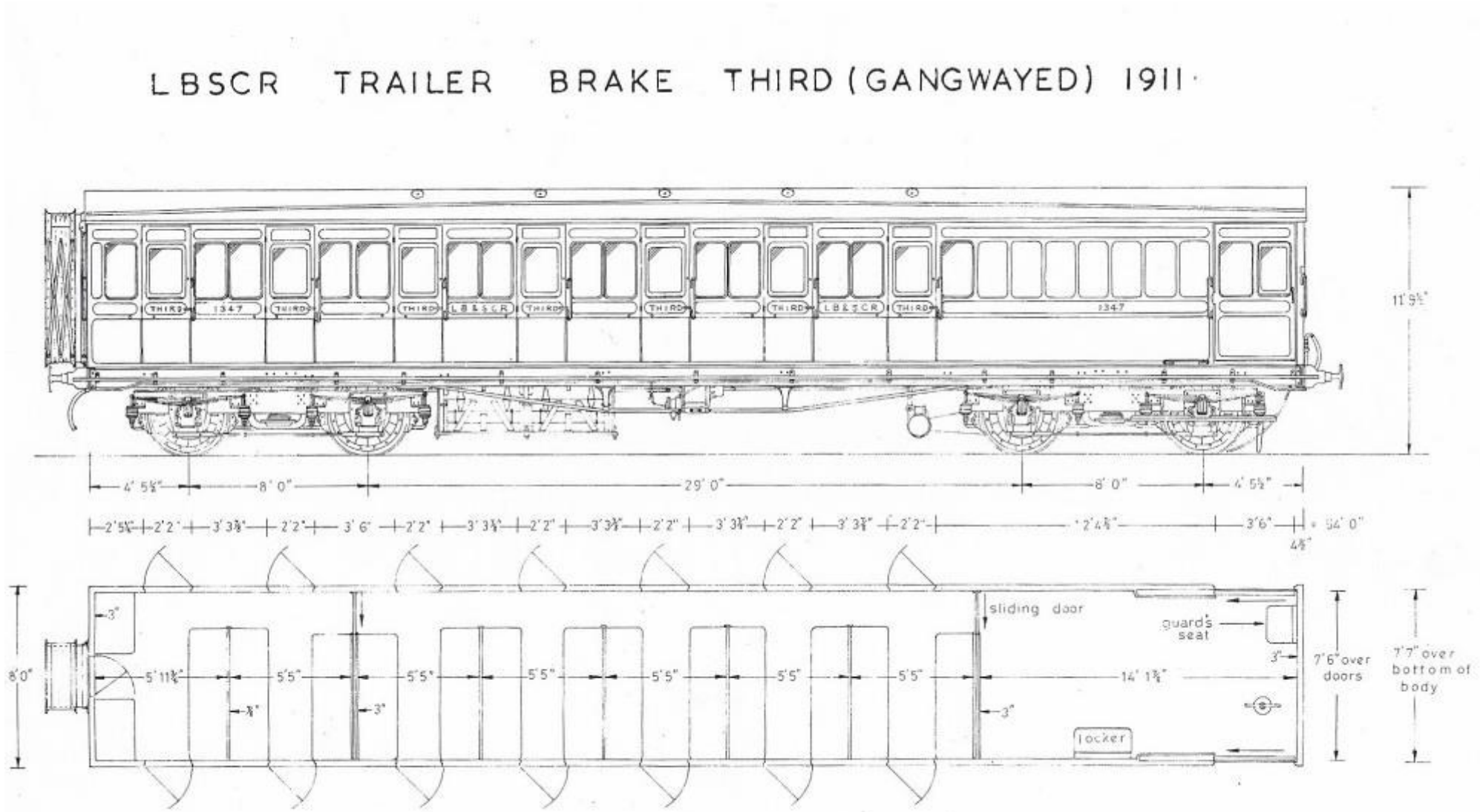
Above

Set 505 at Bembridge - Author's collection

Right

Driving Brake/3rd number 4167
Photo by Alan Blackburn

Allen Doherty of Worsley Works has produced a number of different LBSC motor sets over the years and, on receipt of my drawings of Set 503, he came up with the parts for Set 503's two coach version. I purchased two sets and made up one as originally converted for Ventnor West.



1911 Trailer Brake/3rd, as built.

The second set was put aside for the time being.

I then decided to make up Set 505 for the Bembridge Branch. The different sides of these sets were achieved by making new sides as far back as, and including, new van doors in nickel silver. Although physically the same as 4169, the plain steel sides looked quite different.

Steel panelled driving trailer for set 505

The original Worsley Works sides were reduced in length and the unwanted parts put aside. Openings were made for drop lights and door hinges. The models should be 216 mm long, so two strips of wood were fixed to a block of 3” x 1” timber at that distance apart. This was used to assist in joining the two parts together, by ensuring the sides were the same length. The join was backed by a strip of nickel silver. Details were added, such as hinges, door handles and drop lights, as well as LBSC type door ventilator bonnets. I made my own LBSC handrails, 8mm tall brass loops with tails at 5 mm centres for fixing to

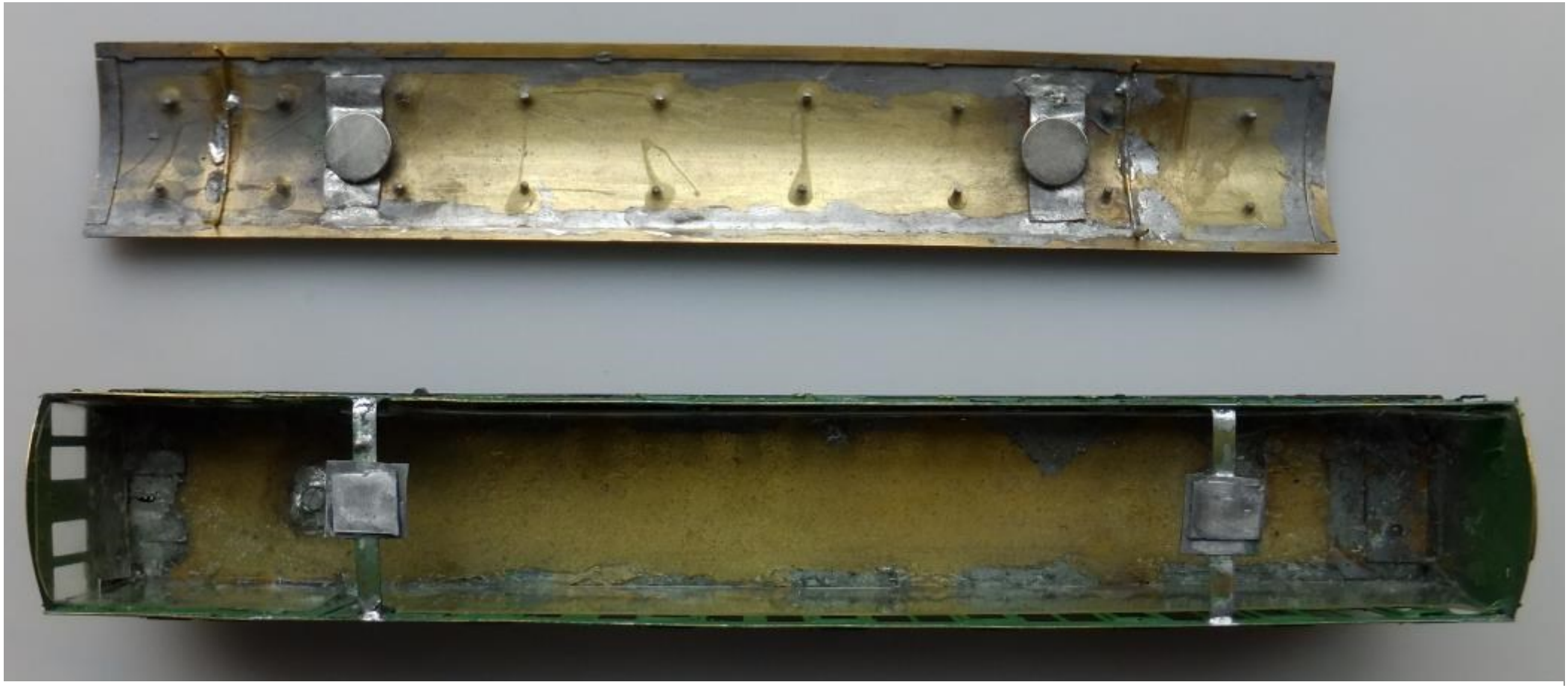
pre-drilled holes in the frets. These were soldered inside, which make them strong enough to be adjusted afterwards. They should finish up at an angle of about 30 degrees to the sides. Door vents varied over the years, with a combination of wooden fluted or pressed steel types. This is a good time to create a little turn-under to the bottom of the sides, a scale 2½" in reality. My method is to use a rolling pin for this, the side being gently stroked with a wallpaper joint roller. The sides were now almost complete and it was time to consider work on the ends. The driving end is much more detailed than the rest, having four windows, steps, extra handrails and lamp irons capable of accommodating the S.R. headcodes similar to a steam loco. Both coaches had the provision of round topped gangways. Suitable examples sold for DMUs can be obtained from York Modelmaking. The inner ends of both coaches did not have lamp brackets, as they were not expected to be uncoupled in service. With the sides and ends almost complete, the floor section must be folded up into a tray so that the sides can be soldered on. To ensure a close fit, I nailed a piece of stripwood to a length of 3" x 1" timber,

Above - the handrail jig.

Below - jigs and other essential tools.

The gangway within the set - photo by Alan Blackburn

to press the bottom of the side against whilst soldering. I use a 25 watt Antex for all my soldering, which usually does the job, having previously tinned both mating surfaces. Absolute accuracy of positioning is necessary so that the ends are exactly opposite one another. Allen supplies little fold up sections to assist with positioning the ends, but I usually dispense with them and so far haven't had any trouble. Then, any necessary holes for lamp brackets should be made, especially on the driving end. Bear in mind, on the real thing, these trains displayed normal S.R. route discs. Additional handrails were needed for driving ends, as shown on photographs, but dimples are not provided for all of them. Handrails can be stuck on but soldering is my preference. With the body structure now almost complete, it was time to position the sole bars for the underframe, using the slots provided, and solder in. The builder will have to provide headstocks and stepboards. Buffers should be Spencer-Moulton self-contained type. Truss rods supported on queen posts should be attached to the underframe. I use 0.6mm brass rod for this and queen posts can be obtained from Branch Lines of Westbury. The kits can be supplied with roofs, in which case holes are provided with rain strips and holes for torpedo vents. This is fine for Set 503, but Set 505 had no torpedo vents. For roofs, a piece of 0.8mm brass, 218mm x 36mm can be bent to a circular form, wrapped round a kitchen rolling pin and assisted by smoothing with my wallpaper seam roller. Rainstrips are best made of 0.5mm brass rod. I make bridges, capped



Arrangement of magnets to retain the roof.

by a square of tin sheet, in the centre of the coach some 30mm from each end, with a corresponding bridge on the roofs. Small magnets can be used for attachment of the roof. Additionally, I make droppers out of 0.7mm wire attached to the roofs to ensure the lateral position is right.

The composite trailer for Set 505, which has three first and six third class compartments, was then tackled. This vehicle became IOW No. 6366. Battery boxes and a dynamo are needed for IOW service – features not fitted on the mainland, as they were electrically wired.

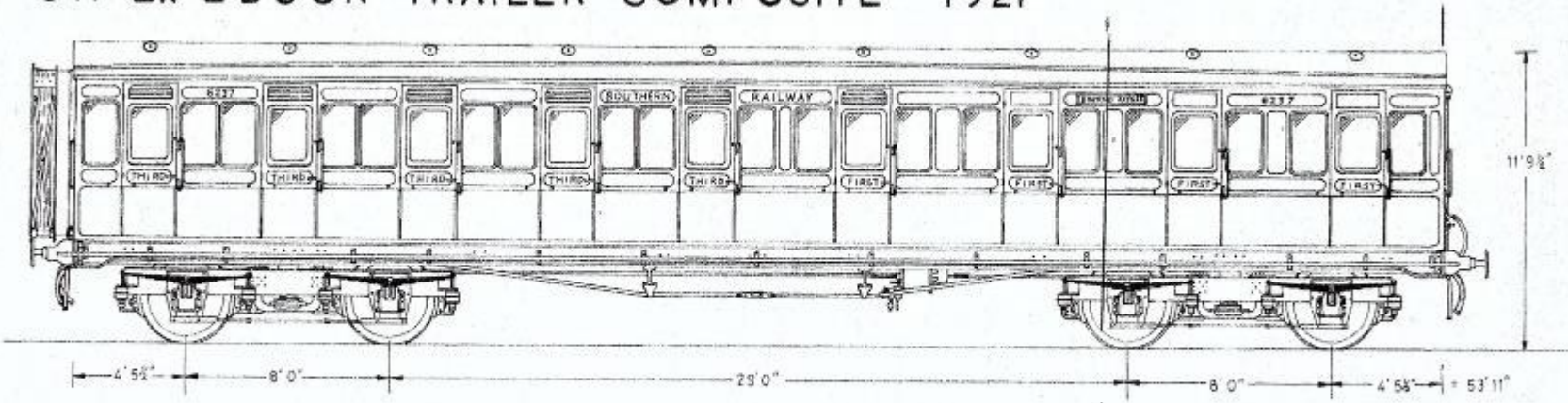
Set 505.

Having removed the section from the Ventnor West brake third, I now had a suitable part to construct the brake composite considered to be part of Set 503. I have a copy of an SR diagram which illustrates the two parts, one either end of a motor fitted loco although I have no idea if such a train operated.

All I needed now to make a model of 6987 was a Worsley Works kit of a 1921 LBSC trailer composite. As this was part of a two coach set, I ordered the complete set, of which the brake third is an exact replica of the final LBSC vehicle to be used on the Lewes to East Grinstead Line before closure. Part of this line subsequently became the Bluebell line. When the kit arrived I took the composite and cut off the two end first class compartments with a fine tooth saw. This removed section was where the van/guards/drivers part would be. A slight problem arose now, in that the section of van removed from 4169 was not quite long enough to make up sides 216mm long. I have a spares box from earlier conversions and this was raided to provide material for this. Lancing Works did a very neat job of rebuilding the prototype's panelling and I had to do the same in model form. This was the hardest part of the whole project. The sides were duly positioned on my little jig and soldered up with additional backing pieces for strength.

The LBSC coaches had side corridors, but with no partition between the seats and the corridor - photo from author's collection.

SR Ex LBSCR TRAILER COMPOSITE 1921



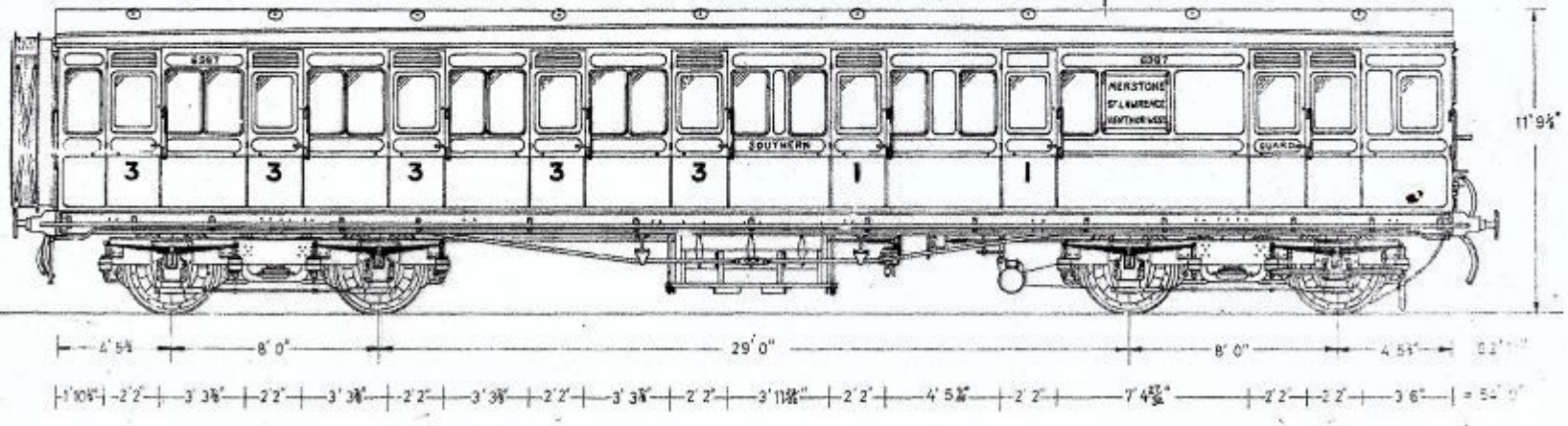
ABOVE : THE TYPE OF COACH USED AS THE BASIS OF 10W CONVERSION 6987 (BELOW)

SECTION REMOVED AND REPLACED FOR 6987

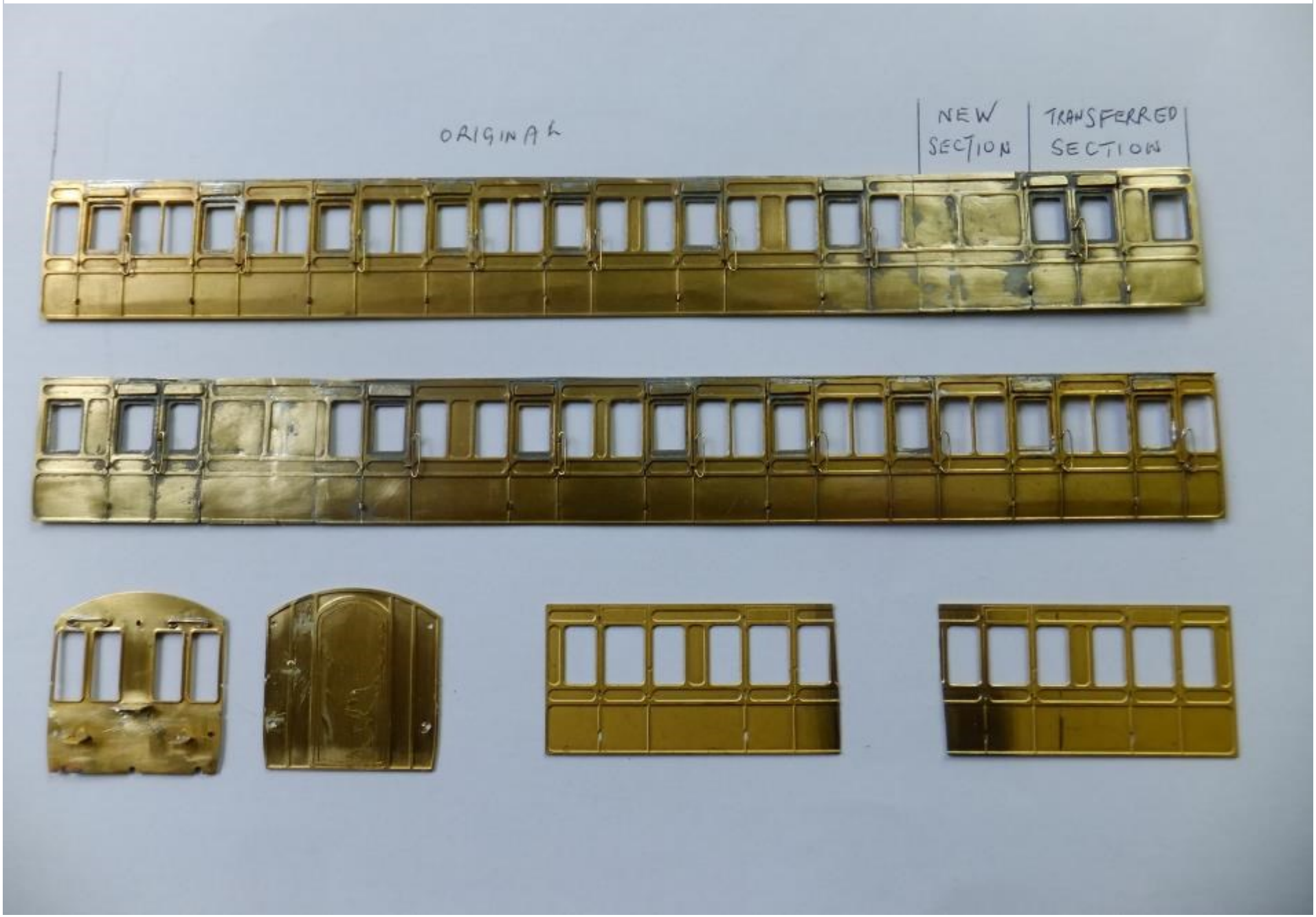
10W BRAKE COMPOSITE 6987 (PUSH PULL)

NEW SECTION FROM SCRAP

NEW SECTION FROM 4169-BT



Number 6987: an etched brass cut and shut.



From then on, construction closely followed the work already done on the two car set brake third. An obvious difference between the 1938 and 1947 conversions was that Set 503 retained its roof torpedo vents: Set 505 had none. 6987, however, had a complete set of torpedo vents. Finally, the 1938 vehicles received malachite green livery and the 1947 set was painted red. I have bogies for both OO and EM, so that my models could at some time grace more than my own layout.

Brake composite 6987

Above
Set 503

Left
Driving trailer composite number 6987

Below
Set 505

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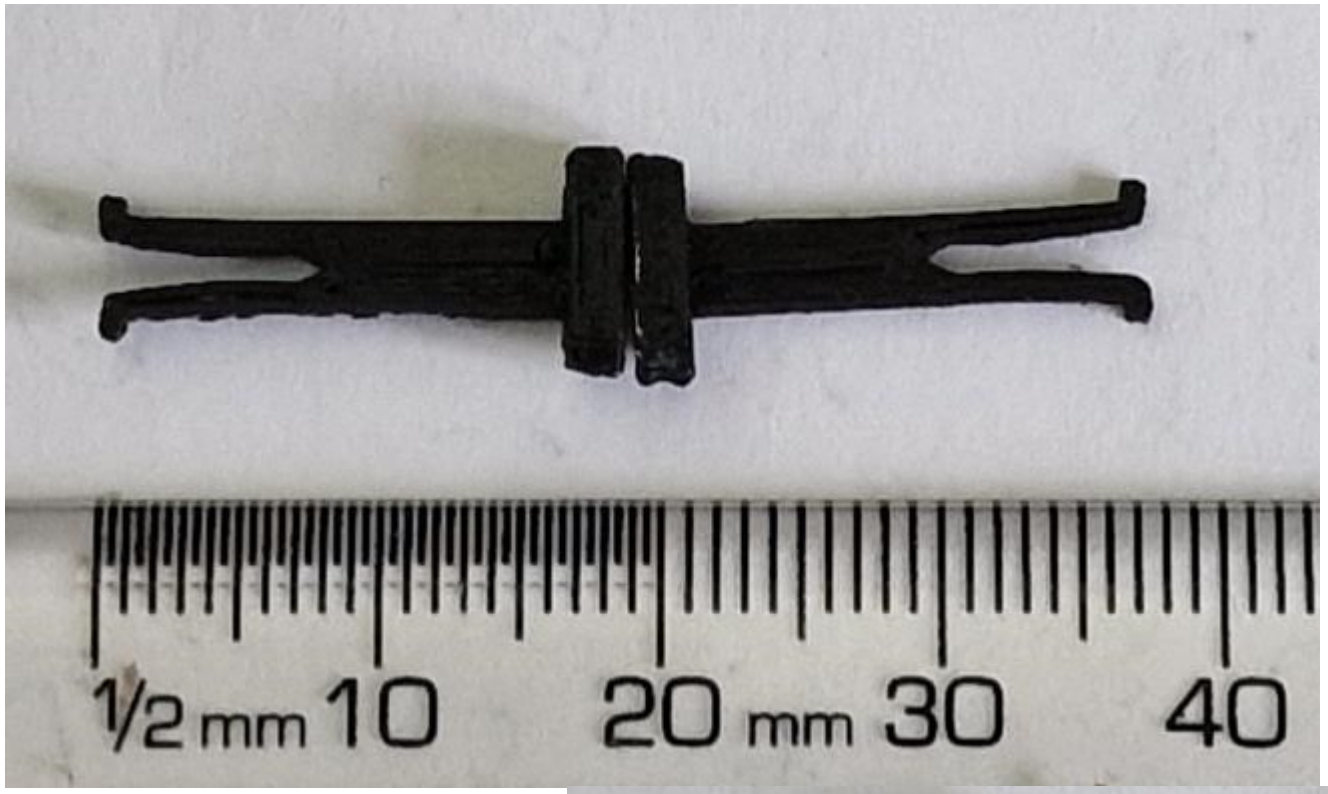
Magnetic Couplings for Dapol's Stroudley O Gauge Close Coupled Carriages

Dave Searle

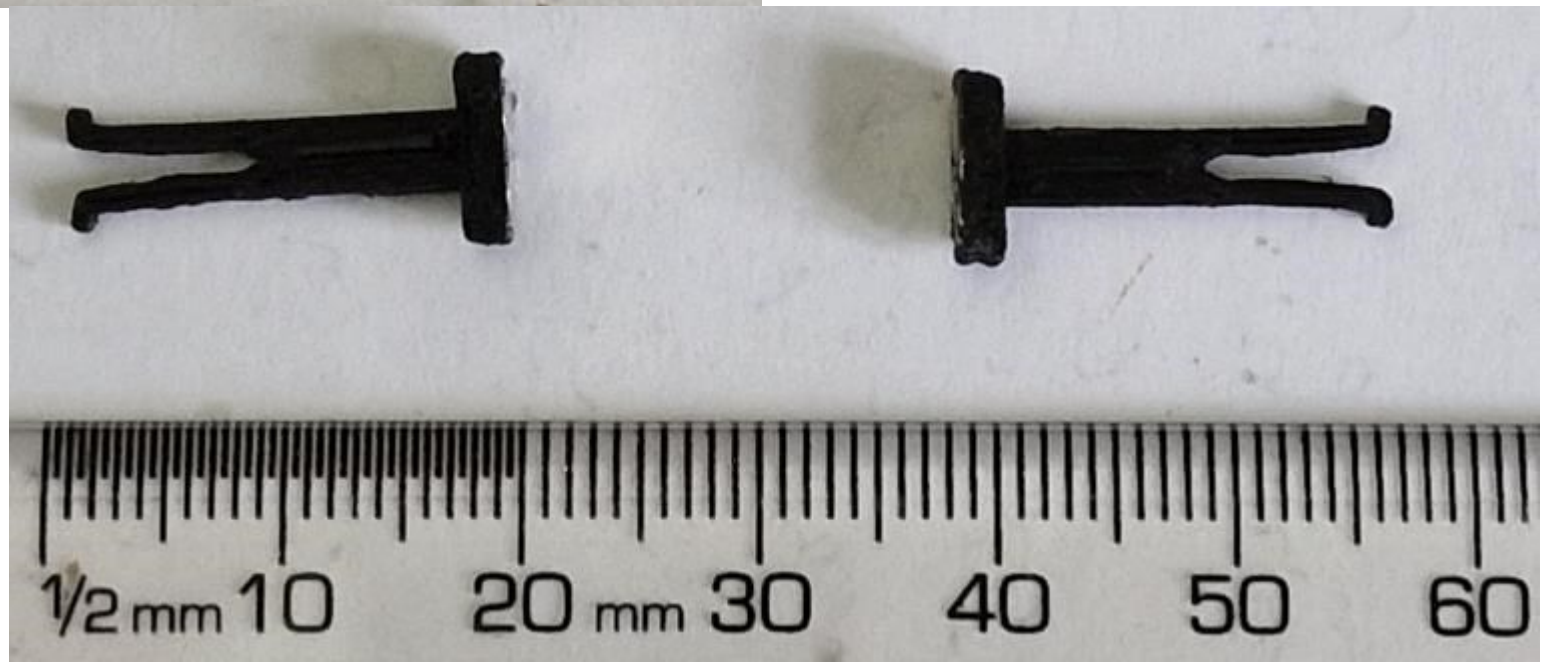
The challenge for O gauge modellers with Dapol's Stroudley close-coupled carriages is the rather solid coupling provided for use between the intermediate coaches in a set. These are designed to be connected and then left alone on the layout.

However for those who wish to move their models from layout to layout or show them at an exhibition, this is a problem. After watching a couple of modellers struggling trying to join two coaches together at an exhibition, I thought there must be an easier solution.

I have used magnetic couplings in smaller scales and wondered if such things were available for O gauge. At the same show, a company called Bespoke GLR Services had a range of magnetic couplings. Following their advice for the Dapol O gauge coaches I bought a pack of their "OO Gauge MagNEM (Standard Width) Omni Couplings". Whilst not specifically for O Gauge, they are the right size.



The couplings simply click-in to the NEM socket on the coaches.



Place the coaches on the track and push the coaches towards each other.

They will join together when the coaches near each other and bring the coaches close together, improving their appearance.

They are strong enough for my rake of 6 coaches and would probably manage a longer one. The sockets pivot to allow the couplings to cope with curves.

This photo shows the rake on the Epsom & Ewell MRC test track which uses 6 foot radius curves.

The set on Hartsbridge (The Epsom club's LBSCR layout) and the close-coupling allows them to just fit onto the 5 foot train turntable fiddle yard.

When it's time to pack up, simply pull the coaches apart to uncouple them and remove from the layout.

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Ventilated Van for Butter Traffic

- built to 7mm Fine Scale

Colin Paul

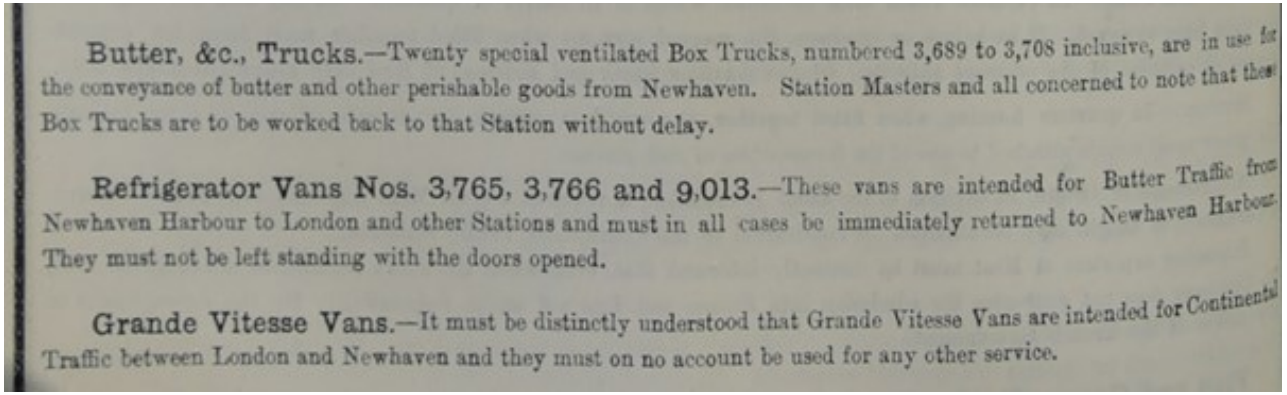
Built in 1892. “20 special ventilated box trucks numbered 3689-3708 are now in use for the conveyance of butter and other perishable goods from Newhaven. To be returned there without delay” (Ref 1).

As Mike King notes in his book, Southern Wagons Pictorial, photos of the ventilated covered goods for butter are very elusive, with only one decent view shown in Photo 1 (Ref 2). No.01183S (ex-LB&SCR butter traffic van No.3689) was built in 1891 and is shown in departmental use at Lancing Works. By now the ventilated roof had been removed and the original roof patched up with new canvassing but still retaining two ventilators. The giveaway is, of course, the van’s number and the louvres on the doors. The vertical steel plates either side of the louvres on each of the doors are also just visible.

Photo 2 (Ref 1). This shows another van, cruelly enlarged, taken at a very acute angle, crossing the Southerham railway bridge, South of Lewes.

Mike's drawing is based on these photos as no GA has come to light (Fig.1).

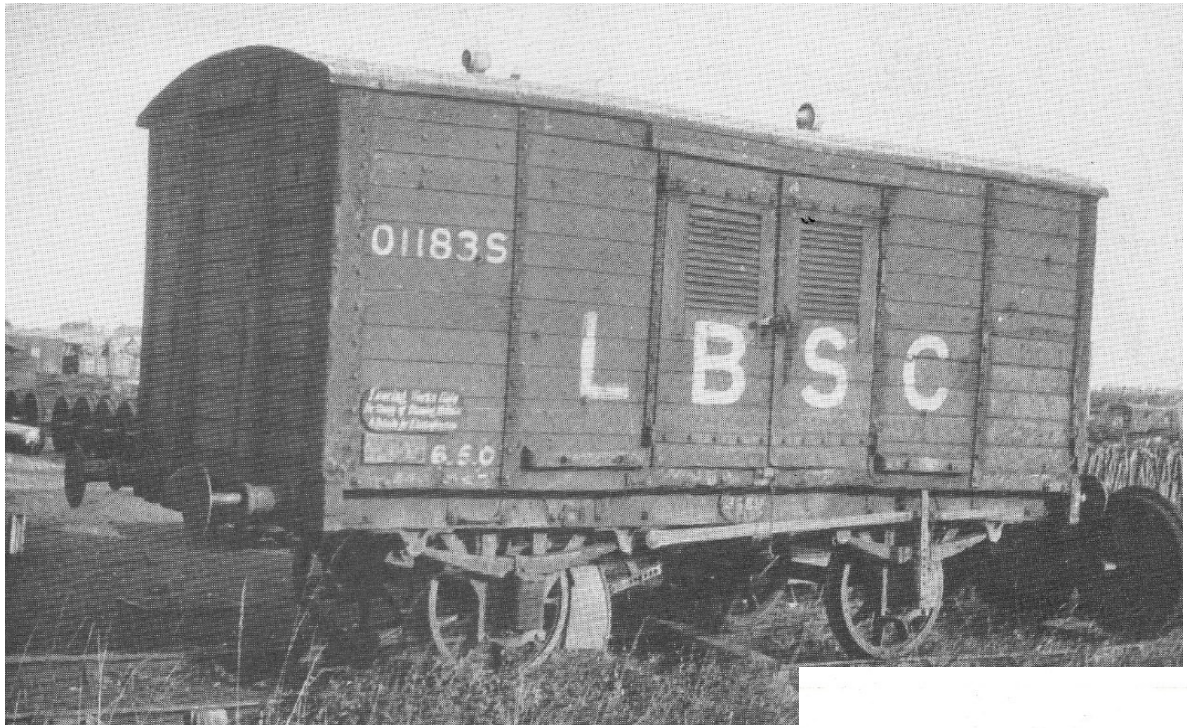
Extract from WTT



Butter, &c., Trucks.—Twenty special ventilated Box Trucks, numbered 3,689 to 3,708 inclusive, are in use for the conveyance of butter and other perishable goods from Newhaven. Station Masters and all concerned to note that these Box Trucks are to be worked back to that Station without delay.

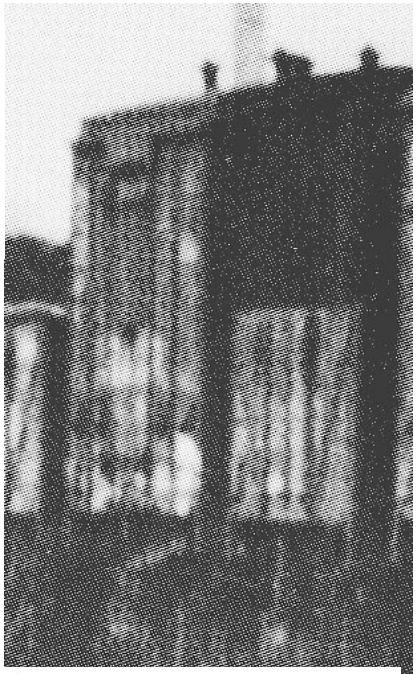
Refrigerator Vans Nos. 3,765, 3,766 and 9,013.—These vans are intended for Butter Traffic from Newhaven Harbour to London and other Stations and must in all cases be immediately returned to Newhaven Harbour. They must not be left standing with the doors opened.

Grande Vitesse Vans.—It must be distinctly understood that Grande Vitesse Vans are intended for Continental Traffic between London and Newhaven and they must on no account be used for any other service.



Left - Photo 1

Right - Photo 2



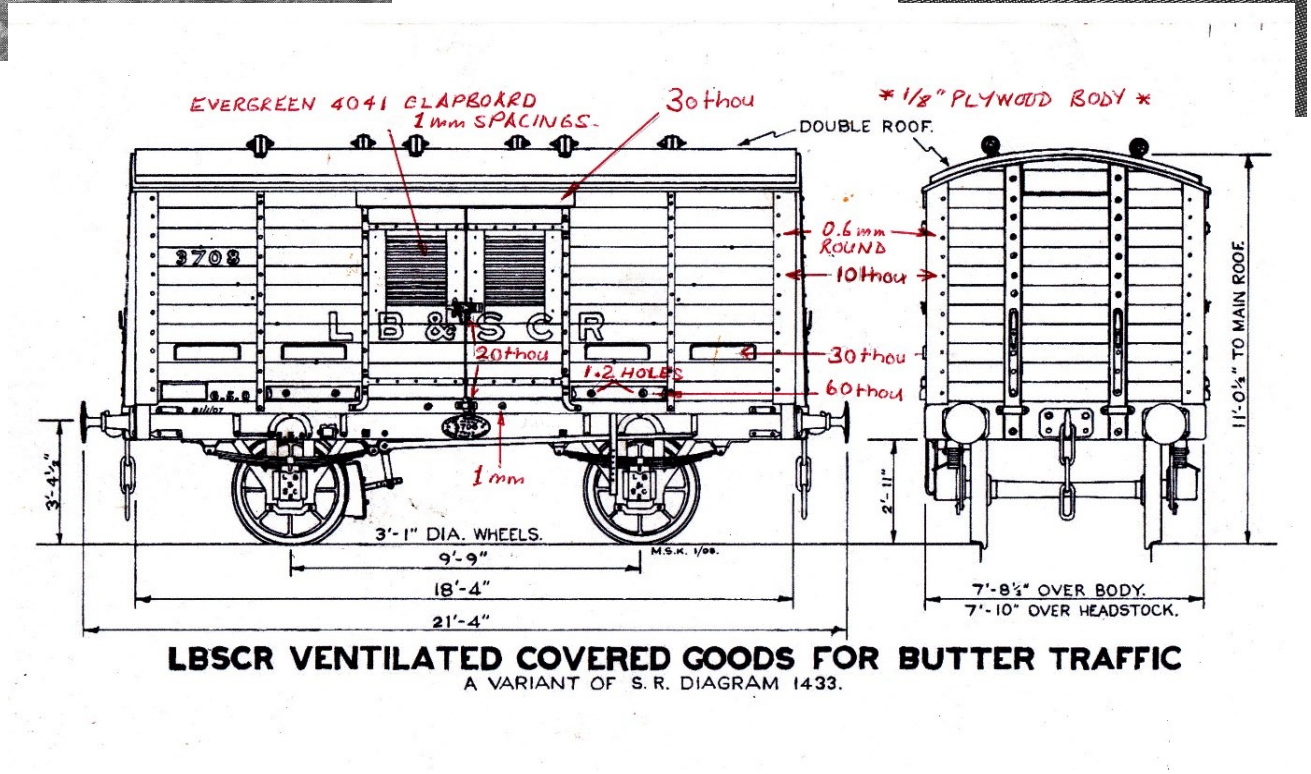


Fig.1

The scanned drawing by Mike King from which the model was constructed.

The Model

As you may already have read in previous Modellers' Digest articles, I like to construct the more obscure LB&SCR items of rolling stock, be it a one-off or those built in very limited numbers, of which no kits are available. The ventilated butter van, described here, is no exception. At the time of writing (Sept 2024), there are not even any commercially available LB&SCR covered van kits in 7mm scale.

The underframe was started way back in 2016, while I was waiting for the O Gauge travelling hand crane artwork to be finalised (see Modellers' Digest Issues 2-9) and, having to wait a very long time for the gear wheels etc to be 3D printed, I had time on my hands. Thinking what to build in the meantime, the ventilated covered goods van for butter was one which would stand out in a goods train, with the ventilated roof and torpedo vents on top. Up until that time, I only had one in my collection, which is a scratch-built LB&SCR egg truck No.5840 (LB&SCR Dia.10, SR Dia. 1435).

Around the same time, I was in discussion with Mike Waldron (then EBM Models) about possibly etching proper LB&SCR ‘W Irons' from my artwork. I wanted individually sprung axleboxes for longer wheel-based vehicles to the design that Slaters use, in which the axleboxes slide up and down in a ‘slot' and are forced downwards by tiny compression springs. In due course several sheets of etched 'W Irons' were supplied.

I was also struggling to find a source of LB&SCR white metal cast buffers. Colin Hayward came to my rescue and had some cast.

As always, I start with the underframe. I used the usual C&L doublesided copperclad sleeper strip. After cutting the strips to length, the ironwork overlays (10thou Slaters Plastikard) were made and superglued in place. Holes were then drilled out, ready to accept the bolts/nuts/washers etc (mainly 0.6mm diameter brass rod).

A purpose made ‘jig' was made (not photographed) to hold the separate bits together. Because of the slightly narrow solebar thickness, each W Iron had to be packed out slightly, which can just be seen.

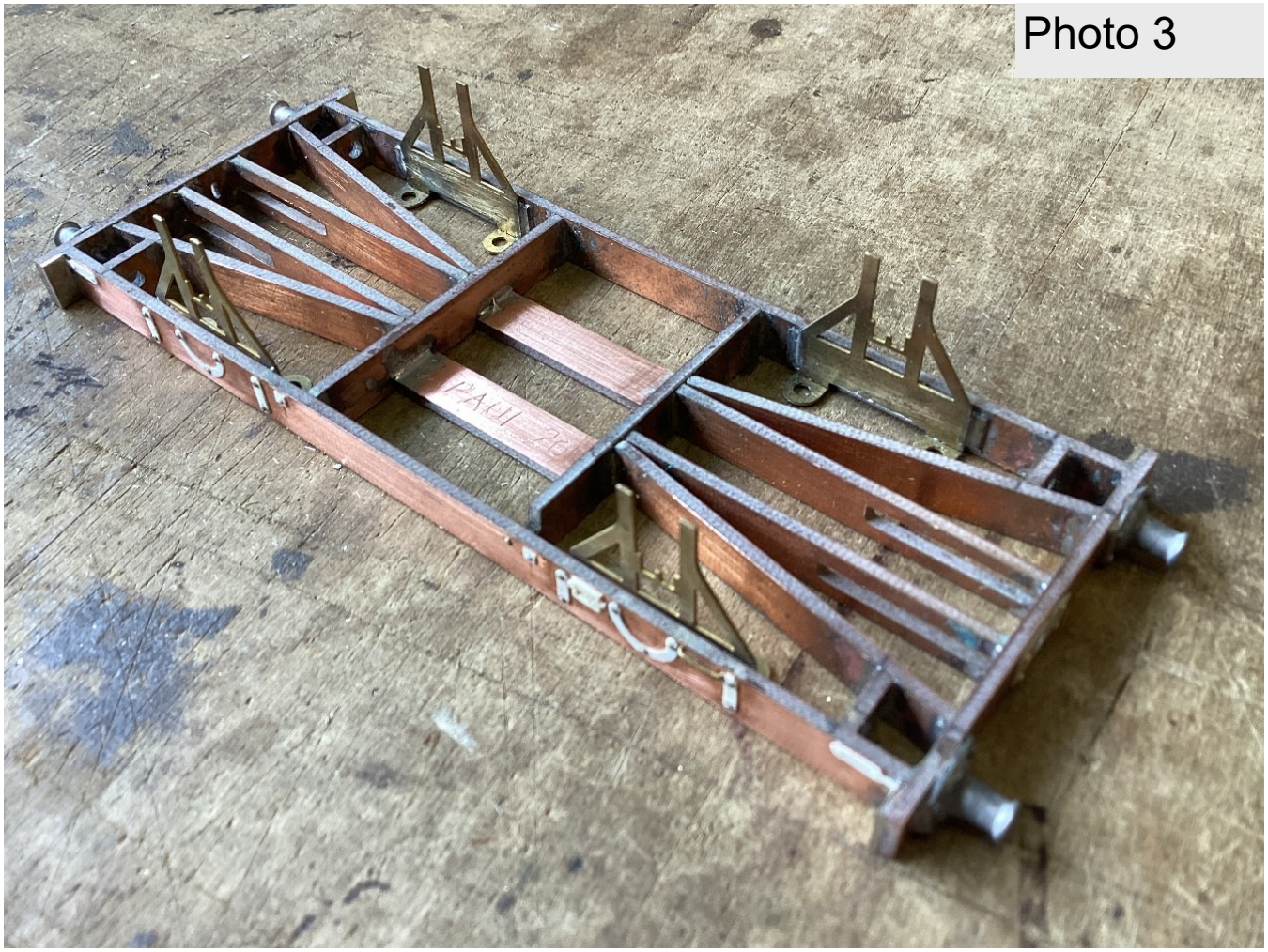


Photo 3

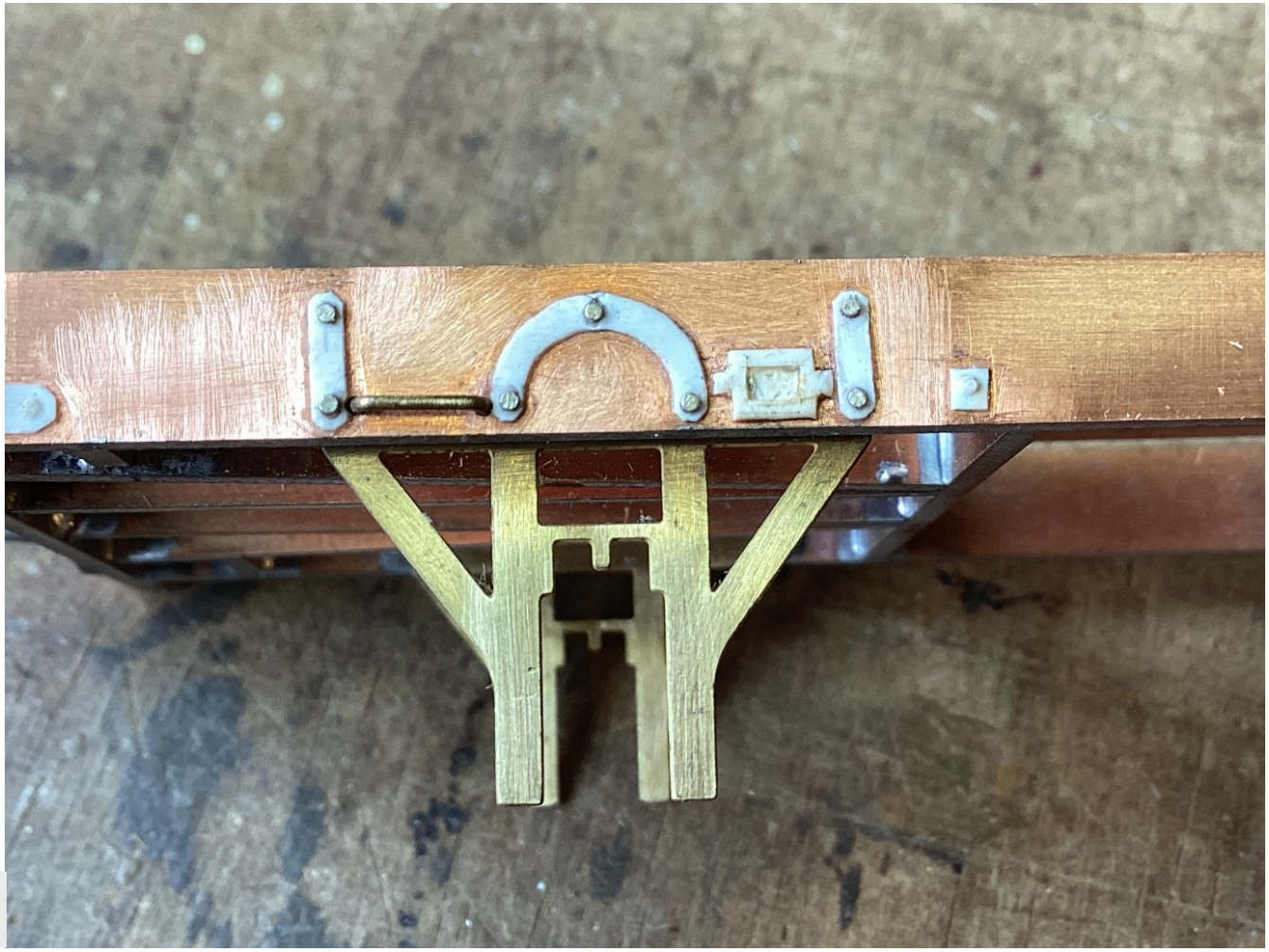


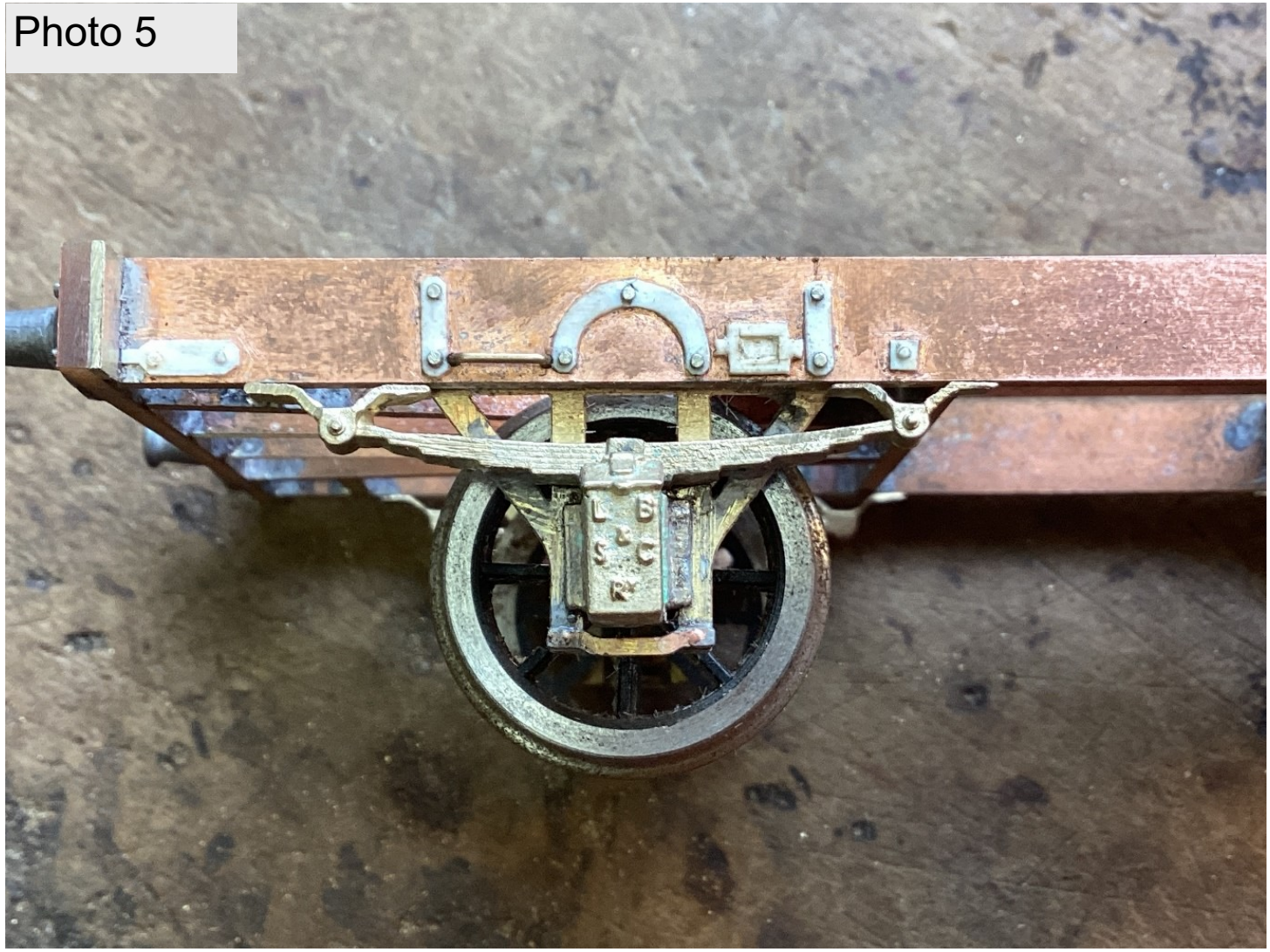
Photo 4

A close-up of the W Iron, which was soldered to the inner face of the sole bar. Note the small vertical 'lug' projecting downwards, that secures and holds in place tiny compression springs for use where springing is required. As this is a relatively short wheelbase vehicle of 9' 9" (68.5mm), compensation is not required on this O gauge model.

As mentioned, the ironwork overlays are 10thou Slaters Plastikard with 0.6mm brass rod bolts. The curved 'crown plates' were not the easiest items to fabricate.

As on my previous models, I use the superb LB&SCR lost wax castings which came from the late Philip Elverd and are sadly no longer available (note the legible lettering). Fitted here are grease filled axleboxes with the shallow 4' 6” leaf springs. He also produced oil filled ones and sharper 3' 3” leaf springs

Photo 5



Firstly, I soldered in place the axleboxes, capturing the Slaters 3' 1½” axles and making sure the underframe sat at the correct height above the rail, in this instance 3' 5”.

With small amounts of filing here and there, the shallow leaf springs were slid into place for a snug fit.

Finally, Mike Waldron etched the keeper plates for me, which are located underneath the axle box.

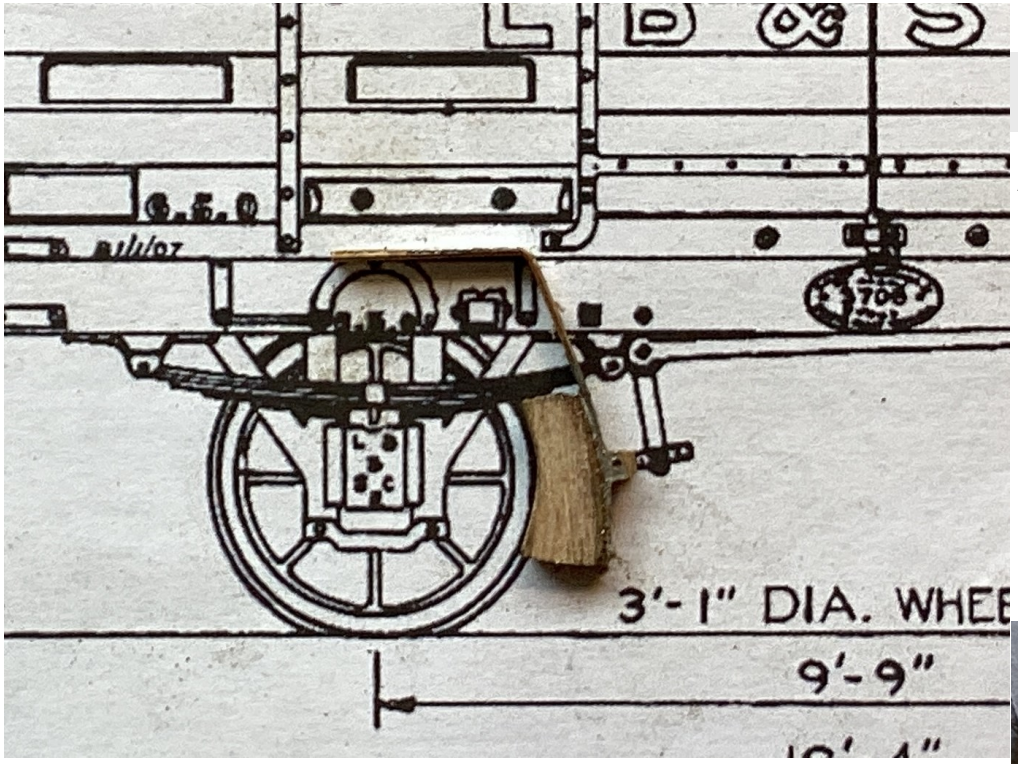


Photo 6

As shown in Photo 1 and the drawing, the vehicle had a single brake block and lever on one side only. The block was cut out from plywood, glued onto a brass plate to which a thin curved strip had been added. It was then bent at the top for soldering underneath the underframe via a flat plate.

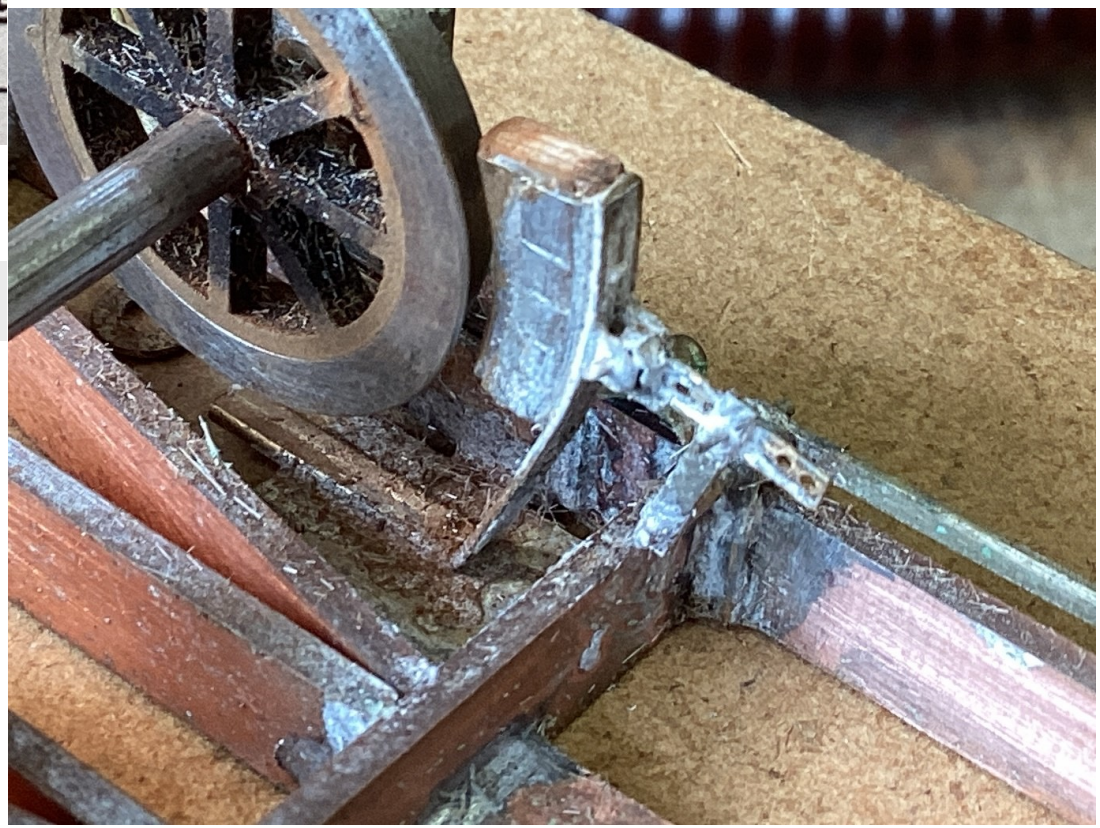


Photo 7

The block assembly soldered in place. The curved back behind the brake block can be seen. The linkage was made from various bits and pieces matching the drawing.

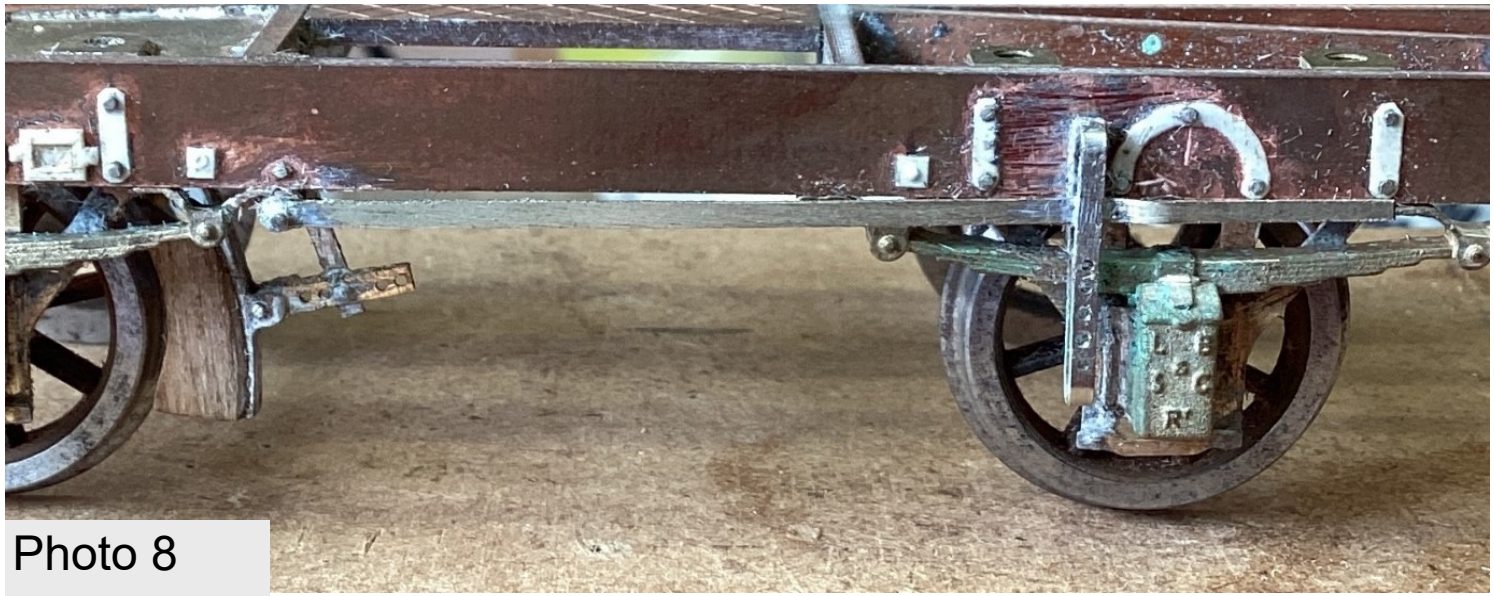


Photo 8

The lever was made from 0.5mm thick n/s strip and pivoted in line with the brake linkage. The lever guide was also made from thinner n/s with drilled out holes. Prior to soldering together, when the lever was dropped, the brake block acted onto the wheel tread in a prototypical manner.

The buffer housings came from Colin Hayward and are beautifully cast in white metal. The drawbar backing plate is 10thou Plastikard with bolt heads Mek'd in place. They may be replaced with brass rod. Note the brackets on the W Iron etch have been bent at right angles, which secure the underframe to the underside of the body using 8BA bolts.

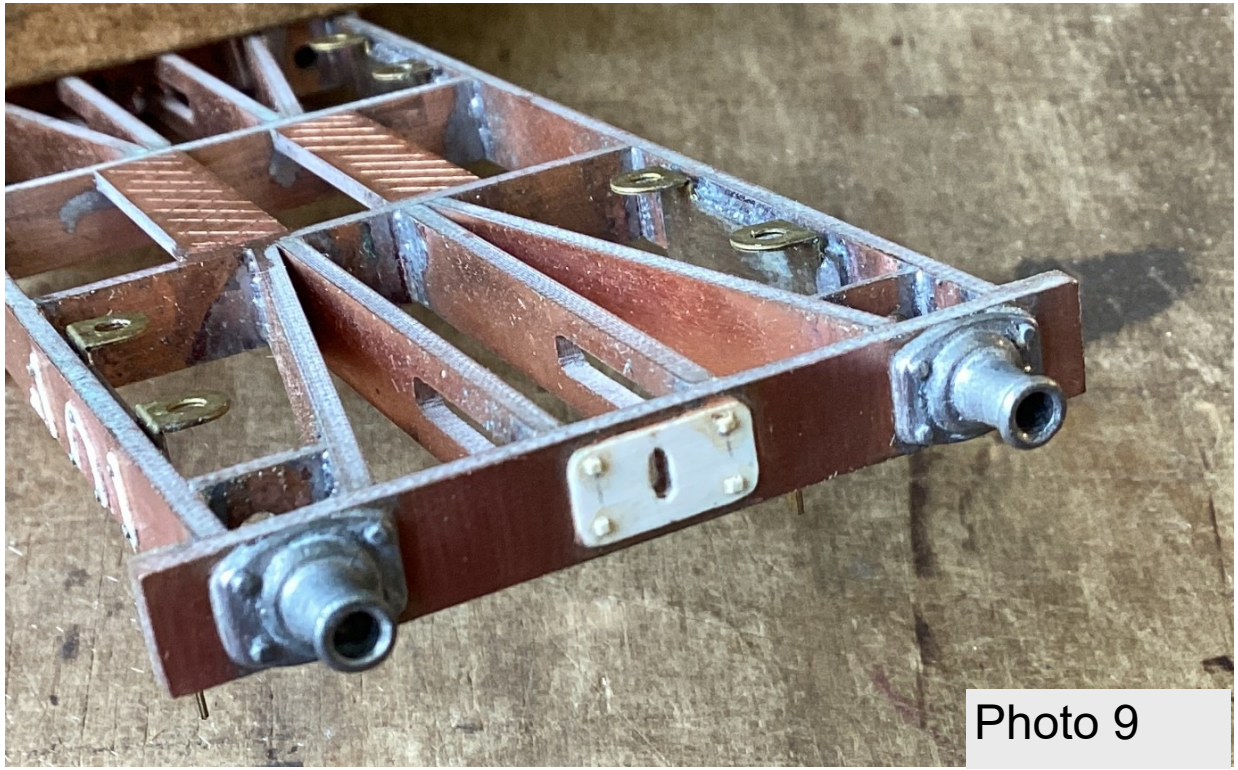


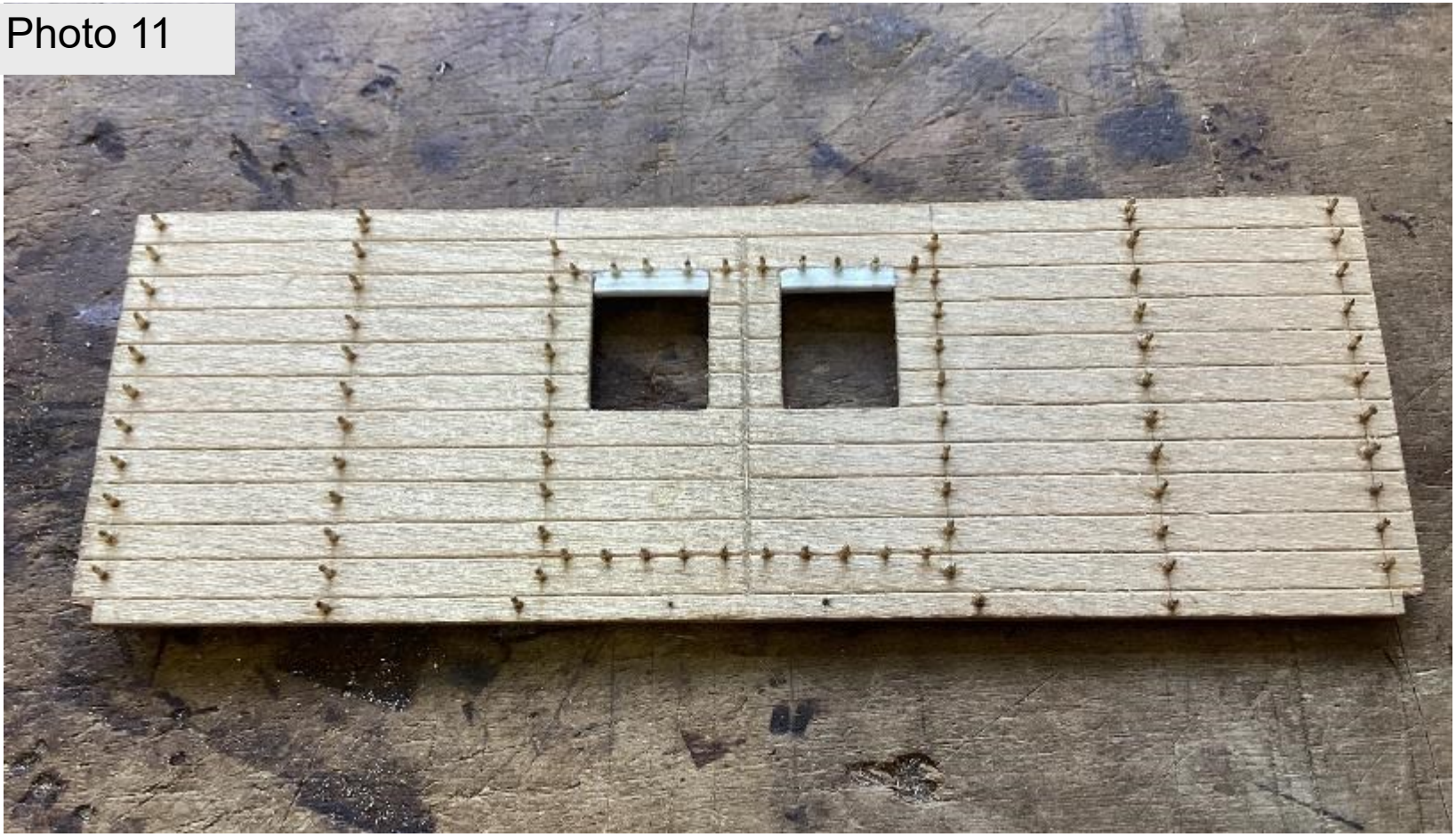
Photo 9

Photo 10

The completed underframe (unbraked side).

The Body

Photo 11

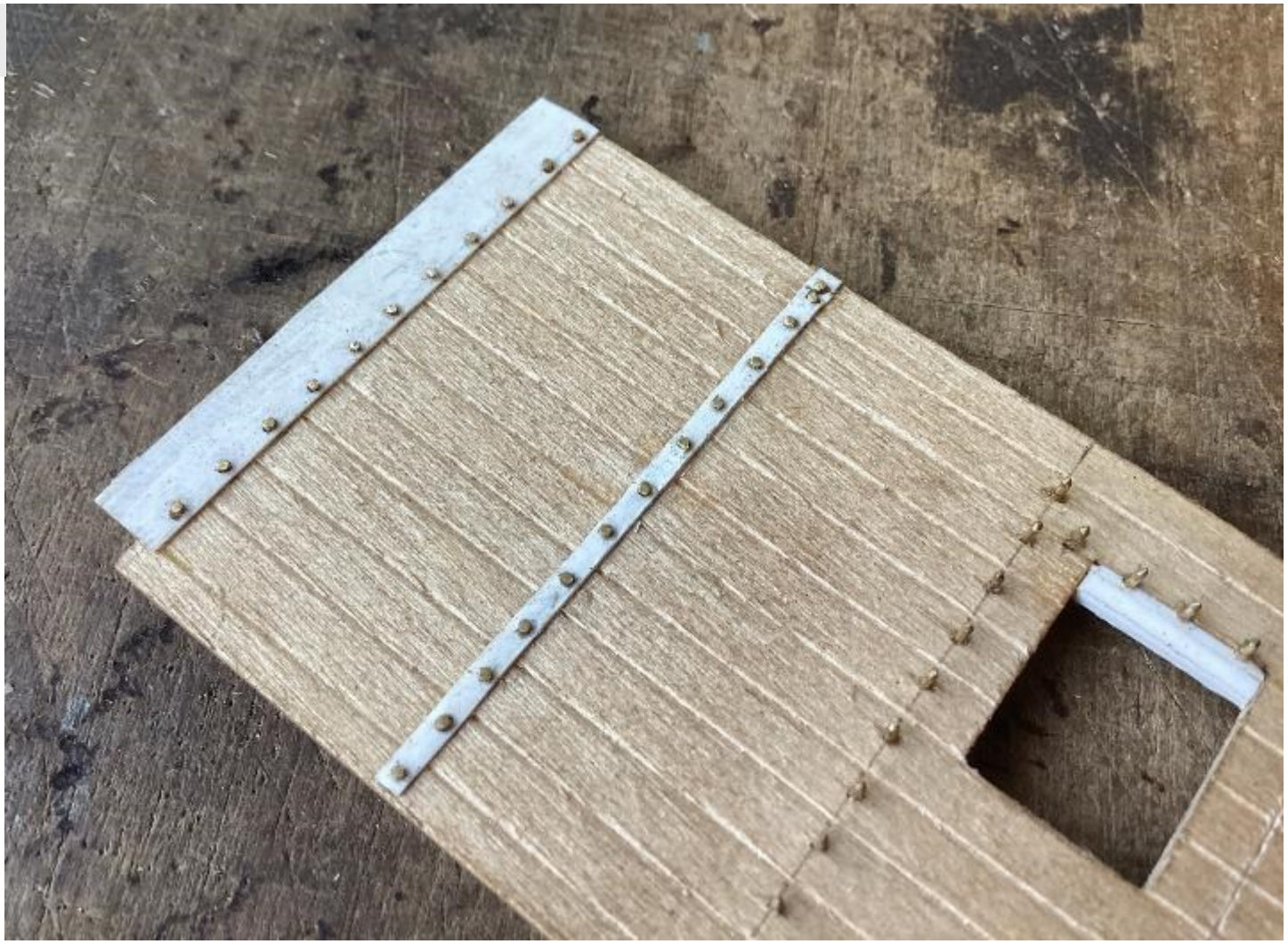


The body is made from 3/32” plywood. This may seem a bit flimsy for 7mm, but it’s quite rigid and does not flex or twist much. The whole length of the sheet was carefully scribed to represent the planking. Each panel was then cut to length and height and mitred on the ends. The ends were done in the same way as will be shown in the following photos.

The openings for the louvres on the doors were cut out. I misread the drawing slightly by cutting away too much of the third plank down, which was subsequently filled in with Plastikard packing (shown white). All would be hidden by paint.

Vertical and horizontal pencil lines were then drawn to mark the centre lines of the bolts. 0.65mm holes were drilled, ready to except 0.6mm diameter brass rod representing the bolts. Each one was individually Superglued in from the inside.

Photo 12



All of the ironwork is 10thou Plastikard which seems the correct thickness. Holes were marked in pencil and drilled out using a 0.7mm drill bit. This gives enough slop within the hole to allow for slight discrepancies in the positioning of the bolts. Any gaps will be filled in with paint. After Supergluing in place, the excess rods were filed down to uniform 0.4mm height. The corner plates are 2mm over length at this stage, for trimming and filing back later when assembling the body.

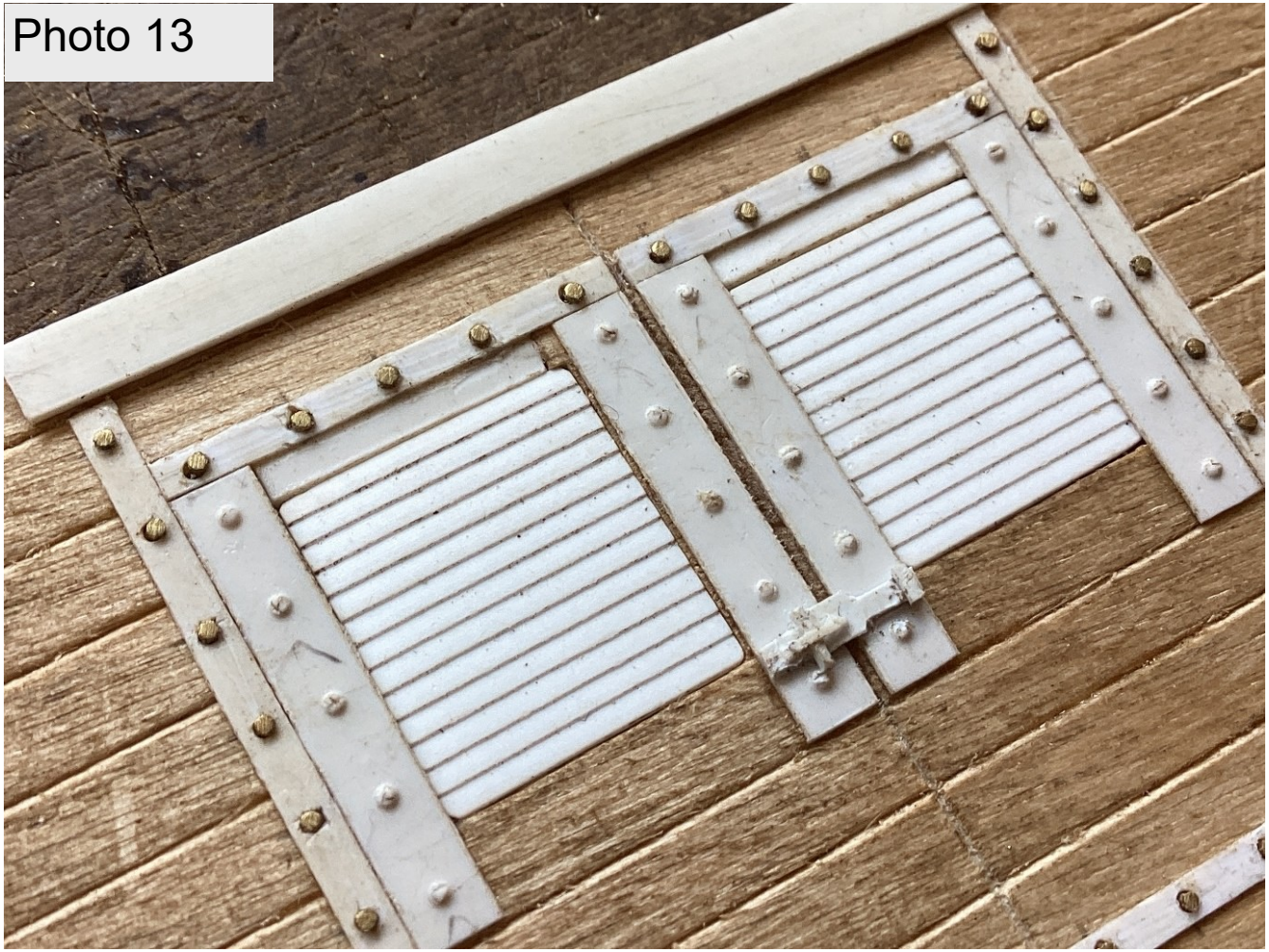


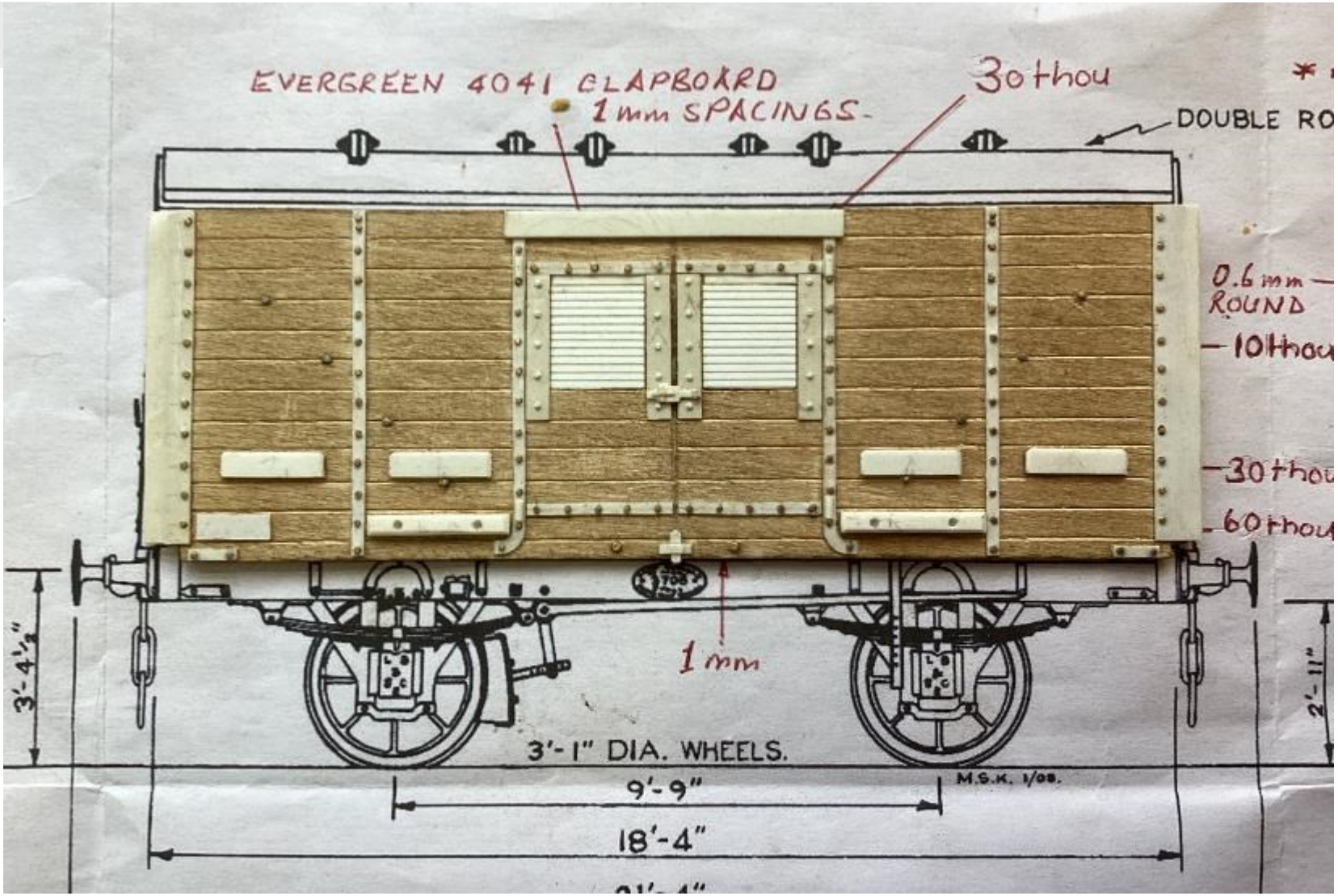
Photo 13

A close-up showing the louvres. Representing them on previous models, I've scribed lines onto Plastikard, which, from a distance looked passable, but, close-up, looked dreadful. On this model I wanted something better. I then remembered an article in MRJ written by Laurie Griffin, explaining how he modified a 7mm etched MR milk van with more convincing ones. I eventually found the article concerned in MRJ No.285, page 401, where he used Evergreen clapboard. Coming in various slatted widths, 1mm wide (Item No.4041) looked the best. Not being a rivet counter, the real van had 12 louvres whereas the Evergreen ones have 13, which was good enough for me. Each one was carefully cut out and fitted in their respective apertures. The louvres must line up! They were glued in place with a bit of 30thou packing behind.

The pairs of vertical ironwork on each of the doors were again 10thou Plastikard, but, instead of using brass rod to represent the bolts, I simply punched them in (laziness).

The hinges on the doors had not been added when photographed. Subsequently I used plastruct 1mm half-round (Item No.90880).

Photo 14

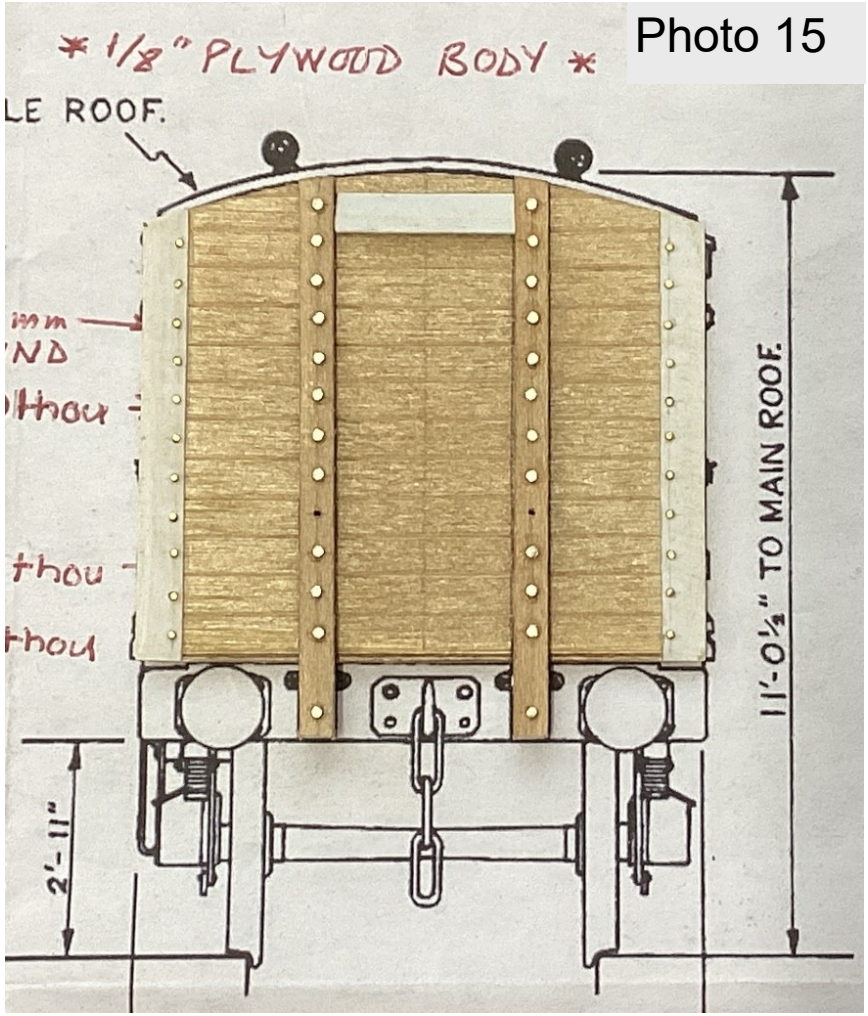


One side finished. As mentioned in Photo 12's caption, the iron corners are too long. Various thicknesses of Plastikard were used in the detailing parts. The door hinges have also been added.

The ends were made in exactly the same way as the sides, with the corners left overlength. The two vertical end supports were made from 1/8” square wood strip, tapered down to 2mm towards the top. Holes were drilled out for the bolts. 1mm diameter brass rod was used as these are much bigger than the bolts in the ironwork. The two holes, that have been drilled out, will be used for securing the lamp irons in place.

Photo 16

Photo 15



Using the same plywood for the floor, a piece was cut out measuring 126mm x 50mm. The ends were Superglued, making sure that they were at right angles. If you look very closely, the overall widths of the corner ironwork can be seen.

Photo 17

With the two sides Superglued in place, the corners were trimmed back then filed smooth. To stop any bowing of the sides from handling, two inner supports were cut and glued in place.

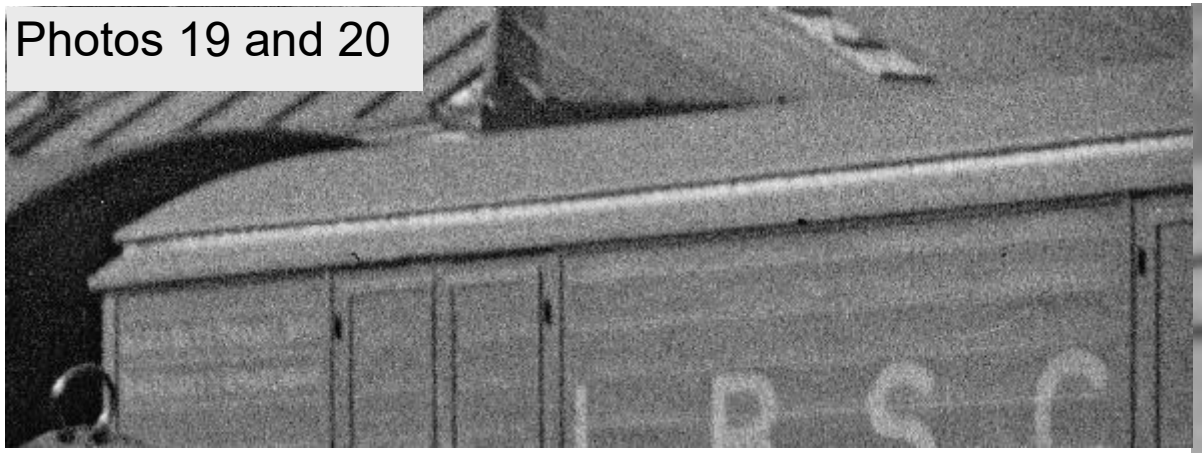
I did not want to glue the body permanently to the underframe, so four captive nuts were soldered onto copperclad sleeper strip, which in turn line up with the holes in the 'W Iron' angle supports (as shown in Photo 9). Each strip was secured in place with Araldite.

Photo 18

The finished body.

The Roof

Photos 19 and 20



I have two very good photographs in my collection clearly showing the roofs of ventilated butter vans. Photo 19 came from John Minnis, whilst Photo 20 was from the late Laurie Marshall. Both have been scanned close-up, but still retain fine detail. The loaded vans were run at night and not in the heat of the day. These photos clearly show them in daylight, suggesting that they were on their return journey back to Newhaven or thereabouts for another night's consignment up to London.

From these photos, it is clear that both had a solid narrow strip (wood/metal?) on the sides sandwiched between the top and bottom roofs. The ends would be 'open' allowing the passage of fresh air passing through, keeping the butter and perishables inside as cool as possible.

Fig 2

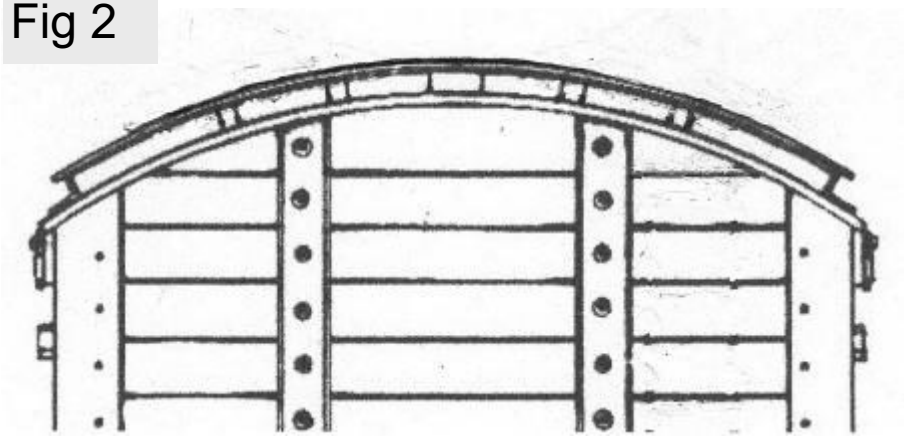


Fig 2 shows the end of the LB&SCR refrigerator van, as drawn in Southern Wagons Vol.2, Fig.13 (**), which I am copying on the model. For clarity, I have omitted the end ladder, grab handle, torpedo vents and lids.

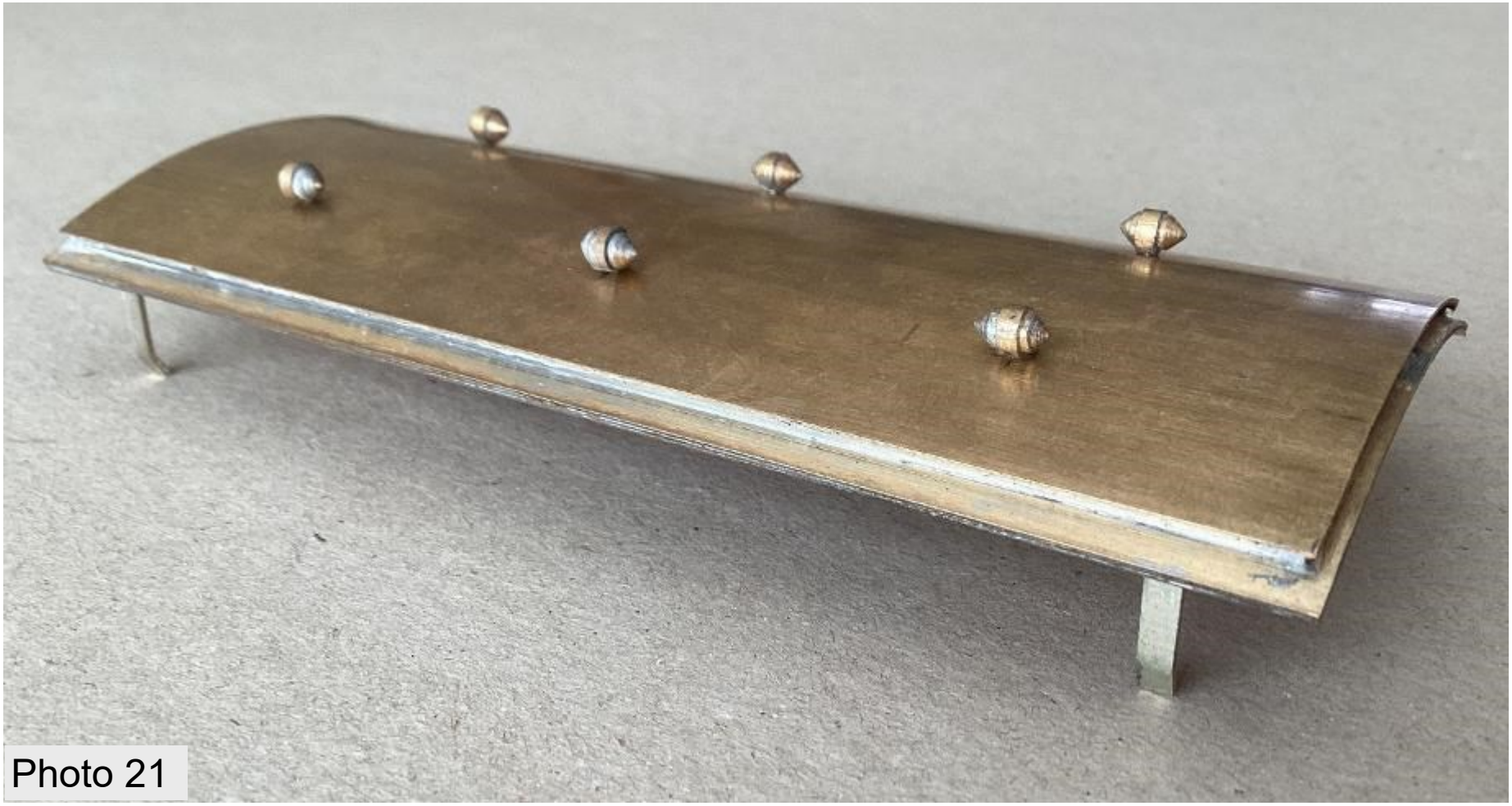
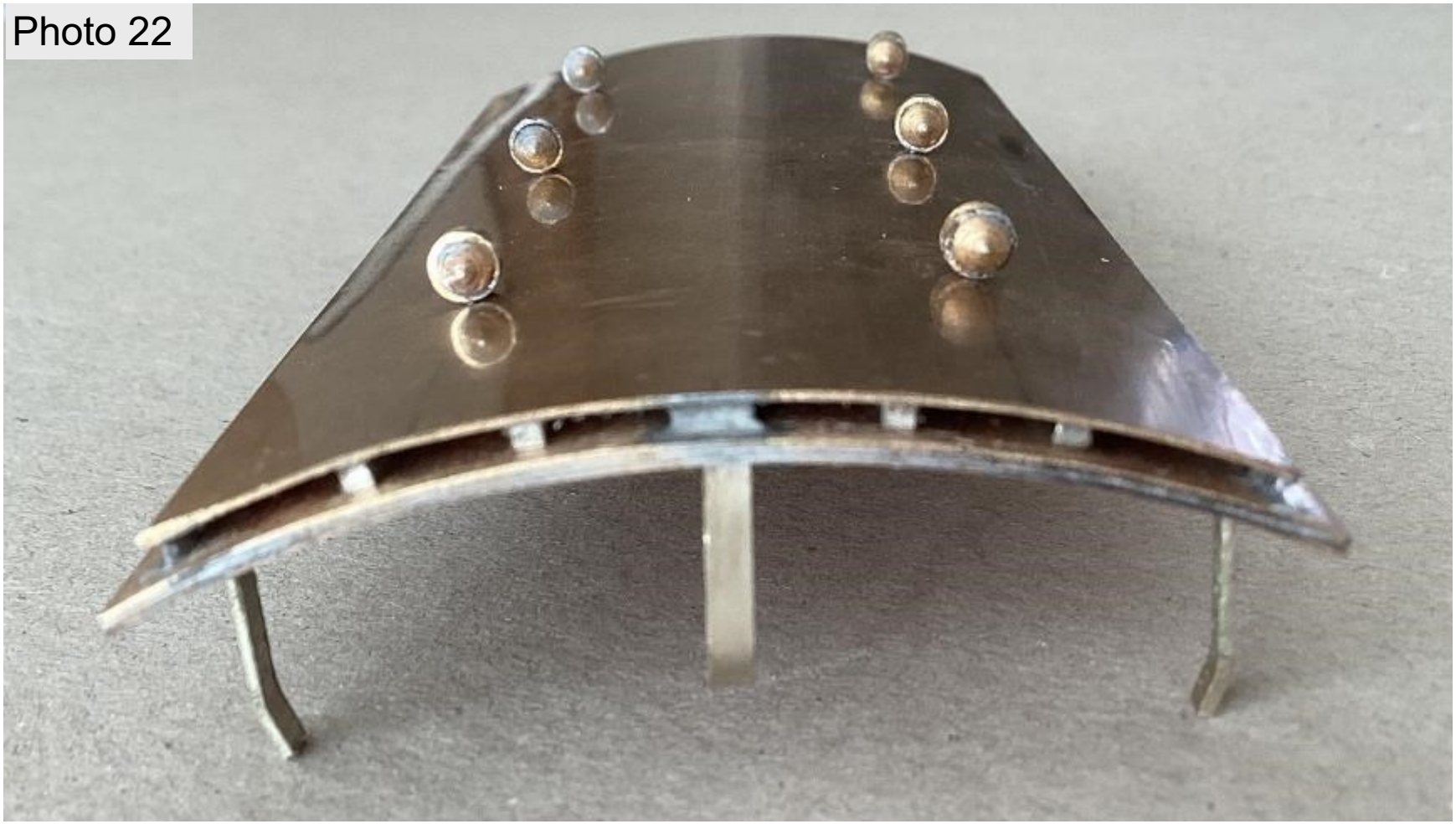


Photo 21

After careful measuring, the lower roof measured 133mm x 58mm, whilst the top measured 130mm x 54mm. I decided to use 18thou brass for both roofs. After cutting out, they were rolled to the profile of the ends. Because the thickness of the bottom roof was slightly under scale, I soldered 0.5mm n/s packing strips to the underside, bringing to thickness to around 0.7mm, which looked better.

The long, recessed strip running along the whole roof, is roughly 1.5mm high. A length of n/s was cut to length and soldered onto the underside of the top roof 1mm in from the edge.

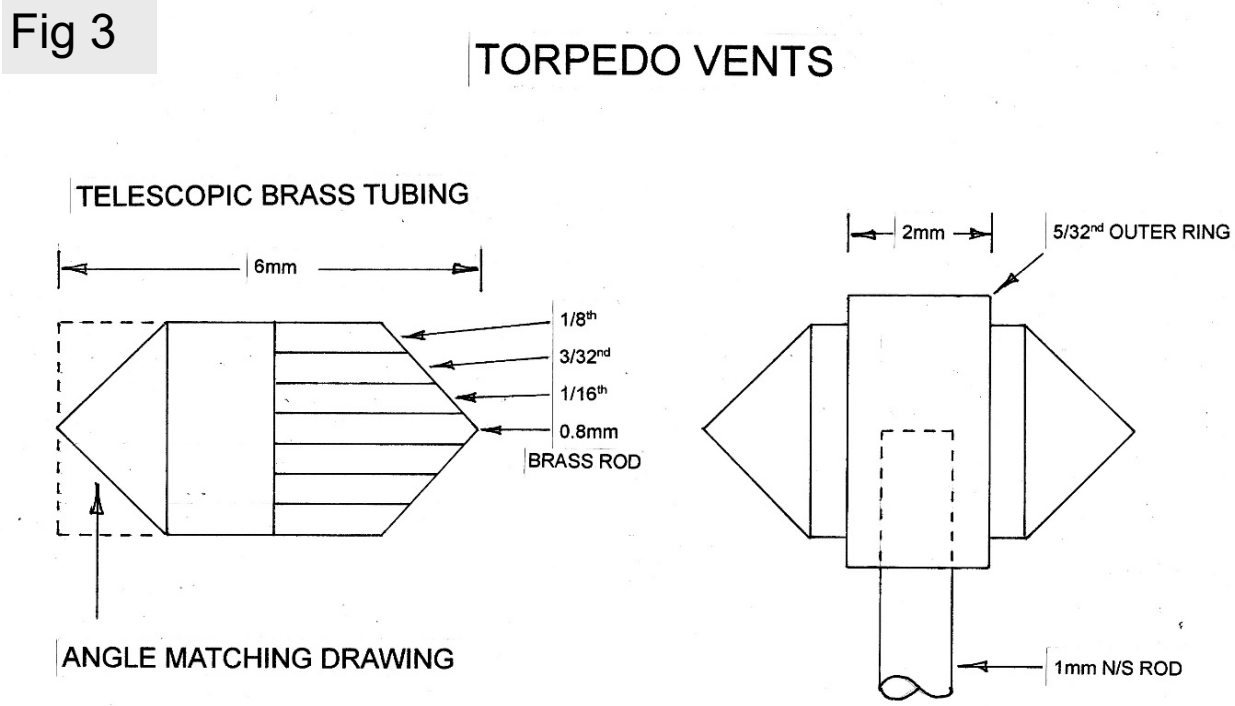
Photo 22



The narrow battens (four 1mm wide outer ones and one 3mm wide central one), sandwiched by the two roofs, were made from scrap brass, then soldered to the underside of the top roof. After checking both roof curvatures, the two were finally soldered together.

I did not want to glue the roof to the body permanently, so I used scraps of thickish 2mm wide brass strip, forming unequal 'L' brackets (6 in total), with curved in ends. It took some time to get them in the correct position and perfectly vertical underneath the roof for a snug fit. The left bracket may give the appearance that it is not vertical but it is!

Fig 3



At the time of writing, I could not find a source of LB&SCR torpedo vents that matched the drawing, so I had to make my own. I do not own a lathe, so they were turned in my mini drill. I soldered together telescopic brass tubing ranging from 1/16” up to 1/8” with a 0.8mm brass rod in the centre, after which turning the ends was relatively straight forward.

Each one had a 1mm hole drilled through, ready for a 1mm n/s securing rod, which incorporates a 5/32” outer ring at the same time.

With careful measuring, holes were then drilled straight through the roof and small blobs of solder on the underside secure each in place.

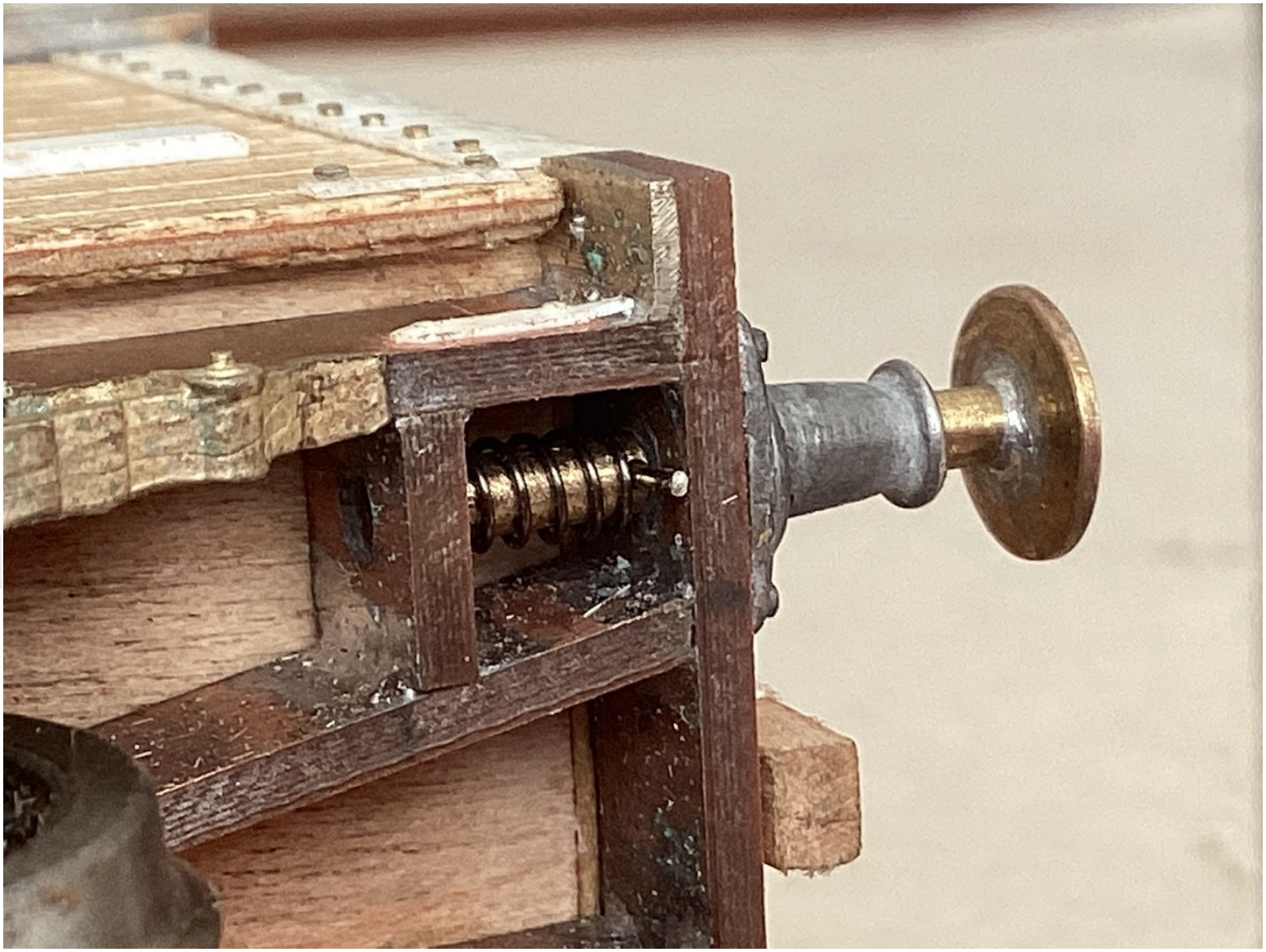
Photo 23

A very cruel close-up. Being only 6mm x 4mm (approximately), they are rather on the small side.

Photo 24

The lamp irons (two on each end) were made from 1mm wide n/s strip, then bent to shape as shown. Two 0.6mm holes were drilled out for home turned 'pins'. Each one was turned down from 0.7mm n/s rod, leaving minute heads. Each iron was Superglued in place, then fresh holes drilled through the end supports for the pins.

Photo 25



The buffer heads (scrap brass) and shaft (1/16” brass tubing) are from my own turnings.

To secure them in place, a hole was drilled out in the shaft ready for a pin that secures compression springs behind the headstock.

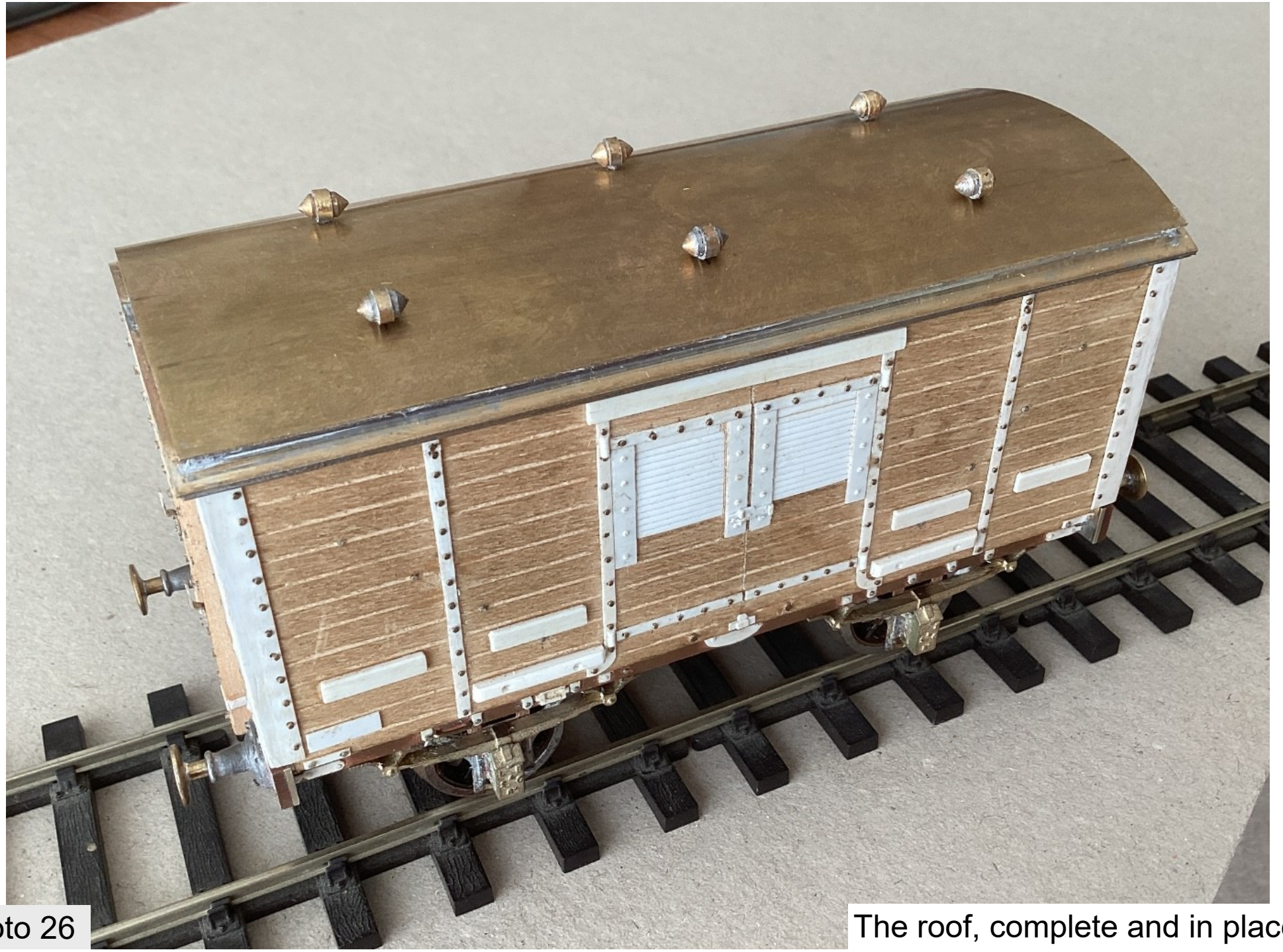


Photo 26 The roof, complete and in place.

Photo 27

The complete van ready for painting.

Painting and Lettering

First, the roof was washed and left to dry. The central area of the underside was masked off, leaving a 2mm area all round for paint. A few coats of Halfords rattle can White Primer were then applied.

The letters BK denote ‘brake side’, when fitting it on to the body.

Photo 28

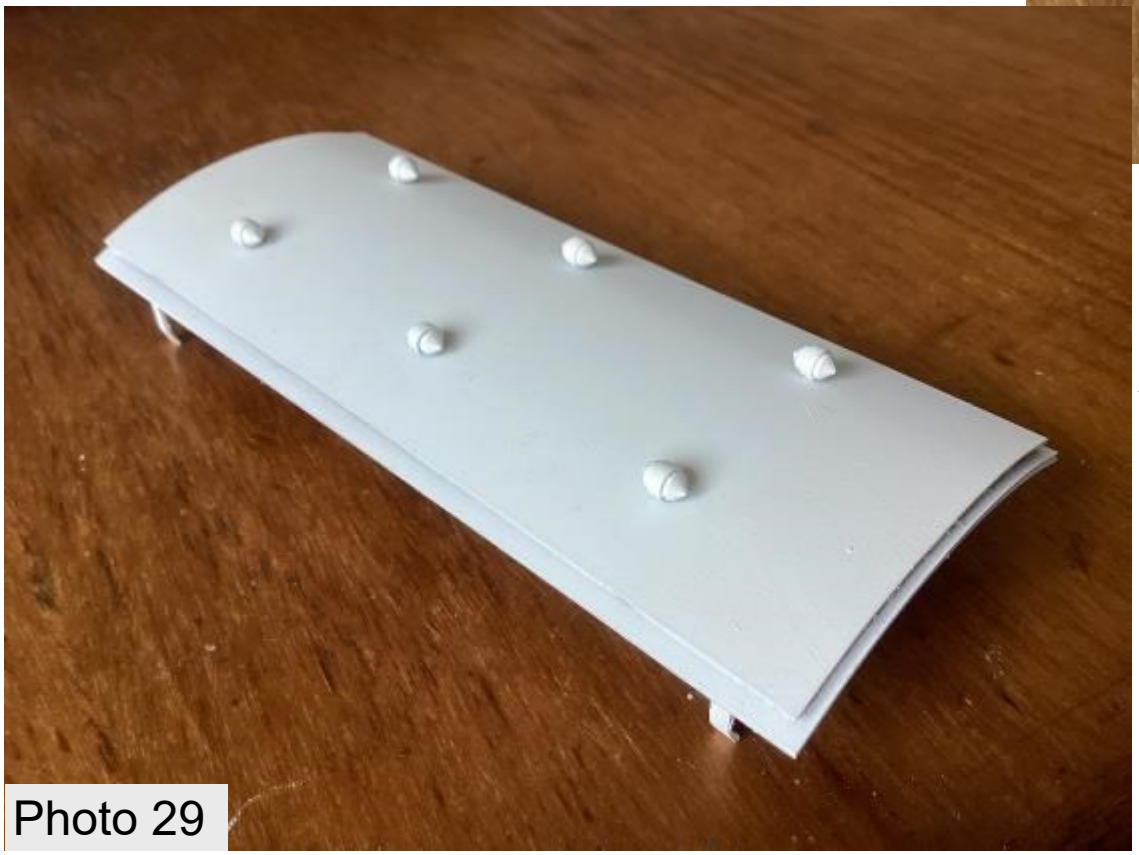


Photo 29

A silky smooth finish. All will be covered in grime when its weathered.

Before priming the body with Halfords rattle can Grey Primer, the model was checked for any imperfections. It was again cleaned up, especially on the Plastikard corners, which were grubby.

Depicted in the period between 1895-1911, it was painted in a medium coloured lead grey (Humbrol No.27 - Matt Sea Grey). Being mainly built from plywood, a second coat was required.

All ironwork was picked out in black (Humbrol No.33 -Matt Black).

The wooden brake block was painted in a mixture of Humbrol No.29 (Matt Earth) and Humbrol No.33 (Matt Black).

Photo 30

Lettering and numbers are from HMRS transfers (Pressfix Sheet 13, 7mm– SR Goods Vehicles Insignia with L&SWR, LB&SCR & SECR). Their positioning was copied from the drawing and Photo 2.

Many years ago, a Brighton Circle member had the cast oval wagon plates (9” x 14¾” - 5.5mm x 9mm in 7mm Scale) printed on a sheet of card in light blue, with a space left blank for the numbering. This close-up shows the letters and wordings clearly readable. Note some of my number positioning is slightly out but from a distance they look perfect. Being a smidgin over 1mm high, they weren’t the easiest characters to apply.

Photo 31

From the very start of the model, I have pondered whether to leave the lettering depicted on the drawing ‘as is’. From a distance, it wouldn't stand out from an ordinary covered van, other than the double roof and lower positioning of the L B & S C R letters. Firstly, I thought of PERISHABLE TRAFFIC as noted on bogie perishable van of 1905, but it was too long and the characters were on the small side. I then thought of BUTTER ONLY or BUTTER TRAFFIC. In the end, I plumped for BUTTER TRAFFIC.

I sourced my stash of transfers for possible letters. Ideally, they had to match the style of the Brighton ones, be roughly 3.5mm high and fit into two spaces of 18.5mm long each.

The Letraset sheet (No.1310) looked very close, but the letters appeared too tall and rather narrow, giving them a spindly look. Having a selection of Decadry transfers, sheet 11 were perfect but were too small at 2.5mm high. Sheet 59 at 3mm high would have been used but they only come in black. None of my other transfers were suitable.

Scouring the internet, I eventually found what I was looking for. Woodland Scenics (Ref:MG721) Gothic, RR – White (dry transfer rub on) match the Brighton style perfectly. The letter sizes on the sheet range from 1/16”(1.58mm), 3/32”(2.58mm), 1/8”(3.17mm), 3/16”(4.76mm), 1/4”(6.35mm), and 5/16"(7.93mm) high. The 3.17mm high set fitted best but were very slightly too small compared to the number 3689 but I can live with that. When they arrived, I scanned and printed off the 3.17mm high letters, cut out each individual letter that I required and glued them onto paper, making sure they were evenly spaced out and fitted into the 18mm space. This gave me a template to work with when applying the transfers proper.

Photo 32

The final items to fit were the buffer heads and couplings, completing the model.

Photo 34

References

1. Southern Wagons Pictorial, Compiled by Mike King and the drawing below.
OPC ISBN 978-0-86093 597-1
2. An Illustrated History of Southern Wagons Volume Two: LB&SCR and minor companies.
OPC ISBN 0-86093-220-6

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A Craven Standard Goods - EBM kit

Eric Gates

The Kit

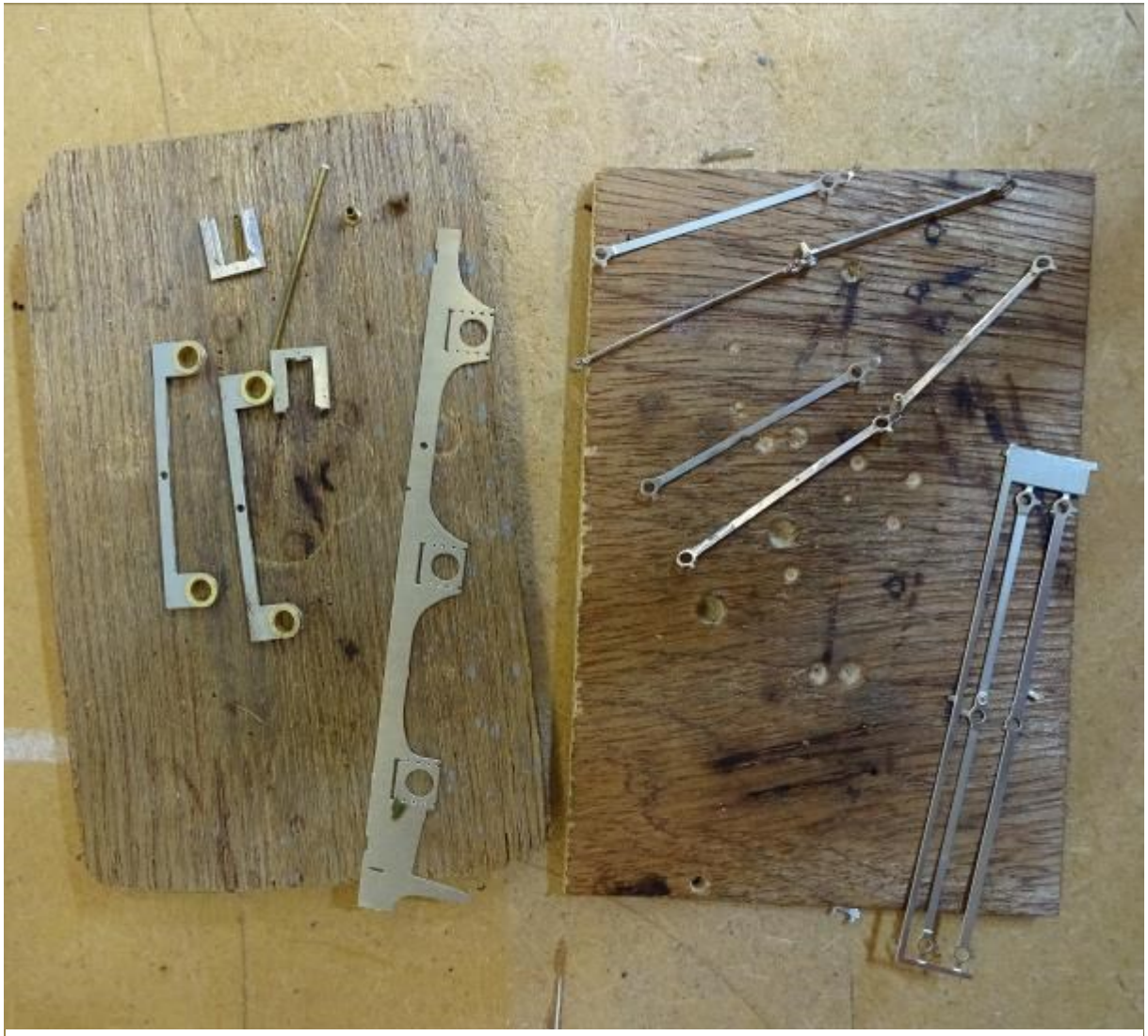
The EBM kit for one of J C Craven's 0-6-0 goods locos in 4mm scale has been on my "to do" list from the moment that it arrived. It is ideal for a long coal train and it is the exact opposite of everyone's idea of a Brighton loco! I have completed it in original condition and in Craven livery, which is actually considerably more showy then the drabber Stroudley goods green.

The kit is designed in mixed media, with frets of etched brass and etched nickel silver, plus a number of structural components in 3D print. My recent build of the Craven 2-4-0 from Ian White's etches included some fittings from 3D prints, but, in this case, the smokebox and firebox are both printed components, with the option to use a printed cab weatherboard.

The other slightly unusual feature is that the instructions consist largely of IKEA style drawings in a series of images, linking components to their location in the etched frets. This works well for identifying some of the smaller etched details by pictures, rather than prose. There is an excellent introduction to the history of the class and painting details, but then the assembly sequence is less helpful in describing how items fit or align. As an example, the motion bracket fits between the frames obviously enough – but quite how far along is unclear. It may not be critical, but I have been caught by items like this in the past which have come back to bite me at a later stage (usually when I am doing the lining and it is far too late to change anything!). The diagram style works well in showing the what and where, but is less helpful in explaining Ian's intentions for how particular things should fit. More of this later.

The Loco

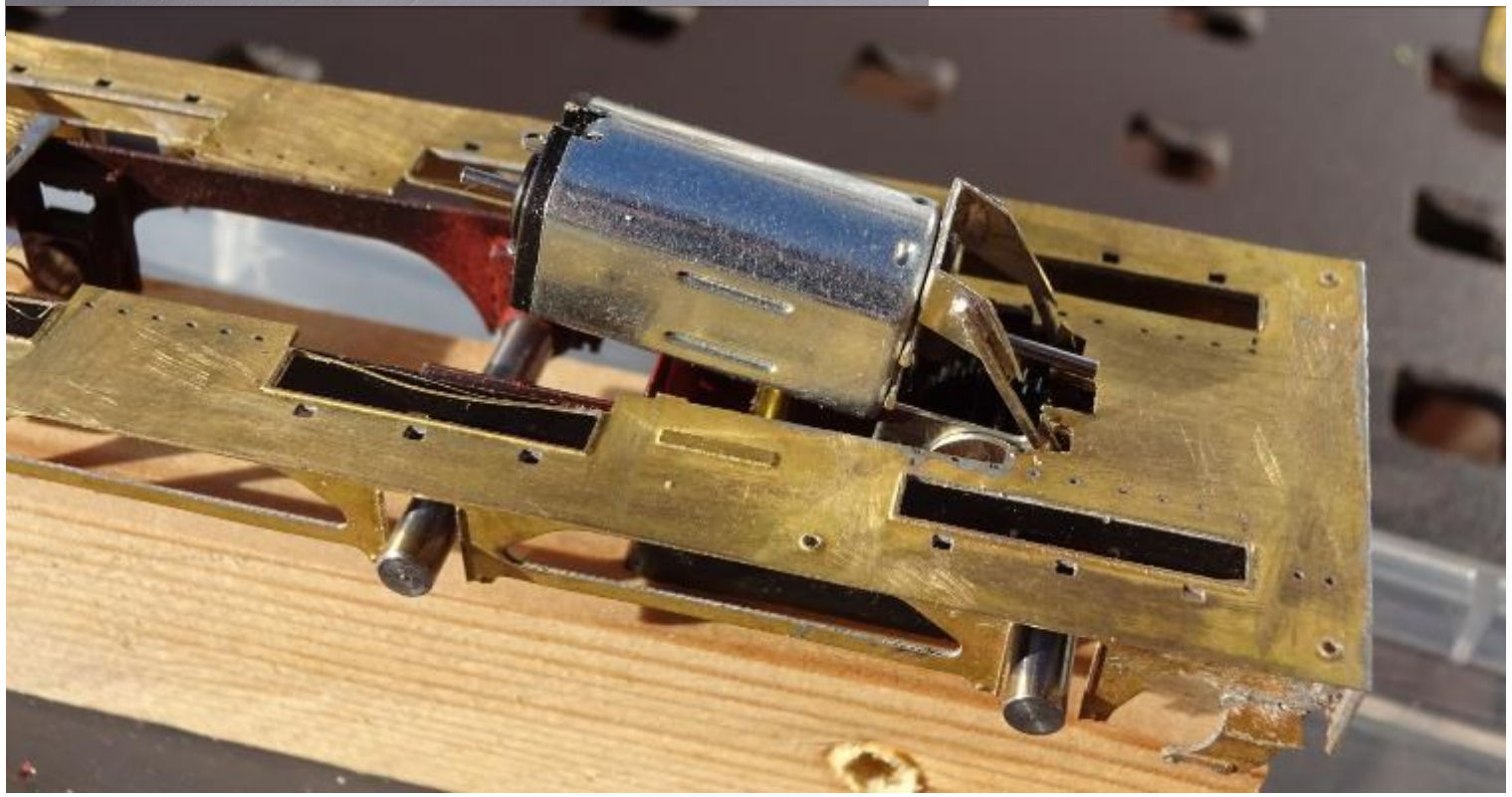
The first items to tackle were the coupling rods, since the setting of the axles and frames follows directly from the dimensions of the rods. Since I intended to compensate the chassis, the rods needed to be jointed, for which a working knuckle is provided. This took two attempts, as the half etched layer had a vanishingly thin layer of metal around the opening and I ended up cannibalising a rigid rod to create a rather more robust joint. This then became the basis for setting the axle spacing. This only really applies to the leading axle, as the centre and rear axles are set in compensating beams, which should keep them a fixed (and hopefully correct) distance apart. I have left them to rise and fall in the holes in the frames, which are sized for bearings and should allow an adequate amount of movement for axles – I do not need the loco to climb a flight of stairs! The leading axle has horn-blocks and these need to be positioned to match the part of the coupling rod with the knuckle.



Components for the running gear

The rest of the frames follow standard practice, but include an impressive amount of detail around the firebox ashpan and the cylinders.

Persuading the motor/gearbox to fit into the footplate involved the usual trial, error and profanity. The driven axle is the rear one, which sits below the open cab/ footplate and therefore makes it undesirable to have bits sticking through. I have used the current High Level flat can 1020 motor, that replaced the Mashimas, and one of the Roadrunner compact gear-boxes. Experts at squeezing drive trains into improbably small spaces may be able to come up with a better solution, as there is space for a fatter motor between the frames and in the firebox. I think anything longer would intrude into the boiler.



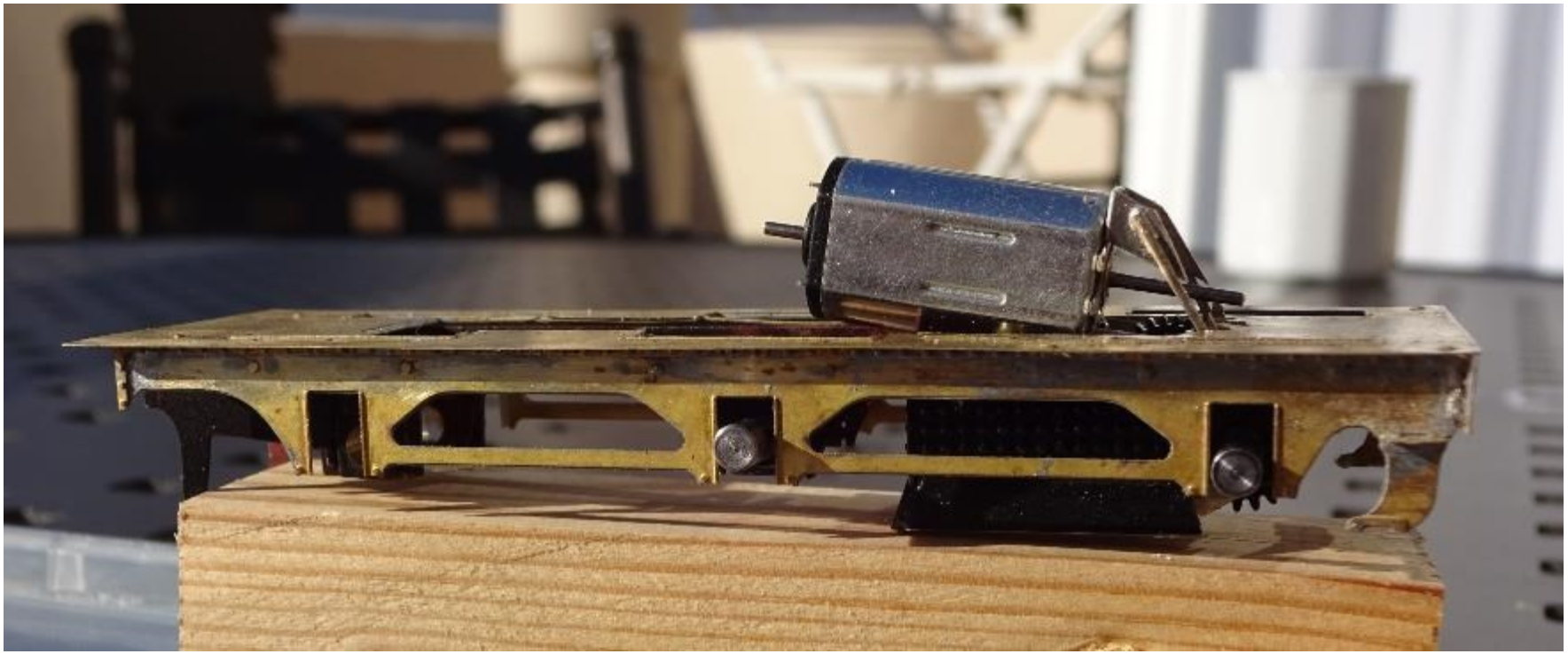
Above

The bare chassis, gearbox cradle and coupling rods.

Left

The chassis and frames with motor and cut down gearbox.

I modified the gearbox to remove metal from the bracket section and soldered a thin piece of scrap fret to replace it, on an alignment that should not intrude into the footplate. Even so, I have filed out some of the footplate etch, that is concealed within the firebox, and some of the printed firebox to make room.



The footplate and outside frames with motor and gearbox.

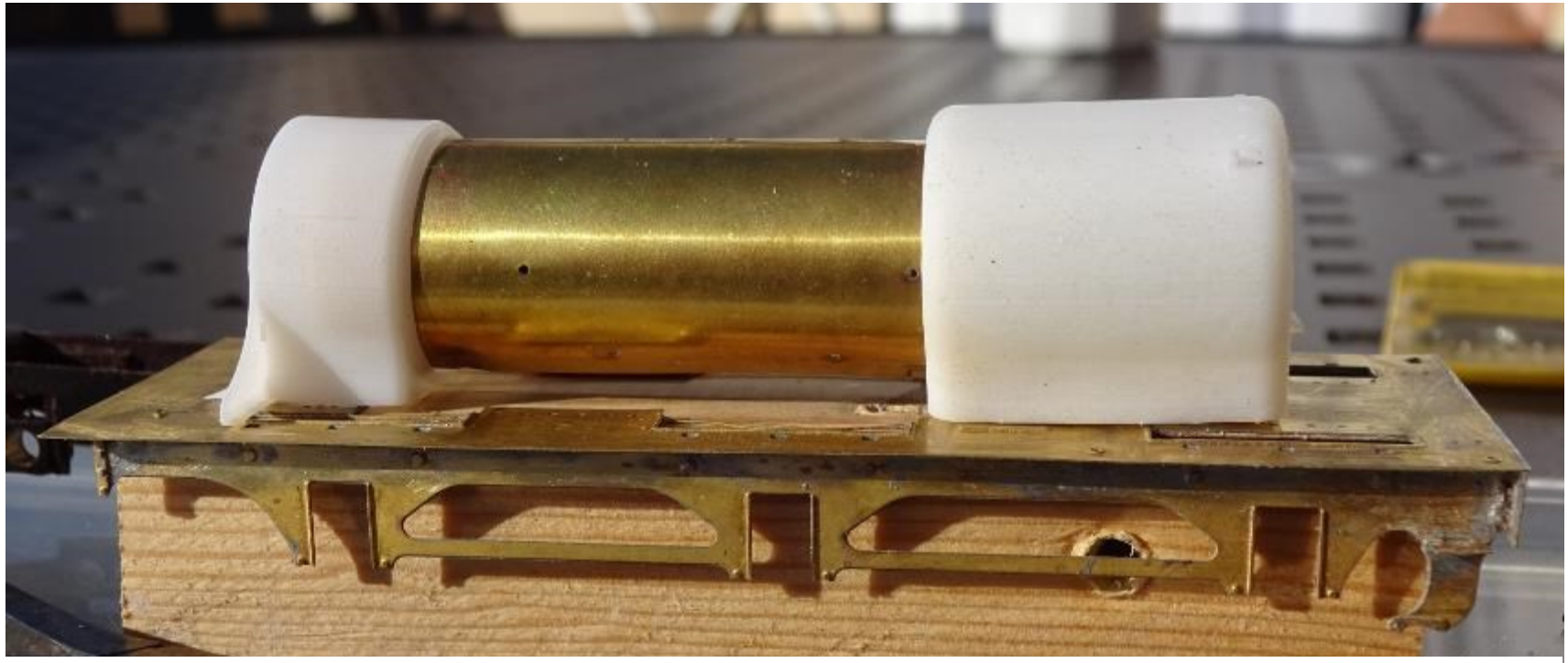
The loco body began with the footplate and frames. The frames start with a foldup unit for the top and sides, to which overlays need to be soldered to create the footplate itself and the outer faces of the outside frames. All three overlays are half etched, which requires a bit of care to ensure that you do not introduce any kinks. The footplate overlay overhangs the fold up unit, so that the actual exposed edge of the footplate is half etch thickness. I thought very hard about adding a piece of fret to the underside to give it a bit more strength. I didn't, but gave myself a couple scary moments, when I thought that I had put a bend in it. If you are not very good at soldering on

overlays, this is the chance to practice!

The drawbar fret, which attaches to the rear of the frames, contains two half etched lines. Being conditioned to the idea that half etched lines need to be bent, I did – and then struggled to figure out how the piece was supposed to fit. A quick message to Ian established that, in this instance, the lines are there to engage with the rear of the frames. I therefore unbent the folds and used them as intended.

In the absence of a rear location for securing the body to the chassis, I opened up the hole in the rear frame spacer and soldered a nut in it. The bolt will pass through the bracket for the tender coupling and the coupling bar will pass through the slot in the rear beam that forms part of the body. With a nut and bolt at the front, this should be sufficient to keep the top and bottom halves of the loco securely aligned.

The boiler is a flat etch, which needs to be rolled and soldered to a pair of formers. If it is soldered correctly, it should slot snugly into the smokebox and firebox. Beware. There are, of course, two axes in which you can



The smokebox, boiler and firebox unit, with the boiler rolled on the wrong axis!

roll a flat rectangle. There are pre-etched holes in the component, for the handrails knobs and the boiler feeds, so make sure that you roll it in line with the six (three pairs) handrail knob holes. I didn't – and ended up with a boiler that telescopes into the two resin components and has an opening along the bottom! I also had to fill the holes with solder and to drill new ones.

The moment of truth was the assembly of the smokebox, boiler and firebox. Make sure that you do a few dry runs! I started at the front and used superglue to tack the smokebox in position. I had, of course, smoothed off the printing pips on the smokebox, but, with hindsight, I think they may have been designed to index into slots that were etched into the footplate. I then slid the boiler into place and tacked the firebox. Once I was sure that I was happy, I glued the whole lot together and in place with epoxy.

You may remember that I mentioned the challenge of locating the motion plate? This has one piece to go under the boiler and one piece that fits between the frames. The bit under the boiler is fairly easy to align, once the boiler is assembled, and you can solder it to both the boiler and footplate, giving you a proper belt and braces solution! The piece between the frames is then easy to line up and solder.

I used the same technique of superglueing the etched weather board into place, using the pips to locate it, and then reinforcing the join with epoxy. I was less successful in using the process with the boiler fittings, where my first attempt to locate the chimney needed to be reset. The glue proved stronger than some of the smokebox and I ended up cracking the resin print. Taking the hint, I used superglue to make the repair but I learned the lesson and used epoxy thereafter to allow plenty of time to align the chimney, dome and safety valve casing. I also used epoxy for the buffer beams which are the other structural components.

There is also a thin, rather agricultural piece of pipework along the driver's side of the boiler, dropping down by the motion plate, which I added with phosphor bronze wire.

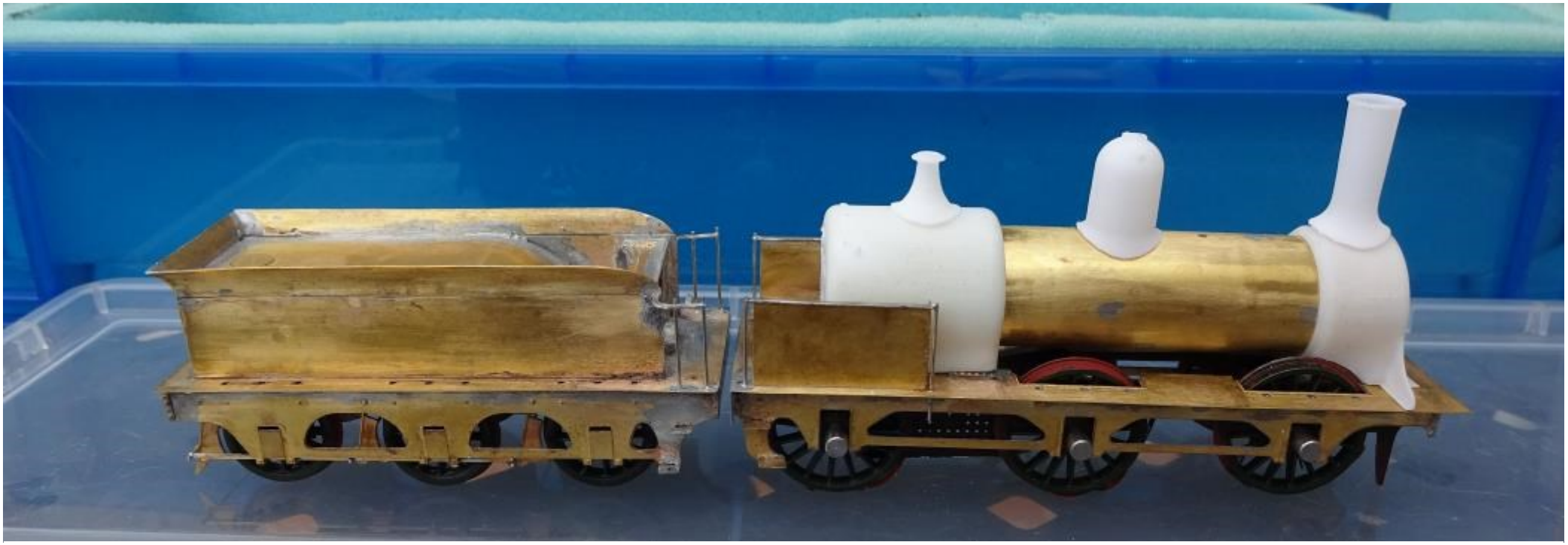
Some boiler fittings added to make it look like a locomotive! More work still to do to get the rear driving wheels to clear the printed firebox.

The Tender

The chassis of the tender follows the same form as the loco, with two axles in compensating beams and the third in hornblocks with a rocking mechanism. The structure of the tender does not have too many surprises, although the footplate and the flare around the top are also half-etched sections, which are prone to getting bent when doing subsequent work. There is some nice detail around the tender front, which includes two sandboxes, one each side, and a hatch around the shovelling plate. Like the loco, I concentrated on completing all the soldered bits before adding the printed bits: I have found out the hard way that resin and hot soldering irons do not go together.

The brake gear is fiddly but not complicated. The only challenge is to decide where to put the break between the vertical rod from the screw above the footplate and the horizontal rods that actuate the brakes on the chassis.

The main structure of the tender complete. Brakes and other details still to be added.

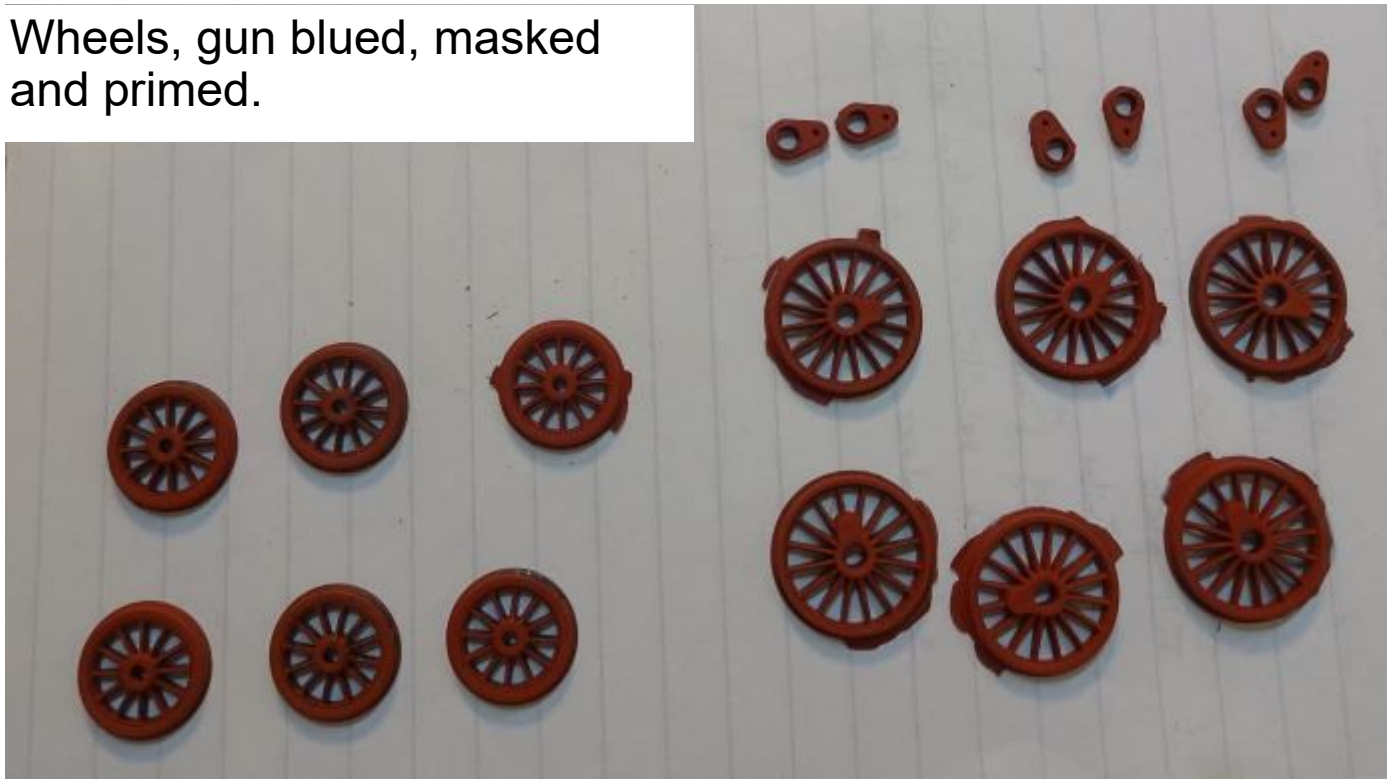


Loco and tender. The weatherboard and cab fittings are still to be added.

The Livery

The first items to be painted were actually the wheels. They were given a coat of gun blue to blacken them and then masking fluid to protect the tyres from all the paint that will be flying around afterwards. I used Holts' red oxide primer for the first coat and then brush painted the wheels with green, to make sure that the spokes are properly covered. They were then parked until it was time to put them on the axles.

Wheels, gun blued, masked and primed.



The chassis was painted next with a Holts' black aerosol. You may need to scrape some paint off and touch it up at a later stage, but this is much easier than trying to brush paint it when the wheels are on!

The loco and tender bodies received the red oxide aerosol treatment, as it seems to give a richer shade to the final livery colour. The splashers and springs got the same treatment, while attached to a piece of double sided tape on a scrap piece of featherboard. Red oxide also provides a reasonable representation of both the shade used for outside frames on Craven locos and the tender tops, which were red lead (subject to a generous application of coal dust). The boiler, weatherboard, springs and tender body were then airbrushed with Craven's Brunswick Green, followed by brush painting of the footplate, smokebox and cab area in black.

The brasswork is painted, from the AMMO range and is advertised at AMMO Metallic Colors (migjimenez.com).

With the recent experience of the Craven 2-4-0, I chose to do the lining before fitting the springs and loco splashers. The splashers were a challenge to paint, once they were hidden by the springs, and the springs made it difficult to apply the lining, so, this time, the plan has been to add them both at the end. This worked well, although five of the splashers required some degree of fiddling to fit. I have also taken the “belt and braces” approach to the springs and drilled through the centre to replace the central pin with some nickel silver rod. Both loco and tender come with early and late versions of the springs and, whilst I think I picked the right ones for the loco, I may have a mix on the tender where the difference is less obvious.

Holts red oxide primer, airbrushed coat of green and brass fittings picked out.

Splashers now attached and lining applied.

The odd piece of pipe work along the driver's side of the boiler really is that wobbly, according to photographs. Getting it to sit in place also resulted in the need to touch up the paintwork.

Conclusions

I am very pleased with the way in which the kit has turned out and I hope that Ian will produce some of the variants of Craven's "standard" goods; the ones with a Cudworth firebox would make an interesting contrast.

I have three reservations, which I have mentioned previously.

There are moments in the construction when you need to understand how the kit designer intended a particular item to fit. The diagram-style instructions show what goes where, but they do not help with the "how". Fortunately Ian always responded quickly to my e-mailed requests for help.

In the quest for representing the edges of sheet metal, some of the half etched items are dangerously flimsy. Be careful. The holes for the knuckles on the coupling rods have also etched out almost to the point of nothing. In this case, there is the option to cannibalise the fixed rods.

I am still unconvinced about the use of 3D print for structural items. For detail parts, it works well and for producing the S curve on the front of a Craven raised firebox, it is a relief not to have to flood the area with solder and then try to sculpt it! The disadvantages are that it is light, in the places that would benefit from weight, and it is brittle. Metal for both firebox and smokebox might be a better solution, possibly with the firebox front curve as a printed insert.

Overall, I look forward to building one of the variants in due course.

Almost complete, with springs now in place. The crankpins have not been trimmed off as the coupling rods may need some final adjustment. I am also tempted to do some weathering to make it look more like a goods engine!

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Littlehampton Station - a Photo Study

Nick Holliday

This photograph was posted recently on RMWeb and had appeared on a Facebook page back in 2019 and in Middleton Press – Worthing to Chichester. The location was quickly identified as Littlehampton and I was immediately struck by the number of modellable details that it showed, so I thought it was worth bringing to a wider audience.

A bit more detail can be discerned by looking more closely, although, unfortunately, it isn't quite as clear as one might want.

According to John Minnis, Photographic Steward of the Brighton Circle, the picture was probably taken by Francis Walter (FW) Spry, a local photographer and postcard-maker in Littlehampton, most likely around 1907.

Francis Walter SPRY (born 1869, Devonport, Devon)

Francis Walter Spry was born in 1869 in **Devonport**, **Devon**, the youngest son of **Eliza Arnold** and **John Robert Spry** (1838-1872), a bookseller and printer. **John Robert Spry** had **married Eliza Arnold** in 1858 and the union had produced 5 children: **Eliza Rosina** (born c1860), **James John** (born 1862), **Charles Edward** (born 1865), **Alfred** (born 1867) and **Francis Walter Spry** (born 1869). Sadly, **John Spry**, Frank's father, died in 1872, aged 33. It appears that **Mrs Eliza Spry** died in 1879, leaving Frank an orphan.

At the time of the 1881 census, eleven year old **Frank Spry** was living with relatives at **16 Martin Street, Plymouth**. The head of the household is given as **James Spry** (born c1816, Devonport), a 65 year old accountant. James Spry' s wife is entered on the return as **Louisa Spry**, aged 55 (born c1826 Devonport). **Louisa Spry** was previously married to a Mr Lascelles, and her daughter **Rosa Lascelles** (born c1856 Newport, Isle of Wight) is listed in the household. **James Spry** had married **Louisa Lascelles** in 1866 and the couple had a 12 year old daughter, **Laura** (born c1869 Devonport). Other Spry children in the household (with the exception of Frank) are listed as grandchildren. The relationship of **Frank Walter Spry** to **James Spry** it is not clear. Instead of "son" or "grandson" the enumerator has for **Frank Spry** entered the word "other" as his relationship to the Head of Household.

By 1891, **Frank Spry** was living at **111 The Grove, Totnes** in Devon. In the 1891 census return he is described as a single, twenty-two year old "*Photographer*". Sometime before 1901, **Frank Spry** moved to **London** to work as a photographer. Early in 1901, **Francis Walter Spry** married forty-two year old **Rosina Hankin** (born 1858, Ashwell, Herts) in the **Lambeth** district of **South London**. [Marriage registered during the First Quarter of 1901]. At the time of the 1901 census, **Francis** and **Rosina Spry** were living in **Greenwich**. Francis Spry's occupation is given as "*Photographer - Assistant*", so presumably he was employed as an operator in a photographic studio in London or the London suburbs. In 1902, Frank and his wife were residing in **Lewisham**, where their only child, a son named **Francis Reginald Spry**, was born towards the end of that year. [The birth of **Francis Reginald Spry** was registered in the district of **Greenwich** during the 4th Quarter of 1902].

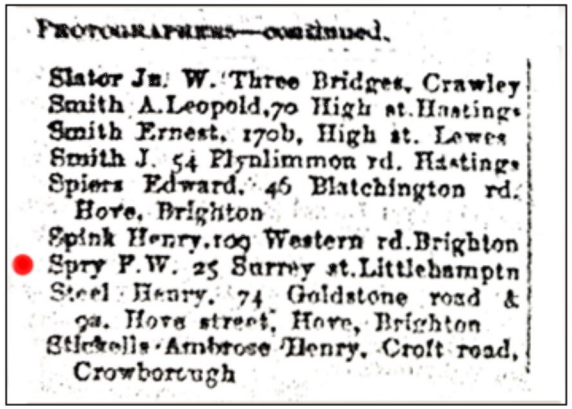
Around 1904, **Frank Spry** arrived in **Littlehampton** to take up employment as a photographer with **John White** (born c1850, Leominster/ Lyminster, Sussex), the town's leading photographer. From about 1905, **Frank Spry**, began to take photographs under his own name. Photographs taken by **F. W. Spry** in the period 1905 and 1907 are rubber stamped with his home address of **East Street, Littlehampton**.

In 1907, **Frank Spry** set up his own photography business in **Surrey Street, Littlehampton**. From 1907 to 1909, **F. W. Spry**, Photographer, is listed at **21 Surrey Street, Littlehampton** in local trade directories. From 1909 to 1939, the studio address of **F. W. Spry** is given as **25 Surrey Street, Littlehampton**.

Frank Spry produced portraits at his **Surrey Street** studio, but he is more well known for his photographs of ships and shipping and his photographs of local scenes and events which he issued as postcards.

Francis Walter Spry died in **Littlehampton** in 1955 at the age of 86.

A photograph of the brigantine "Ebenezer" by F. W. Spry can be viewed via the entry for Spry (2) [Photograph/PH/6898] in the index of the West Sussex C.C. Photographic Database at http://www2.westsussex.gov.uk/RO/DB/Pick.asp

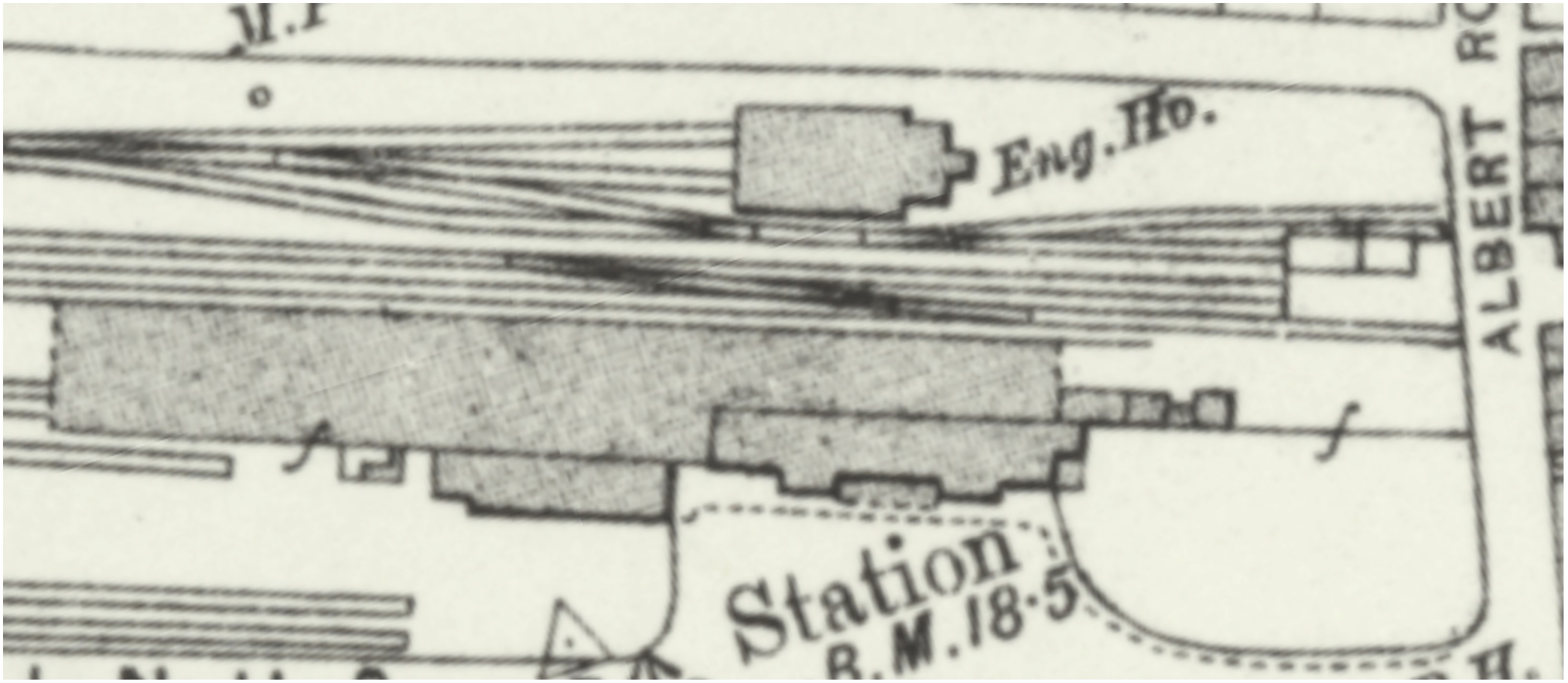

PHOTOGRAPHERS—continued.

Slator Jn. W. Three Bridges, Crawley
Smith A.Leopold,70 High st.Hastings
Smith Ernest, 170b, High st. Lewes
Smith J. 54 Plynlimmon rd. Hastings
Spiers Edward, 46 Blatchington rd. Hove, Brighton
Spink Henry,109 Western rd.Brighton
Spry P.W. 25 Surrey st.Littlehamptn
Steel Henry, 74 Goldstone road & 9a, Hova street, Hove, Brighton
Stickells Ambrose Henry, Croft road, Crowborough

[ABOVE] Francis Walter Spry listed as a photographer at **25 Surrey Street**, **Littlehampton**, in the 1911 edition of Kelly's Directory of Sussex.

[ABOVE] F. W. Spry' s shop and studio premises at 25 Surrey Street, Littlehampton in 1927.

History from https://www.photohistory-sussex.co.uk/LittleHPhotogrsRS.htm



A snippet from an early Ordnance Survey map, showing the area covered by the photo.

A simple four lever ground frame provided to control the run-round crossover. According to a diagram in Wagstaff's collection (LBSCR Signal Boxes in 1920-22 Part 3 - Signalling Record Society), lever 1 is connected to the signal box, and is used to request the frame to be unlocked, and then to tell the box that shunting will take place. The other levers operate the crossover points and a pair of shunting signals.

Note the presence of the facing point lock for the nearer turnout, and the boarding protecting the wires and rods. It would seem this area is regularly used by staff, probably in connection with the re-filling of the gas cylinders on carriages.

Just visible behind the fourth lever is one of the distinctive LBSCR ground signals; the further second one for the crossover can be made out between the tracks.

This view of the platform wall shows the supports for the communicating signalling wire, and the rod that runs from Lever 44 in the box to release the ground frame is visible at the foot. It is not clear what the purpose of the large section above the wires is, and there is a cable clipped to the brickwork, probably carrying a telegraph cable to the station office.

Note that the wall appears to be constructed in English Bond, and the top five or so courses have been corbelled out, in a typical Brighton style. The capping appears to be large stone or concrete slabs, rather than the heavy Staffordshire Blue edging bricks used in earlier days.

In the background is the distinctive two-road engine shed, with its water tank at the rear. The shed itself is still standing, and drawings of it can be found in Vivien Thompson's buildings book.

The chimney is for the boiler that ran the water pump for the station, although there is no visible evidence of the associated water cranes!

A tank loco can be seen just inside the shed, with its number painted on the bufferbeam. Although it is not clear enough to make out the number, this feature helps to date the picture, as various sources suggest that it first occurred around 1905 and became more general after 1907.

Just visible is the large cattle dock, in a relatively unusual location near the platform, but discharging directly onto the roadway. Closer views can be found in coverage of the infamous Motor Train accident.

Note the presence of the loading gauge. The dock would have been used as a goods platform and for loading road vehicles onto carriage trucks. Such loads would have to be checked before being allowed onto the mainline.

At least one six-wheel full brake is sitting in the headshunt at the end of the platform, which may have to be moved before a train can arrive.

A pair of Stephenson Clarke's distinctive wagons, probably delivering loco coal. The brake lever is on for the second wagon, the nearer one has only one-sided brakes, and the bareness of the unbraked side is noticeable. 4mm kits for similar SC wagons were available from Brassmaster at

https://www.brassmasters.co.uk/Stephenson%20Clarke_PO_resin.htm

It is not clear what is the purpose of the timber frame on the left, but it has been suggested that the coal wagons, which appear regularly on this siding, were used to coal locos directly, and the trestle might be provided to support the wagon door.

Note the six-wheeled gas tank just visible behind the coal wagons. One was allocated to shuttle between Brighton and Littlehampton to replenish the carriage lighting.

Littlehampton station seems to have been slightly unusual, in that the platform area adjacent to the station entrance was separated from the main platforms by a movable barrier and a ticket booth, circled. Piles of luggage and parcels appear to be stacked on the platform behind the barrier, waiting for the next train. Sadly, the writing is not quite legible.

There has been much discussion on RMweb and other places regarding uniforms. Here we have three porters, standing like Modelu 3D prints, in typical garb. 1st & 2nd Class porters would be in blue (No 2 Kersey) Jackets & Vests in the winter and indigo Serge in the Summer. Trousers would be blue (No 2 Kersey). Lower grades in Green Cord Vests, Jackets and Trousers. Information from RAIL 414/388 1907 Clothing contract.

Around them is a nice array of typical station trolleys.

Right
An impressive collection of enamel advertisement. Apart from regulars such as Liptons Tea, Pears Soap and Suttons Seeds there are lots more which are sadly not clear enough to identify.

Left
Dimly visible in the background is a W H Smith book stall. These were a common feature around the system, often appearing in rather unexpected locations.

W H Smith & Son had a number elsewhere in Sussex, with the 1910 Kelly's Directory listing Hove, Brighton, Uckfield, Haywards Heath, East Grinstead, Jarvis Brook, Three Bridges, Crawley, Eastbourne and Chichester, although Littlehampton isn't actually mentioned.

The platform canopy was erected circa 1901.

It features the distinctive scalloped valance that was a feature of many of the similar structures erected elsewhere on the system around the turn of the century, particularly in the London Area as part of the various quadrupling projects.

Note how the beams supporting the nearer sections have been unusually extended to the wall behind the bay platform road.

Above

This view emphasises how the whole area has been ballasted to one level, making pedestrian access safer.
One thing not often observed is the way the fishplates project beyond the line of the chairs, which look a little less substantial than most.

Right

Just to show you don’t have to worry if someone knocks your platform lamp!

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Original photograph from the editor’s collection.

Virtual Models of some LB&SCR Locos

Krynio

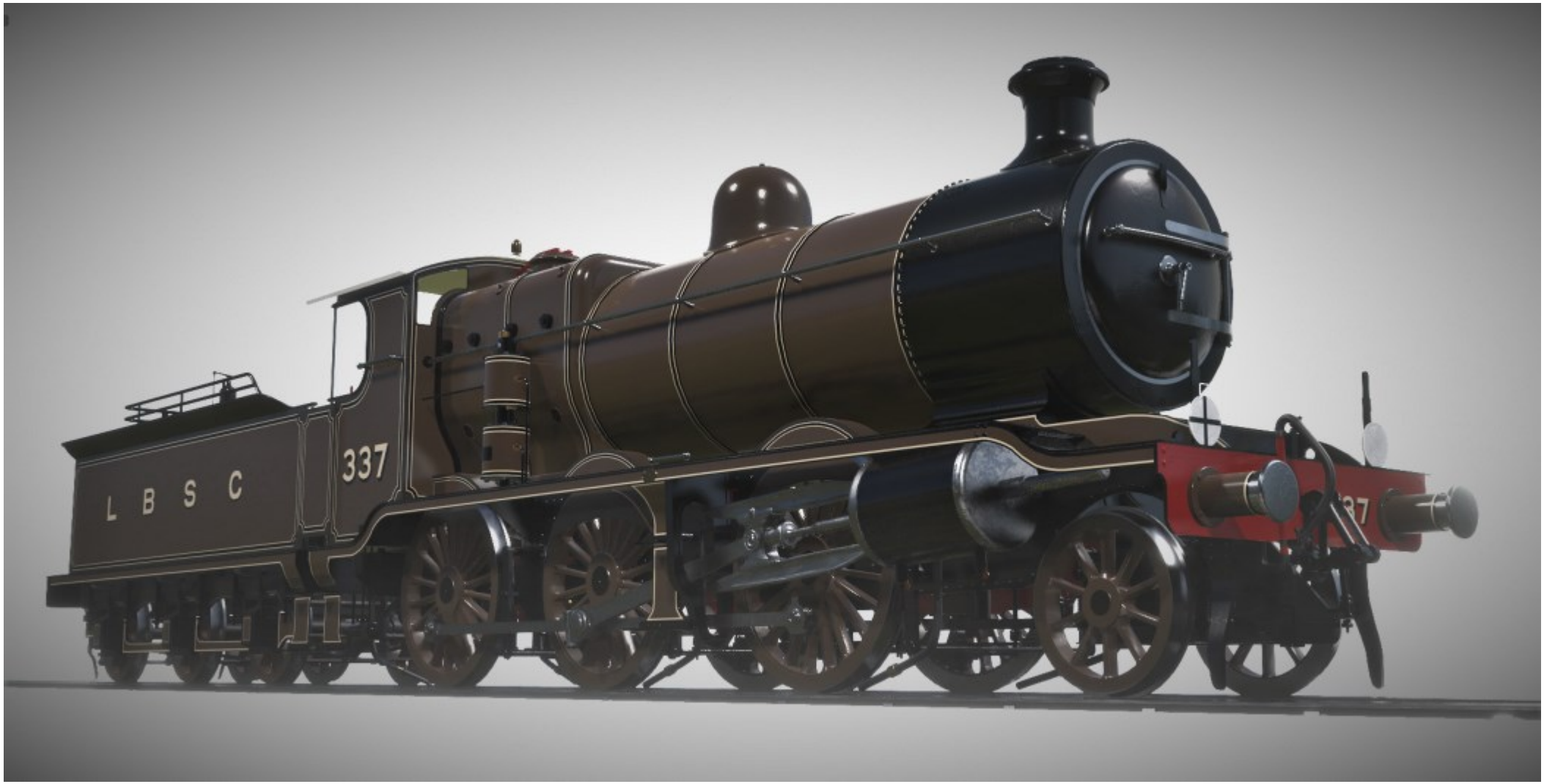
Krynio, a.k.a. Wilfred Adams, is a Polish CAD expert who has recently taken to colourising black and white railway photographs, and creating 3D visual “models”. He has posted examples of his work on RMWeb and elsewhere, asking for comments and feedback. https://www.rmweb.co.uk/forums/topic/189246-3d-modelling-of-locomotives-and-rolling-stock-to-be-assessed/#comment-5690655 .

Three of his most recent images have been Brighton locomotives, an E2, K and B4X, which he has executed in full lined umber, which look splendid, although not exactly correct for the locos depicted. At the moment, comments have concentrated on the design techniques, and not touched on any actual physical discrepancies, and these views should be looked on as works in progress.

An E2 tank loco.

Software used for these renders is Blender version 3.3.1. followed by graphic editing using Photoshop 2023 or Photopea, which is a great, simplified and free alternative!

The resulting working files can grow to a GB!



A K class mogul.

B4x 4-4-0, rebuilt by Colonel L Billinton.

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Train Simulator - Matrix Trains
Billinton Non-Corridor Stock

Harry Lewis

Above: The ‘umber & white’, ‘umber’, ‘lined Maunsell green’, and ‘unlined Maunsell green’ livery coaches, showcased in an anachronistic setting. Not pictured are examples which survived into BR crimson. Credit: Caledonia Works.

Umber and White

Plain Umber

Matrix Trains is a developer that creates digital coaching stock for the popular game 'Train Simulator Classic' and has recently released two packs of LBSCR coaches. I thought this might be of interest to the Circle – I have no commercial interest in these products!

According to the manual, the packs contain the following coaches:

LBSCR non-corridor 48ft stock

- D161 (SR D 64) third, 152 built 1894-1905
- D 88 (SR D 327) composite, 120 built 1894-1905
- D 90 (SR D 329) lavatory composite, 32 built 1898-1905
- D 49 (SR D 514) first, 27 built 1894-1904 (preserved on Bluebell)
- D 226 (SR D 905) bogie brake van, 7 built 1899-1900

LBSCR non-corridor 54ft stock

- D 165 (SR D 197) brake third (some with end duckets), 37 (re)built 1906/7
- D 168 (SR D 199) brake third (central duckets), 84 (re)built 1908
- D 92 (SR D 335) composite, 66 (re)built 1909-1910
- D 112 (SR D 347) lavatory composite, 30 built 1912-1924
- D 108 (SR D 436) 56ft lavatory tri-composite brake, 2 built 1908

LBSCR 54ft 'Pull-push' stock

- D 204/188 (SR D 194) driving brake trailer, 6 built 1922
- D 120 (SR D 351) trailer composite, 10 built 1922

LBSCR 6-wheel brake van

- D 227 (SR D 901), 130 built 1891-1906

Pack 1 contains the LBSCR liveries, pack 2 contains the SR and BR liveries.
Both packs are priced at £9.99.

The coaches are set up to work by default with the following other add-ons, though of course any locomotive can be driven with any carriages in the game:

- LBSCR H2
- LBSCR D1
- LBSCR E4
- LBSCR K
- LBSCR L
- LBSCR A1/A1X and addons
- LBSCR E2

Since non-corridor stock could be seen with Pullman cars attached, Matrix Trains' Pullman carriages would also be appropriate to run with the new packs.

Right

An H2 class 4-4-2 emerges from a tunnel with a rake of umber carriages.

Credit Harry Lewis

My Own Thoughts

As an avid user and developer for the Train Simulator Classic steam-scene, I am very pleased we finally have a good set of LBSCR carriages. Before this, we only had some rudimentary Stroudley 4-wheel coaches which came with the Terriers' pack. I hope that progressive releases will garner more interest in the LBSCR from a community which is usually less versed in pre-grouping railways (mostly due to lack of exposure).

The coaches are generally well made. I do not claim to be an expert on the prototypes or liveries, but they seem to be represented to a good degree of accuracy, although the use of red ends to brake vehicles with the umber and umber and white liveries is probably incorrect. There are plenty of diagrams included - more than older packs would have. The inclusion of push-pull coaches, while only cosmetic (rather than it being possible to drive properly from the coach), is a nice touch. Carriage number, set numbers, and destination boards are dynamic and can be customised in the editor.

There is still no period-accurate route n which to drive LBSCR trains, although Golden Age Developments is working on a fictitious LBSCR branch line set in roughly the 1880s. The closest option is currently the 'Meon Valley' route by 'The Trains Now Departed' on Facebook, which is set around the Meon Valley line and West Coastway in the 1930s.

Right - A rake of carriages in Maunsell lined green is pictured at Fareham, forming a train to Brighton.

Credit: Dave Haych.

Above

A Brighton Baltic tank hauls a mixed train of non-corridor Billinton stock and Pullman cars.

Credit: Logan Butt

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The Brighton Circle AGM

The Annual General Meeting of the Brighton Circle was held at Keen House on Saturday 26th October. As is traditional, there was a display of models and memorabilia that had been brought along by members.

This year, the display was enhanced by the refurbishment of the MRC's Library room, with much improved lighting. It also featured the rather smart display stand, which will be available for members to use at future meetings.

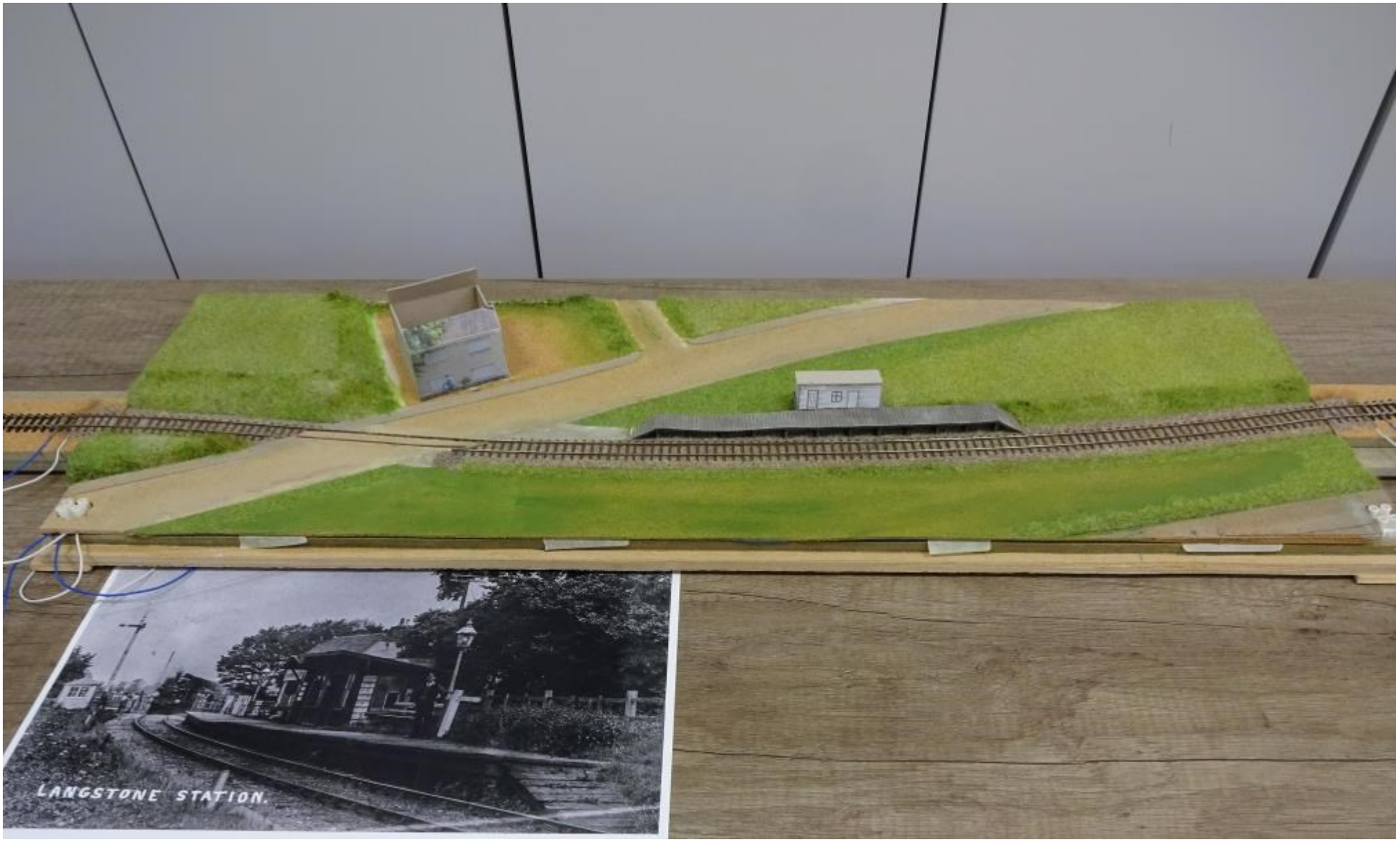
Above

A study in scales.

Richard Barton brought a trio of Terriers, from left to right, in 7mm, S and 4mm scales.

Right

A rather elegant 7mm scale family saloon



A special mention for Alan Budgen, who brought his entire layout, depicting Langstone station, in finescale N gauge, *on the tube*.

A rake of vans, constructed by Andrew Mortlock in 7mm scale.

Michael Ball’s 4mm scale Gladstone.

The three locomotives and three carriages on the following pages were exhibited by Nicholas Pryor.

Late 1840s Jenny Lind type 2-2-2 in original livery. The tender is powered using a High Level motor bogie. Built from a 5&9 Models kit.

Left

Works Shunter no 400. This is a scratch built model by an unknown builder, probably from the late 70s or early 80s, found on a stall at ExpoEM. The model is in heavy gauge brass with brass wheels and an open frame TriAng TT gauge motor.

Below

Bachmann E4 class backdated and repainted to become No 480 Fletching.


FIRST
FIRST

Three rather unusual carriages.

Previous page

Upper - D27 30ft Officers' Saloon of 1898, from a Smokey Loco Models kit.

Lower - D29 30ft Invalid Saloon of 1893, also from a Smokey Loco Models kit.

This page

D40 24ft Brake First single compartment of 1873, from a EB Models kit.

Eric Gates brought five 4mm scale tanks engines, illustrating different phases of J C Craven's work.

Top left - No 115 - Jones and Potts 2-2-2 of 1844, rebuilt as an 0-4-2 in 1858 and again as an 0-4-2T in 1863. Finally withdrawn in 1879. Model from a 3D print by Killian Keane with a brass scratchbuilt chassis.

Top right - 170 - Built in 1863 and withdrawn in 1878. Totally built from scratch and my first attempt. Chosen as it was the simplest Craven loco that I could find, with inside frames and flush firebox.

Lower left - 166 - Built in 1863 as an 0-4-2, but rebuilt the following year as a tank engine. Withdrawn 1881. Built from the etched frets produced by Ian White.

Seaford - Built in 1859 and modified in 1873 by Stroudley. Withdrawn 1879. Model from a 3D print with a scratchbuilt brass chassis.

373 - One of a pair, designed by Craven as a double-framed, saddle tank and completed by Stroudley as an inside framed side tank in 1871. Withdrawn in 1886. Built from an EBM kit.

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The Wishlist Poll 2024

Many readers will be familiar with the Wishlist Poll that has been hosted by RMWeb over a number of past years. The poll is an opportunity to canvas opinion on the items that Ready to Run manufacturers might like to consider producing as 00 gauge models.

There are a number of Brighton prototypes in the current poll, with a Gladstone, various radial tanks, a C2x, the J tanks and an E2 among the locomotives, 4 wheeled and bogie stock among the carriages and a horse box, a cattle van and a brake van among the other rolling stock.

For those who feel that there are choices that have been overlooked, you can offer suggestions (with a 100 word supporting argument) for inclusion in the Wishlist Poll 2026. If you think that a D tank might be a better choice than another E2, that the time has come for a dumb buffered coal wagon or that we really need a Dick Kerr Railmotor you should read the criteria in the Q & A page and then e-mail your suggestions to

thepollteam@gmail.com

The poll will be available on RMWeb between 11th December and 31st December.

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Exclusively Brighton Models - 4 and 7mm scale Transfers for Stroudley IEG Loco Lining.

As many of you will know, I have been working on lining transfers for Stroudley IEG locos for a while now. I was sent two sheets, which have been printed by Railtec Transfers, for trials in mid-November. These are shown in the picture below, and I have just completed their application onto a 3D printed, 7mm scale, G Class loco with inside framed tender bodies, that some may have seen on my blog in the last year.

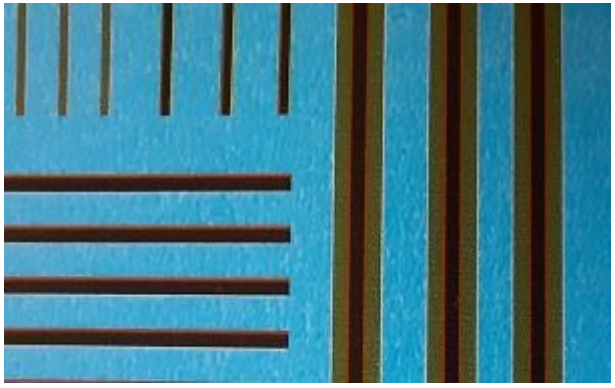

PETWORTH
334
PETWORTH

It is thirty years since I last painted and applied transfers to a Stroudley IEG painted loco - then using the Woodham Wagon Works 4mm scale set by Wessex on etched brass kits. I am fairly pleased with the outcome this time, but need to improve my preparation for paint and then the marking out of the various areas for green. I have only primed my 3D prints so far, using a grey primer, and this is the first print to progress further, as I had been awaiting transfers!

I have used acrylic paints also for the first time, having been following some You-Tube and Western Thunder media and I have been impressed with the results shown and the ease of cleaning up compared to either cellulose or enamel paints that I have used in the past.

I used a spray can from a company called PaintNuts and got them to produce a couple filled with acrylic paint using Pantone pms 139c - a colour reference I obtained from Dapol, that has been used for the second runs of the Terriers - Stepney and Wapping. I find this colour to be far more acceptable to whatever was used for Thames, Brighton and Waddon.


334




LONDON BRIGHTON &
334
SOUTH COAST RAILWAY

I used the following colours for the rest of the paint application:

AMMO RLM80 Olivgrun for the Olive Green.

CITADEL Colour Layer Word Bearers Red for the Crimson Lake

AMMO Satin Black A MIG-0032

HUMBROL RC420 Orange lining for the red lead

HUMBROL 34 Matt White

AMMO Metal Brass A MIG-0197

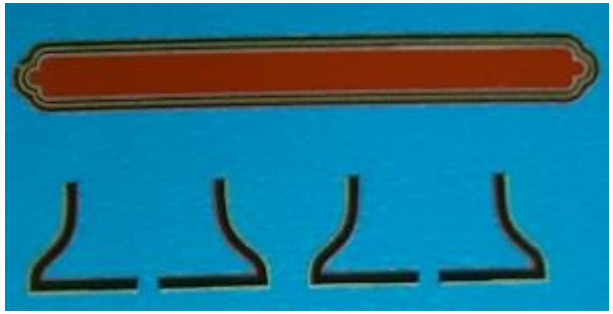
AMMO Metal Steel A MIG 0191

SCHJERNING Art Metal 5109 Copper

VALLEJO 72.021Magic Blue

All were brush painted.

I sprayed the IEG over the grey primer first and then brush painted the Olive Green in area where needed. This has left me with problems such as the footplate edges, which should be black etc., and I shall be spraying black first on the next loco then masking off for the IEG. I used a paper print of the sheet to cut up masks to aid the positioning of the Olive Green, which I need to improve upon in future. The transfers themselves though, are fully opaque so any rough borderlines are lost behind them.

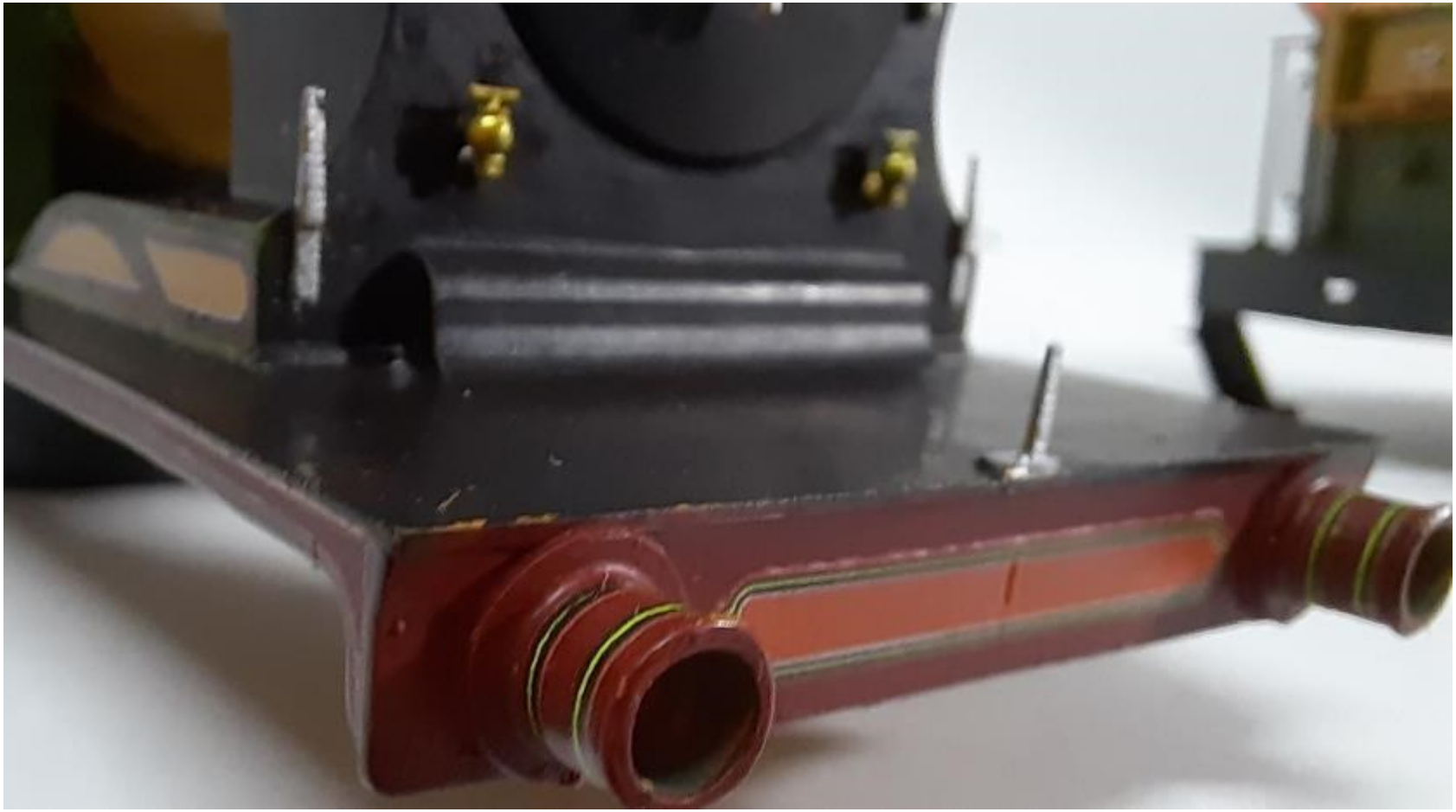


The photos on this and the next page show the difference between my home made laser printed lettering and the Railtec printed transfers. The P of Petworth really shows the surrounding film which is completely absent from the Railtec transfers. You should also be able to see how thin the Railtec transfers are when applied—the front splasher being photographed at this angle really shows how lovely they are.

It is recommended that the vehicle is varnished after the transfer application. I had not yet done this when the photo was taken.

The numberplate and works plate are from my usual etchings - virtually all 7mm locos are now catered for.

I have asked for some modification to this original artwork before they are released for sale, as I have used up over 70% of the valence lining on this one loco and realised I had missed off the white lining from the curve on the cab front by the boiler. I am reducing the amount of buffer socket lining and Westinghouse pump lining in order to increase the valence lining - there will still be enough for three locos on the sheet, and I am increasing the number of axlebox lining parts for Craven tenders as there wasn’t enough to cover both a loco and tender!



The Stroudley lettering, carriage and some other artwork are with Railtec at present, as are the 4mm versions.

As soon as these become available, I will post on both the Brighton Circle e-group and the Facebook group.

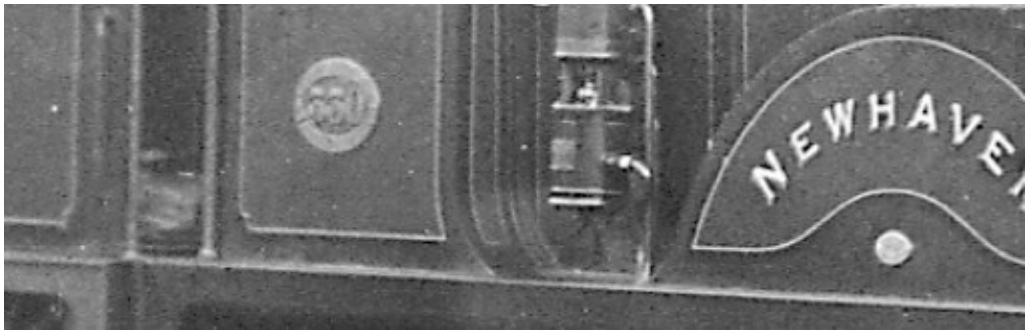
This 3D printed body was a test, printed at 0.05mm layer height. I shall now be printing at either 0.01 or 0.02mm layer heights to get a better finish for the curved areas to avoid some of the threepenny bit edges showing as on this example. I will hopefully have completed examples ready to show at Patcham in the Spring.

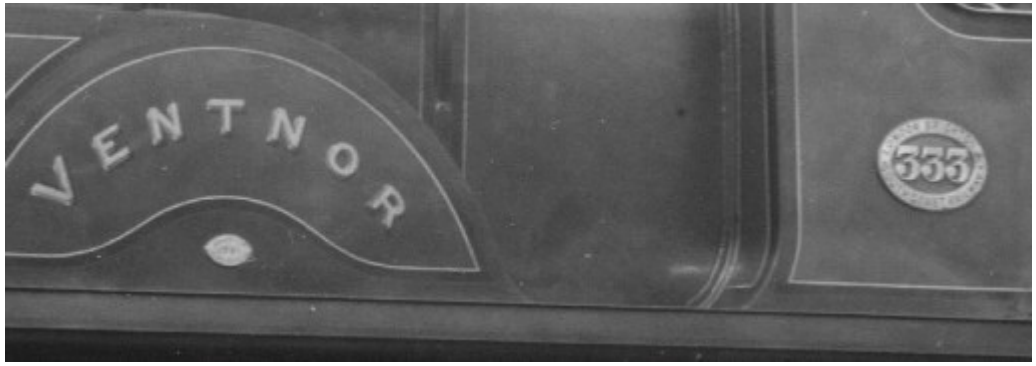
One of the great things about the information we have regarding the livery for an IEG loco, in this instance, is that when one starts to study all the possibilities that need to be included on a sheet of transfers, the subtle differences raise their heads.

These photos show the differing treatments for the cab front on the same loco in the same general livery. I have also looked at other classes and this appears within them also. Even more reasons to model from a photograph!

I have included various special shapes and curves on the transfer sheet so, hopefully, all variations will be catered for. I just hope I haven't missed any!!

This has been an enjoyable exercise and I now look forward to finishing off other locos in the near future.





Oakhill Models

Oakhill Works has just announced some new 4mm scale vehicles for an engineers' train - a ballast brake and ballast wagon designed by Rob Watkins.
Ballast brake: https://www.oakhillworks.co.uk/shop/lbscr-d-1758-ballast-brake/ £30
Ballast wagon: https://www.oakhillworks.co.uk/shop/lbscr-d-1754-ballast-wagon/ £20

There is also an SER Horsebox that may be on interest to Brighton modellers: https://www.oakhillworks.co.uk/shop/ser-horsebox/ £30

Gary has recently printed some 3D buildings for his own use, which could be made more widely available. These are a goods shed, based on a smaller version of the one at Hailsham, a stable, based on a smaller version of the one at Groombridge, and the cattle docks to replicate those that have been built at Kingscote. Rough costs would be £100 for the goods shed and £60 to £70 for the stable.

Would these be of wider interest? If so, please contact Gary at enquiries@oakhillworks.co.uk

Below - the stable block, shown as a cut away at the edge of the layout and with interior detail.

The goods shed, shown as a cut away, to fit the location on the edge of the baseboard and to show interior detail.

The model is based on Hailsham but slightly reduced in size.

Both this and the stable could be produced as complete structures if there were interest.

A set of cattle docks, modelled on those reconstructed at Kingscote.

Sonic and Rails of Sheffield

K class

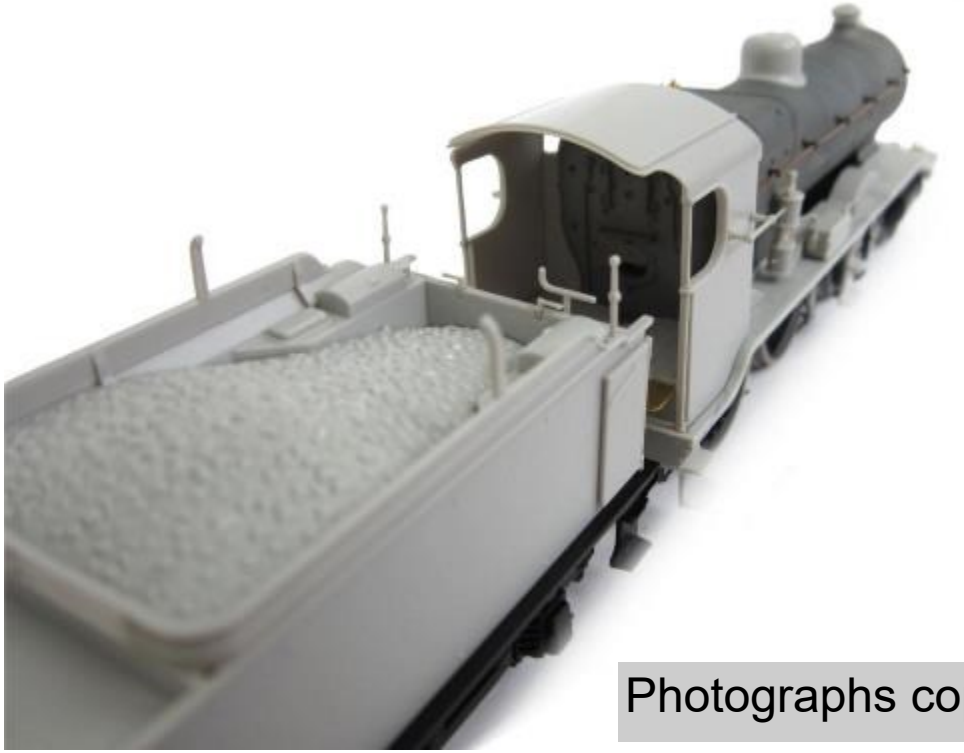
Sonic Models is currently developing a 4mm scale model of the LB&SCR K class Mogul as an exclusive product for Rails of Sheffield. Engineering samples have been received and work is in hand to research appropriate liveries and detail variations. Models should be available from September 2025 priced at £179.95 from Rails of Sheffield. Currently, two variations are planned in LBSCR livery, either umber or black, and there will be a number of options in Southern and BR liveries. The tooling covers a range of original and later body and tender details but it appears that only single dome variants are currently included.

The model will include a die-cast firebox, boiler and smokebox to aid traction, giving an overall assembled weight of 330 grams. Electrical pick-up will be via all six driving and tender wheels to a flywheel fitted motor. There will be full cab detail, an illuminated firebox and visible valve gear between the boiler and frames.

The tender will be fitted with a 21 pin DCC decoder socket and a factory fitted, DCC sound, sugar cube speaker.

Views of the engineering samples of the loco and tender appear on the following pages.

Images show the locomotive as built, apart from the picture at lower left which shows a version rebuilt to the composite loading gauge.



Rapido Trains UK

E class

Pre production artwork and subject to change.

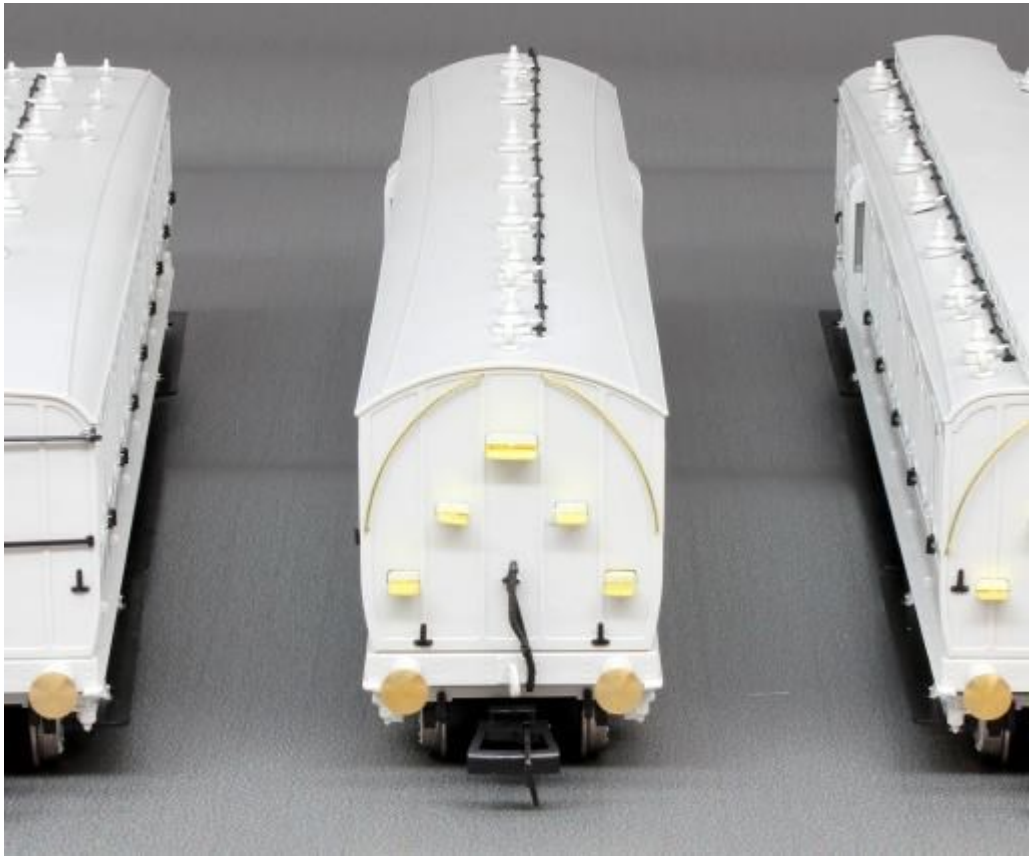
LB&SCR E1 – Rapido Trains UK

The order book for E tanks is now closed and there is limited availability of this production run. The locos are being moulded and the very first few parts are being sprayed; delivery is scheduled for the second quarter of 2025.

Rapido Trains UK
Evolution Coaches

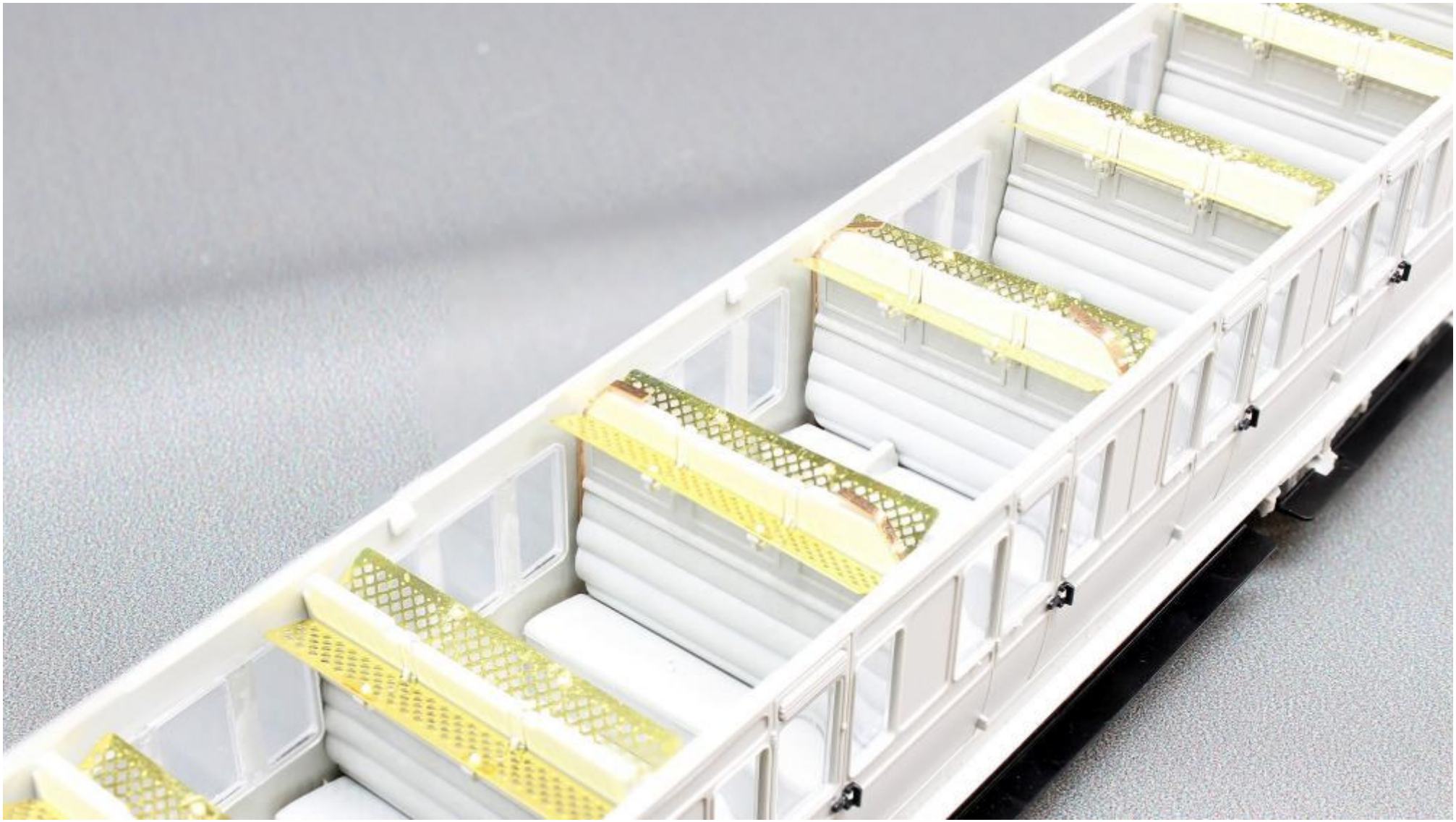
Evolution Coaches – Rapido Trains UK

The following pages show renders for the generic Evolution coaches in LBSC umber and cream livery. Like the 4 and 6 wheeled “Genesis” carriages produced by Hattons, these vehicles do not represent a particular prototype, but include characteristics that are typical of Edwardian pre-grouping designs and will be available in a range of liveries.



While none of the products precisely match types of LBSC 48’ coaches, the bogies are 8’ Fox designs, taken from a Brighton drawing. They should make an appropriate rake of vehicles to go with a Bachmann Atlantic, an 00 Works I3 tank or any of the other umber liveried locos that have been released. A fuller review will follow as more details become available.

Different company vehicles will have appropriate rooflines and the Brighton vehicles will have the arc roof shown in the centre of the picture on the right.



Vehicles will have detailed interiors, with track fed, electric lighting, controlled by a magnetic magic wand.

A triple pack of Brake 3rd No.501, 3rd No.751 and Composite No.530 will be available priced at £199.95. Individual vehicles are priced at £69.95.

978030 Brake 3rd, No.507

This model features footboards on the guard's bogie only.

There may be enough space between the bogie sides to fit EM gauge wheelsets, but some modification of the brake gear is likely to be necessary.

Given that the design details for the 8' Fox bogies were taken from a Brighton drawing, they may have wider use on other Brighton vehicles.

978031 , all 3rd, No.759

978032 Composite, No.535

978051 all 1st, No.612

978052, Full Brake, No.520

Rapido Trains UK

Diagram 8 Goods Van

LB&SCR 8-Ton Goods Van (Dia.8) – Rapido Trains UK

As a special attraction at the National Festival of Railway Modelling at the NEC, Rapido featured the live design of a mystery wagon, with the audience invited to guess what it was. There were many answers with complete - misplaced - confidence and very few correct ones. One came from a member of the Bluebell Wagon Team - but that group does have a real one at home for reference!

The prototype is the Billinton version of the standard Brighton van, with the higher roofline introduced in 1896, to replace the earlier Stroudley low arc roof. In total, there will be 19 versions, of which 5 depict Brighton liveries appropriate from 1903 onwards, including the van that carried the weight testing machine. Others cover the Southern, the Isle of Wight, British Railways and departmental use. This is a tribute to Gerry Bixley, Simon Turner and Jonathan Abson, who have collected together numerous photos to provide a portfolio of prototype information, that provides evidence for all the variants to be produced.

Examples survive on the Bluebell Line, the Isle of Wight and at Chatham dockyard.

The price for pre-orders will be £34.95.

Numbers for the LB&SCR lettering will be 3758 and 3820.

Numbers for the later LBSC lettering will be 8095 and 8091.

The van that carried the weight testing machine.

The 20th variant!

The Bluebell Railway Goods Division has commissioned its own batch of vans, representing the preserved vehicle on the Bluebell Railway. This will feature double-sided brakes with single V-hangers, wooden door stops and no side steps.
[(Pre Order) - Rapido Trains Exclusive - LBSC No. 8196 (Preserved) - OO Gauge | Bluebell Railway Goods Division]

Rapido

7 Plank Wagon

[LBSCR / SR 1907 RCH Open – Rapido Trains UK]

These vehicles should be available in the first quarter of 2025 and are currently in the decoration stage.

Pre-orders have closed and very few remain.

Kernow Model Rail Centre

Open A - 4mm scale

KMRC Wagon - LBSC 5 Plank Wagon

The ship transporting these models is due to arrive as the Digest closes for publication.

Two of the three LBSC liveried versions have already sold out

The only remaining one is that preserved on the Bluebell Line

£32.99

Sparkshot Custom Creations

E2 0-6-0 Tank Loco

Following the effective closure of Shapeways, the 3D prints developed by Gavin Rose under the Sparkshot brand are now available directly. For Brighton modellers, the main attractions are likely to be the E2 0-6-0 tank engine, in both variants (plus some fictional variations), and to a range of scales between 2mm and 7mm to the foot.

The 4mm scale versions are available at a price of £48.89 plus post and packing and further details are available on the web site at LB&SCR E2's - Body Kits & Details (All Variations & Scales) | Sparkshot Scc.

To contact Sparkshot Custom Creations, please e mail

sparkshot082@gmail.com

Left

4mm scale by Danny Lovett

Right

2mm scale by Gareth Collier

Blacksmith Models

Balloon Carriages

The former Mallard range is being re-introduced under the title Blacksmith Models.

Although the Brighton Balloon carriages are currently shown in the list as “not available”, etches can be ordered at a lead time of about 8 weeks.

If there were demand, it would be possible to produce full kits, including castings, to order, with a lead time of around 10 weeks.

The range includes the 3rd, brake/3rd and lavatory composite carriages. The tooling for the composite, that used to be in the Mallard range, has not survived the transfer but could be re-introduced if required and if a drawing could be provided.

The website is at blacksmith models

and the contact address is info@blacksmithmodels.co.uk

The Brighton Circle Facebook Group

There is a Facebook page (search for @LB&SCRBrightonCircle) and a lively and growing associated group, which currently numbers over 350 members.

See https://www.facebook.com/groups/249226986001750/

These are aimed at giving a presence on social media for the Circle. It is a place for people, including non-members of the Circle, to post material, find out about the Circle, see some local history and to ask questions.

Please do visit the page if you are on Facebook.

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 newsletter and a historical journal entitled the Brighton Circular, which is published three times a year.

While the Circle is primarily focussed on railway historical research, there has been an important interaction with preservationists, particularly on the Bluebell Railway, 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, kits, paint and lettering on a limited run basis, which are made available among other members.

Membership of the Brighton Circle for 2025 is

£23.00 for full membership

Applications should be sent to

membership@LBSCR.org.uk

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

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