

7th

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Journal of the Aus7 Modellers Group Inc.
No 35



\$7.70 inc GST
Spring-2012



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Straight Down the Line - Opinion

by Glenn Scott

**When what you expect is not all you get.
Why it is worth the effort.**

Whilst I have been an avid modeller, but probably more a collector since I was a young boy, the past year has seen my first involvement with a group layout and a brilliant exhibition one at that - Arakoola.

Well after many working bees and involvement with the guys to build on the presentation of the layout (my part being the new backdrops) over the first six months of this year, we had pretty much accomplished most of what we had set out to do. For me I thought this was the greatest satisfaction, my small part to add to what is a well regarded layout. I was happy with that, it had exceeded my expectations and the accomplishment had given me great satisfaction.

Time had arrived for my first exhibition - Epping. Whilst myself being a little lost in the beginning with the finely tuned pit crew like approach of the guys on set-up, our new back drops and ceilings came together with the rest of the well oiled machine, much to my relief. I could tell these boys were old hands at this exhibiting and I had a lot to learn.

That weekend was a real buzz though and the positive feedback on the backdrops was pleasing. Besides the poor performance of my 48 (another story!!), a few things had struck a cord with me from observing and listening to the public. If it wasn't the feverish enthusiasm of the 10 year old boy with the studious glasses and look trying to tell me why Roger's 50 should have this and that wagon coupled to it (where did he come from I asked - his Mum just smiled!), it was the man who heard what the lad said and mumbled - "little smart a--e!!." Not to mention all those who wanted to know more. It was nice that people appreciated what had been presented.

Well, it wasn't till my second outing at Liverpool a few weeks ago when not only was it more pleasurable for me feeling like I knew what I was doing (and not to mention that my 48 ran all weekend without any hitches!) it all clicked for me when two older gentlemen well into their 70's stood by me and said, "this is amazing, this is so real. Isn't that like...do you remember seeing one like that at? These two were reliving their younger years. The next day one of them bought his wife back to show her.

It was then it clicked for me, this is the real pleasure, taking people on a little journey back in time and kinda telling a story. That's what makes all the effort worthwhile.



The Arakoola team at Liverpool where the layout was judged best Australian prototype private layout.

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On The Cover

This diorama by Roger Porter shows how much a simple scene can be enhanced by small detail.

Why not take a photograph of a favourite scene on your layout and send it to us for a future cover. Square format is best but all submissions will be considered.

Bringing the Ixion Manning Wardle to Life

John R B Parker



VICTORY - weathered and photographed by Ixion's Chris Klein.

Other photographs by the author.

Manning Wardle locomotives were by any comparison, very small locomotives and so even in O scale it is obvious that there really isn't a lot of space to squeeze in the various components. Regrettably, it appears that the designers of this otherwise excellent model decided that the problems associated with installing a decoder, speaker and the illumination of the lantern would have to be solved by others. This was unfortunate, as only minor changes to the model are required; these could easily have been implemented at the design stage, which would have made this conversion easier. Don't however be put off by this slight criticism as the modifications required are not difficult to implement.

The first decision to be made is which decoder? First preference was the Loksound Select, as this would have resulted in the most cost effective solution, but there are two currently insurmountable problems to its use. It is physically a little too large, although there is a "Select micro" which would fit, but most importantly there are currently no suitable sound files and the available whistles don't even come

Ixion is to be congratulated on the manufacture of the Manning Wardle 0-4-0, based on a unique NSWGR locomotive, 1021 Cardiff. It is obvious that a great deal of care and thought has been put into its production, the end result is a delightful model which runs perfectly on DC powered track. However some people are never satisfied and hanker for sound and lights. Fortunately both can be provided as part of a fairly simple conversion to DCC, which really does bring the locomotive to life.

close to replicating the original. It is also worth remembering that although Loksound Select decoders can be re-programmed with a different sound file, it must come from the relatively small 'Select' range not the complete Loksound range. Additionally 'Select' decoders cannot be programmed with custom sounds. It is possible that at some later date there will be a suitable 'Select' sound file but it does not exist at the time of writing.

The final choice, primarily because I still had some in my stock, was a Loksound 3.5 decoder; I recommend this approach as being the easiest to fit, but do remember that the LokSound 3.5 requires a 100 ohm speaker. A Loksound 4.0 complete with a 4 ohm speaker can also be used but installation of the Loksound 4.0 does require slightly more surgery to provide sufficient space. More about implementing this option later.

Initial DCC testing can be carried out on the DC model before any attempt is made to dismantle it. Make the necessary temporary connections to the decoder on the work bench, these include, at a minimum, connections to the speaker in addition to the leads for track and motor connections. Place the loco on a short length of isolated track and connect the normal motor (grey and orange), leads to the track. Connect the decoder's red and black leads to your normal DCC power. If used in conjunction with the ESU Lokprogrammer this approach permits the testing of various sound files in conjunction with the operation of the locomotive.

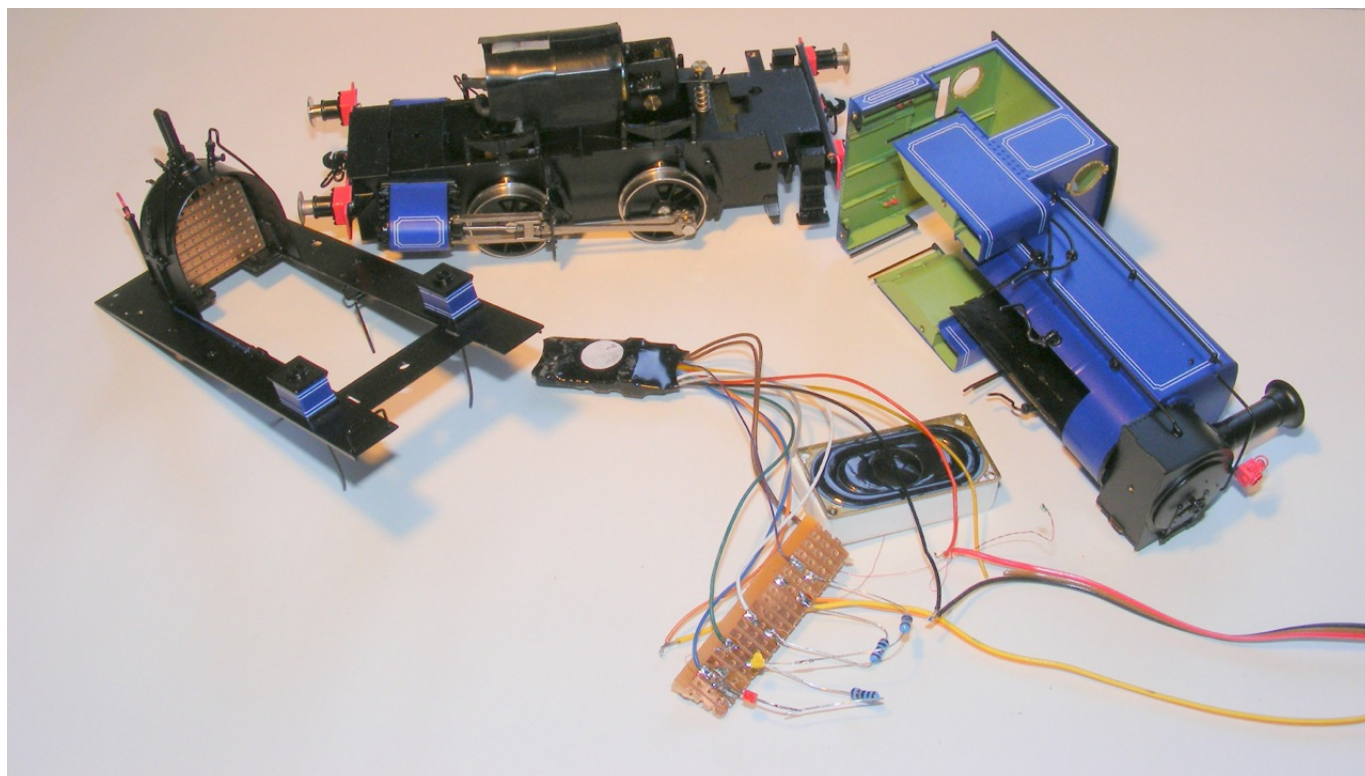
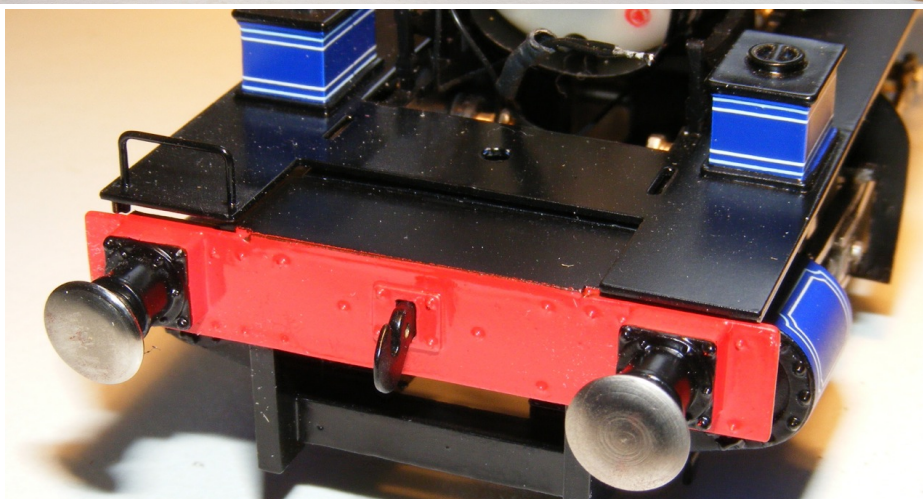
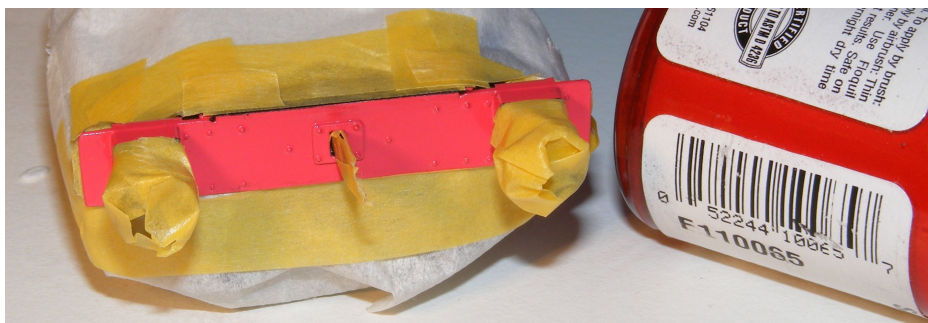
The sound file I decided to use is based upon Loksound file part number 52405, which includes what I think is a suitable whistle with that typical British high pitched 'tweet'. The speaker is the biggest I could squeeze in, (no room for my normal preferred 40 mm diameter Mylar speaker this time). It is a rectangular speaker 40 mm x 20 mm, rated at 100 ohms, a similar 4 ohm speaker is also available if you are using a Loksound 4.0 decoder.

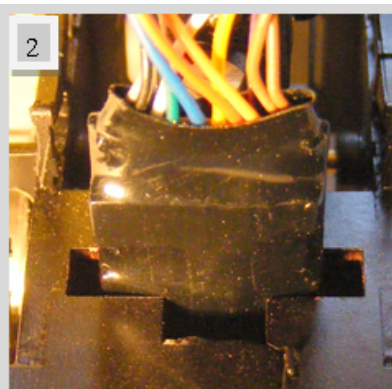
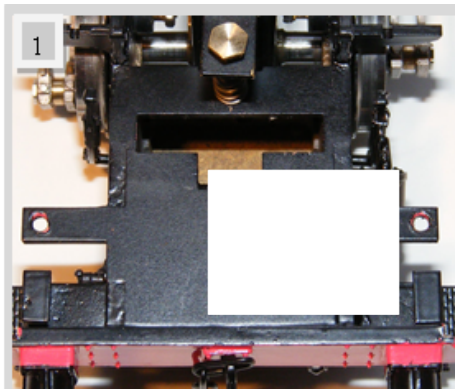
The enclosure normally supplied with this speaker is too large to fit in the available space, but it is a simple matter to make a styrene enclosure that will just fit within the available space at the top of the water tank. To make life easier you could use the small round speaker usually supplied with the decoder, but quite frankly although suitable for HO it really does not 'cut the mustard' in O scale. The rectangular speaker in its small enclosure fabricated from 1.5 mm styrene is definitely superior.

Obviously the model must be dismantled to carry out this conversion; fortunately Keiran Ryan has already outlined the necessary steps. There is one large screw at the front of the loco, two smaller screws under the coal bunkers, two more

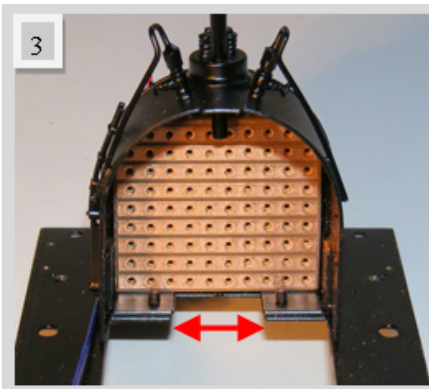
screws attaching the footplate under the cabin (not the body). There are also two small screws under the rear of the cabin which need to be undone after the others as they are between the buffers and the footplate. The reverse lever then needs to slide out when removing the body. The chimney also has a centrally mounted screw securing the chimney to the smoke-box.

The paint finish on the model is excellent except the red used on the buffer beams which unfortunately has a distinctly pink hue. This bothered me so I masked appropriately and air-brushed the beams with Floquil Signal Red. Hopefully the photograph will confirm the value of the re-spray, although if your model is to be heavily weathered maybe you need not bother.

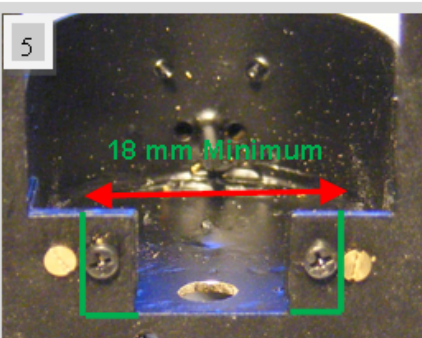
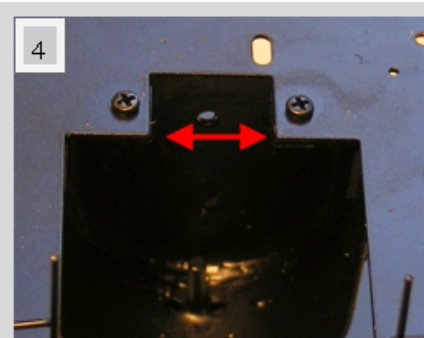




1 & 2. This opening in the chassis behind the gearbox mounting provides just sufficient space for the Loksound 3.5 decoder but there is insufficient clearance in the corresponding openings in the footplate and firebox base.



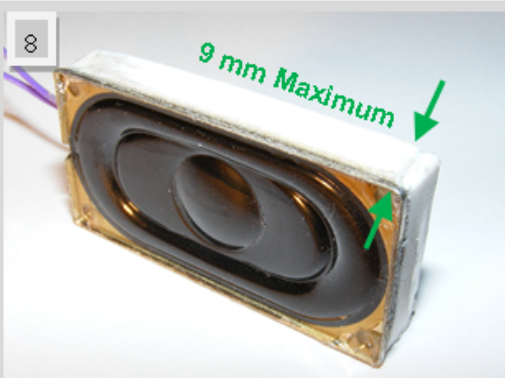
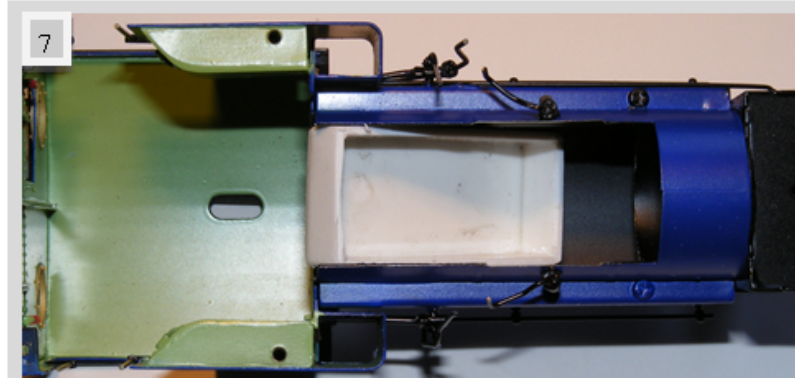
3. Test fitting the blank matrix board prior to inserting resistors and LED's. Note the opening which is too narrow.



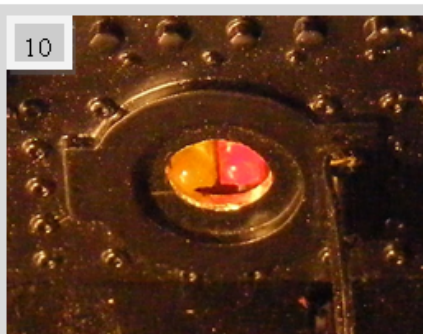
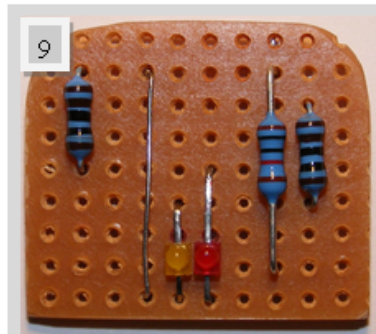
4 & 5 This opening must be increased to at least 18 mm. Whilst the existing screws are in place, drill and tap and then insert two new screws to hold the fire-box to footplate, then cut along the green lines, removing two rectangular sections including the original screws.



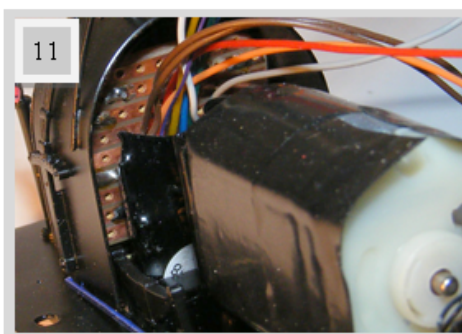
6. If the Loksound 4.0 decoder is used it will also be necessary too increase the size of the opening in the chassis in addition to the footplate/firebox.



7 & 8. It is tight, but there is just enough space for the speaker if an enclosure is made with the same external dimension as the speaker and maximum of 9mm from front to back. The speaker is glued in place to the inside of the water tank facing downwards above the motor.



9 & 10. The matrix board includes 2 x 1K resistors for the firebox LED's plus a 3.3 K ohm resistor used with LED which providing the lantern illumination. The board is mounted inside the firebox with the simulated fire visible through the hole drilled in the opening.



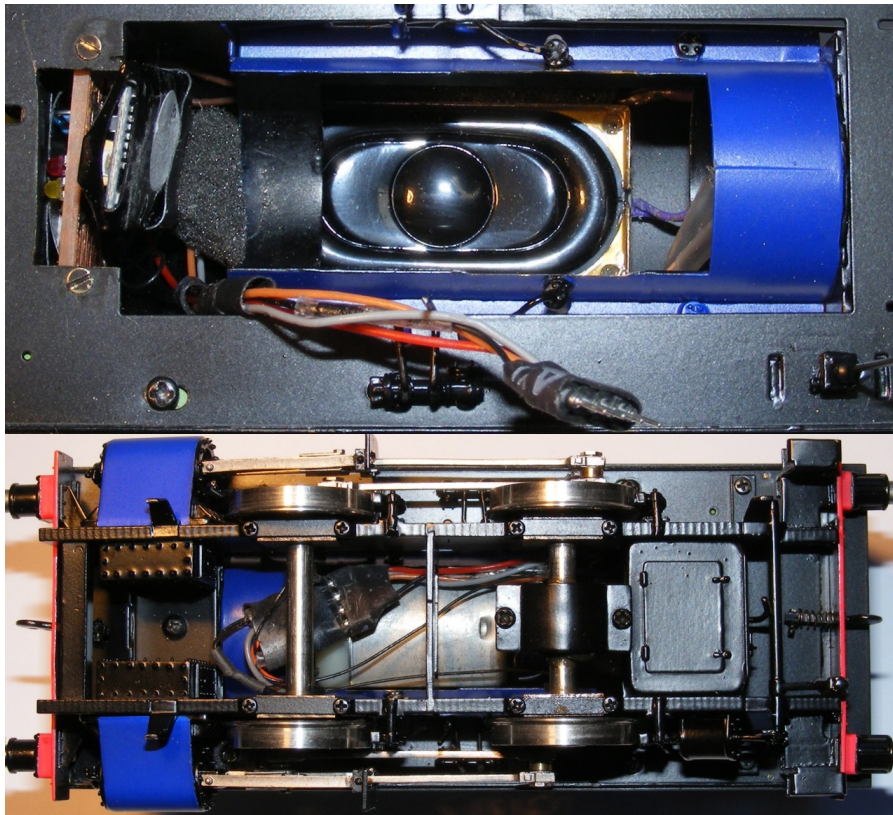
11. There is just sufficient space for the vertically mounted decoder. Black electrical insulation ensures there are no short circuits.

The wiring diagram shows how everything is connected together. I used a 4 way connector, (plug and socket), made from the familiar I.C. socket strip from Jaycar (#PI-6472). After previously gluing the speaker and lantern LED in place the footplate was reattached to the cab using the two countersunk screws at the rear wall of the cab and the two

larger screws into the side bunkers. Small pieces of foam are used to hold the wiring, decoder, and matrix board in place.

Final assembly is a little tricky; as there is insufficient space in the boiler area for the wiring and connectors. Gently fit the chassis assembly into the superstructure taking care not to damage the

wiring, the actual connection is made after assembly in between the side-frames; it was at this point it occurred to me that two 2 way connectors might have been easier to re-connect than the four-way connector I used. The remaining screws were then used to re-attach the chassis to the footplate/cab assembly. The final task will be the application of the supplied decals, and a light weathering. (I decided my locomotive will be fresh from the paint shop.) With the addition of a driver, the model will then be ready for service.



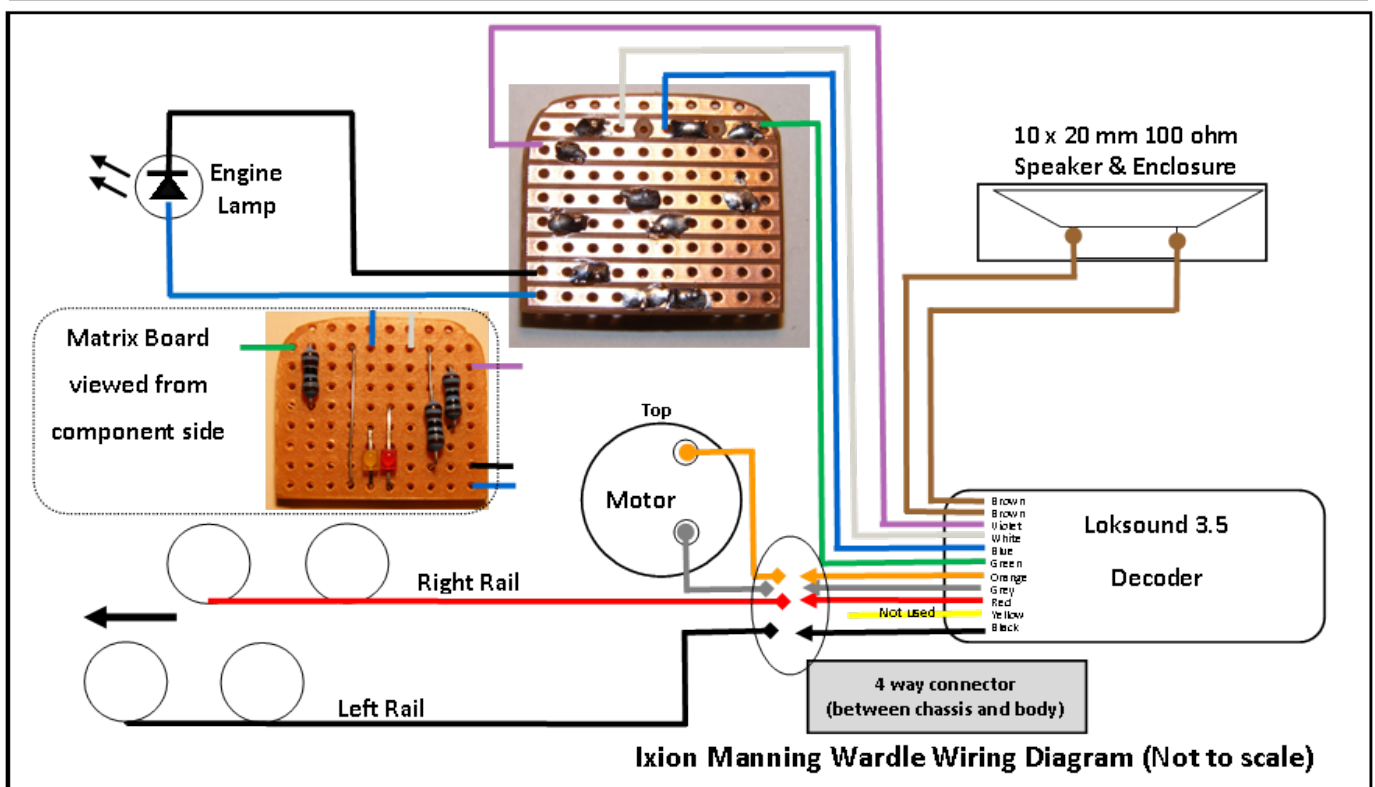
FUNCTIONS

- F0** = Lantern (not directional)
- F1** = Sound start & firebox
- F2** = Whistle
- F3** = Coal Shovelling
- F4** = Blow down
- F5** = Safety Valve
- F6** = Shunting Mode
- F7** = Water pump
- F8** = Volume Control
(3 position & mute)

The sound file based on
ESU Loksound Part No. 52405

See and hear it in action on YouTube at

<http://www.youtube.com/watch?v=e9ZdnkEPOrE>



Get Crackin' With Scenery

Trevor Hodges

In May 2012 I attended the Brisbane exhibition with Queens Wharf for the first time. I really enjoyed attending as this was the first outing for my little layout in almost two years. However when I unpacked and examined the layout about six months before the exhibition I wasn't happy with everything I saw: there had been some minor vermin damage and a small scene at the front of the layout had received some damage that I felt was beyond a simple patch up job.

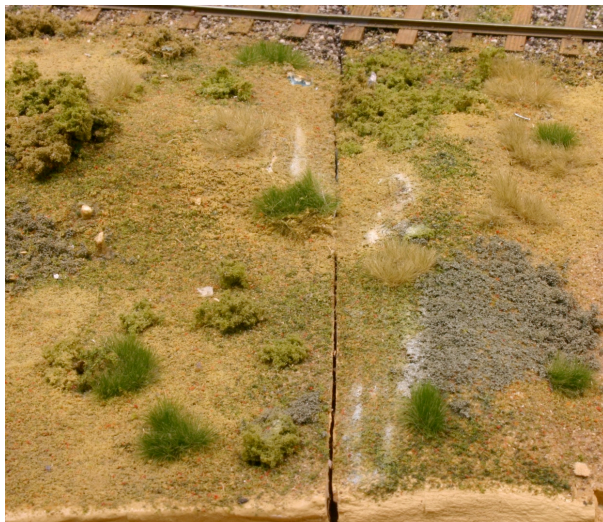
I had never been totally happy with the scene on this part of the layout: it was a small section of empty ground that straddled the join between the two halves of the scenic portion of the layout so it was front and centre when the layout was at an exhibition. Quite a number of years ago I had plonked a horse drawn cart in the middle of the scene to add interest but this had never really worked for me: the cart was the wrong era and I'd come to the conclusion that it was too busy, getting in the way of photography and low angle viewing of the trains. In addition to this the scenery either side of the join was too high so it received some minor damage every time the layout was packed away, caused by the top of the back scene rubbing on the scenery during transport,

I decided that the whole scene needed to be refurbished and freshened up to sort out all of these problems in one go. I carried out the following tasks:

- Lower the ground level either side of the join between layout sections to prevent the damage caused when the layout was packed away.
- Install a small NSWCR culvert to add interest and variety to the scene, without drawing attention away from the trains.
- Upgrade the foliage and ground cover by utilising the fantastic new scenery products that have come onto the market recently.
- Utilise a cracked creek-bed technique I'd seen on Binnabri years ago that I'd been looking for an opportunity to try out.



This overall view of the site to be upgraded gives an indication of the work to be carried out. The site is approximately 150-200mm wide X 450mm long. The fences have been removed as have the horses and cart. The figures and barrels would be removed before work commenced and then the scenery completely removed from both sides of the layout join right down to the joists. The small, lumpy patch right near the layout join had always bugged me and this process would allow its removal. The schoolboys with the oranges would be the only element of the scene that would survive.



This photo shows the damage caused by the scenic backdrops when the layout is packed away. The light marks that look like powder on the grass were caused by the backdrop rubbing on the scenery. The post and rail fence that I had used on this part of the layout was also constantly being damaged by the back scene. I was also aiming to reduce the visible gap between the layout segments.

After I removed the scenery I needed to cut a gap in the roadbed to allow the culvert I was making sit below track level. I measured things up, removed the rail from the relevant section of track and cut the roadbed with a tenon saw, being careful not to damage the surrounding scenery during the cutting operation



After I'd made the cut I glued a piece of 9mm plywood to the underside of the roadbed to make sure that the track would be level and strong. I had to make some minor adjustments to the layout wiring underneath before these changes could take place

I made the culvert based on prototype photos I had taken while living in Western NSW. It was constructed from styrene, painted with Tamiya Diorama Texture Paint (Pavement Effect) and then glued into position. The wood is standard Aus7 point sleeper material available from Gywdir Valley Models which has been stained. The nut bolt and washer castings are from Grandt Line and the sleeper plates are from Keiran Ryan Models. I re-laid the rail over the culvert and pinned it into place.



The landform was made up of sections of foam core board that I cut and hacked into shape and then glued in layers to give me the undulations I wanted. This was then covered in a layer of paper towel dipped in thinned PVA (about 50:50 glue to water) and then painted in my base scenery colour. The paper towel I use is a plain type you often see used in wash rooms, not the patterned and embossed kitchen type. The streambed was painted black to ensure that no yellow colour showed through between the cracks I intended to produce in my stream bed.



The cracked stream bed was produced by laying down a coat of neat PVA and then applying a slurry over this made up of clay soil and water. Some sieved river sand was sprinkled along the edges of the bed. This was then allowed to dry. The cracks appear as the slurry dries and shrinks. The clay was out of the vegie patch in my backyard.

The cracked stream bed effect was tested on a piece of foam core board before I committed to doing it on the layout. It worked great on the sample but it didn't work quite so well on the layout. The cracks that appeared were much bigger on the layout than had appeared on the sample. I have a feeling that this happened because I applied it over the foam after removing the paper layer from the foam core board. This shot shows the stream bed in its final form before the final scenic layers are applied. I've applied the basic ground foam I use on all my scenery and fixed up the ballast around the track.



This photo shows the fences reinstalled. The post and rail fence is correct scale NSW fence from Waratah Model Railway Co and the wire section over the dry stream bed is home-made using dowel and wire. I give the white metal post and rail fence a base coat of grey primer and then dry brush it with brown and then white to make the detail pop. After this I will come back and "shrub up" the scene, to quote my friend Stephen Reynolds who essentially taught me how to do scenery many years ago. Most of the foliage and scenic materials you can see in the title shot are from Woodland Scenics and Modellers Warehouse. Google their website, it's well worth a visit. I use a wide variety of different scenery materials sourced from just about every company that makes this type of product. The basic ground cover is Woodland Scenics Burnt Grass but this is only the start. In this scene I used: MinNatur 998-21 White Flowers (and the yellow equivalent) & 727-23 Prairie Tufts, Model Scene F713 Late Summer & VG4001 laser cut weeds, Polak 5903 Wild Bushes Autumn and Busch Naturbaume 6809 Trees and Bushes kit.

The Tottenham Branch

Part Two

By Derick Cullen



Leaving Trundle, the line climbs out of the Yarrabandai Creek catchment through the strangely spelled The Troffs and then Kadungle. Both places boast a platform and a siding which serves concrete 1,600 tonne capacity silos. The silos were constructed in 1933, and were to

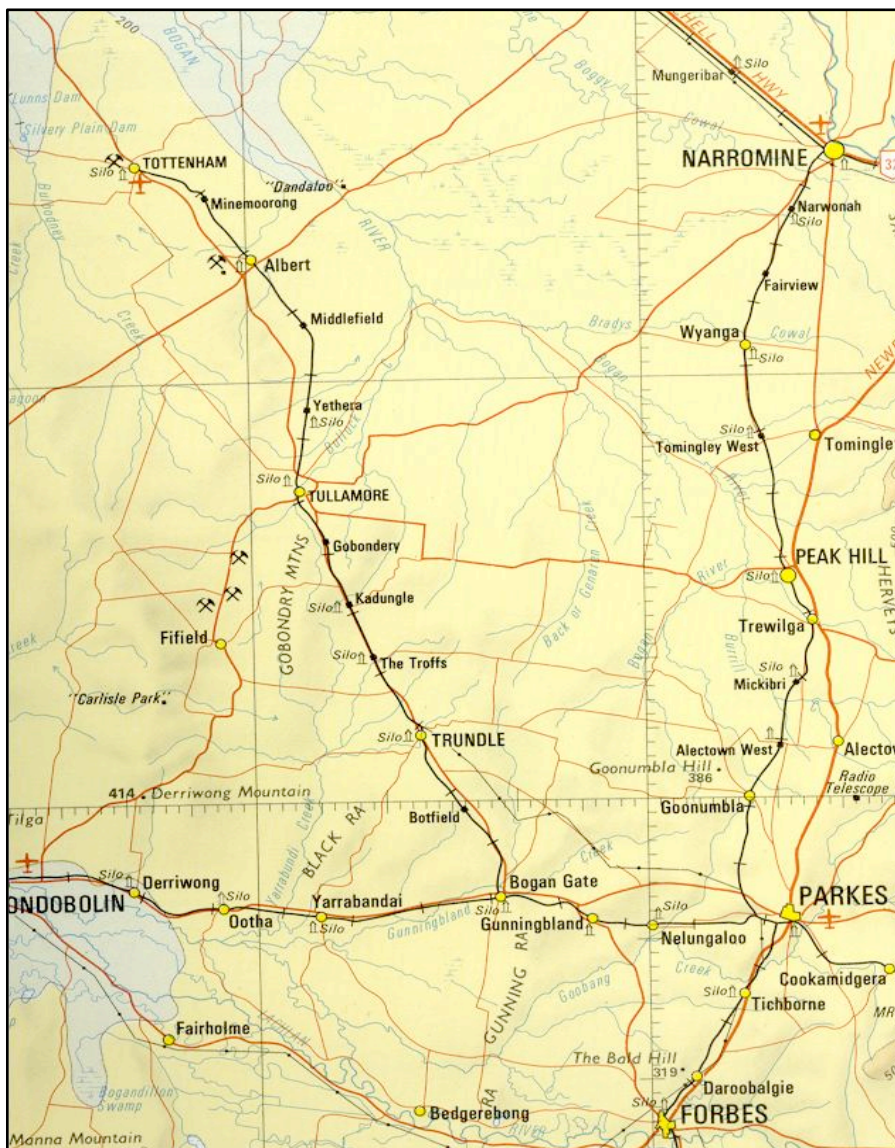
the then standard design, which had replaced the Metcalf. I recall that both places also hosted bagged wheat stacks in 1956.

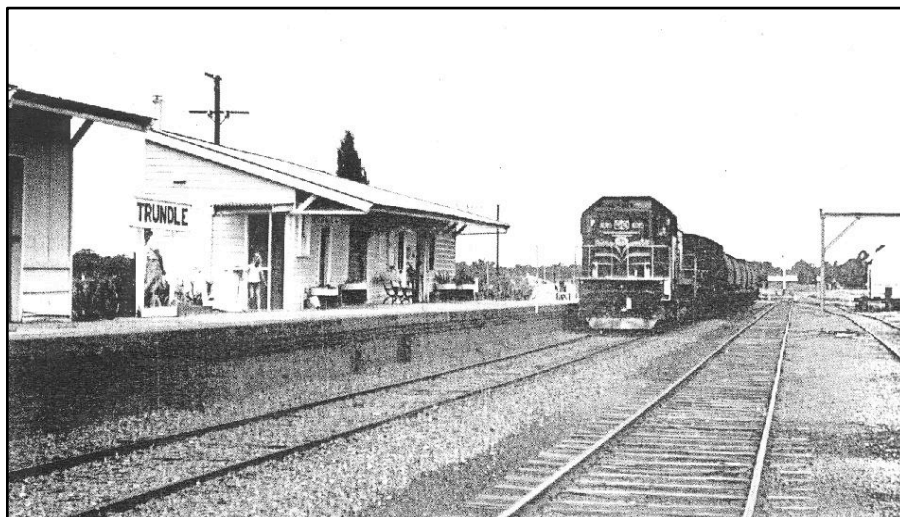
Some miles after Kadungle, a summit is reached in a saddle of the low Gobondery range and it is

downhill into country drained by Bullock Creek, a tributary of the north-west flowing Bogan River. Gobondery siding repeats the facilities of The Troffs and Kadungle.

Some further miles of downhill bring up Tullamore, the second of the trio of little towns on the branch. Reference to the track layout diagram shows some dead-end sidings, most unexpected in a NSW country station, whose designers seemed obsessed to the point of loopines with providing access to both ends of every siding. One explanation is that the dead ends are the vestiges of a long since removed triangle with engine shed arrangement. However, a sketch in AMRM of December 1990 in an article on locomotive depot layouts, shows the Tullamore triangle as being off the mainline in 1916. The dead-ends are thus a mystery. My recollection of the yard arrangement is clouded, as most times I visited Tullamore my powers of observation were diverted from railway matters by the daughter of my parents' friends who lived there. Just where the 2,400 tonne capacity concrete silo provided in 1933 is located is likewise a mystery, as is the location of the locomotive watering facilities.

My one strong recollection of Tullamore yard is the dust and noise that accompanied dumping truckloads of magnesite into S trucks from the load bank. This stuff came in soft white chunks of chalky consistency, was mined at Fifield and trucked in the fifteen or so miles from west of Tullamore. Fifield seemed to consist of one long rambling pub, with an air of the wild west about it. The substance mined





was mildly surprised to see the station name book note the existence of bulk grain facilities here, and a couple of sources suggest that there were branches to copper mines. To an impressionable youngster the word "terminus" conjured up significant facilities, and instead I found what I now know to be the typical end to a NSW country branch... that the line ends here seems to be a temporary state of affairs, and the terminus aspects seem to be ready to move to the next end of line town just as soon as the go ahead for constructing the next section is given. As it is at Bombala, Coolah, Cobar, Merriwa so it is at Tottenham... the line looks as if it should strike out over the next row of hills and on to... Looking at the map it seems to me that a junction with the line to Bourke at Nyngan after following the Bogan River was the likely destination of any prolongation, reminiscent of the Parkes-Peak Hill-Narromine line. But what we have is a wayside station with facilities to water and turn locomotives on its 60-foot turntable.

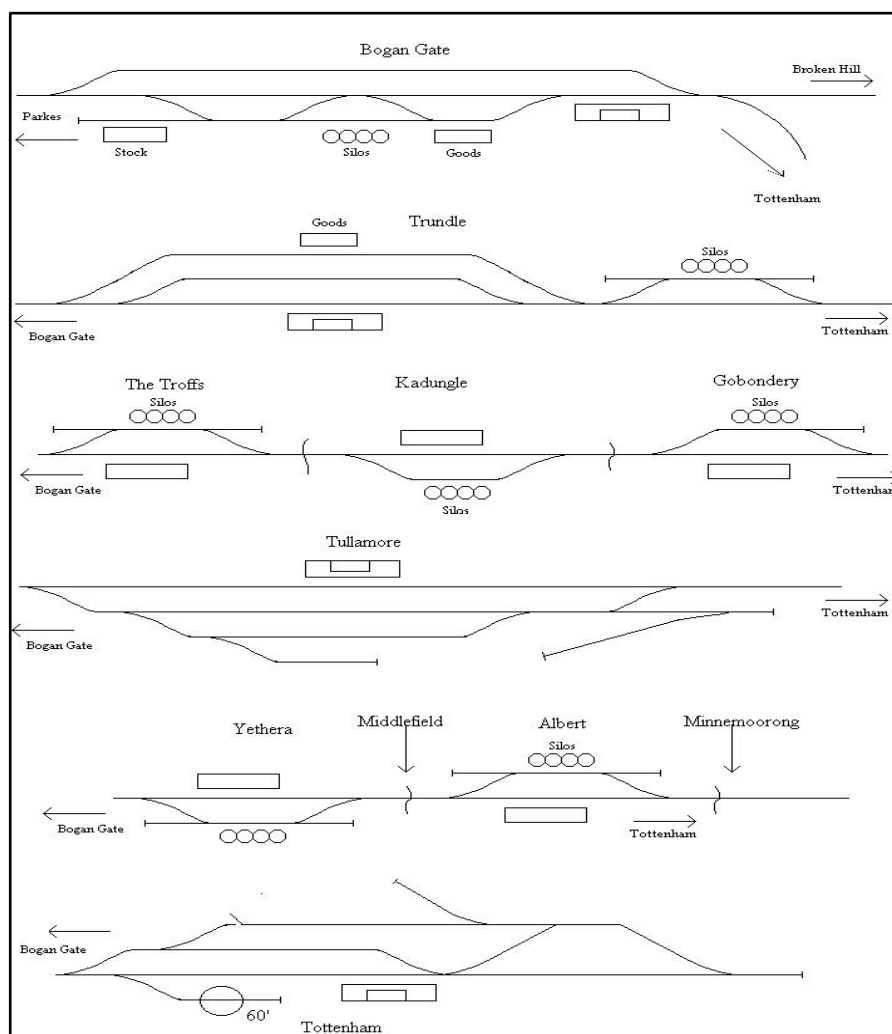
there was destined for the blast furnaces of BHP, where it did duty as a flux, and most up goods and mixed trains contained a number of truckloads. Of course the inmates of Trundle central school cared little for metallurgy, and a raid on a returning magnesite empty paused while shunting took place at Trundle always yielded plenty of the chalky stuff to decorate other S and K trucks in the yard with what was to be called graffiti in another day and age. I sometimes wonder if any of our "truck deco" efforts have turned up in railfan photos.

delighted to be flagged down for a conditional stop to pick up passengers here and face lifting the load from a standing start to the next summit, which otherwise might be run out largely on momentum. As the line climbs away from Minemoorong it curves gently to the west away from the valley of the Bogan, perhaps accounting for the roughening country.

And so on to Tottenham. In reviewing material for this article I

Onwards from Tullamore the line swings to the north and runs along the grain of the country, to Yethera with its unknown type of grain facility. After Middlefield platform the line swings back to its generally northwest course and on to Albert, a small settlement with an unknown grain facility on a siding. The construction name for Albert was Dandaloo, after the "nearby" property on the banks of the Bogan River. Unfortunately I knew more about Dandaloo from reading Banjo Patterson (The Idyll of Dandaloo... one of his wry verse yarns) than from direct observation. Albert seemed to have a larger aboriginal population than any of the other towns along the line.

After Albert the grades start to form that rollercoaster pattern which characterises the central west. My recollection is that the country roughens considerably as well, with sandy soil and low scrubby hills, by comparison with the redsoil country traversed since Bogan Gate. In a dip in the rollercoaster was Minemoorong platform. One can imagine that the driver of a fully laden up mixed would be absolutely



Timetables and Operations

Whilst the branch junctioned with the Broken Hill line at Bogan Gate, operationally the junction was at Parkes, with all trains in the 1960 and 1968 timetables starting or terminating there. Trains were sparse on the branch.

The 1960 timetable shows number 3 down railmotor on Wednesday, returning Thursday as number 6, and number 15 down mixed on Mondays and Fridays, returning Tuesdays and Saturdays as number 12. The down services connected at Parkes with number 49 down Forbes Mail from Sydney. The return mixed services connected with number 60 up Forbes Mail at Parkes, whilst the return railmotor connected at Parkes with number 38 up "diesel train" (i.e. Comet power van and cars) connection to number 28 up Central West Express at Orange. The down railmotor, number 3, ran coupled behind railmotor number 5 to Condoblin as far as Bogan Gate. Number 5 departed Bogan Gate 5 minutes before number 3 branched off to Tottenham. The return railmotor number 6 did not rendezvous with the return Condoblin railmotor, however, and was left to find its own way from Bogan Gate to Parkes.

The 1960 timetable is precise in specifying for number 3 departure times from every platform and siding from Parkes to Tottenham, as well as the arrival times at safeworking stations. But this zeal did not extend to the up service, number 6, where

times are specified for safeworking stations (plus Albert) with intermediate platforms and sidings noted as conditional.

Number 15 mixed was timed precisely from Parkes to Bogan Gate, but once on the branch timing was less specific, as befits a mixed goods. To the long-suffering travellers on such trains it often appeared that time was not an issue to which the railways paid great heed, as sidings in the middle of nowhere were shunted and parcels and mail business was done at every platform.

The branch saw little of that other great time consumer for the train traveller.... waiting in the loop for a cross with a train occupying the section ahead. In fact inspection of working timetables and local appendixes show that considerable attention was given to the running of mixed trains to time, by restricting loads, specifying times allowed to shunt sidings, working to advertised arrival and departure times and providing connections with other services. The up mixed, number 12, like number 6 railmotor, was not as keenly timed from Bogan Gate to Parkes as in the other direction.

By the 1968 timetable, there was an additional railmotor service on the branch. Number 3 ran on Friday as well as Wednesday, coupled to number 5 on both days as far as Bogan Gate. The return railmotor on Saturdays left Tottenham at 2.55pm, and connected with number 60 up

Forbes Mail rather than number 38 diesel train at Parkes. In view of the difference in time and connection details the service ran as number 8, whilst the Thursday up railmotor continued as number 6. Number 15 had lost status by 1968, running as a goods train with passenger accommodation rather than a mixed on Mondays only. The passengers (if any) rode in a passenger compartment in the guard's van, rather than the "dogbox" LFX carriage provided earlier. There was not a lot of difference in the standard of accommodation.

Despite the loss of status, number 15 arrived at Tottenham 20 minutes earlier than provided for in 1960, reflecting not only the elimination of scheduled stops in the Parkes-Bogan Gate section, but also dieselisation and probably a decline in less than carload traffic.

By 1968 the inwards traffic in beer kegs, drums of oil and petrol, car and machinery parts, furniture and groceries all of which arrived in "tarpied" S trucks or in the brakevan during the 1950's was now delivered by road. The up return service on Tuesdays ran as number 12.

The advent of the additional railmotor service changed the status of the down Friday and up Saturday trains to that of goods only, thus the different identifiers, numbers 17 and 14. Considerably more time was allowed for these trains to do their work than their mixed or goods with passenger accommodation counterparts, irrespective of motive power.

The intermediate platforms of Botfield, The Troffs, Kadungle, Gobondery, Yethera, Middlefield and Minemoorong were closed on 23 November 1974 (Woodland says 25 January 1974 for Middlefield). In 1980 Woodland notes that the branch was served by a scheduled goods train, number 17a, working down and up on Thursdays. These days the branch is probably opened only for seasonal wheat traffic.



p00227 c. D.Cullen 3102 at Royalla

In steam days most mixed and goods on the branch were hauled by 30T class like 3102 seen above at Royalla.

To be continued



When I received the Autumn 2012 7th Heaven, I was excited to see the impressive last page advertisement announcing the release of O-Aust's latest kit, the GSV, 4-wheel Sheep van. A few days later, I attended the Brisbane Model Railway exhibition, and this presented the opportunity to purchase this kit from O-Aust. Over the last few years, I had been slowly building a collection of cattle vans to form a branch-line stock train, and this new GSV is a natural progression towards adding more spice to my stock train. The NSWGR had numerous varieties of sheep wagons, however the O-Aust model represents the 1948 steel frame version, of which 250 were produced.

The model is packed in the usual small white O-Aust style box. The kit parts are predominantly polyurethane, for the roof, side framework, ends and floor. The solebars are one-piece white metal. All the bars on the side panels are constructed using brass wire and brass etchings. The polyurethane castings were cast to a high standard, and sealed in two plastic bags. All the small brass and white metal detail parts (brake wheels, buffers, air hoses, air-brake reservoir etc). were packed in a small plastic bag. There was also a brass etch (frames for the side bar panels), and a large supply of brass wire, mainly for the construction of the side bar panels. The kit is complete, except for couplers, a small length of fuse wire, and your construction materials - adhesive, solder, flux etc and paint. The model is accompanied with 9 pages of instructions, including a picture of the completed model on the first page. I found these instructions were well presented and provided a good recommended approach towards constructing the model.

This model marks a significant advancement for O-Aust, as it is the first model to have the masters for the polyurethane castings, prepared using rapid prototyping. This has resulted in better accuracy and consistency between the parts. The GSV roof consists of corrugated iron, timber strips and bolt-heads, and the kit provides all this detail in a one-piece casting. In the past, when I have modelled this type of roof, on top of the base "corrugated iron" I have gone to considerable efforts of using thin styrene strips, marking out bolt positions and drilling all the small holes to

accommodate a countless number of Grandt line bolt heads. This process was very tedious and time consuming, so naturally I was delighted to see the introduction of this new "single casting" innovation!

My first job was to clean up the polyurethane parts and removing all the flash. The open framework nature of the sides, and especially with the very fine, internal cross bracing, made removing the flash a slow and tedious job. I probably spent over half an hour per side, with a scalpel and fine files to get both sides properly prepared for construction. The frameworks for the side doors are also very fine, (and fragile) and you need to handle these parts with care. I did damage a side door frame, and O-Aust kindly provided a replacement part, which I received a few days later.

The sides and ends went together perfectly. I always check that the sides and ends are equal lengths before constructing models, however on my kit, these parts matched perfectly. After the sides, the roof was fitted, and then two styrene sheets inside the van for the internal floor for the upper sheep compartment, and the internal roof for the lower sheep compartment. The final step was to fit the van floor. No problems were encountered with assembling the van body, however again, care needs to be exercised to ensure that parts like the internal floor and roof fit perfectly before using adhesive. I used a large "Mill" file on the styrene sheets to make the final size adjustments, before fitting.

For my models, I have a preference for Slaters wheelsets. O-Aust allow some options for alternate wheelsets, if you have a preference for a particular brand, however depending on the brand you choose, some modifications to the axle boxes may be required. The holes for the bearings in the axleboxes are engineered for NWSL / Northyard bearings. The Slaters bearings are significantly narrower, however are longer. I had to use a 2.5mm drill bit in my bench-drill to extend the depth of the bearing holes to accommodate the Slaters bearings. This job was done with extreme care to ensure the bearing seated fully in the axle box, and being careful not to drill the hole completely through to the other side of the axlebox! I secured the Slater's

bearings with solder after ensuring that they were properly seated in the "axle boxes".

The GSV is mounted on the standard "S" Truck type, 10 feet wheelbase, underframe, so the construction of the underframe is exactly the same as previous kits produced which have used this similar underframe. Everything with the underframe went together as planned. When attaching the solebars (and wheels) to the body, I initially used a couple of small "spot" contacts with superglue. This held the solebars and wheels in position to allow me to check the van on some flat track to ensure all four wheels had good contact with the rails, and the wheels ran freely. After being satisfied that everything was in order, I used a good fillet of super-strength Araldite to permanently secure the solebars to the GSV body.

The side bars for the doors and fixed panels need to be constructed from brass etchings and 0.5 mm brass wire. There are eight door panels and eight fixed panels, and each panel has ten bars. There are two jigs supplied (one for the doors, and one for the fixed panels) to assist with this construction task. The door panel is slightly smaller in height, than the fixed panels. The jigs are very helpful, however you need to measure the exact height of each panel, and construct the panel accordingly. In most cases, the jigs were "undersize" and I had to use some styrene strip attached to the jig, to achieve the appropriate measurement between the opposing etch framework.

Prior to constructing the panels, I used a 0.5 mm drill to clean the holes in the etched framework. To get the panel started, I start with about four bars inserted in the framework, and start the soldering to build strength into the panel. After you have four bars properly soldered, the panel has structural strength, and you can add the final six bars with ease. This stage of the model is a very challenging and will take considerable time. I spent about 15 minutes constructing each panel. The brass etch sheet has a spare set of frames for both the two different panels, in case you make a mistake. The framework etch also differs between the door and fixed panels, so to you need to use the correct etch for the appropriate panel.

The painting process needs to be done in two stages. Because of the "see-through" nature of the van with the side bars, you need to be able to fully paint the interior of the van, before the side panels are inserted. Consequently, the van was painted and the sixteen bar panels were painted separately. When the paint had properly

hardened after a couple of days of warm weather, I then inserted the side panels. After the adhesive had been allowed to properly harden, I had to use a small amount of filler in a couple of noticeable gaps, and then the model received its second paint job to cover-up the adhesive and filler marks.

After the model was painted, and I allowed the paint to harden for a few days, next step was the decaling. The GSV has a wagon code plate, which is fitted to one of lower door frames. It was at this stage I realised that the fitting of this piece had been omitted from the kit instructions, and consequently I had not fitted it to my model! (O-Aust will make the necessary amendment to the instructions.) I therefore had to attach a small piece of styrene strip .5 mm thick, and 7 mm x 6 mm. This unfortunately resulted in a third painting of the model, before the decals could be applied! For painting, I replicate the gunmetal grey colour with a blend of automotive black and grey self-etch primer. After painting, the decals were applied, and I use a coat of Testors Dullcoat to seal the decals. For weathering on this model, I used a highly diluted Humbrol light stone, which gave a dusty effect.

For my GSV, I replaced the kit supplied fixed buffers with the spring loaded buffers supplied by Waratah Model Railway Company. (This is the standard specification for all my models). The couplings I choose to use are the NSWGR Alliance type supplied by Waratah. My GSV model weighs 187 grams.

In conclusion, I am very happy with the end result of this model. The GSV is an important addition to my stock train and is a good representation of the prototype. The GSV was probably the most time consuming four-wheel model I have ever assembled, mainly due to the time it takes to solder the sixteen side panels, and the extended painting process. Working methodically through the model, and taking some care will ensure the final result is a model you will be proud to own and add to your rolling stock collection!



O Gauge Railway Modelling for Australian Railway History

Jim Longworth

Australian railway history can be told in various forms using a diverse range of media, from preserving prototype items to singing songs. The NSW Office of Rail Heritage has adopted a thematic approach to telling NSW railway history. The eight principal themes are listed in Table 1. Producing, displaying and interpreting suitable O gauge models to tell each of these themes would be relatively simple, as shown in Table 1. However, this article explores more obscure potential for using O gauge railway models and model railways to tell Australian railway history.

Table 1

Theme	Possible O Gauge Modelling
Peopling Australia	Country passenger carriages of varying styles. A Baby Health carriage. A very short timber platforms halt with no building.
Developing local, regional, and national economies	A busy country station goods yard. Sheep, cattle, wheat, ore, log, refrigerator wagons travelling from the country to the city. Flat and open wagons carrying manufactured goods and products from the city to the country. A railway workshop.
Building settlements, towns, and cities	Multi station layout displaying obviously different country and city station precincts separated by view breaks. Combination passenger and guards vans. A billboard advertising a land subdivision outside the railway fence, drawing attention to its proximity to the station.
Working	Grouping people undertaking on and off-corridor work. Uniformed railway staff. Timetabling worker's trains, early morning and night.
Educating	Students dressed in a school uniform waiting on the platform. Timetabling school trains morning and afternoon. Posters at the station advertising rail travel as an educational experience.
Governing	Displaying NSW government insignia on models. A Governor General's carriage. A prison carriage. Military equipment loaded onto a flat wagon.
Developing Australia's cultural life	A greyhound carriage. A family group salighting from a train and being met by a host family on the platform. Timetabling sports special trains.
Marking the phases of life	A Baby Health carriage. A hearse carriage.

Miniaturising and Representing

Models are powerful communications tools. Their main purpose is to help us understand how things work. Models can show that the apparently simple is complex; while revealing the apparently complex in a simple form. Models support decision making, test design ideas, improve processes, educate and train and provide us with much fun.

Railway modelling both miniaturises and represents full size aspects of railways. A railway model can be defined in part as being 'a reproduction in miniature of some already existing object', or 'a representation of an object, to scale'. Railway modelling focuses on a single or few discrete aspects of a railway. A model railway attempts to present a range of aspects of a larger part of the railway network.

Railway models are also concise and visually-stimulating illustrations that use miniaturised representations to depict important features and operations from a specific location or a particular period. A location might include a station, a stretch of line, a collection of a few stations, or a network of several stations. Periods can be quite short and specific, e.g., a few minutes, or longer so encompassing greater diversity, e.g., the decades during the changeover from steam to diesel locomotives.

Modelling can be as precisely to scale as is technologically possible, totally fanciful, or anywhere in between. Prototypical modelling is achieved through using historic records and the best informed understanding of the location or period, presented in a way that is easy to understand by the intended viewer. Thus railway modelling might change in tandem with our informed knowledge about the prototype as our knowledge expands with further research. Viewer technical expertise ranges from the obsessive rivet-counting pedant to total naive neophyte. Declining personal experience with prototype railways, especially of those from the steam era, suggests that in the future less-experienced viewers will make up an increasing proportion of model railway viewers.

Early NSW Railway Modelling

Railway modelling in NSW has itself a long history, dating back to at least as early as 1830, before the opening of full-scale prototype railways in this state. Early models were intended to convince management that the system would work. They were apparently successful.

About 1936 an O gauge layout was noted part way along Central Station No.1 platform. Housed in a long, narrow, yet large glass case, the installation appeared to have been there for many years. It may have been operated by push button control. Track layout was a simple oval of single track, without sidings. Track disappeared into tunnel portals on both sides, creating the appearance of the case being set into the backing wall. Rolling stock consisted of a large blue tender locomotive giving the impression of a 36 Class, hauling a rake of two carriages. The train looked much like it was intended to represent the Caves Express. The model was to promote railway tourism.

NSW Railway signal engineers had at least two model railways. One was a demonstration circuit showing the workings of the colour light signals as used in the Sydney underground. It was housed in the basement of Transport House, Wynyard. 'American Flyer' trains ran around the 6ft x 10ft circuit, complete with platform, seven colour light signals which were worked in conjunction with fifteen train stops. Full size relays operated the signals. There was an illuminated track diagram on the wall. The models were to educate signalling staff and visiting railway engineers. The other was in a mobile training carriage shown below.



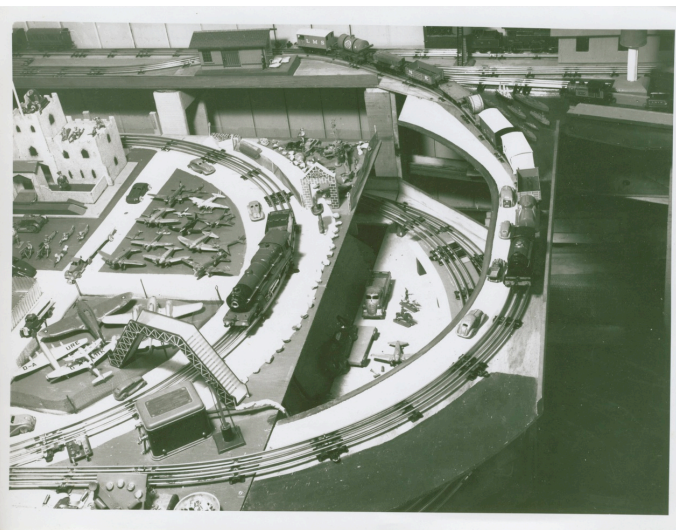
This circuit, with its New York Central overhead wire model locomotive by Ives, was housed inside the Railway Institute Safe Railway Working instruction carriage FY 94. Author's collection.

During the 1950s the NSW Railways displayed a series of O gauge, 3-rail, coarse-scale model railways at the Royal Easter Show and later at the Newcastle show (Jim Longworth, *The NSWGR's O Scale Model Railways*, *AMRM*, December 2008). The models were to educate the viewing public and sell the railways as a critical part of Australian society. Making the models was to provide technical training for apprentice signal electricians. As well as the railway's own displays, O gauge models were supplied to the Milk Board and Banana Growers' Federation stands at Royal Easter Shows. Moving models assisted in and provided animation at their displays. Both displays consisted of a double track circuit around which trains chased their tails. The banana display integrated the two tracks running across the bottom of the display. The Milk Board display was a table-top scenic layout, including a large milk factory in the foreground. However there was no siding off the mainline to shunt or leave wagons for the factory – hardly informative of prototypical operation. The models were to provide animation to an otherwise static exhibit, so fun for the viewers.

Celebrating the centenary of the NSWGR in 1955 focused on what was the then present and hoped for future for rail transport. Displays were put together emphasising progress over the century, including two model railways, one built to O gauge. Seen as more than a tail-chaser, the O gauge layout was described in the railway press as a 'model railway system'. A railway

model had been conceptually transformed into a model railway. The O gauge model was made specifically to educate the viewing public in railway safe working.

Also during the 1950s the railway built and donated several O gauge layouts to the School for the Blind at Wahroonga; School for the Deaf and Dumb at Darlington; and Spastic Centre at Mosman. The models were to be therapeutically helpful



One of the models donated to physically disadvantaged children during the 1950s. B. Macdonald collection.

Optimising Usage

Just as a drawing, painting, or photograph is never the actual scene being depicted, so models are never the actual prototype. All railway modelling is an approximate abstraction of the specific prototypical object, with models varying from low to high complexity, Table 2. Complexity varies independently to specificity. Both ends of both horizontal and vertical axes of the table tend towards infinity. While model railways are often representations in miniature of some already existing object; railway models can also be representations of some planned, but never or not yet built, railway object. Others could be enlargements of some tiny railway object.

Models in the top left quadrant tend to be of an older style. Abstraction could previously be readily interpreted by viewers, because older viewers could be relied upon to have deeper personal experience of the prototype. Models for teaching viewers about various aspects of railways, e.g., how valve gear works, tend to occur in the top right quadrant where they are obviously abstractions but may be complex constructions.

Models intended to theorise about railways, e.g., the workings of a junction station, may tend to occur in the bottom left quadrant, where they look realistic but are relatively simple. Realistic but highly complex models in the bottom right quadrant tend to be those preferred for recreating a long-gone railway atmosphere. These models can blur the boundary between what is a viewed model and reality.

Table 2

Specificity	Complexity	
	Lower complexity	Higher complexity
Increasingly abstract	Coarse scale, or in the extreme – tinplate, models.	Teaching models.
Increasingly realistic	Ready-to-run models.	Fine scale models.

Models are neither right nor wrong; they are representations. Fortunately some may be fruitfully useful for their intended purpose, or ipso-facto unfortunately less useful. Our interest herein is in their potential usefulness for telling railway history. Populating Table 2 with examples of railway modelling styles, while remaining with O gauge, suggests that different model styles can fit their intended uses reasonably well as shown. Arguments about model accuracy abound, often reflecting differences in data sources. Some commentators have complained about there being too much detail on some models. Differences of opinion can also arise when the model maker and model viewer/user/consumer differ as to their intentions for or understandings of the model's intended use. One important step for any model making project is to establish a clear goal for the model. What is the model for? What does it need to communicate? A temptation is to show every possible detail in a model; when it may be more effective to highlight the most important aspect of the item. A model of a station building could show how the entire building sits in the railway station yard environment without showing all of the minute detail in the structure. What sort of model will achieve the intended goal?

Modelling scales have specific advantages and disadvantages, Table 3, making each of them optimal or sub-optimal for various purposes, Table 4. The scale of 1:10 was commonly used by NSW railway apprentices for constructing static display items of rolling stock. Some static display models were constructed to even bigger scales.

Valuing Railway Models

Railway models are a powerful communication medium through which owners can communicate with viewers. If a two-dimensional picture of a railway subject is worth a thousand words, a three dimensional railway model should be worth 1,000³ words. Motion in the model or on the model railway should increase the value yet another power to 1,000⁴ words. Models have the potential to save writing or reading a lot of text.

People across younger generations are changing the way they gather information, on topics including railway history. Changing from reading the written text, to looking at images, and even to semi-imaginary virtual images, they are less likely to read long-winded, overly verbose, written texts. Railway models offer railway historians an opportunity to communicate with younger people using communication media with which the recipient of the message is likely to be more comfortable. Models transcend educational levels, language barriers, and visual impairment. Model

railways seem to have universal appeal, transcending cultural barriers.

Table 3

Scale	1:10	O	HO	N
Advantages	Enormous. 'Wow' factor. Implies craftsmans hip.	Easily visible through viewer's ageing eyes. Implies a museum context. Well detailed kits are increasingly available.	Readily available in ready-to-run form. Directly transferable to viewer's home layouts.	Tiny.
Disadvantages	Space hungry. Usually static. Hand made.	Requires proficient scratch building, or at least, kit building skills.	Hard to see details through viewer's ageing eyes.	Very hard to see through viewer's ageing eyes. Easily affected by dust and being bumped by viewers.

Table 4

Scale	1:10	O	HO	N
Optimal Uses	Showing individual items of rolling stock. Displaying individual components of infrastructure and rolling stock and relationships between them. Placing at an entrance to entice people to come in. Showing that the apparently simple can be quite complex.	Showing significant details on structures or rolling stock. Showing the development of rolling stock items. Displaying small single station precincts. Displaying steam-era short trains.	Displaying a large single station with yard and depot precincts. Displaying multi-station layouts. Displaying steam-era short trains. Displaying modern-era longer trains.	Displaying large portions of railway networks. Displaying the railway-in-the-landscape. Displaying modern-era very long trains. Showing that the apparently complex can be quite simple.

To be continued.

Commercial News

Trevor Hodges

O-Aust

O-Aust Kits info@oaustkits.com.au, and via the web site at www.oaustkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 or (07) 3298 6283 have advised that the EHO passenger guards van kit was released at the Liverpool exhibition as planned. At this stage only one production run is planned. A rerun may be considered at a later date if demand warrants.

Demand for the GSV kit is strong and a third production run is now available.

The BSV bogie sheep van kit is close to being ready for release with the assembly instructions the only element of the kit yet to be finalised.

The popular BHG guards van kit is currently being upgraded around a completely new set of body patterns which incorporate a greater level of accurate detail into the components. The kit will include two body bolster types as standard, allowing it to be built as a BHG (with the O-Aust Kits 2AE bogie) or as an SHG (with the Waratah 2SE bogie). It will be released without bogies as a standard component, allowing the modeller to make the appropriate choice of the type to be produced from the kit. Expected release will be first quarter 2013. As a result the price of the kit will be increased to reflect the higher production costs.

The previously announced MHG project is currently being reviewed due to unforeseen delays in the production of patterns for the project. The project is being evaluated and alternative production sources are being investigated.

The next new kit to be released will be the CX composite passenger coach (aka dogbox). Pattern-work is approximately 75% complete.

The Victorian (1:48) B 4 wheel box van is also now available for purchase. There is a request from Victorian O scalers to look at producing an appropriate guards van for this market and this is now under active consideration.

Waratah Model Railway Co

Waratah Model Railway Company, 149 Kyle Bay Rd, Kyle Bay, NSW, 2221 (02) 97851166 charris@nigelbowen.com.au and waratahmrc@optusnet.com.au have announced that the NSW BD is now available for sale (it will be on sale at the Oct Forum). This kit will be supplied with polyurethane body, brass bogies and brass and whitmetal components. It is supplied with Turton buffers and 3 link couplers and sells for \$225 complete.

They will also be releasing soon a whitmetal 12" water column to go with the 9" version.

Progress continues on the HG with an anticipated release date in time for the March Forum.

Have you

- scratchbuilt a model
- started or completed a layout
- kitbashed a model
- discovered a new scenery technique or material
- done some great weathering
- built an interesting structure
- found a new tool that assists modelling
- have an opinion about something that you want to tell others

If your answer is yes then don't keep it a secret. Write an article about it, photograph it and send it in so that I am overwhelmed with material for the next issue.

7th Heaven needs you.

Paul Chisholm

Editor

MODELLERS OF ALL SCALES WELCOME!
The Aus 7 Modellers Group presents
O Scale Modellers Forum
NORTH SYDNEY LEAGUES CLUB
Kamaragal Room, 12 Abbot St, Cammeray
Sign in from 8.30am. Concludes 4.00pm
Saturday 27th October, 2012

- * Annual General Meeting 12.45 pm to 1.30 pm
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