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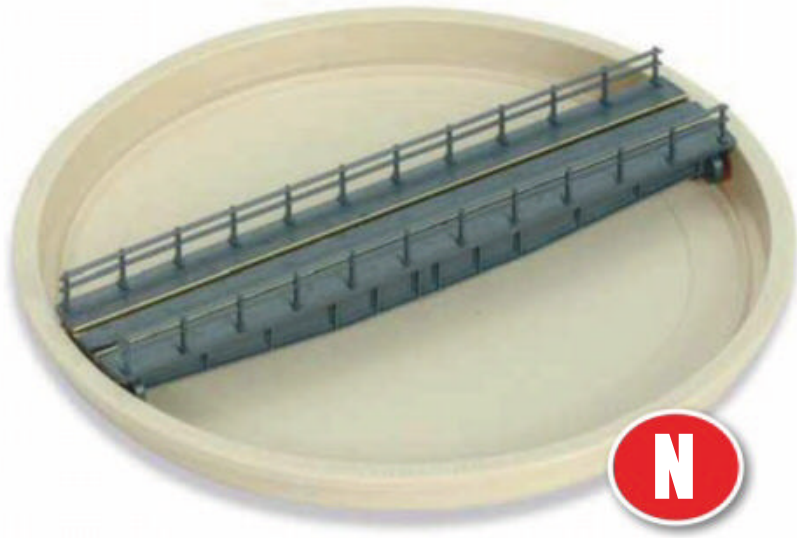
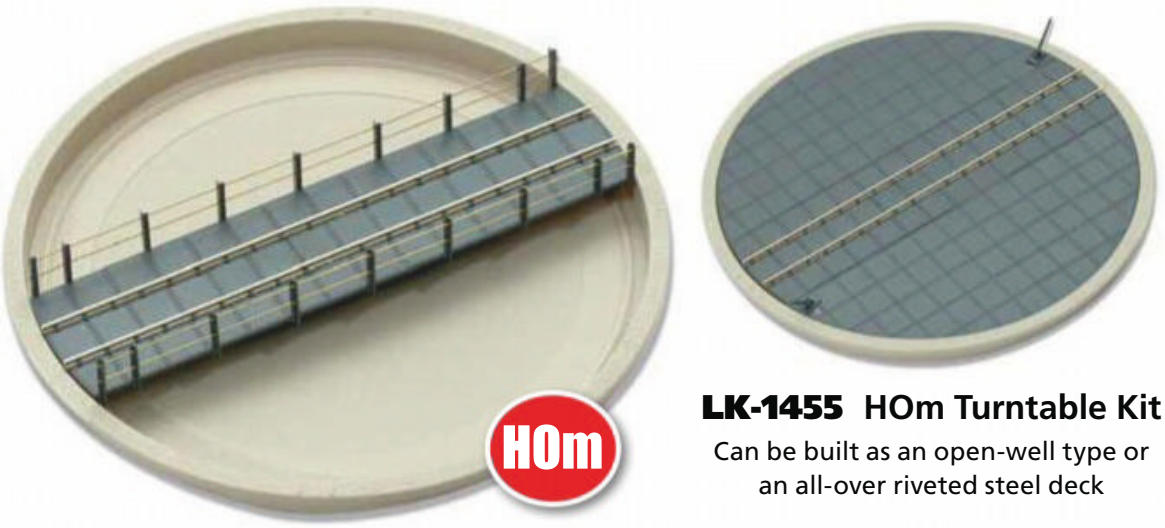
LK-55 Well Type Turntable Kit

Suitable for Code 75 and Code 100 track



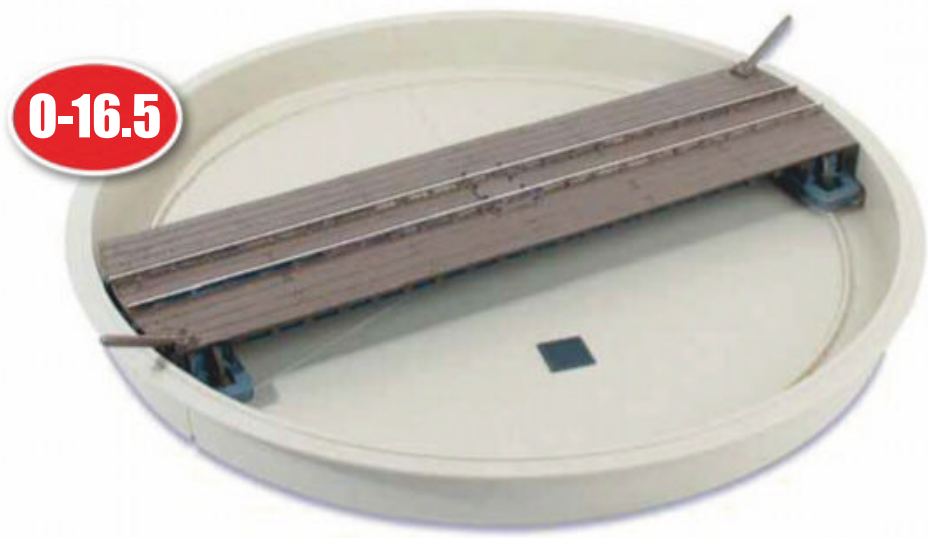
NB-55 Well Type Turntable Kit

Suitable for Code 55 and Code 80 track



LK-1455 HOm Turntable Kit

Can be built as an open-well type or an all-over riveted steel deck



LK-555 O-16.5 Turntable Kit

Based on a hand operated American prototype

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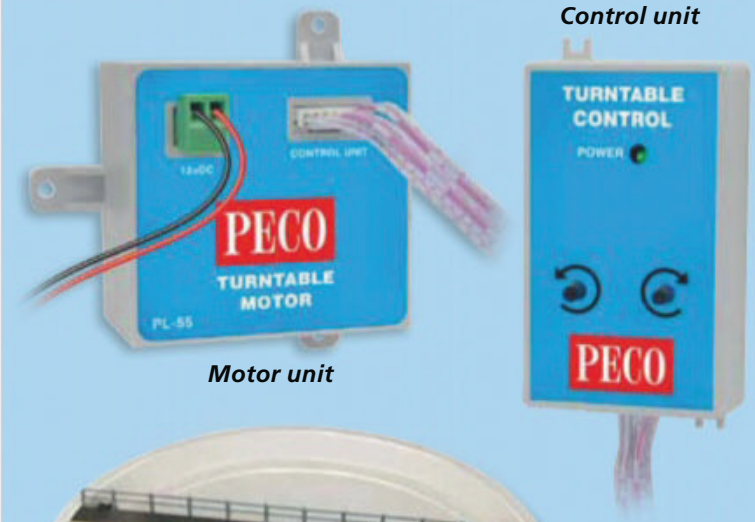
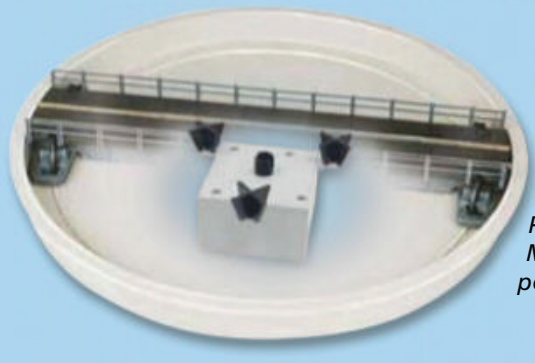


Control unit

Motor unit



PL-55 Turntable Motor shown in position on LK-55 Turntable

PL-55 Turntable Motor & Control set

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Issue 341 Vol. 29 No.8
ISSN 0045-009X

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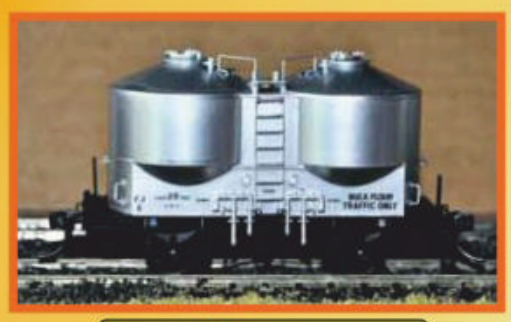


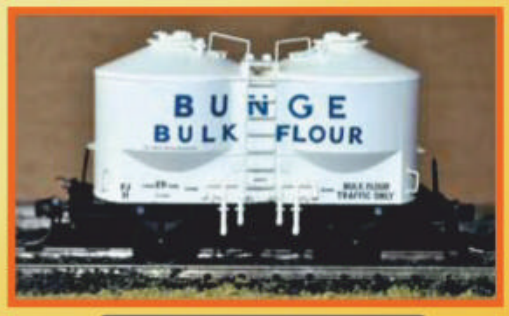
Silver

Riverina / Grant & Wilson

Water Wheel

Hutchinson's

Jackett's



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Photos courtesy P. Turtle

NR class Locomotive

In late 1997 National Rail Corporation out-shopped two NR class locomotives bearing indigenous design based on the work by Alice Springs artist Bessie Liddle.

The first was launched in Sydney by Cathy Freeman in November 1997, Warmi NR30, featuring an Aboriginal Dreaming story. Decorated by Bessie after a Warmi dot painting showing a snake, bush tucker and women's footprints.

The second was launched in Alice Springs by Mark Vaile in December 1997, Kungara Mankurpa NR52, this design depicts the Star Dreaming story Seven Sisters. Decorated by Bessie, a dot painting showing the travels of the Seven Sisters and their pursuit by the Snake Man in Pitjantjatjara country.

The production is limited to a total of 660 units across the 6 options and is fully licenced by the artists agency.

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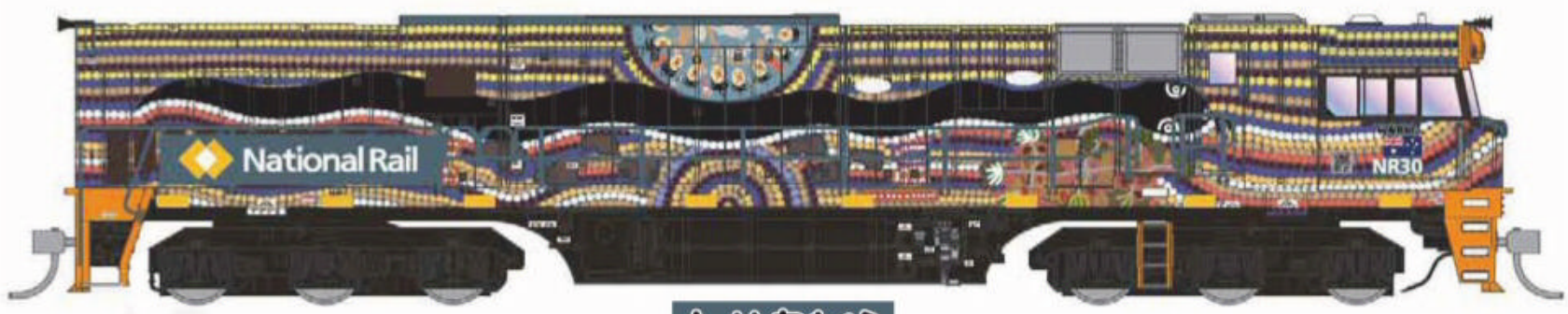
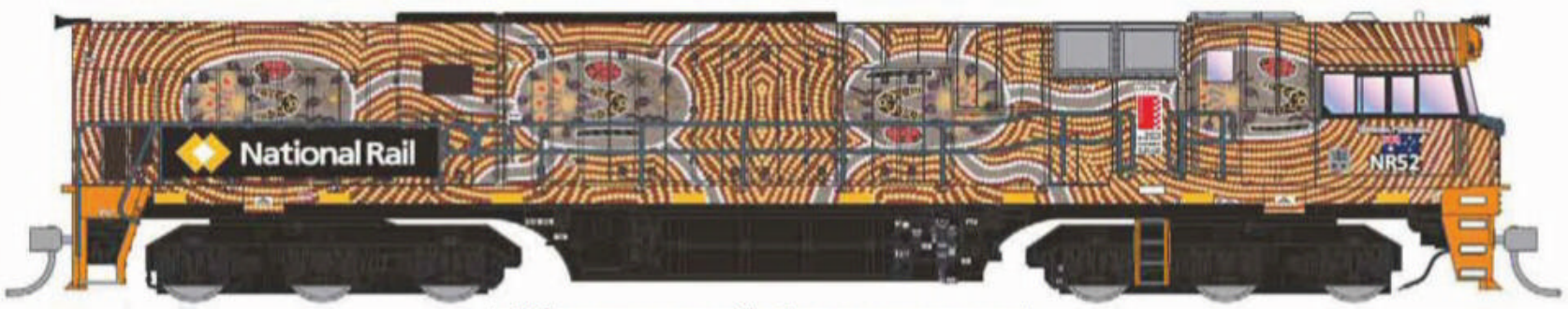


NR 30 WARMI **© Bessie Liddle / Copyright Agency**



NR 52 KUNGARA MANKURPA **© Bessie Liddle / Copyright Agency**

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AUSTRALIAN
MODEL RAILWAY
MAGAZINE

Editor: James McInerney

Issue 341 Vol.29 No.8

FEATURES

OTHER FEATURES

REGULARS

ON THE COVER: *Big power, a modified and repainted Lima model, at 'Twigg', one of the collection of HO scale exhibition layouts constructed by Martin and Mandie Murden, inspired by the VR branch lines that once served coastal Victoria. Constructed in the early 1990s, the layout has recently been completely rebuilt, retaining only the baseboard, track, goods shed and war memorial from the old layout. The renewed layout is the subject of this issue's feature layout article. Photo by John Dennis.*

Comment

By Bob Gallagher

A Giant Among Organisers

Like many in the model railway hobby, I was extremely saddened to learn of the passing of Graham Larmour (22 November 2019) and his lovely wife, June (29 November 2019). Graham (and June) were among the first volunteer officials I met when I commenced participating in the public/club side of this wonderful hobby. At that time Graham was president of the New South Wales Branch of the Australian Model Railway Association. The branch had just purchased a building behind the main street in suburban Rockdale; a place that saw my meeting many of my contemporaries in the hobby (and long-term friends) for the first time. Meetings were always enjoyable and the atmosphere catered for learning about the hobby and meeting new friends. The then role of the president was not only to run the branch, but also to run the annual AMRA Sydney Model Railway Exhibition, which Graham seemed to do with ease. On the club scene, June was prominent among the ladies providing afternoon tea for all the meetings and at the exhibition June could always be found helping in the kitchen.

A year or so after joining AMRA, I was appointed to the committee and, at first hand, saw Graham's organising skills at work. A quiet man, he never raised his voice, seemed almost always placid, even in the most emotional situation and no doubt for these and many other reasons, had the respect of all. Graham's very efficient organisational skills were easy to see, for he carried all he needed to perform the president's roles in a single attaché case. Later, when he handed the role of president over to another, he simply handed over this brown leather bag!

Being impressed by his committee running skills was one thing, watching him prepare for an exhibition was another. These days we hear the comments of organisers and participants alike, complaining about issues such as parking, poor access and lighting. In the early 1970s the exhibition was held in the Sydney (Lower) Town Hall. One access door. Parking was in the local streets (George St., Park St., Druitt St.), then, as now, major thoroughfares for the busy city of Sydney. I am not suggesting that the organisation was always smooth, it was not. But the voice controlling the situation was always quiet and, yet, authoritative.

It was at the exhibition that June came into her element. The Sydney exhibition set the scene for other states' branches to follow by being the first to provide all the exhibition workers and many of the layout and commercial participants with lunch, almost always two courses and always enjoyable. Cooked on site, with the help of other members' wives/partners/mothers, the results of the rush and bustle were always enjoyed, and appreciated.

In the mid-1970s, I volunteered to manage the *Australasian Model Railroad Magazine* and was appointed president of the NSW Branch of AMRA, all within a few weeks. I quickly understood that the two tasks, plus running what was then Australia's biggest model railway exhibition was too much for one person. So Graham was asked to continue with the Exhibition Manager's role, which he accepted without hesitation; he and June continued filling these roles for decades.

They saw the exhibition move from the Sydney Town Hall to the Showgrounds and then out to Liverpool, the show growing all the time (it should be made very clear that Graham and June did not do these tasks alone, they had plenty of support from an enthusiastic and effective team). They certainly had no problem getting help to run the events, both were very welcoming people. The affection they received as individuals, as well as a couple, was incredible to observe, inspiring even!

While this *Comment* is meant to be a tribute to Graham and June, it should be remembered that they were not alone in their volunteering tasks. All of our exhibitions, clubs and conventions are run by people who volunteer their time, spending their valuable modelling time running events for all of us to enjoy. Some organisations are having problems getting the volunteer support needed (the times are changing and people are much 'busier' than they used to be). The 'bottom line' is that unless the volunteer roles are filled, club meets, conventions, etc. will cease to be; a definite backward step for the hobbyist.

We should be thankful for the efforts of wonderful people such as Graham and June Larmour (and their families). Almost every model railway club has their 'Graham and June' and the hobby is the better for it. Take a moment to remember Graham and June Larmour and offer a special thanks and appreciation for all the other Grahams and Junes in our hobby.

SOUTHERN CROSS MODEL RAILWAY ASSOCIATION

The Annual Membership Fee for SCMRA is $66.00 from March to February and the Joining Fee is $20.00, which includes the membership data pack. Applications must be received by the first of the odd month to meet our mailing list deadlines. For applications received between the 2nd September and the 2nd January the Half Annual Fee is $33.00 plus the ($20.00) Joining Fee (does not include October issue of AMRM). All fees are GST Inclusive.

Membership entitles you to participate in the activities of the Association, to receive AMRM and our regular newssheet *Booster*. Standards, Recommended Practices and Information Sheets covering model railway practice are included in the joining kit together with a vinyl ring binder and are also issued at regular intervals.

For further details write to the Secretary or contact the divisional representative.

Meetings are usually organised on the second Saturday of each month in New South Wales. For further details and location please contact the divisional representative.

Membership services include magazine binders and photocopies of articles from out of print issues of AMRM at discount prices.

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April 2021	2.2.21	16.3.21

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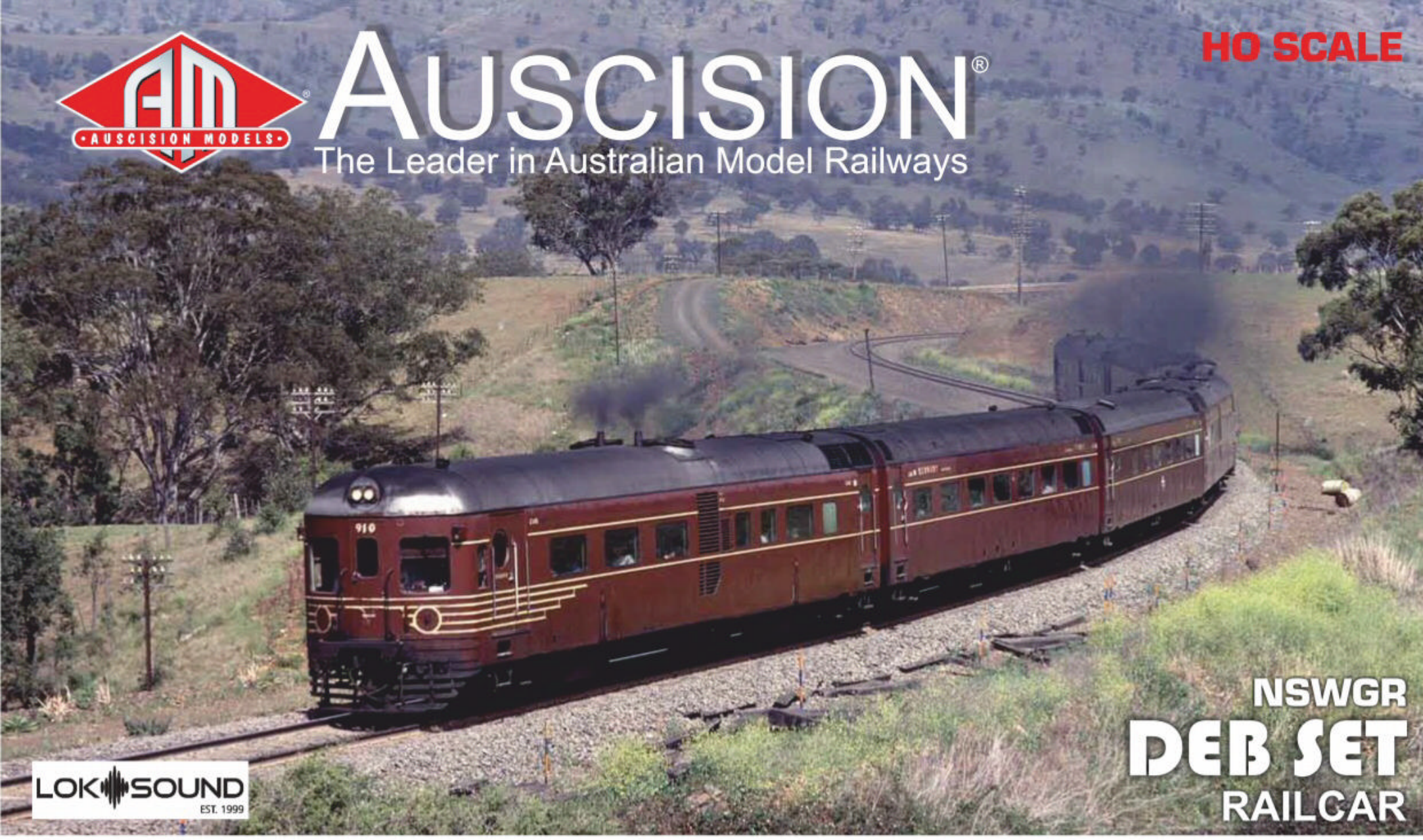

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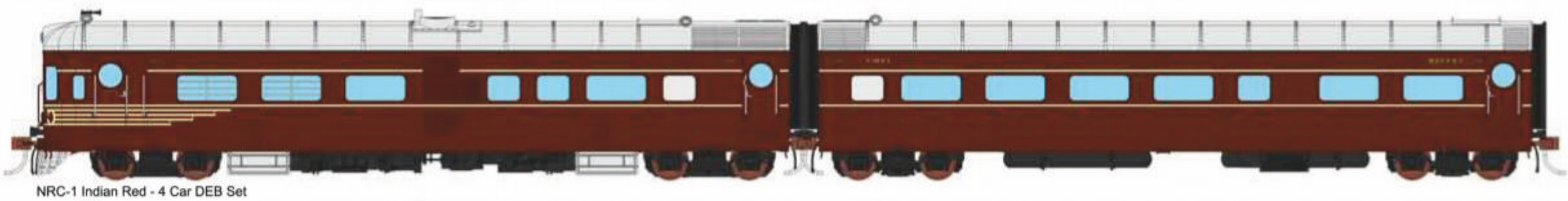
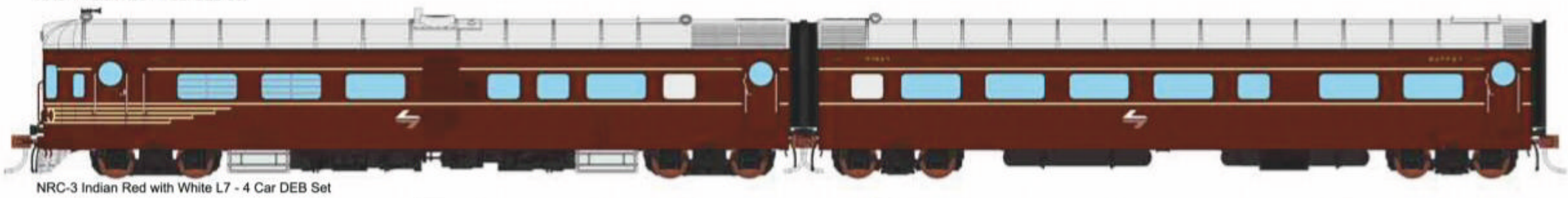
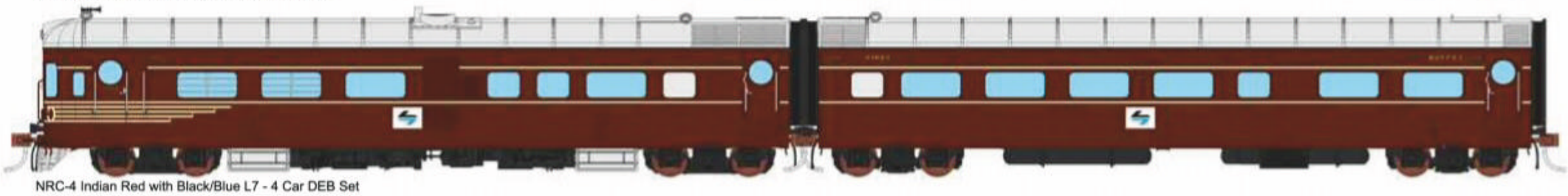


NRC-1 Indian Red - 4 Car DEB Set



NRC-3 Indian Red with White L7 - 4 Car DEB Set



NRC-4 Indian Red with Black/Blue L7 - 4 Car DEB Set

NRC-6 Reverse - 4 Car DEB Set

*Model details & delivery dates subject to change without notice.

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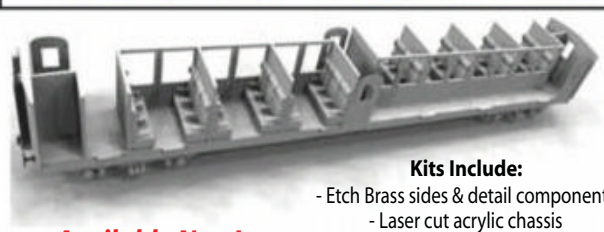

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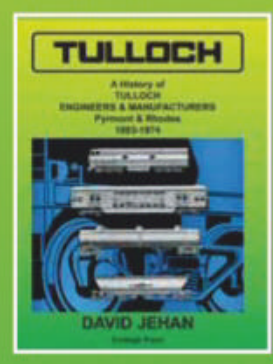

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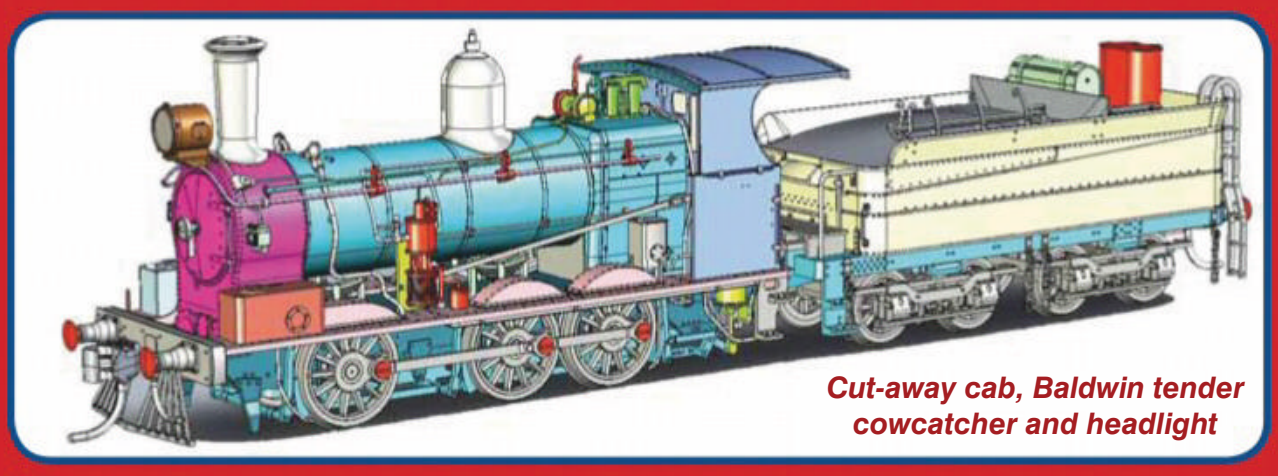
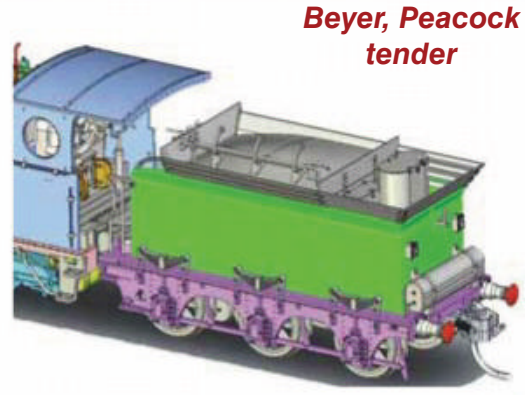


Cut-away cab, Baldwin tender cowcatcher and headlight

Beyer, Peacock tender

Thow cab



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	19-007 Cutaway cab, headlight, BP tender with coal rails	❑ 1913		
	19-010 Cutaway cab, headlight, Baldwin tender, cowcatcher	❑ 1954 ❑ 1957		
	19-011 Thow cab, no lights, BP tender, with coal rails	**CENTENARY PAINT SCHEME** ❑ 1948		
	19-012 Thow cab, no lights, BP tender with coal rails	❑ 1904 ❑ 1925		
	19-013 Cutaway cab, no lights, BP tender with coal rails	❑ 1940 ❑ 1923		
	19-014 Thow cab, no lights, Baldwin tender	❑ 1938		
	19-015 Cutaway cab, no lights, Balwin tender	❑ 1912		
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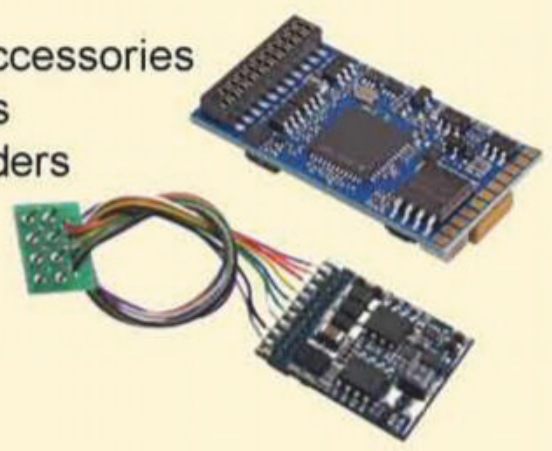

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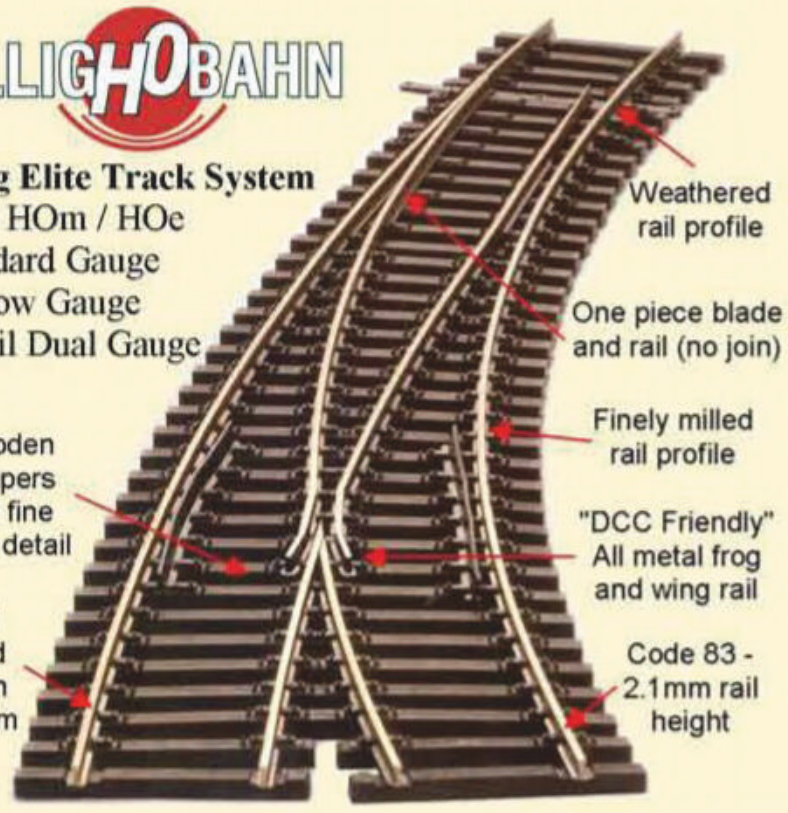

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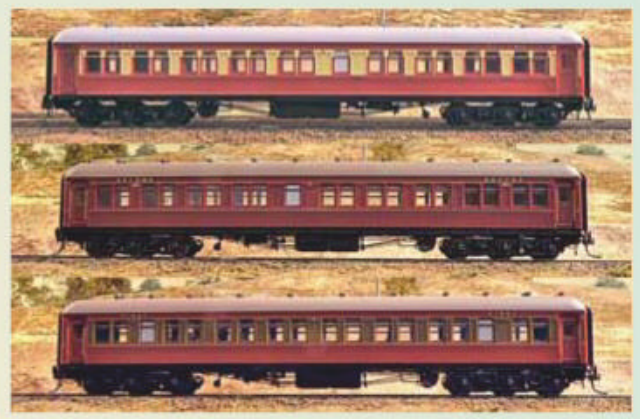

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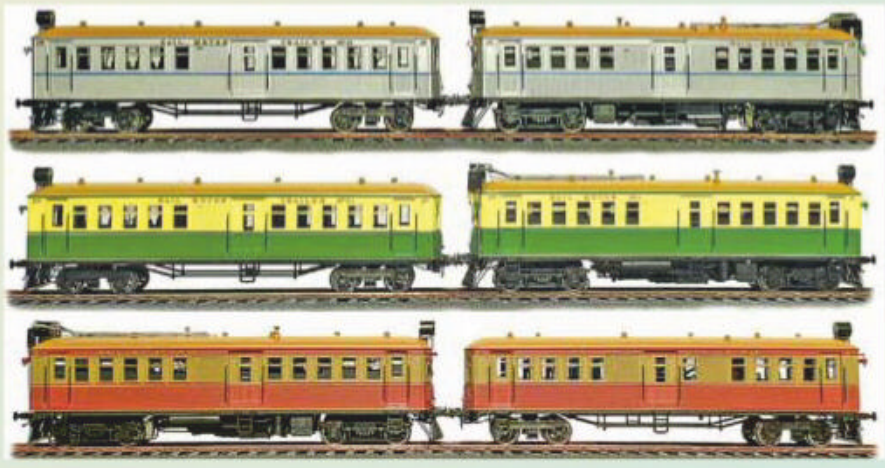

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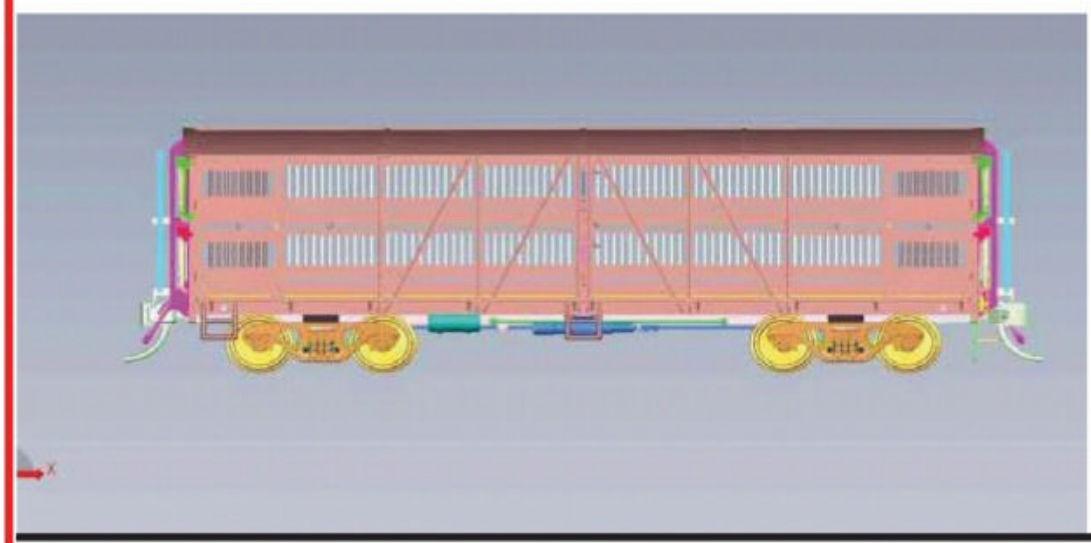

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M231
P11
P11
P11
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▲ *A view from the station building end of the layout with the F class 0-6-0 diesel-electric locomotive approaching with a short goods train. The wagons closest to the camera are a GY and T from Steam Era Models, then a Lima GY. The last item was part of daughter Mandie's prize for winning a section at the modelling competition held long ago as part of the initial Hobson's Bay exhibition.*

◤ *The end of the line when the layout is exhibited in 'stand-alone' form. Shunting locomotive M231, depicted here a long way from the busy Newport Workshops frequented by the prototype, is a Lyndon's Trains kit on an SEM 'Black Beetle' chassis. The sideframes of the locomotive hide the fact the chassis has only four wheels and not the six of the prototype! The horsebox in the foreground was constructed from a VR Casts kit and is the only wagon on the layout that is not specifically mentioned in the timetable. Operating sessions see it move from one siding to another at the whim of the operator!*

◀ *A V/Line Passenger liveried P class diesel is shunting the yard to put together an outgoing train. The second wagon behind the loco is the small VR horsebox constructed from the VR Casts kit mentioned above and is about to have its rest disturbed once more. The grass-covered track is something often seen at prototype branch line locations, but seldom modelled.*

Twigg Rebuilt

***Martin Murden** renews an old exhibition layout. Photos by John Dennis.*

On the weekend of 15/16 August 1992, a young girl (Mandie) and her father (me) took *Twigg* to its first exhibition. Another August, 26 years later, saw *Twigg* being exhibited at the AMRA (Vic) Caulfield exhibition. While Mandie and I have done most of the exhibiting over the years, my wife Carol and our younger daughter Kylie have also participated.

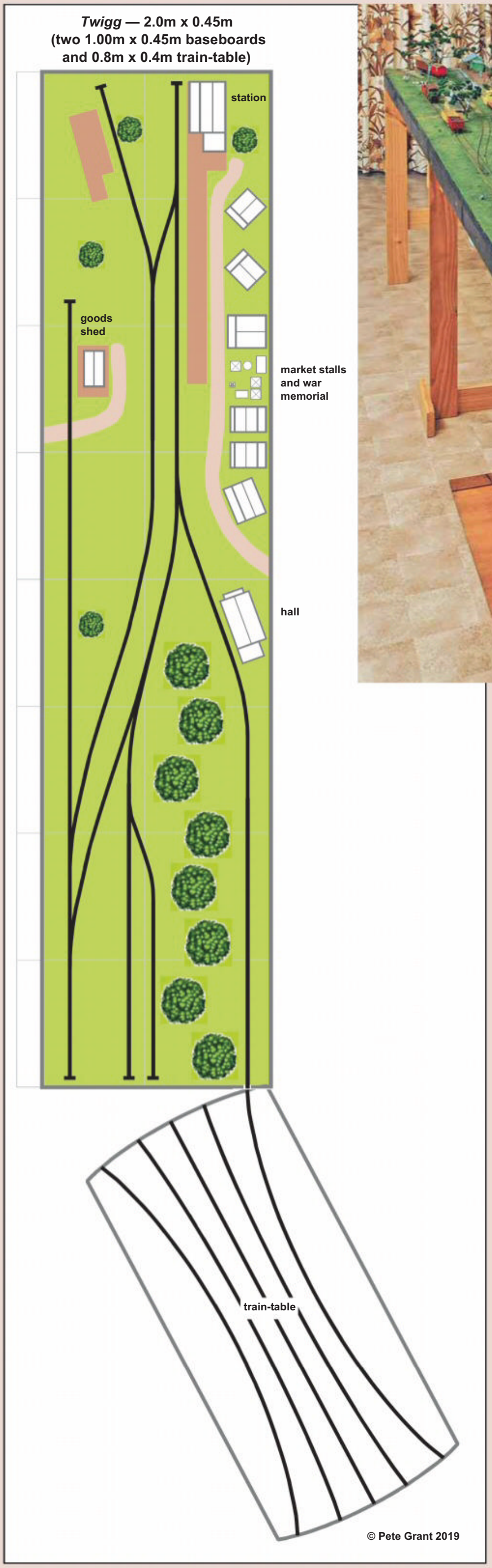
Over the years we made some changes to *Twigg*, such as extra people and flowering plants in the gardens of the houses, along with a fresh layer of scatter in differing colours as the existing cover faded. Plus, the total numbers of locomotives and rolling stock available for use on the layout have continued to grow.

Immediately after the 2017 Caulfield exhibition, we gave thought to the following year and assumed we would receive an invitation to exhibit. We did. We decided we would offer *Twigg*. *Little Chipping*, described in AMRM Issue 332 (October 2018), had been exhibited at the Caulfield exhibition in 2017 and *Leafy Bay*, described in AMRM Issue 214 (February 1999), in 2015. We had a break in 2016 – Mandie had her second child earlier that month and I was recovering from a knee operation!

We took a long look at *Twigg* and realised it would require significant work for us to be happy to exhibit it in 2018. One option was to start from scratch with new baseboards and track. The baseboards had been well built by my late father-in-law and did not need replacing and the track overall was still in good condition. We decided to retain the baseboards and track and renew the scenery.

Some Background

An article on *Twigg* appeared in AMRM Issue 182 (October 1993). The track plan was taken from the English magazine, *Model Railways*, and was originally designed for a layout size of 1.8m x 300mm. We increased this to 2m x 450mm, partly because we wanted some scenery as well as railway, but also because a 1m length baseboard (our 2m baseboard is two 1m sections, folded) will fit in most cars.



The layout set up at home in 'stand-alone' exhibition format. The 'train table' can hold five trains and has a 'complicated' wiring system consisting of two blue wires and associated crocodile clips! It rotates on a section of 50mm dowel and the track is lined up by eye for dispatching and receiving trains. Bolts are used to secure the 'train table' during transport. The 'train table' has been designed to be able to be attached to any of the author's three exhibition layouts.

At A Glance

Scale: HO

Prototype: Freelance VR-style country branch line

Period: Diesel era – no specific period

Layout Type: Terminus to fiddle yard exhibition layout

Layout Size: 2.0m x 450mm (without fiddle yard)

Rail Height from floor: 780mm

Baseboard: 40mm x 20mm pine frame with 12mm chipboard top covered with 6mm thick cork tiles, held up by 70mm x 18mm pine legs

Track: Peco code 100 Streamline

Control: DC

Structures: Scratchbuilt

Locomotives: R-T-R and kit-built

Rolling stock: kit-built, scratchbuilt and r-t-r

Builder: Martin and Mandie Murden

▶ *Another view, showing the 'scenic' section of the layout, which measures 2.0m x 450mm. The tracks disappearing under the grass cover and the new backscene makes a real difference to the appearance of the layout when compared with the old version (see the photos in AMRM Issue 182, October 1993). In the middle of the layout, the builder's smallest locomotive, a Massey Ferguson 6t diesel, can be discerned arriving with a train.*

Initially we used a system of cassettes to change trains, with the train running off stage behind part of the backscene. We subsequently replaced the cassettes by adding a train table – a multi track turntable that could hold five trains. This allowed us to move the backscene further back to allow the train to run in front of it.

The baseboards were originally recycled from an N gauge layout that I had at the time. The boards are 12mm chipboard covered with 6mm thick cork tiles. The frames are 42mm x 19mm pine and the legs are 70mm x 19mm pine.

Twigg was designed for shunting and from the outset this is what we have done. Our timetable has gradually grown from one that required two locomotives and 20 trains to a 100 train timetable requiring five locomotives.

We decided not to change the track plan and to leave the track as it was. There was, however, some work done in this area that is covered below.

Removal

The first thing to do was remove all of the people, animals, plants and trees. As we had used PVA glue when putting these items on the layout, it wasn't too difficult to remove them. A spray of some water, leave for a few minutes and lift off or pull out everything we wanted to remove. For the most part everything went smoothly, though a few of the trees proved a little difficult; they had taken root!

Once off the layout removed items were left to dry, after which we used a modelling knife with a sharp blade and a fine file to remove any scenic material that had come away from the layout at the same time. The people, animals and plants were then placed in a container to be looked at later. Some of the trees had got a little damaged when removing them, so they were disposed of. For the balance we took the foliage off and put the trees to one side.

We then removed the bulk of the buildings. Our intention was to remake these. The only items that remained were the station platform (this did have work done to it in situ), the loading dock (although quite basic, it was in ok condition) and the goods shed. The last was the first item built for the layout and was retained because of this. The only non-railway item to remain was the War Memorial. This was built from a three-piece Dapol kit and for some unknown reason it refused to budge. So we worked around it.

The scenery, as a whole, was given a good spray of water. After letting this soak in, we used some scrapers and chisels to remove much of the accumulated scatter material. It didn't all come off as it should and in some places we dug into the cork tiles. As a result the layout is not all flat. Then we were ready to begin the reconstruction.

Track and Points

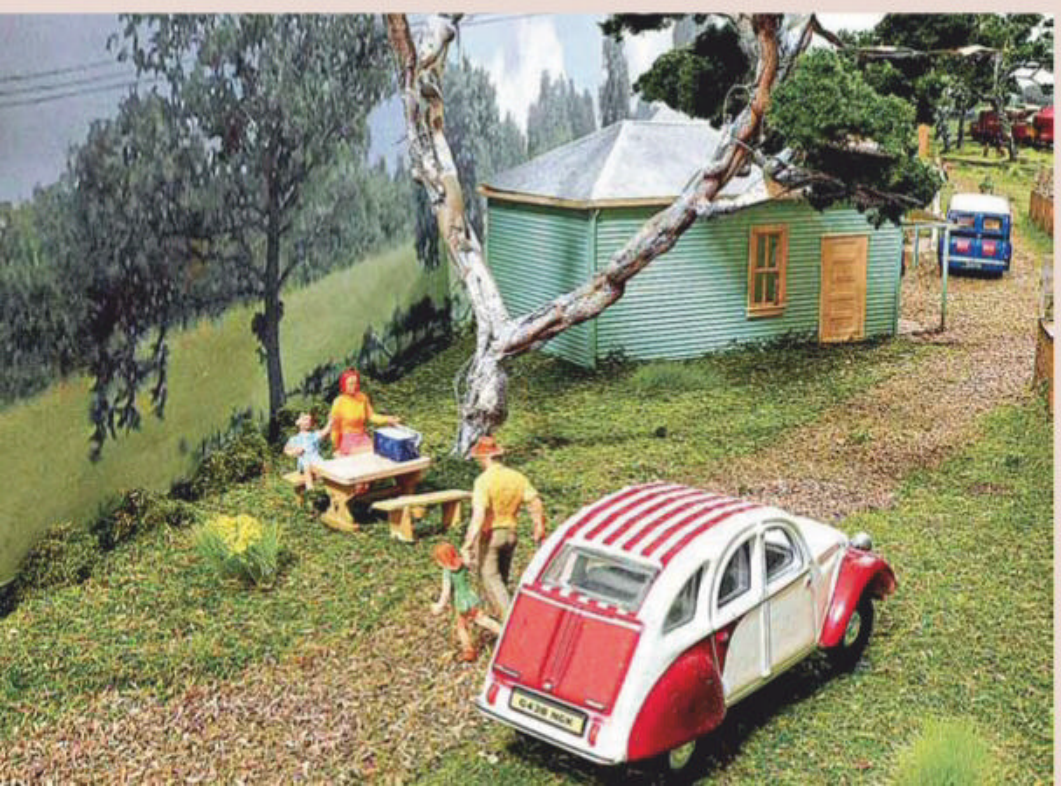
The track is Peco code 100. Points are live frog and are also from Peco. Points are operated using wire in a tube. We tested the track and points almost a year out from the exhibition and everything seemed fine. As we approached the Caulfield exhibition we started to experience problems with two points – the Y and one of the right-hand points. If either point was thrown for one particular direction, then every loco ran through smoothly. Thrown the other way there were problems. By the time we got to the exhibition, our three smallest locos were coming to a stop on both points. And two of our older locos (34 and 25 years old respectively) had difficulties with one set of points.

After careful consideration over the weekend of the show we decided the solution would be to replace them with new points. We picked these up from the Casula Hobbies stand at the exhibition. We carefully slid the rail joiners at the toe of each point back on to the connecting rail. A spray of water to loosen the ballast and we were able to lift the two points out. We cleaned the area where the points sat and left this to dry. The two new points were then positioned and ballasted, after testing first. The new wire in the tube worked first time!

There were a few areas of track that benefitted from some additional ballast. For our ballast we use a mix of plaster, sifted sand (from the beach at the end of the street) and used photo-

This cottage was built using the information contained in an article in the May/June 1976 issue of AMRM. The Fiat 500 is a ready-to-place model produced by German firm, Busch, as are some of the flowering plants. The rest of the plants were produced by All Scales Scenics. The chickens roaming in the yard were acquired at an exhibition many years ago and the manufacturer's name has been long forgotten!

These two houses were scratchbuilt, using articles in the April 1983 and May/June 1976 issues of this magazine. The plans for the latter were of a South Australian stone cottage, which the builder modified to be clad in weatherboard to better fit the modelled location. The figures are from Preiser, the Yucca plants are from All Scales Scenics and the plant in the middle of the scene is from Noch. When the model fence was put in place, it was glued on an angle and now has a few 'posts' prototypically holding it up.



copy toner to darken. This was put in place and glued using a watered down mixture of PVA and dishwashing liquid. Prior to putting any on points we put some Labelle 108 oil on the sleepers and changed the points a few times which results in the oil going under the rails and keeps the glue away.

When removing items from the layout, we took the opportunity to remove the buffer stops from the sidings. The set at the platform had been removed some time previously after we realised *Leafy Bay* was the terminus for the branch line and that *Twigg* was therefore a through station. *Twigg* can join to *Little Chipping* at the station end of the layout when we want to operate two stations.

The original buffers were a little flimsy – more than one had to be repaired over the years. We replaced these using 6mm dowel and some 3mm by 2mm timber left over from the *Little Chipping* trestle.

Backscene

Above, I referred to moving part of the backscene when we changed from cassettes for the trains. While moved towards the back of the layout, it didn't go the whole way. With the rebuild we ensured the backscene was at the back of the layout for the whole of the length of the baseboard.

Previously, the backscene was just painted blue for sky. We decided this would be changed and we would have 'something' there instead. The first step was to take a look through a few issues of this magazine to see what was advertised. We came across an advertisement for printed backscenes which were available through two hobby stores in Victoria. We went to one who showed us what was available. The main problem with what they had to offer was the printed backscenes were way too high for *Twigg* and couldn't be easily modified to fit.

The person behind the counter drew our attention to a range of printed backscenes that was the store's own product and we were informed the chosen item could be printed to a size that would suit us. Armed with details of the website and contact details we went away thinking another problem was about to be solved. Unfortunately, having decided which scene we wanted and the size, we sent an email and got no response. We tried to make contact a second time, but without success.

So some time was spent on the internet searching for printed backscenes which resulted in us placing an order with a firm in England. This came in two pieces, each 1.5m in length. We started positioning at the centre of the layout. For the part immediately behind the town we measured from the baseboard centre to the baseboard end. Prior to cutting we measured again and cut off the excess.

For the other baseboard we measured and cut. We then took the remaining part of the scene and cut this to fit the end obscuring the train table. We very carefully cut away the exit from the layout. As the scene was a little taller than the layout, we had to do a little trimming to get it to fit. We used wallpaper paste to fix the scene to the board. This allowed us time to adjust the scene as it was being fixed. We are very pleased with the outcome.

The change from blue sky to an actual scene has made a major difference to how the layout looks. The scene chosen is from a location a little north of Perth (Scotland, not WA!)

Previously, we had the dirt track/road run off to the back of the layout. The new backscene has no roads shown. This required an adjustment to be made when we put the new buildings on the layout and changed the road to leave at the end of the layout rather than the back.

Our next major project is going to be a renovation job for *Leafy Bay*. We haven't given much consideration to what is to

◀ *The author's wife, Carol, suggested this small part of the layout needed 'something' to complete it. The figures are from a box of about 100 unpainted Preiser people purchased many years ago. The picnic table and benches came from the same box. The esky was scratchbuilt from some leftover styrene. The car is an Oxford Models Citroën that was bought online due to availability issues with the Australian supplier. The building behind contains the offices of the accountants/solicitors.*

The Roco F class is shunting a recently arrived train. Behind the empty KQ container flat wagon is the market. The author replaced some of the original stalls with more modern style small marquees. The war memorial is a Dapol kit, which was retained from the old layout as it was so thoroughly fixed that it could not be removed! Other than the KQ (built following the article in AMRM Issue 103, July/August 1980), all the other wagons in this image were constructed from SEM kits.

take place other than to decide we will have a printed backscene. We will just have to find one that is suitable for a coastal town…

Buildings

We made the decision to replace all of the buildings removed from the layout with new models. One change we made this time was to use plain styrene for the rear of the buildings and not include doors/windows where they could not be seen. Apart from a small time saving in construction, there was also a cost saving.

Before starting, we purchased a supply of North Eastern Scale Lumber doors and windows of various sizes from the Casula Hobbies stand at the 2017 Caulfield exhibition. Our thinking was there would be a similarity of these items in a small town.

The buildings were all constructed using Evergreen clapboard siding and strips. For the roofs we used the last of our supply of BGB cardboard corrugated iron. The fencing around the buildings was in the main constructed from the Aus-Scene fencing kit. A small part was resurrected from the fencing removed from the old version of the layout. The station building is a model of that which once stood at Launching Place on the now closed Warburton line and was built using the article written by Laurie Jackson that appeared in AMRM Issue 50 (May/June 1971).

The non-railway buildings, from the station end of the layout are the accountants and solicitors (based on Ross Hurley's article *The Municipal Chambers* in AMRM Issue 75, November/December 1975), the butcher's and general store (both based on Harry Grosvenor's article, *Royals Store* in AMRM Issue 137, April 1986) two houses (Harry Grosvenor's *Aunty Maisie's* in AMRM Issue 119, April 1983), another house (Ross Hurley's *A Street in Macclesfield* AMRM Issue 78, May/June 1976) and the hall (Harry Grosvenor's *Wayneville Hall* in AMRM Issue 139, August 1986). The originals of the first and second last buildings were in stone. As our layout is located in Gippsland, Victoria, we converted them to timber. We used the articles as a basis from which to start (our windows and doors were a little different from those in the plans).

We did think about making different buildings, but unfortunately there have not been many small buildings featured in the magazine. Using small buildings allows us to get more onto the layout, making the township look larger.

For the platform, we replaced the fencing using some 3mm dowel we found at a craft shop for the uprights and cotton for the wires. The dowel was cut to a suitable length and then the pieces were placed into a small container in which we had put some watered-down acrylic grey paint. The dowel was left in this for a couple of weeks and looks weathered. The platform itself was repainted using acrylic paint labelled as 'mud'.

The Market

The market on the layout was originally built using a Faller kit and was looking very tired. We decided to replace much of it. We kept a trailer, one stall and a market umbrella. The items on the stall were removed and discarded. These three items were repainted and that certainly lifted them. I decided the stall would be a fruit stall and while I know you can buy scale fruit, there was none in stock at the one large hobby store we went to. The solution was to go to a craft shop which sold beads of a very small size for threading. We glued some of these into containers for the fruit stall and painted them to look like oranges and apples.

Freight Australia-liveried T400, a Powerline model, shunts a variety of rolling stock in the sidings. The van immediately behind the locomotive is a modified Lima body on an SEM chassis. The other wagons and the carriage have also been constructed from SEM kits. Despite the backscene being a location near Perth in Scotland (UK), it fits in beautifully with the layout's supposed Victorian location.

The Freight Australia-liveried T400 enters the yard with its train, passing the community hall, shaded by the branches of a few nearby trees. The trees were made using picture hanging wire and a hot glue gun, then painted with a variety of brown, grey and white paint before Woodland Scenics foliage was attached. The bogie cattle wagon was scratchbuilt as was the hall, which used Campbell's windows and doors to speed construction.

A couple of years ago Carol and I went to Lakes Entrance for a few days. I went into the newsagents and picked up a copy of *Railway Modeller*, a magazine I don't usually buy but, as a special promotion, there was a Wills kit for a market trader's barrow included. This was made and has been included as part of the market. I noted the next time Carol and I went to a local market, a number of stall holders had gazebos to shield them and their goods from the weather. Once home, out came a sheet of 0.010" styrene and some styrene strips and after a couple of practice runs, we had made three! Some of the original market tables were modified to fit and given a fresh coat of paint and a couple of new ones made. We also kept the trays of produce from the original market. These were painted to freshen them up.

One stand was made to represent a plant seller. There were a few plants left over from a packet of wildflowers from Noch that we bought some years previously, plus we added some yucca plants from All Scale Scenics that we purchased from Ozrail Model Trains in South Australia.

Scenery – Ground

One of the first decisions made with regard to ground cover was the layout would have a road that would allow a car to travel on it. We purchased a small bag of Noch Arable Land Brown scatter from Metro Hobbies. Using a 10mm paintbrush (the road is wider than this) we painted PVA glue over the area marked as being the road. We borrowed a wire tea strainer from the kitchen and sifted the scatter over the glue. When dry, we vacuumed the excess off (many years ago we bought a battery operated vacuum cleaner for the computer. I think it has only ever been used for the layouts!) We reglued the road and, using the tea strainer, applied the excess scatter. After 26 years we finally put a roadway to the goods shed and the loading dock. This was done using the same material.

We made a mix of Woodland Scenics Fine Turf Green, Burnt Green and Earth. Enough to do a small section of the layout. Again, out came the paintbrush and PVA glue applied to a small area. When dried the excess was removed. The area was partly reglued and the scatter applied. And so we continued around the layout. Every time we removed excess scatter, we added more of the three colours to the mix before continuing. This gave some small variations.

Next we sifted some Noch Static Flower Meadow Grass over much of the layout. We left this off the garden area around the houses. We used a mix of PVA glue, water and dishwashing liquid applied with an eye dropper to hold this in place. Once this had dried we then glued pieces of Woodland Scenics Coarse Grass Light and Dark Green, Southern Cross Railway Hobbies Wild Grass Tufts Purple Flower, All Scale Scenics Flowering Meadow Yellow and MiniNatur Long Tufts Spring randomly across the layout. Finally we glued some Peco 6mm Autumn Grass around the buffer stops.

Scenery – Trees

Most of the trees removed from the layout were kept. We replaced four and made three extras. Removing the foliage had resulted in some 'bark' being removed. This was replaced using the hot glue gun and some grey paint. The shift in the backscene's position meant there was some extra space to fill. We used the same method to make the new trees; multi-strand picture hanging wire was used to create the trunk and branches of the trees. These were covered using the hot glue gun and then painted. Adding bark this way allows the branches to be moved when the trees are being positioned. We used a combination of Humbrol enamel white, browns and greys and some old paintbrushes. Once we were happy with the outcome, foliage was added. This was Woodland Scenics Medium Green.

The new trees for the rear of the layout were made a little smaller than those in front. As we didn't make note of where each of the existing trees belonged on the layout, replanting has given a slightly different look to the layout.

Holes were drilled and filled with PVA glue. Trees were then inserted. Some needed supporting as they dried. We planted two or three trees at a time. This made it easier to adjust branches when subsequent trees were planted. Once they were all in place, we added some extra scatter material around the bases.

People, Animals and Vehicles

The original dirt track/road was a little too narrow to place vehicles on it. The new road is slightly wider. We purchased a small vehicle, a Fiat 500 (a Busch model), from Hearns Hobbies in Melbourne. As a result of realigning buildings to allow for the change in where the road left the layout, a space appeared in which Carol suggested a van could be placed. While in England a couple of years ago we had gone to the Transport Museum in London where we had purchased a suitable vehicle, made by Oxford models, from their shop.

In regard to the third vehicle, the Citroën, this was purchased along with a vehicle for *Leafy Bay*. It is from Oxford Models and was purchased from an English shop. We try to support Australian shops when we can, but when a representative of the distributor tells you it will be three months before they can supply me with the required van, then I will shop elsewhere. The Citroën was added to the order placed with an English hobby store as there was no extra postage cost and ten days later we had the two vehicles.

Having cleaned up the animals when they were removed from the layout, we decided to use most of these again. The Australian animals were metal castings purchased at a model railway exhibition prior to starting the construction of the original version of *Twigg*. The cows and pigs were, however, replaced by new items from Woodland Scenics and Bachmann respectively. Those not used were put aside for another day. In our spares box were some goats, from Kerroby Models, if my memory is correct. These were put onto the layout to replace the sheep.

The people originally on the layout had, in the main, been painted by Mandie and myself. We kept most of them and added

An overhead view of most of the layout with the most recently acquired locomotive, P11, adorned in V/Line 'cheeseburger' colours, arriving with a goods train. The van to the left, from Oxford Models, was purchased at the London Transport Museum at wife, Carol's, suggestion during a family overseas trip. With the exception of just one wagon, the KQ container flat in the train, all other wagons were constructed from SEM kits.

a few extras from Langley and Preiser. There are about 60 people in total. We left some of the people in the same position as they had occupied previously. This included a couple of cameos we had made many years ago. Others were moved around.

Carol suggested a family having a picnic would be nice, near the end of the layout where the road ran. Many years ago we had purchased some boxes of unpainted people. I had a look in the box containing those unpainted as yet and found a table suitable for a park. Some bench style seats were made from styrene. A picnic box was also made and appropriate people added and another cameo was created.

Conclusion

In many respects we now have a new layout. It certainly looks different from before. As an alternative to scrapping the layout and building a new layout, refurbishing has enabled us to have a new layout with less work and expense.

The gable-roofed, corrugated iron-clad goods shed at Naracoorte in the south east of South Australia. In subsequent articles in this series, the author will show how he constructed a shorter version of this design of SAR goods shed in HO scale. Photo by Gavin Thrum.

A Bloke Needs a Shed...
Pt 1

***Don Bishop** describes the various types of SAR goods shed prior to constructing a model. Photos by the author, unless otherwise indicated.*

The Prototype SAR Goods Sheds

Australian railways built goods sheds at most major stations for the safe storage of goods entrusted to them for transport. Look through any station diagrams and you'll find them marked, very often accompanied by a freight office, an extended goods platform and a derrick crane. The SAR built these sheds in a variety of shapes, sizes and materials so we will start with a brief overview of the prototypes.

In the fledgling colony of South Australia, stone was a readily available building material, but good timber was scarce (particularly compared with the eastern states), and with industry still being established, corrugated iron was also in short supply, so the early goods sheds were built from stone, in two styles:
The classic round (or barrel) roofed, stone through shed (the track passed through the shed) – Hawker, Hoyleton, Mt Barker, Orroroo, Strathalbyn and Peterborough. The original sheds at Aldgate and Nairne were also of this design.
Gable roofed, stone through shed – Roseworthy, Freeling, Fords, Gawler, Kapunda, Manoora, Merildin and Victor Harbor.

In the fullness of time, that universal Australian building material, "galvo" or corrugated galvanised iron, became more readily available, and the railways realised that timber framed, iron-clad goods sheds were much cheaper to build and still kept out the rain and the burglars, so some new styles were introduced:
Round-roof, iron-clad, through shed – Bordertown, Eudunda, Hallet, Murray Bridge, Quorn, Snowtown and Tarlee.
Round-roof, iron-clad shed – Angaston, Georgetown, Tantanoola, Tanunda, Tarlee, sometimes with a second arched roof over the track as at Nuriootpa and Stockport [Photos 1, 2 and 3].
Gable roof, iron-clad through shed – Auburn, Birdwood, Bowmans, Bridgewater, Clare, Frances, Gladstone, Goolwa, Kadina, Keith, Minnipa, Naracoorte, Penola, Red Hill, Renmark, Robertstown, Sedan, Spalding, Terowie, Tintinara, Mt Gambier, Mt Lofty, Wallaroo, Willunga and Wilmington [Photo 4].

With the arrival of the SAR's new Commissioner W A Webb in 1922, the broad gauge locos and rolling stock grew in size, and many goods sheds were altered to accommodate the larger loading gauge.

Victor Harbor, or Victor Harbour as the SAR called it, is one example. The original stone arches over the track, along with the masonry above them, were removed, steel lintels were inserted and the stonework was then rebuilt. The Mt Barker shed was similarly mistreated, and many

charming stone sheds such as those at Kapunda, Manoora and Merildin suffered the indignity of having the masonry over the track replaced with corrugated iron [Photo 5].

The stone sheds at Aldgate and Nairne were originally of the round-roof design. These were even more harshly treated, being totally demolished over the track and fitted with ugly skillion roofs. Fortunately, the magnificent shed at Strathalbyn remains intact [Photo 6]. I understand that in the economic environment within which railways must operate, the SAR had little choice but to do what it did to these buildings, but it seems a shame that they had to be so badly mutilated.

Most of the timber-framed, iron-clad sheds fared much better. Rather than the horizontal line to the underside of the cladding over the rail [Photos 7 and 8], some locations had an inverted vee shape following the profile of the roof structure [Photo 4], or as in the unusual case at Robertstown, a reverse curve. Whether this was the original design or a later modification, I am unable to say. There has been a suggestion that this inverted vee profile may have been associated with the gauge widening in the southeast of the state, but it pops up on the broad gauge at Terowie, and the always narrow gauge at Wilmington, both in the mid north, so the jury is still out on this one.

These sheds could be quite large, as per the shed at Naracoorte, a monster that was twelve bays long, assuming 10′ (3.05m) bays, that's a whopping 120′ (36.58m) [header photo and Photo 9]. The SAR General Appendix listed the infringements on their minimum structure gauge, and in spite of these alterations, the goods sheds featured prominently in their 'hit list'.

There are two categories I have not yet mentioned:

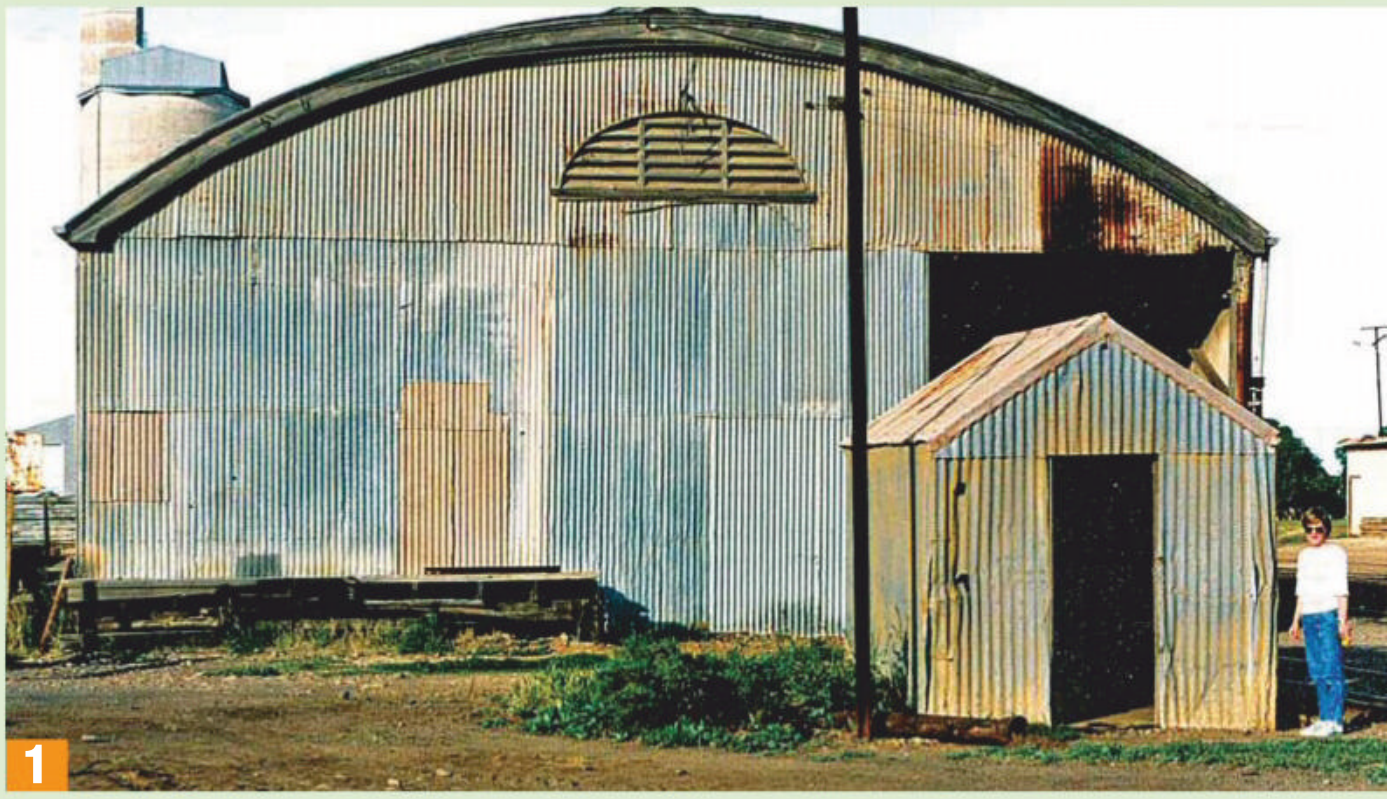
Skillion roof, stone shed – Aldgate and Nairne after alterations to increase clearance.

Skillion roof, iron-clad shed – Mt Mary.

It may be that these resulted from demolition of the roof structures and walls over the track, and this was never a deliberate style originally, they just evolved. I don't really know the exact details, but as long as they existed during the period one is modelling, they are valid modelling subjects. Morgan appears to have had two skillion roof goods sheds. Many goods sheds had a freight office attached to one end. These varied considerably in size and style.

Then, of course, there were the odd ones, like the weatherboard-clad, gable roof shed at Mt Pleasant. There was also Lyndoch, where the SAR had 'two bob' each way when it built a round-roof, iron-clad goods shed with a gable roof over the track. Murray Bridge wharf had a barrel (round)-roof, iron-clad through shed with two tracks.

Until the gauge-widening in the State's south east, Wolseley was a break of gauge



The round (barrel) roof iron-clad goods shed at Quorn.

The double barrel roof design, illustrated by the now demolished goods shed at Nuriootpa, photographed in 1981.

The barrel roofed goods shed at Tarlee, complete with large roof vent and dwarf stone wall holding up the rail-side timber-framed corrugated iron-clad wall.

The goods shed at Keith illustrates a somewhat uncommon asymmetrical roof line and it also has diagonal braces to the outer wall. It also features the inverted 'V' shaped cut-out above the track to accommodate larger Webb-era rolling stock. There are also classic SAR platform lights standing guard over the long-disused loading platform. Photo by John Dennis.

The gable roof stone goods shed at Manoora, altered to accommodate Webb's larger rolling stock by the removal of the stonework over the track and replacement with corrugated iron to the new loading gauge.

The classic SAR barrel roof stone goods shed at Strathalbyn in 1987, still with the original stone arch over the track intact.

station, so the goods shed acted as a transfer shed, straddling the goods platform with a through track each side. Later a rather strange looking transfer shed was built in the transfer yards on the other side of the station. After the gauge was widened in the south east, both sheds were demolished.

The above list of locations is based on photos I have seen, and by no means covers all the goods sheds of the SAR. I have omitted the large facilities that existed at Mile End and Port Pirie, as these were quite different, and outside the scope of most modellers' real estate budget.

Not only the sheds varied in style, so did the platforms. Earth-filled platforms topped with bitumen paving were the most common, the fill being retained with stone walls, or sleeper retaining walls, held in place with sleepers [Photo 7] or rail posts [Photo 8]. Some platform faces have a concrete appearance, most probably cast in-situ concrete [Photo 10]. Some goods sheds were built on timber-framed platforms, most often with the attendant platform extension being earth filled [Photos 7 and 8].

To be continued

▶ *The goods shed and loading platform at Spalding in May 1972, showing the open timber framing under the goods shed building and the old sleeper retaining wall around the earth-filled loading platform. These three bay, 30′ sheds were designated 2nd class structures. Photo by Peter Fehlberg.*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▶ *The three bay (30') goods shed at Berri in 1975 which has a straight top to the section over the track, rather than the inverted V form often seen. This shed also has an open timber frame under the shed itself, while the loading platform is from earth fill with old rail and sleepers holding the earth in place. Photo by Peter Fehlberg.*


8

◣ *A detail photograph of the 120′ (36.6m) long gable-roofed, corrugated iron-clad goods shed at Naracoorte. Photo by Peter Knife.*


9

▼ *The road side of the goods shed at Keith. This building was constructed on a concrete-faced platform and had a freight office attached to the far end of the building. Photo by John Dennis.*


10

IN THE LOOP

Control Panels

***Trevor Hodges** creates attractive and useful control panels. Photo by the author.*

You don't have to push a member of my generation all that hard to get them to open up about their favourite childhood television shows. I was sitting with a good friend of mine drinking coffee recently and he was reminiscing about a show from his childhood by the name of *Combat*, starring Vic Morrow. He'd been given the complete boxed set of DVDs of this program as a Christmas gift and he was telling me about how he'd enjoyed watching five or six episodes in a row over the Christmas break with one of his granddaughters sitting next to him. The poor child probably hadn't been warned that the world used to be black and white in the 'olden days' because she promptly fell asleep in his lap. In spite of only about three years difference in our ages I have no recollection of *Combat*, much to my friend's chagrin.

So I make no claim to speak for my entire generation when I say that for my childhood friends and me, *the* show to watch was *Lost In Space*. Not much else came close to the magnetic draw of Will Robinson, Dr Smith and the robot as far as we were concerned (with the possible exception of Barbara Eden in *I Dream of Jeanie*, although that was for completely different reasons). In spite of all the adventures, monsters and exciting technology like ray guns that appeared in *Lost In Space* the thing that had the strongest effect on me was the tracked 'chariot' vehicle the family drove around on their alien world.

As a nine year old, I would have given anything to get a chance to drive that little space rover: for me it was always about getting my hands on the controls of a space vehicle like the *Lost In Space* Chariot and failing that, the Spindrift spacecraft from *Land Of The Giants*. It's pretty clear that these TV shows had a deep psychological impact on me, because as I started to build my new layout I couldn't wait to start installing the control panels. For me, getting the design and placement of the control panels right is a significant factor in whether or not a layout can be judged a success in an operational sense.

My formative TV viewing habits came back to me as I started putting some real work into two of the control panels *The Morpeth Line* needs before it's ready for use as an operational layout. However, in spite of the layout not being fully ready, this hasn't stopped me becoming involved in an operating group. In AMRM Issue 336 (June 2019) I wrote about a couple of friends and me getting together over several weeks to construct some turnouts [*In The Loop: 'Unbuildable' Kits, Varying Skill Levels and Mobilising Your Mates–Editor*].

When the turnouts were completed, these get-togethers evolved into regular gatherings of a group of modellers interested in operation, which we've christened the *"Borderline Operators"*. The group has grown to six members and we meet at each other's homes to operate our various layouts on the first Wednesday of each month. While the name of the group will probably come as no surprise to anyone who knows us, the real explanation for the name is that we're spread across quite a wide area close to either side of the NSW/Qld border. For me at least, giving our operating group a name is a small tribute to Ron Cunningham's *Branchline Ramblers*, whom I've read about over many years in this magazine during the 1990s and early 2000s.

I've hosted three separate operating sessions on *The Morpeth Line* with the Borderline Operators in attendance, although at one of these the trains refused to run, so I suppose this one doesn't really count! After 20 years of trouble-free service my main power supply inexplicably decided it was time to call it quits. Even with hiccups like this, what became apparent very quickly was that my visiting operators were struggling to throw turnouts and determine which way a turnout was set using the throttles and accessory addresses on my DCC system (I have an NCE system and use Switch 8s on the layout). What worked fine for me to throw an occasional turnout as I laid and tested the track didn't work so well with four guest operators in the room who were unfamiliar with the layout. After a couple of hours of them running trains with me bouncing around trying to troubleshoot and answer dozens of questions I was exhausted. Something had to change!

The last time I installed multiple control panels on a large home layout was on *Trundlemore* in the mid-1990s and it's been an interesting exercise for me to reflect on what has and hasn't changed in the time since I installed those panels. Perhaps what most clearly hasn't changed from the panels on *Trundlemore* is that I have a preference for high contrast colours on my panels; I like white lines to represent the track on a black background. All my panels for the past 30 years have been made in approximately the same way; I use a piece of thin sheet material such as 3mm MDF, spray paint this white, mask off the lines representing the track and then overspray this with black semi-gloss paint from a rattle can. I mount this on a thin wooden frame (in the case of the new panels this consisted of some 12mm x 12mm pine) and then attach this board to a box made from 12mm plywood, cut and sized to the location, using wood hinges.

The panels on *Trundlemore* were mounted on the fascia at an angle that was only about eight degrees from the vertical and, even though I was in my 30s at the time, my operators and I found these difficult to see and use. People tend to stand close to the edge of layouts when they run trains and the waist high panels on *Trundlemore* required an operator to take a step backward into the aisle and look down with their necks at a fairly acute angle to see the buttons or switches on them.

I started out designing these *Trundlemore* panels to allow the layout to operate using Cab Control (a system of control that broke the layout into blocks that would allow up to four controllers to operate trains through a fairly complicated system of rotary dials). About twelve months into building the layout, Lenz released its first DCC system and I think I managed to get my hands on one of these very early systems within a month of first reading about them.

Cab Control and I parted ways before we really got to know each other, but the design of the panels was always a bit of a compromise after this change, as the way components and switches were arranged reflected a method of control that was never fully implemented on the layout. There were holes for dials that weren't there and there were no LEDs to indicate turnout position, in spite of the fact that many of the turnouts were out of sight, hidden behind a low backdrop.

In those days I had eyes that would allow me to see which way a turnout was thrown at a distance of 3m or more. Those days are long gone! As for stationary decoders, I'm not sure

they'd actually been invented at that early stage and LEDs were a strange, foreign concept that I felt comfortable ignoring at the time. I did get to the stage of implementing two diode matrix setups to allow the throwing of multiple solenoid turnout motors with the push of one button. However, I was still struggling to get this to operate reliably when I had to move and dismantle the layout.

The panels on *The Morpeth Line* might look fairly similar to those I built for *Trundlemore*, but the similar appearance is just on the surface. I watched a couple of YouTube videos of the panels you can produce using such systems as the one marketed by DCC Concepts and these look and operate beautifully, if the footage is any guide. However, I'm happy with my home brewed job, so the panels on *The Morpeth Line* have a similar 'family' look to the ones that were on *Trundlemore*. Before I started making the panels for *The Morpeth Line* (there will be four main yard panels and three or four small sub panels when they're all installed) I came up with a list of criteria that they needed to satisfy:

High contrasting background and line colours for easy visibility.

All main yard panels would be mounted relatively flat with only a slight slope from the horizontal. I determined that a slope of about 8° was ideal.

All panels will be 'tucked' into the layout so they don't project into the aisle, thus becoming a choke point where operators pass. This is yet to be fully realised because one of the panels does sit out in the aisle, but there is a rebuild in the planning stages to overcome this.

All turnouts will be thrown via stationary decoders installed inside the panel's box housing. This allows all turnouts to be thrown either by pushing a button on the relevant control panel or by entering a DCC address via a hand-held throttle. Thus, an operator who needs to throw a turnout when he or she is not standing next to the panel can do so without having to walk back to the panel.

Turnouts will all have LEDs to indicate routes. When you push a button to throw a turnout the LED should change from one route to the other. I don't use bi-coloured LEDs so the operator doesn't have to interpret what a red or green coloured light might mean. All LEDs are the same colour and if the route is lit, the road is selected.

All the main panels will have high contrast labels that allow operators to easily identify an industry they are shunting and offer other basic information such as the name of the yard they're working in. I printed the labels as white, water slide decals using my Alps printer and applied these to the black, semi gloss surface of the panels, which I then over-sprayed with a clear high gloss lacquer. I'm aware that not everyone has access to an Alps printer and, under these circumstances, black writing printed on normal photocopy paper cut into small labels and glued to the panels would have worked just as well.

I tried to ensure that the panels were all large enough to allow for the set out of buttons and other components in a manner that avoided crowding. I feel I've achieved this on two of the three panels I've installed so far, but the panel at *Queens Wharf* is still a little too small for my liking.

I wanted operators to be able to select a route to/from the storage roads via the push of a single button. I'm pleased to say that I managed to achieve this with the installation of an NCE Mini-Panel, two Switch 8s and a lot of head scratching and several phone calls to a friend for advice with programming the Mini-Panel.

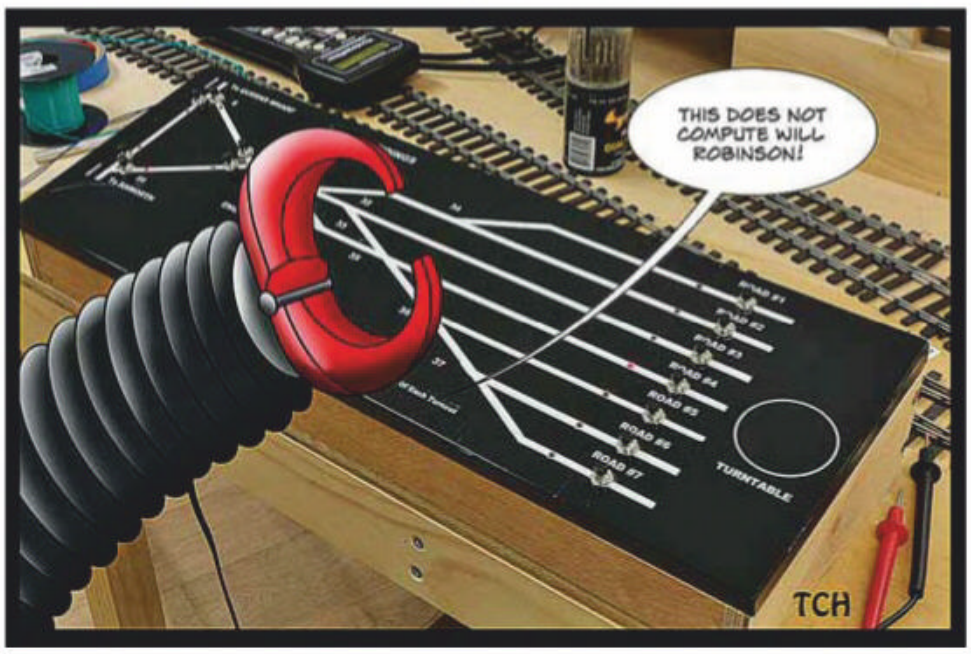
All the panels would be solidly mounted to the layout, so that when they were used by an operator, or worked on, they stayed put. I have a bit of a thing about wobbly or loose control panels!

As far as is possible, I wanted the panels to look neat, be hard wearing and be logically laid out so they were easy to read and understand. I feel strongly that when an operator visits my layout they want to run trains, they don't want to have me hovering over their shoulders answering questions about the idiosyncrasies of the railway. If after an initial introduction, someone who has no familiarity with the layout can pick up a throttle and shunt a couple of wagons, or pull a train out of the storage lines with no input from me, then I'll be satisfied that I've achieved my aim. I want the layout to offer challenges to anyone who runs trains on it, not be a headache to operate.

I started work on making and installing the two new control panels about four weeks out from my most recent scheduled turn to host the Borderline Operators. About three days from deadline I emailed them via our email group to admit defeat and inform them there was no way I was going to be finished in time. They all attended anyway and ate the BBQ lunch I laid on with little sign of protest. One of them had brought a couple of locos he wanted to test on the layout and it was only when they refused to run that I realised I had a power problem, discovering with some later investigation that my main power pack had turned up its toes. So even if I had managed to get the new panels installed in time, we wouldn't have been able to operate trains. I offered to host another gathering a month later and thankfully things went a lot smoother on that occasion. I'd finished installing the new panels and a replacement 5A power pack from DCC Concepts had turned up in the mail and had been installed.

As a boy I spent hours poring over Märklin catalogues, *Railway Modeller*, as well as Kalmbach books, and I have little doubt that it was these sources of information that created the image in my brain of what building and operating a layout would look like; to have a layout you had to have a control panel with switches and lights to make things work. However, I'm equally convinced that it was watching *Lost In Space* that made me want to be involved in this hobby, build my own layouts and have my own control panels. I couldn't build a space ship, but I could build a train layout. To be at the controls of a space ship, to have exciting adventures and to take yourself off to imagined worlds you had to have your hands on the controls, lights had to flash and buttons had to be pushed!

Imagining myself at the controls of a space ship and the hobby of railway modelling somehow merged in my mind into a hobby that has kept me enraptured for something like fifty years and when you have a throttle in your hand and reach down to a button that throws a turnout, aren't you on an adventure to another place and another time? You can't ask much more from a hobby than that!



WESTERN AUSTRALIAN LOCOMOTIVES

The R Class 4-4-2 Steam Locomotives of the WAGR

__Phil Knife__ scratchbuilds a locomotive with a very unusual wheel arrangement (for Australia) in Sn3½.

Photos as credited.

The Prototype

Towards the end of the nineteenth century the Western Australian Government Railways (WAGR) saw a need for faster and more powerful passenger locomotives. The 3'6" (1067mm) gauge main line network now extended north, east and south of Perth, with heavy passenger traffic, particularly east to the goldfields around Coolgardie and Kalgoorlie.

Designs were prepared for a 4-4-0 tender locomotive for this traffic and an order placed with Dübs & Co. in the UK for twelve engines in 1896. These new locomotives entered traffic in two groups of six in 1897 and were designated as the R class, numbered 144-155. They were an immediate success, leading to the order for twelve more from Dübs in 1897. This second order all entered traffic in 1899, numbered 174-179 and 227-232. The R class were big locomotives for their time and rode on 4'9" (1.45m) coupled wheels, the largest driving wheels used on the WAGR.

These new locomotives became the premier express passenger and mail engines. They were painted royal blue and sported polished brass dome, boiler bands and safety valve mounting. They must have been quite a sight to behold in their early days! They continued to work

The Model

My model is in Sn3½, that is 1:64 scale with a track gauge of 16.5mm to represent the 3'6" of the prototype. It is built to depict R174 (the first loco of the second order) as a 4-4-2 in its final years of active service in the early 1950s. The superstructure and tender of the model is completely scratch-built, except for boiler fittings and loco and tender bogie side frames obtained as castings from Railwest Models in Perth.

The chassis is also scratchbuilt, except for Markits wheels, Mashima can motor and Comet Models 36:1 gearbox. The chassis side frames are brass strip, the boiler rolled from sheet brass and the remainder of the bodywork built from styrene sheet. Like all my Sn3½ locos, R174 is DCC fitted and has a Digitrax sound decoder.

Building the model was relatively straightforward. I always begin with the chassis, on the basis that if you haven't got a proper working chassis it's not worth starting on the body. More importantly though, the completed chassis needs to fit into the body and this allows trial fitting during the body-building process. I find that there is a lot of trial and error fitting involved in any model I build. I use styrene for the main bodywork as I find it easy to work – it can be filed, drilled, bent and strongly welded with MEK – and the finished surface looks like metal under a coat of paint.

On the other hand, I always prefer to use metal (either nickel silver or brass) where moving parts are involved, such as the main chassis frames, coupling rods and valve gear. While plastic tubing can be used for boilers if the correct size is available, I do prefer a rolled brass boiler or metal tube to provide a sound 'keel' for the loco body.

The R class is an attractive, if simple, classic British nineteenth century colonial locomotive. As such it is plain in outline and not festooned with much plumbing, but the sloping footplate at the front and angled cylinders require care in replicating. Traditionally, in building a model of a British-type locomotive body the whole structure is built up on a flat footplate as a base. Not so with an angled footplate such as this one.

My solution with this model was to make the footplate part of the chassis, building the body above that as a separate unit based on the boiler. In fact, in this loco it is only the completed boiler that detaches from the footplate – even the cab is firmly attached to it. At least by removing the boiler, access can be gained to the motor and gearbox, should that be necessary. The footplate, cab and wheel

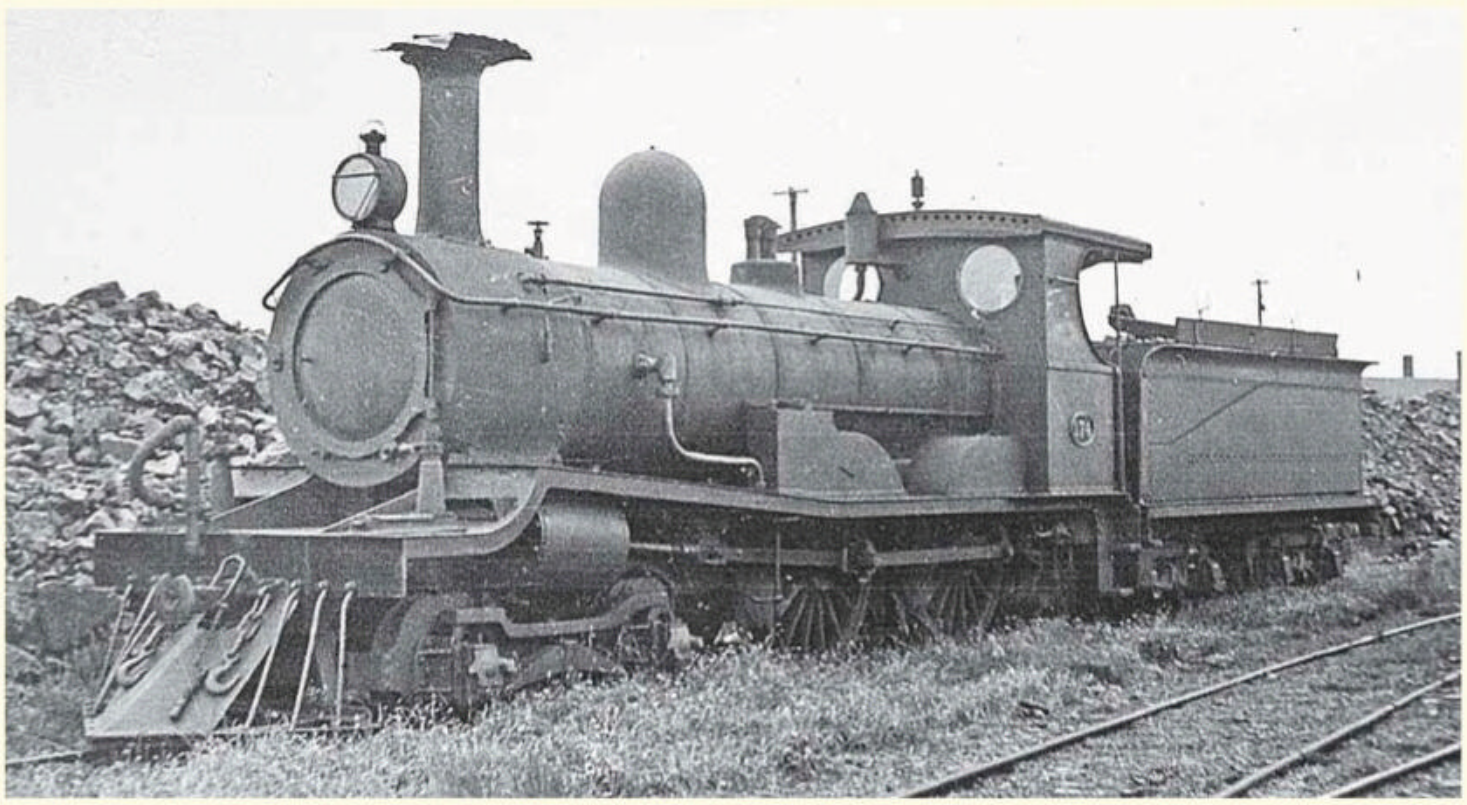
express passenger trains on the Eastern and Northern railways for the next five years or so until superseded by newer and larger classes, then remained in service on the less important passenger, mail and mixed trains.

Two of the class, R174 and R228, achieved fame in 1907, together with a third engine, when a special train was run by relay from Perth to Coolgardie carrying divers and rescue equipment. A miner had been trapped in the flooded Westralia East Extension mine and the divers and their equipment were needed without delay. The special train did the 350 mile (563km) journey in 13 hours, compared with the normal express train time of 17 hours. Yes, the miner was rescued.

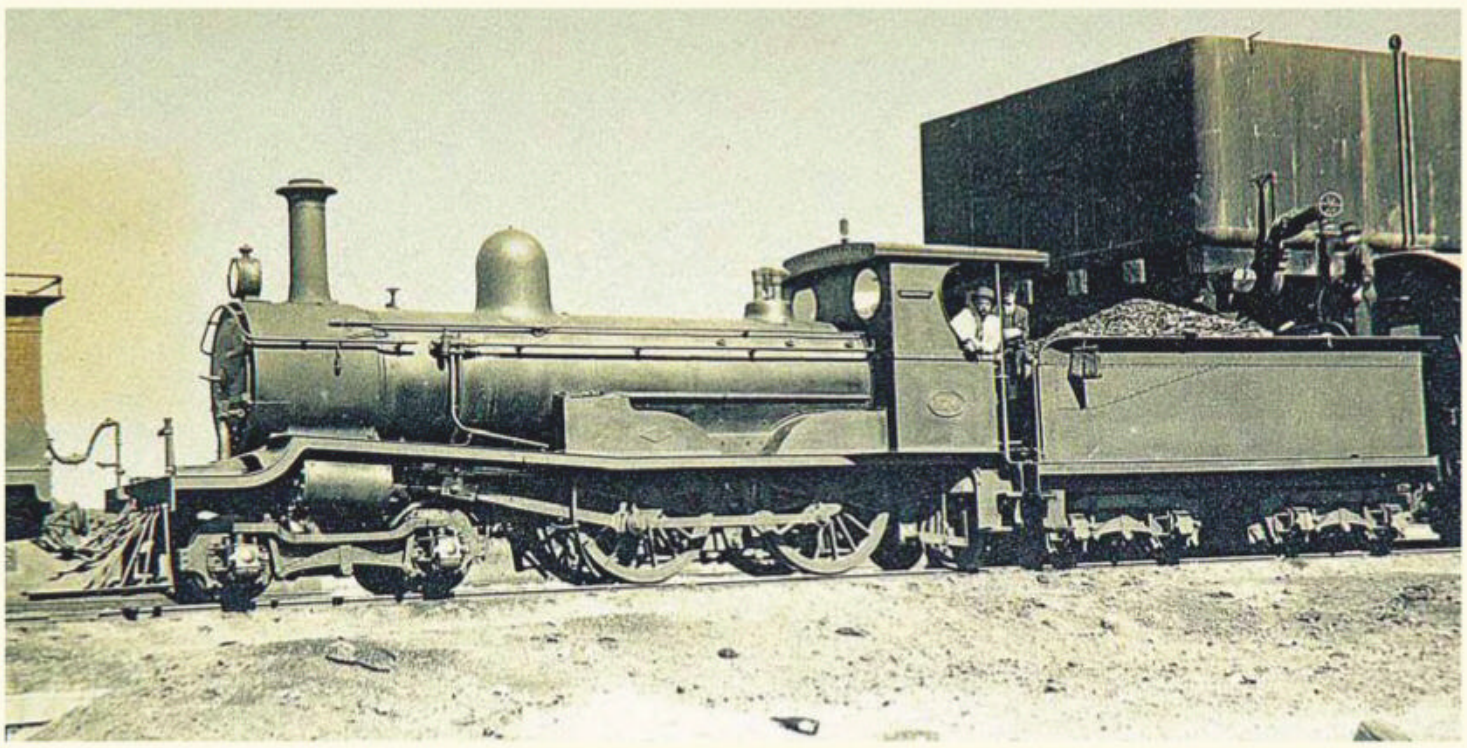
By 1909 most of the main lines had been upgraded to 60lb rail, but the southern lines to Albany and Bunbury still had sections of only 46¼lb rail. It wasn't until 1914 that rail replacement in these sections was completed and, in the meantime, the Mechanical Branch sought means of using existing heavy rail engines on these light lines.

Twelve R class engines were taken in hand in 1909-10 and converted to the 4-4-2 wheel arrangement by the addition of a trailing axle close behind the rear

Preserved R174 at the Bassendean Railway Museum in 2010. These two pictures show the sorry state in which the loco was received at the museum after its time on display at the Midland Centrepoint shopping centre from 1972. The tender was in an even sorrier state and was not available for photographing. Photos by the author.



Ra174 in storage at an unknown location, circa 1926. Photo from the Rail Heritage WA collection (ref: P01633).



Ra174 taking water at Boondi, on the Eastern Goldfields line to Kalgoorlie, while working the down 'Kalgoorlie Express', circa 1926. The discarded beer bottle would make an interesting detail in a modelled scene! Photo from the Rail Heritage WA collection (ref: P01655).

R174 painted Royal blue, as originally preserved and placed on display outside the Railway Institute at Midland Junction between 1956 and 1972. Photo from the Rail Heritage WA collection.

coupled wheel. This was connected to the rear coupled axle springs by a compensating beam which, with further compensating arrangements with the front bogie, reduced the maximum axle load from 11 to 9½ tons. In this form they were re-classified as Ra class. Essentially these converted locos were 4-4-0s with an additional axle to reduce the weight on the driving wheels, not a true 'Atlantic' wheel arrangement (an 'Atlantic' type is usually defined as having the firebox behind the driving wheels, supported by the trailing carrying wheelset).

Over the years 1922-26 eighteen of the twenty four R and Ra class engines were written off. Of the remaining six, two were already Ra form, while the remaining four were so converted, leaving six Ra class locomotives for light lines passenger and mail traffic. In 1933 all six were re-classified R class, while retaining the 4-4-2 wheel arrangement. By 1948 all six had been withdrawn, but R174 was returned to service later that year after light repairs and remained so until 1953. On withdrawal it was 'unrebuilt' to original condition as a 4-4-0, painted royal blue and in 1956 placed on display outside the Railway Institute at Midland Junction. It was again moved in 1972, when the Midland workshops closed, to the nearby Centrepoint shopping centre.

After years on display it had deteriorated quite badly, but was eventually moved to the Rail Heritage Museum at Bassendean where restoration work was begun. I must acknowledge Adrian Gunzburg's foundational book *A History of WAGR Steam Locomotives* (ARHSWA 1984) as the source of this historical material. Without Adrian's extensive research work and authorship, I could never have built my model.

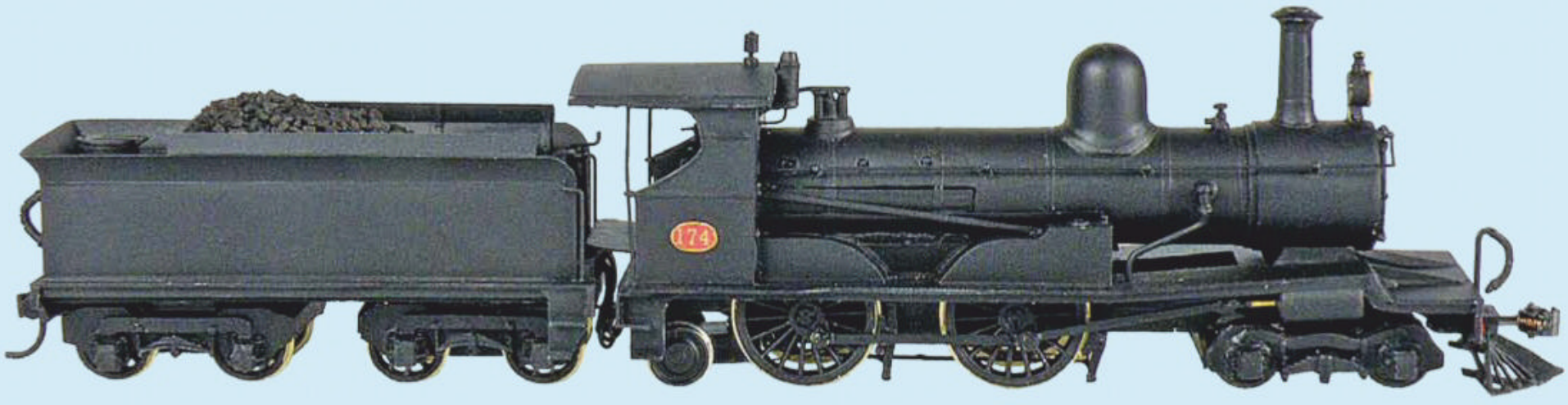
splashers rely on the main frames for rigidity, while the boiler when in place provides strength to the whole locomotive.

The tender is basically a styrene box containing the sound decoder and speaker. As with all my locomotives, the tender bogie wheels are live to the right hand rail and the loco wheels live to the left hand rail. To facilitate this, the tender bogies have an internal brass frame providing power pickup through the axles, wired to the decoder. The outside bogie frames are urethane castings which are decorative and carry no weight. The only tricky part in the tender's construction was forming the curved 'raves' at the top of the sides – but it's worth getting this right if the tender is to look authentic. Wiring from the decoder to the loco pickup, motor power and headlight is made to look like water and vacuum brake pipes between the loco and tender.

Final detailing can make or break a model, especially for a locomotive as plain and simple in outline as this R class model. I have tried to add as much visible detailing as I can, including details inside the cab. What I have not done so far is to add the lines of rivets on the tender visible in photos – although thankfully older British-built locomotives usually have flush rivets which are not visible – and I have yet to add an engine crew. Otherwise I am satisfied that my model looks somewhere near what the photos of the originals reveal.

I will point out that detailed drawings were not available to me as I built this model. I used the weight diagram from Adrian Gunzburg's book, backed up by as many photos of the originals as I could find. Certainly I had the advantage of access to R174 at Bassendean, although this particular loco had been rebuilt back to a 4-4-0. The sound decoder adds a new dimension to this model for me. I was able to load a British two-cylinder steam locomotive sound file to the decoder, which has the appropriate sounds for a vacuum braked loco with the traditional British high-pitched 'squeak' whistle sound.

Overall, this has been a most enjoyable project; it has given me a lovely model of an attractive locomotive that is unlikely to be found on everyone else's layout! Having said that I should beware – my scratchbuilt Midland Railway of WA (MRWA) 2-8-2 [*Described in AMRM Issue 336, June 2019 – Editor*] was followed shortly afterward by a lovely kit of that class from X Class Models!



Mailbag

Exhibitions:
The Management View

I read with interest Trevor Hodges' *In the Loop* column, *The Exhibition Experience* in AMRM Issue 340 (February 2020). I appreciate Trevor's comment regarding the apparent sameness of layouts on the exhibition circuit, however I must point out that these layouts take time to create, with the standard of exhibits now so high it takes considerable time to produce a layout to meet these requirements. Having said that, some exhibitors do produce new layouts on a regular basis; some small ones are often seen for a couple of exhibitions and then are changed. However many exhibitors do take their layouts to as many exhibitions as possible to try to recoup some part of their initial expenses.

On the other hand, having managed and planned 18 exhibitions, between 1992 and 2009, at Springwood NSW, it was very difficult to strike a balance between what the exhibitor would accept as payment and what the organising committee is able to pay to ensure a good return. At Springwood we would accept the display of the same (unaltered) layout for a maximum of two years running. If the layout was extremely good then we would invite that exhibitor back for a third time, but usually after a break of a year or more.

We had a good group of regular exhibitors who were happy with this arrangement and most would then produce another layout to display, often repeating the process over the life of the exhibition. As far as accommodation was concerned, if the exhibitors lived nearby they would usually return home each night. However, if they had to travel some distance they were allowed to either stay in their own caravan onsite or else they would be billeted out to local families for the weekend. Lunch was provided free to all exhibitors on both days and a snack supper was provided for those who wished to remain after close on Friday and Saturday evenings.

I too met the late Geoff Nott, whose standard of modelling was indeed extremely high. Geoff was, in fact, a theatrical stage set designer by trade, skills which definitely served him well in the creation of his marvellous exhibits, despite his freely admitting that he was not really a train enthusiast!

On a lighter note, at one exhibition a group had arranged for a British prototype 'banana' shaped layout, based around a very well-known English coastal lighthouse, to attend the show. They duly arrived around 18:00 on the Friday night to set up and were almost complete about two hours later. At midnight I would walk around the hall to ensure all exhibitors had left for the night, so that the hall could be locked up. I walked up to this particular layout and found the operators all underneath trying to find a short circuit that was preventing any trains from running. They had checked the layout before arrival and all was working OK. As I was about to walk away I noticed a large steel file lying on top of the exhibit. Thinking that they knew of its existence, I casually observed "*Don't forget the file on top*". I then asked if they could leave and try to find the fault early the next morning before the exhibition opened to the public. Upon my arrival on the Saturday morning, I found that there were indeed trains running on this layout. When I asked if they had found their fault one of the crew sheepishly replied "*Yes, it was the @#$%!* file!*"

Garry Kahler
Moss Vale 2577

Picton Milk Pots

Congratulations on a wonderful magazine. I look forward to it every two months!

I have been following the correspondence on the Picton Milk Pots with interest. As a student at Hurlstone Agricultural High at Glenfield, I was in a position to see the passing parade on the up and down main lines.

On 24 May each year (the old Empire Day/Commonwealth Day), we day students were permitted a half-day holiday from lessons. The

NSWGR had most graciously timed the Picton Milk Pots to arrive at Glenfield, very conveniently a few minutes after school was abandoned for the day.

Imagine, if you will, over 250 high school students suddenly descending on the four-car (if we were lucky) train of 'dog boxes', which always already seemed to have a reasonable loading of paying passengers. That the toilets accommodated students was a foregone conclusion. They were literally crowded into the compartments with other passengers, but we never seemed to hear any complaints (after all, most detrained at Liverpool). There were always amused looks on the faces of the station master, guard and engine crews on viewing this spectacle!

After a year or so, my address was changed to Campbelltown, so we would stand on the opposite platform and offer the Liverpool-bound students various comments (not always polite) on how to join the train. But the absolute 'up-side' was watching and listening to the old 32 class 4-6-0 locomotives start up the grade, usually slipping, with a syncopated exhaust.

I also remember 30 class 4-6-4 tank locomotives taking the milk pots out to Menangle early in the morning, usually returning when it was time for me to walk to Campbelltown station (I got a 30 class lift sometimes).

My brother and I also had the best view of the Camden Tram, living, as we did, very near the main line Up Accept signal to the south of Campbelltown. We had a great view of the grade out of town up Kidd's Hill. Early morning in winter brought many stalls, then a reverse back to Campbelltown for another attempt at the grade. A ride to Camden was always a 'must'. The first day of January 1963 was a sad day with the last run of the Camden Tram...

Added to the above for youthful viewing pleasure were all the light blue S & M Fox International Harvester trucks queued up at the Campbelltown coal loader (dumping into the rail hoppers directly) stretching up and over Kidd's Hill, plus 60 class Garratts on the Glenlee 'coalies', 38 class on the expresses, as well as a myriad of other trains. We even saw the first NSW run of the *Spirit of Progress*, spectacularly hauled by 3830 and 3813. Boy, that was a great looking train!

Ken Littlefair
Campbelltown 2560

An example of the Electrotren 0-6-0T steam locomotive, 'R.B.Acena', 0222 (item code E0045). Photo courtesy Hornby.

Cleaning wheels

Many thanks to Jonathan Majer for the description of his method to clean non-powered wheels on rolling stock [*'Cleaning Unpowered Electrical Pickup Wheels', p.38, AMRM Issue 339, December 2019–Editor*]. I have now employed the same method on my rolling stock and it exceeded expectations! I have made a minor modification though: instead of skimming the wheels with a scalpel blade, I use a piece of track rubber to clean the wheels. I find that with my lack of fine motor skills it may be less harsh on the material – my first attempt with a scalpel left some unpleasant nicks in the wheel's rolling surface!

Alex Hempel
Mount Mort 4340

Modelling South Coast NSW Coal Trains

I noted the image of the soon to be released Bellambi 10t coal hopper kit by Redfern Works on p.60 of the *News* section of AMRM Issue 340 (February 2020). I expect some readers may be wondering what is a suitable locomotive to haul these hoppers?

Electrotren make a lovely HO scale 0-6-0 side tank steam locomotive (item code E0045) which is very similar in appearance to South Bulli No.2. I have one on my layout, fitted with Kadee No.17 couplers. In fact, I have three different Electrotren 0-6-0 locomotives which I use for shunting on my industrial sidings (modeller's license), all fitted with Kadees. They are great running locos and reasonably powerful for their size. The price also is very good, so a motivated 'kit-basher' would not take much of a financial risk. I have elected to leave my loco 'as is' (unaltered), though it will soon be fitted with a crew.

Angus Webster
Moss Vale 2577

Angus Webster's Electrotren 0-6-0T 'near-enough' South Bulli No.2, as referred to in his adjacent letter, delivering three Silvermaz/Trax four-wheel coal hoppers, loaded with genuine Lithgow Seam Coal, to the power station on his HO scale 'West of Lithgow' layout. In the foreground, the local union secretary (standing in the rear of the ute) addresses the 'comrades' about a very contentious issue.

MAILBAG

Australian MODEL RAILWAY Magazine welcomes letters on any pertinent model railway subject for inclusion in Mailbag. Letters should be sent to Mailbag, SCR Publications, PO Box 345, Matraville 2036, emailed to amrmagzn@tpg.com.au or faxed to (02) 9661 4323. All Mailbag contributions must include the writer's name, address and phone number to permit verification. Contributions without this information will not be considered for publication.

Editor

A small South Australian Railways waiting shed fitted with ridge capping, as described in this article.

Make Ridge Capping for Model Buildings

***Don Bishop** takes us through the method he uses to produce realistic ridge capping for his HO scale buildings. Photos by the author.*

It has often been said that accurate modelling of the top/roof of a model is important as we generally view our models from above. This is particularly true of buildings. The ridge capping applied to buildings where corrugated iron is used as the roofing material is one area that does attract attention, so it is worthwhile doing a decent job of it.

The generally accepted method of producing ridge capping is to cut a piece of paper into a strip, make a sharp fold along the centre and apply this over the roof cladding at the ridge. There is nothing wrong with this method provided it is neatly carried out. Other methods that reproduce the more correct roll along the centre of the capping are often proposed and usually involve applying the basic folded capping, then fitting some form of strip (wire or styrene rod) along the centre. My attempts at this generally led to failure to keep everything together and produced a wobbly looking roll top that was anything but satisfactory.

Looking for something a little simpler, but still producing the roll along the centre of the capping, I have worked up a method that provides a more detailed ridge capping profile in one piece.

Basically, the method is to cut a strip of suitable material and form it over a jig before cutting it to length and applying it to the roof. This does require the manufacture of a jig, but that process is not particularly onerous and it will serve you well, particularly if you intend to knock up a number of buildings.

My jig consists of a piece of 12mm x 12mm brass angle (I think this is used as edging for tile laying) with a piece of 1mm diameter brass rod soldered along the external corner of the angle. The solder is then cleaned up with a file or scraper and finished with some fine abrasive paper.

The ideal jig would be about 130mm long (mine is a bit short) and made from 20mm or 30mm wide brass strip folded through about 60°. This would look better than the 90° angle, giving a flashing angle closer to the average roof pitch.

Aluminium foil is then cut to a width of 7mm (24" in HO scale) centralized by eye on the jig and formed by running your fingers along it, using your thumb nail to get the foil right into the edge of the roll top. Any distortion caused by cutting the capping to length can be corrected by placing it back over the jig and giving it a bit of a rub.

The components needed to create ridge capping. From the rear, new and burned out tea-light candles, the jig described in the text, a strip of foil wrapper from a tea-light candle, a strip cut to width ready for forming, then a strip of ridge capping folded up ready for attaching to a roof.

I initially used aluminium cooking foil for this. It does give a very good finished capping, but is very delicate, and even with careful handling tends to dent easily. Unless you are producing a museum-quality model that is going to be very carefully handled, I can't recommend it. If you can get hold of some heavy-duty cooking foil it might be worth a try, though.

I now use the wrapper section of the little foil containers for tea-light candles. This is much stronger than the cooking foil, but still easily worked. Once the candle has burnt out, it is quite easy to pop out the remaining wax and then cut the wrapper from the base, which will yield a strip of foil about 12mm wide and 110mm long. A couple of romantic candle-lit dinners should provide enough foil for the average model and the bonus is that you should get some brownie points on the home front as well!

Let the candle burn right down as this removes most of the wax from the foil.

The only real difficulty I have come across is fixing the capping to the roof cladding. The first requirement is to drag the foil (before forming it) over some fine abrasive paper to remove any remaining wax and give the surface a bit of texture, then painting the underside with matt paint so the glue will adhere to it.

I have tried a number of different adhesives including spray glue, but it is terribly messy. I keep coming back to common old PVA glue (Selleys Aquadhere) for fixing to corrugated card roofing. If you are using another material for your roofing (styrene or corrugated foil), I suggest you use a contact cement, such as Selleys water-based Kwik Grip, lightly coating both surfaces and then bringing them together after five minutes or so. Don't leave it too long as you can only apply limited pressure to the ridge capping. You will probably need to keep

rubbing it down until the adhesive starts to set. Adjust the angle to suit your roof slope before fixing the flashing. Don't attempt to lap the capping at the joints as it is too thick – just butt the pieces together. Finally, paint in conjunction with the roof cladding.

If you have any valleys on your roof, strips of the same foil folded to the correct angle (but without the roll) laid into the valley of the roof, just as on the prototype, will give a nice finish.

More ridge capping applied to the gable roof of a model of the Farmer's Union building that still stands on Railway Terrace in the Adelaide suburb of Mile End.

Track Droppers and Ballast

***Roger Lloyd** suggests an easier way to wire up track and lay ballast. Photos by the author.*

I was inspired to write this short article by another interesting column from Trevor Hodges' *In the Loop* series; *Track* in AMRM Issue 338 (October 2019). Trevor stated that he runs a dropper from every piece of track on his layout, no matter how small and insignificant it is. However, Trevor does not relate how he attaches the droppers to the rail. The assumed answer is that the droppers are soldered. This then raises the question; how do you solder the droppers?

Many years ago, I volunteered to work on our large club layout. Tracklaying was an enjoyable task, as you could immediately see the results of your efforts, unlike wiring which takes far more time, but the results are not very visible. The result is that the track was laid first and the wiring followed. Thus we soldered the droppers to the outside of the rail by first tinning the rail and wire and, hopefully, a good joint was made. The dropper was threaded through a hole drilled in the track base.

The disadvantage of this method is that you can easily damage the plastic sleepers near the solder joint either through applying excessive heat or accidentally touching the sleepers with the hot iron. This prevents movement of the rail during expansion and contraction. Such movement is desirable, as mentioned by Trevor.

Another problem is that in wide yards or remote locations it is hard to reach and be able to see the outside of the far rail. Finally, no matter how good a solderer you are, the wire dropper does not look prototypical and, at worst, looks like what it is – a wire with a blob of solder! Finally, if you paint the sides of the rail a rusty colour before you lay the track, e.g. to avoid overspray onto scenery, the 'rust' needs to be removed prior to soldering the dropper.

1

The track is upside down and the small connecting plastic has been removed. Because this is very old track, previously ballasted, the underside of the rail needed filing to polish it.

When laying track for a friend (he had a narrow shelf along a wall to take trains from one level to another) the problem was that it was impossible to get my head in such a position that I could see what I was doing when soldering the droppers on the far side rail near the wall. So I changed my method to soldering the droppers before I laid the track.

First of all, one needs to check that the location of the droppers is not going to be over a track base support. On the work bench, I turned the track upside down, removed the plastic joining piece between two adjacent sleepers, spread the sleepers apart just a little more, tinned the base of the rail and soldered the dropper to the bottom of the rail. I prefer to use single strand wire for droppers. Telephone wire is quite suitable. Make the droppers long enough to reach the track power bus [Photo 1].

Lay the track in position, mark where the droppers are and then drill suitably sized holes for the droppers. The droppers are then threaded through the holes and the track then pushed into the adjoining track's rail joiners. A tug on the droppers from underneath will pull the track into position (and also will test the solder joint – if the dropper pulls off, nothing harmed. Just start again). If you make the holes about 2mm diameter, this gives enough play to enable the track to be positioned exactly in the correct location. The end result is that the droppers are out of sight and one's back does not suffer from bending over into difficult locations [Photo 2].

Another advantage of this method is that it is easier to use my ballast laying method – spreading the ballast with a small funnel. Just about every article I have read on ballast laying talks about spooning ballast onto the track and then using a brush to spread the ballast. What a slow and untidy method! All that is needed is a funnel to suit the gauge of track [Photo 3] and an empty tin can to hold the ballast. The funnel I use for HO track has a spout diameter of 12.5mm. I have two smaller funnels with spout diameters of 10mm and a tiny one with a diameter of only 5.6mm.

It is best to first apply the ballast between the rails. Place the funnel between the rails, tip ballast into the funnel and

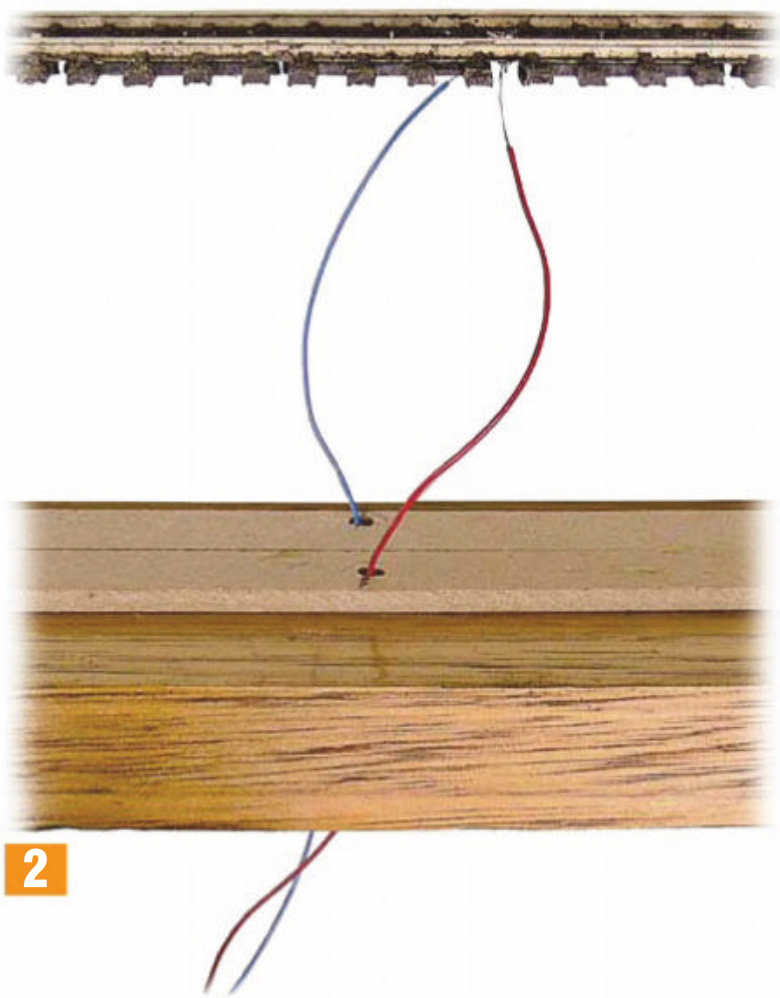
then run the funnel along the track. As the funnel empties, tip more ballast into it. With practice, you can judge how much is needed when you get to the end of the track. If you have too much ballast when you get to the end, you can slip an Exacto tool or similar with a chisel blade under the spout. Use a brush to spread the ballast more evenly and to remove ballast from the tops of the sleepers for old laid track [Photo 4].

The sides are done next. Hold the funnel against the web of the rail, tip in the ballast and then run the funnel along the rail. This forms a very even sloped side. A gentle brushing along the tops of the tracks will remove any excess ballast [Photo 5].

The final step is to spray 'wet' water (water with a drop or two of liquid detergent) over the newly ballasted track and apply your favourite water-based glue to secure everything in place.

3

▲ *Three sizes of funnels used by the author, depending on the volume of ballasting required. The smallest is suitable for small ballasting jobs in the larger scales and also suitable for the majority of the work needed for Z scale!*

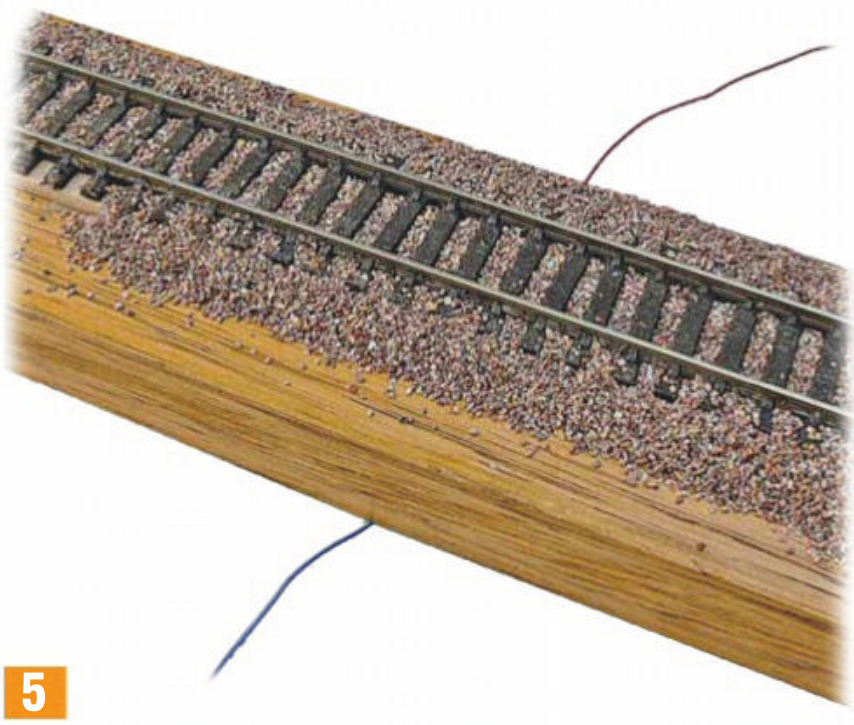


2

◀ *The droppers have been soldered and fed into the holes drilled in the baseboard. The wires are colour coded, making it easier to identify which rail is which when attaching the droppers to the track bus.*

4

◀ *Firstly, between the rails was ballasted and then the far side was done. Here the near side is in progress. The author used the smaller funnel for this side as this produced a narrower formation. The ballast used here was Chuck's Ballast Karuah fine.*



5

▶ *For the purpose of illustrating the process for this article, the author stopped applying ballast on the near side. Once the photo was taken, the ballasting was completed and tidied up with a light brushing to remove any excess ballast.*

1

BEYOND THE FENCE

Salvation Army Halls

Phil Jeffery *suggests looking beyond the mainstream denominations when choosing a suitable religious building to model. Photos by the author.*

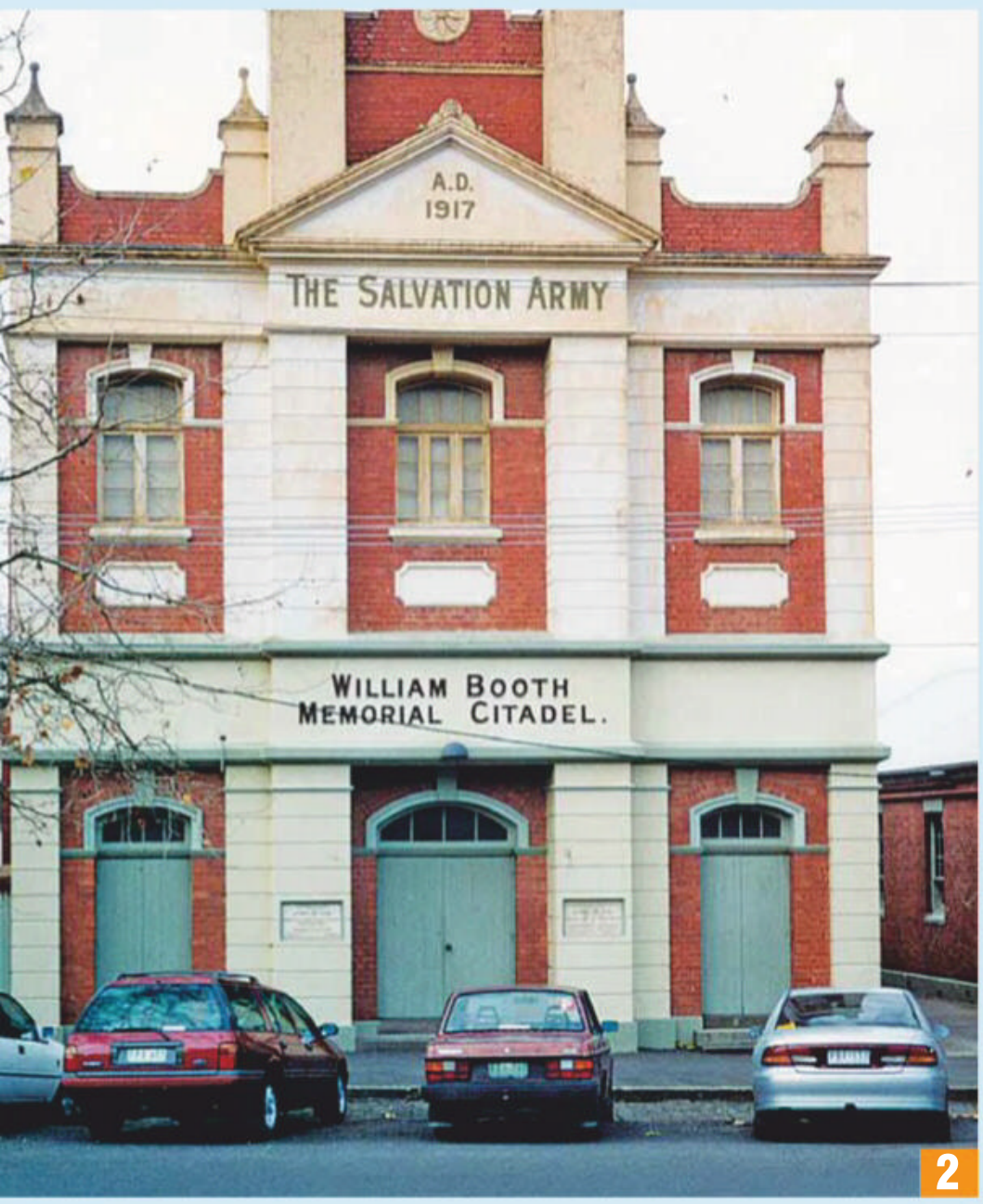
Since the first *Beyond the Fence* article appeared in the AMRM Issue 256 (February 2006) [*Beyond the Fence – Bright (Victoria)–Editor*], I have received all sorts of interesting material. Some of it has been featured in past BtF articles, for example Peter Twiddy's Clunes Dairy and Max Burke's Nyah West photographs. Max alone has enough material to be able to illustrate *Beyond the Fence* articles for two or three years!

A while ago at a Victorian Model Railway Society meeting, Lance Cross arrived with a bundle of papers, which he gave to me saying *"You might find these interesting. I don't need them"*.

Many layouts have a church in the modelled town, but I have yet to see a Salvation Army or IOOF hall, a Masonic temple or a Jewish synagogue. Indeed, Railway Institute buildings, Mechanics Institutes/Public Libraries and Scout Halls are also rare to non-existent.

To address part of this, I present here some of my photos and the Lance Cross drawings of Salvation Army buildings from early in the twentieth century.

Photos 1 to 3 show two adjacent buildings, dedicated in 1917,



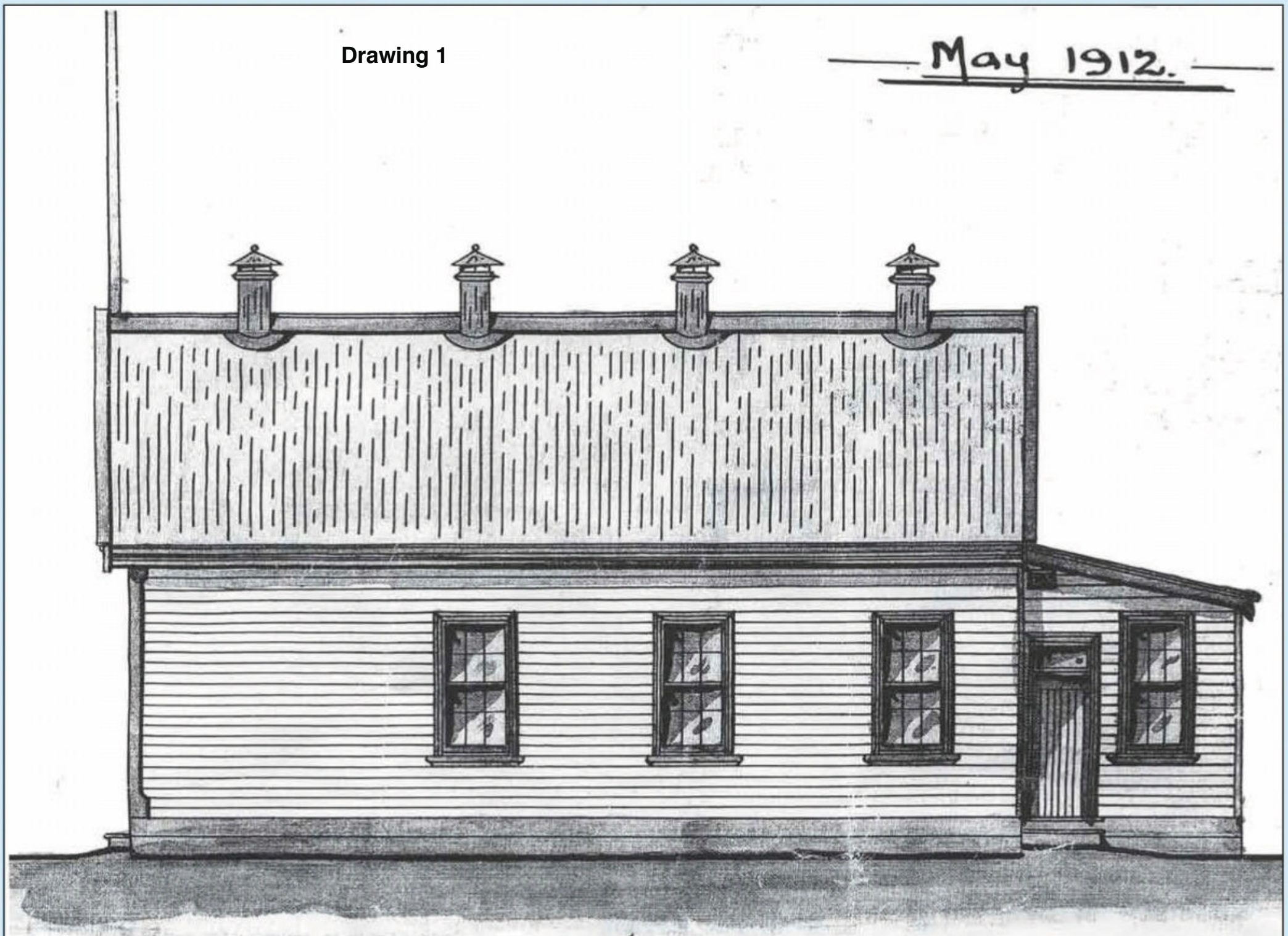
2

The two adjacent Salvation Army buildings at Ballarat mentioned in the text.

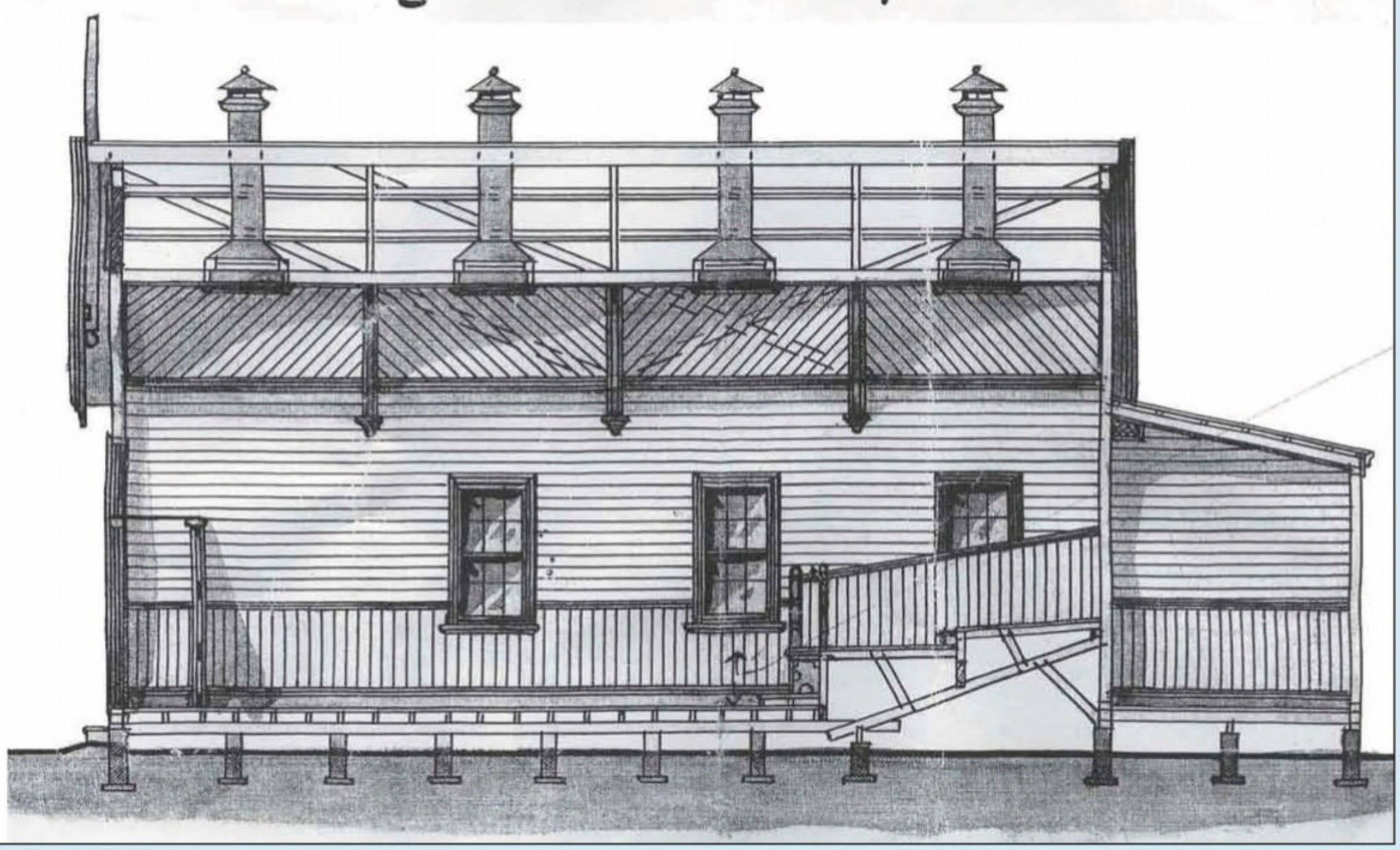
3

Drawing 1

May 1912.

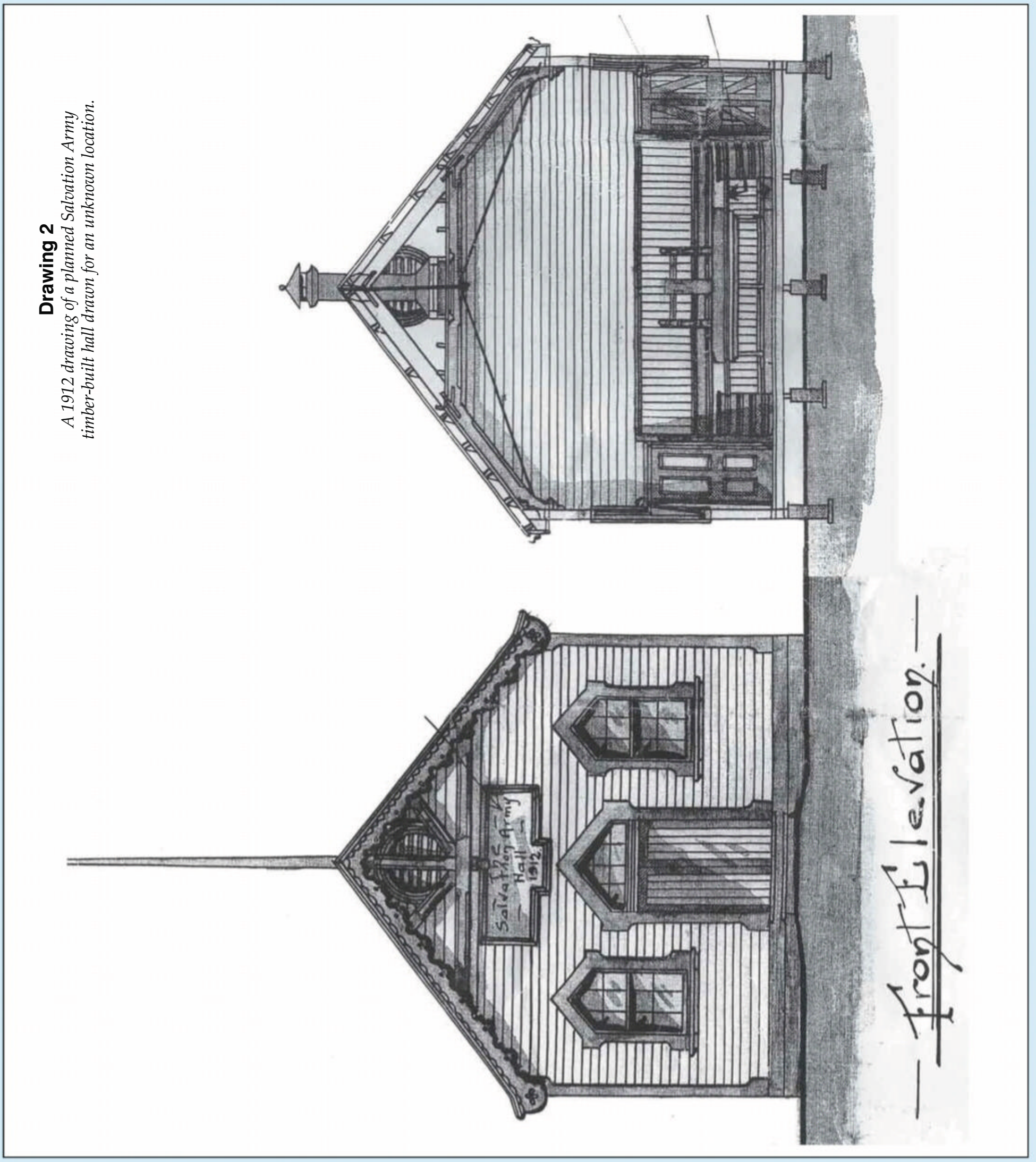


Side Elevation.



Drawing 2

A 1912 drawing of a planned Salvation Army timber-built hall drawn for an unknown location.

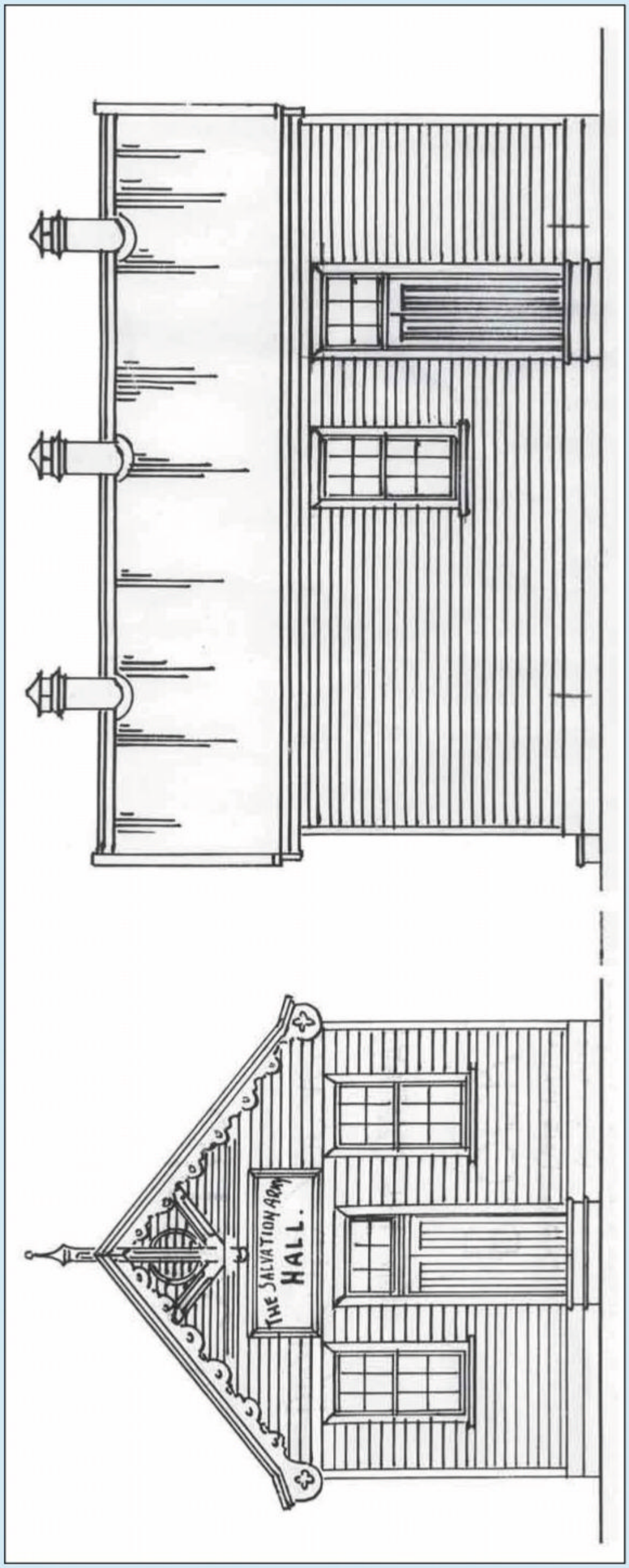


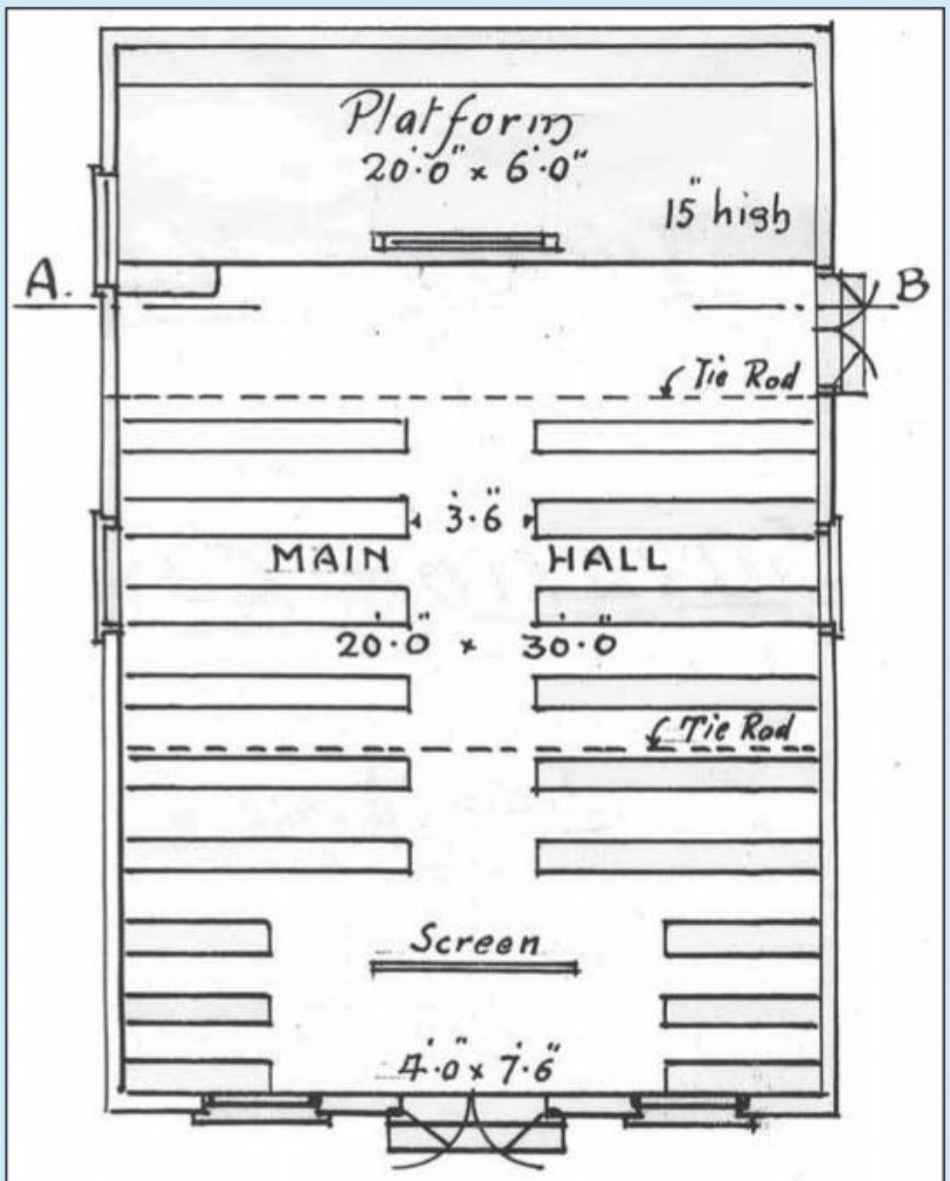
from Ballarat. The impressive brick and concrete facades are relatively shallow with the buildings behind them only being single storey. Space-starved modellers could model only the front two-storey section. The power pole shown in Photo 1 would almost be a modelling project in its own right.

Lance gave me two sets of drawings. Drawings 1 and 2 give details of a planned hall dated May 1912, while Drawings 3 and 4 are dated 1920 for a planned hall in Essendon. I do not know if either building was actually constructed. Does anyone know?

These buildings are nowhere near as elaborate as the Citadel in Ballarat, but either would still make an interesting model. There are no overall dimensions on the originals of Drawings 1 and 2, only a height of 1'10" for the platform. The drawings have been printed to HO scale in the article, so assuming that the drawing is to scale, the building has an overall width of 24', with a main building length of 40'3" and a 9'9" extension at the rear. For the detail hounds (and all O scale modellers) the cross sections of the building should allow a full interior to be modelled. The second building has a footprint of just 20' x 30', so should be ideal for most layouts.

A speaker under the hall could be used to provide the sounds of 'The Army' band practising!

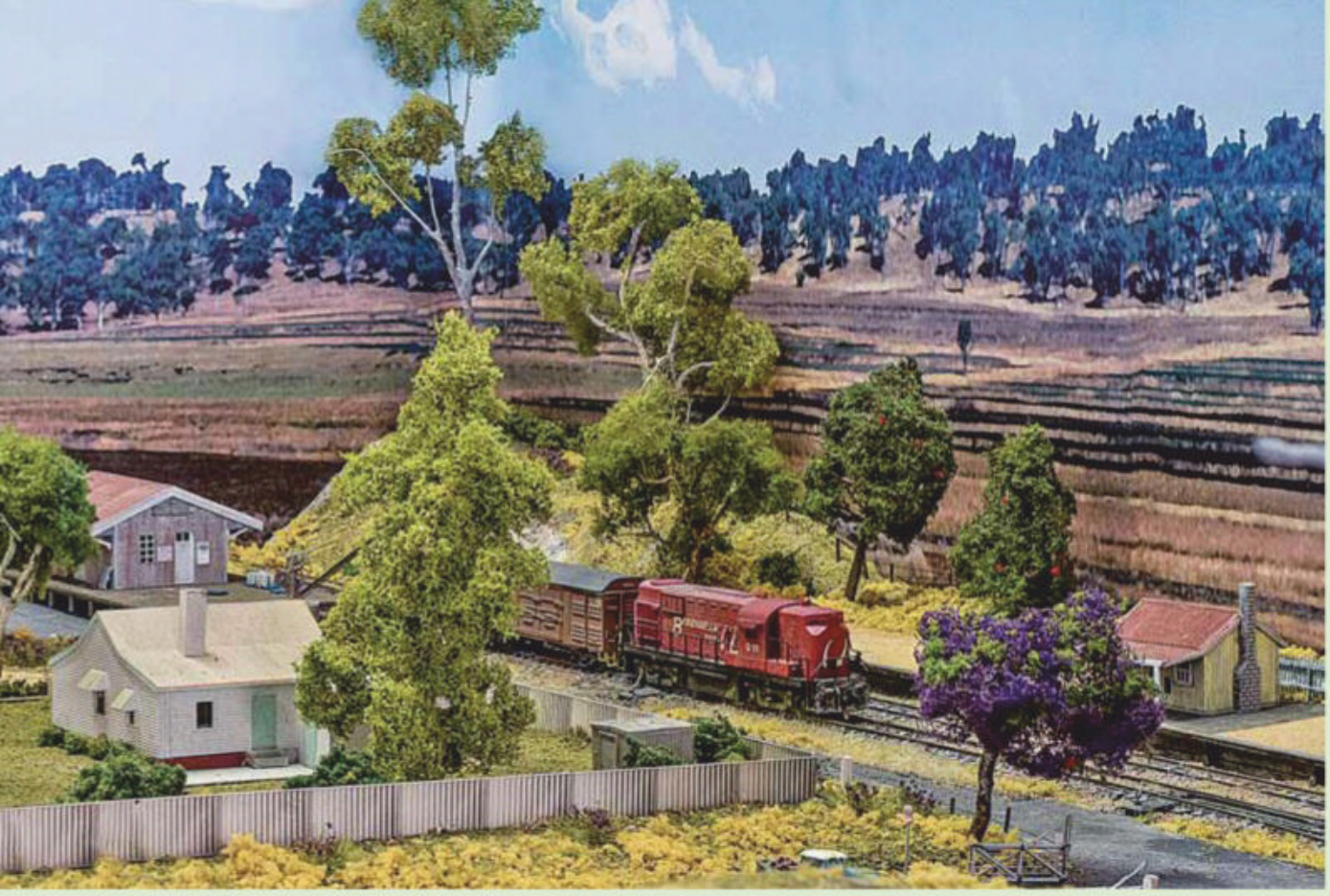




Drawing 4

Plan, plus side and end elevations, dated 1920, for a hall in Essendon.

Another elaborate former Salvation Army hall stands in the Sydney suburb of Newtown. It is now used as the local library by the City of Sydney local council. Photo by John Casey.



UNDER CONSTRUCTION

Reeves (Ypres) – a Chapter in Speculative Modelling

Alan Shaw builds a freelance N scale layout. Photos by the author.

In AMRM Issue 234 (June 2002) I described *Granite Rock*, my small N scale layout based on a branch line terminus on my fictional *Brindabella Railway*. Since then, my personal serious modelling activities have been pretty minimal for one reason and another. An unexpected change of circumstances in 2014 though, found me with a lot more time on my hands for an unknown time. What better opportunity to get back into some modelling, I thought?

About the same time, I'd started reading a few UK-based model railway magazines, and the layout descriptions that really took my eye tended to be smaller and even micro-layouts. Not necessarily because I'm interested in UK prototypes, but more about what can be achieved when both space and time are limited.

So it all seemed like a good opportunity to try a few techniques that would be new to me, see what worked and gain some experience for my wished-for grand layout, if I ever get to that! A few goals I set myself for this were:

- It would be quick to build
- Choose simplicity over complexity
- Use it to experiment with a few ideas.

One of the things I learned from *Granite Rock* is that although it was a transportable layout, it weighed a lot – which I guess I should have expected after the name I'd given it. It was a typical plywood, 2" x 1" pine and MDF arrangement, so it was strong, but the weight made it awkward to move. In fact, I figured the risk of damage was higher because of this awkwardness and offset the brute strength of the baseboard. I came to the view that a lighter baseboard, although possibly not as strong, would be less prone to damage if it was easier to move and store out of the way. After all, how strong does a layout baseboard really need to be? My guess was nowhere near as strong as traditional timber designs would imply.

Taking things to extremes, along the way to this layout I did build a small layout for my then young children, not long after *Granite Rock*. This was built entirely of extruded foam, based on an article I found in a US magazine. This worked well enough and the result was surprisingly rigid and was almost completely weightless, although I found cutting the foam board for the structural pieces a little tricky. That layout never saw much use and my ideas moved on.

Building the Baseboard

About five years ago, I came across the Qubelok aluminium tubing system, after looking at designs for a chook pen. That discovery resulted in a very comfortable home for the kids' chooks and also suggested that this material could be used for the framework for a model railway. A bit of research showed others have used the same approach for their baseboards and so a quick design was developed that could be used as standard for future use.

For no particular reason, I adopted a module size of 1200mm x 450mm and asked my local Capral supplier to cut to length the aluminium I needed. When it was ready, I took home a package of neatly and consistently cut square tube, unwrapped it and laid it all out on the garage floor. I then grabbed a small mallet and within 25 minutes I had a neat, rigid baseboard frame, ready to be topped with 25mm extruded foam.

The small additional cost of having Capral do the cutting was well worth it – I doubt I could have cut the lengths as consistently with a hack saw and I didn't want to buy a drop saw just for this purpose. I'm very happy with the design

Brindabella Rail stalwart G11, an imported Alco model ARSD12, shunts the yard at Reeves. One day this model will get the right three axle bogies, then fans of the Brindabella Railway can stop going on about how inappropriate a heavy Bo-Bo is for Australian track conditions!

using aluminium and foamboard – it's light, strong, rigid and really quick to build, avoids the risk of weather-related warping of timber over time and probably comes in at about the same cost. The disadvantages are, well, I'm struggling to think of any significant problems.

I did find though that the thickness of the foam requires a little more care with through-the-baseboard control of the turnouts, while anything that needs to be rigidly fastened to the underside, such as switches for frog polarity, needs some MDF or ply plates to be glued to the foam. Switches can then be screwed into the plate. Using Capral for the framework also limits baseboard design to straight lines and right angles. Some modellers have shown this limitation can be overcome if you have access to a hefty set of rollers. Still, in my view these disadvantages are very minor compared with the overall advantages.

Lesson No.1: Capral and foam are the way to go for me!

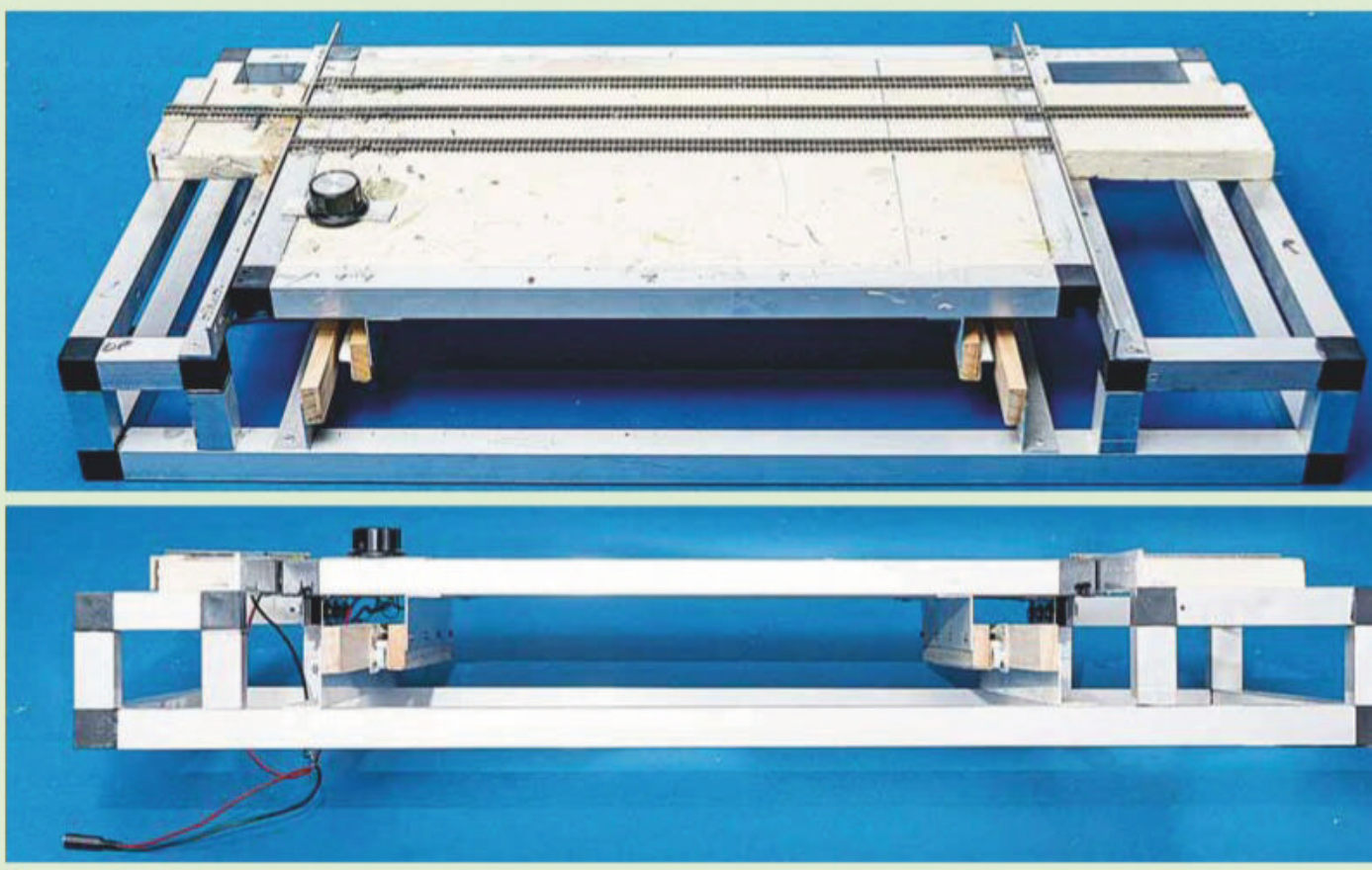
Laying the Track

The track design is very nondescript and is not much more than a shunting layout, with a Queensland Granite Belt feel consistent with the *Brindabella Railway*

The 'kit' of Qubelok parts, partially assembled into the baseboard frame for Reeves.

The Qubelok is complete and ready to receive the 25mm extruded foam that forms the baseboard surface.

A close-up of the magnets (arrowed) that maintain automatic alignment of the tracks on the traverser with the rest of the layout when the traverser deck is moved.



Two images of the completed traverser. Power to the tracks is selected using the rotary switch mounted on the traverser deck.

An overhead view of the layout, showing the simple, but interesting to operate track arrangement.

theme. It's just enough to give me scope for some modest operations, with a run-around loop, and four sidings for fruit, fuel and general freight. Some of the buildings have been re-used from *Granite Rock*, with others being either kit- or scratchbuilt.

Trackwork is Peco code 55, with turnouts controlled manually using rods under the board and frog polarity set using simple toggle-type slide switches. For a small layout this approach suited nicely, being both low-cost and simple. While Peco track is considered tried and true, I found it frustrating: the turnouts are ugly with far too much plastic at the toe of the point, the sleepers are oversized, the turnouts all seem to have a slight kink in the straight stock rail, and the way the rail is buried in the sleeper base makes adding in sleepers to fill in any gaps after track laying a complete pain. Considering how far N scale rolling stock and locomotives have advanced in recent years, it's a bit of a mystery why there hasn't been such an advance in readily-available track for the Australian modeller.

Lesson No.2: Time to move on from Peco track!

Building the Fiddle Yard

As a terminus-style layout, it inevitably needs off-layout train storage to operate. I wanted a traverser to minimise space and remove the cost of a ladder of turnouts. With half a view on a larger future layout, I also wanted to see if I could come up with a design that could be scaled-up that allowed simultaneous alignment at both ends, so it could in theory be used as a run-through yard. Ideally the design wouldn't need manual alignment at both ends, such as would be required by the typical coach-bolt style of aligning the tracks.

More research came up with a variety of sophisticated and impressive designs that others have used, but I thought all of them were well beyond my enthusiasm for electronics and, even more importantly, beyond my ability to actually build one.

So my first attempt at a much simpler design was to used spring-loaded indents engaging with locating holes at both ends of the traverser table. The table itself ran on cheap drawer slides bought from a hardware store. After tracking down some suitable indents, the design worked as far as aligning the tracks went. Though, in some ways the indents were too successful: the starting effort to move from one track to the next, even using the softest indents I could find, was so high that the trains had an unfortunate tendency to fall over!

I also found that using holes to engage the indents meant the traverser needed to be accurately aligned vertically as well, otherwise the indents would simply miss the locating hole. While making further adjustments to the basic design was certainly possible, for example using vertical tapered slots rather than holes for the indents to engage, I had some doubts about whether alignment could be maintained over time. So it was back to the drawing board.

The next idea was to use magnets to align the tracks. Magnets were placed under each end of each track on the traversing table and other magnets placed under the approach tracks at each end. After trying different sized magnets, I ended up using 8mm diameter rare-earth magnets with a rated pull force of about 1.8kg, set so the faces were separated by about 3mm. And it worked! The force required to move the table from one track to another is much less than with the indents, while the magnetic strength is enough to ensure that the tracks align as required, every time.

Manual alignment isn't needed – once the traverser gets close to being aligned with the required track, the magnets pull the table into position gently enough to align the tracks, without disturbing the trains. The need for very accurate vertical alignment isn't as important either.

It's actually all rather gentle in operation and, since both ends align, the design could be used as a run-through storage yard without needing me to manually align and lock the table at both ends. All it needs is a gentle push in the middle of the traversing table to get it moving and then let the magnets pull the table into proper alignment. I'm not sure how big a traversing table could be used with this method, but for me it worked well. I also found that for this design, the best drawer slides to use were the cheapest and simplest, since they have the lowest rolling friction of the various types I tried.

Lesson No.3: The 'magno-verser', as a concept, has got legs!

Building the Scenery

Trees are mostly based on tried and true techniques of applying ground foam from a few sources onto wire armatures of various types, which are covered in a flexible material, such as No More Gaps. Most of them could best be described as 'generic eucalypt.' There are also some attempts at leopard trees and a jacaranda, as I see in my own street, although whether either would actually be found in the cooler climate of the Granite Belt is another matter! I found trees can be quite time consuming, but I've concluded that in any future layout, trees are as much a part of the model as anything else, and deserve the time taken to make them look like specific types of trees.

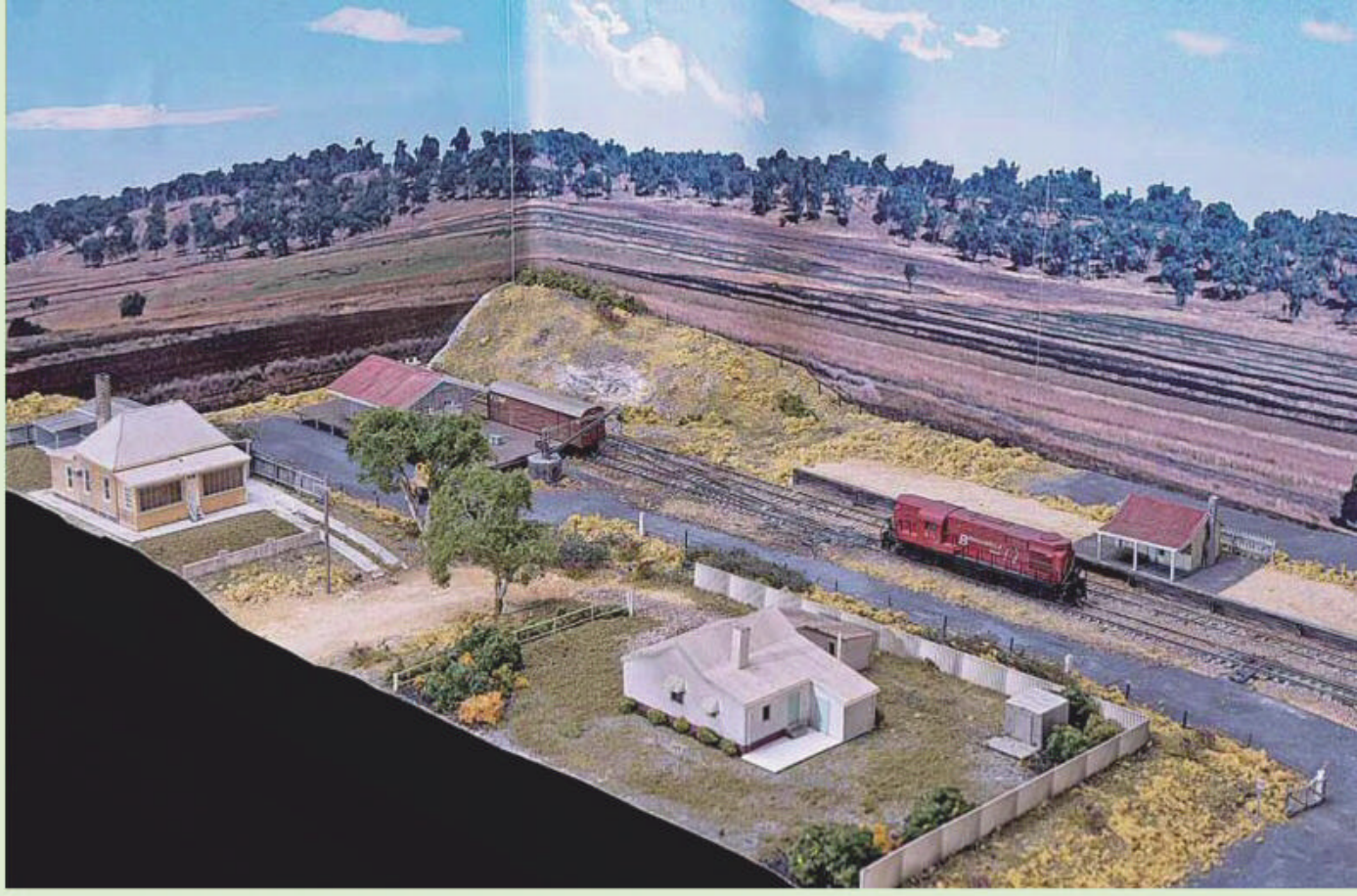
I had less success with static grass, and I'm not convinced using it has much of a place on an N scale layout, other than in some very specific locations, such as overgrown sidings. Still, this conclusion could well be that I haven't come to grips with the techniques needed, so I may yet give static grass another go, or should that be another shake, on a future layout.

Lesson No.4: Take more time on trees and make them appropriate to the region being modelled!

Inventing the Layout's 'Backstory'

One of the satisfactions of having a fictional railway to model is the freedom it

The terminal end of the layout with G11 approaching the goods shed to remove the unloaded vans.



gives to model what I like. This is true with my choice for naming the layout. One of the characteristics of the Granite Belt region of Queensland is the number of small soldier settlements near Stanthorpe named after Western Front battles of the First World War. My maternal grandfather was one such soldier settler (although the land he took up was near Nanango, much further north than the Granite Belt) and by all accounts his attitude after returning to Australia was that war was anything but heroic.

So I have blended the historic facts and the personal family experience: Ypres is the official name of the fictional town not too far from Stanthorpe, a little further west than the actual location of Amiens, while Reeves is my mother's family name. In my world, the General Manager of the *Brindabella Railway* at the time thought naming locations far from the battlefront after those battles was not honouring those settling there, but was a cruel and permanent reminder of the horrors they endured and passed on to their families. So while Ypres is the official name for the town, on the *Brindabella Railway* the station is known as Reeves.

I've also been doing some fine-tuning of the whole concept of the *Brindabella Railway*. Longer-term readers might remember the reason I used that name was I had a brief stint of working in Canberra and I grew to really enjoy the Brindabella Mountains, plus I just simply like the sound of the name. With the intervening years, though, that connection has dimmed and I'm contemplating a rename to the *Stanthorpe and Moreton Bay Railway*, which also has a nice ring to it. I'm still pondering whether it will be a rename of the *Brindabella Railway* which took place around 1990, or whether I'll completely re-write my own history and remove the *Brindabella Railway* name altogether. I believe the Queensland Bureau of Historical Adjustment is considering the possibilities…

Another aspect of my original history is that the line through Stanthorpe to Tenterfield slipped from being the mainline from Sydney to Brisbane into relative obscurity once the line through Kyogle was completed in 1930. I'm now wondering if that would actually be the case if there was already a standard gauge line from Brisbane to Sydney via the Brindabella Railway and Tenterfield. As a result, I've re-written that history so that the line through Kyogle and over the border was never built. With that, in my world an entire mainline between Kyogle and Brisbane has disappeared and those modellers who model, for example, the border spiral are the ones who are engaging in speculative modelling!

Then of course there's the question of why even bother with a fictitious railway as a subject to model at all. This is especially true now, given that there are now far more readily available high-quality Australian N scale models than when I started down this track, the lack of which was one of the reasons for doing the freelance railway in the first place. I have thought about that a bit, but I keep coming back to the fact that I simply enjoy being able to develop an alternative history.

Conclusion

Reeves has been an enjoyable return to active personal modelling and I've learned a lot, although the expectation it would be completed quickly was an abject failure. It quite possibly has the highest time taken per finished square metre of any of my layouts ever! Nevertheless, with lessons learned my thoughts are now turning to my next chapter of speculative modelling.

▶ *Having finished the day's shunting, G11 departs past the fruit shed with a train of hopper wagons, loaded with bulk low-grade apples for juicing, and louvre vans, with table-quality fruit packed in trays, to be delivered to Brisbane's fruit market.*

▲ *Once the backbone of the NSW railways system, a pair of 48 class locomotives haul a loaded ballast train over the underbridge adjacent to Exeter station.*

A Glimpse of the late Rod James' *Southern Highlands* Layout

***James McInerney** takes a brief look at one of the great Australian exhibition layouts. Photos by the author.*

The late Rod James was one of the titans of the Australian modelling scene, with some amazing modelling accomplishments to his name. Along with the development of his model manufacturing enterprises, starting with the Rails North range of epoxy kits and then taking over the fledgling injection moulding concern, AR Kits, and turning it into a major 1980s-era manufacturing powerhouse, he built a series of memorable exhibition layouts, including *Crafton* (AMRM Issues 164 and 165, October and December 1990) and *Wingham* (now in the custody of the Taree and District Model Railway Club).

At the time of his untimely passing in 2001 he was constructing an exhibition layout, *Southern Highlands*, that, had it the exposure of his other creations, would have been regarded as one of the ground-breaking layouts of the new century. Reinterpreting the 'standard' exhibition format of 'station at the front-fiddle yard at the rear', the layout featured a long stretch of plain main line trackage, with a small wayside station, based on Exeter, south of Moss Vale on the NSW Main South line, running through scenery immediately recognisable as a depiction of the area.

After Rod died the partly-completed layout passed into the custody of Stephen Ottaway, whence a group comprising Ian Millard, John Barrett and the late Graham Walker completed the layout and exhibited it just once, at the Brisbane Model Train Show.

The layout eventually, in the mid-2010s, passed into the custody of Warren Herbert and Rohan Fergusson, who added more detailed scenery and rebuilt the electrics to accommodate DCC. The layout has only been exhibited twice since, at the last Epping Model Railway Club's exhibition at Thornleigh in 2017 and again at Toowoomba in 2018. The images reproduced here were captured at the Thornleigh exhibition in 2017. We can only hope that the layout will be seen at more exhibitions in the future, as modelling of this calibre should definitely be seen by a wider audience.

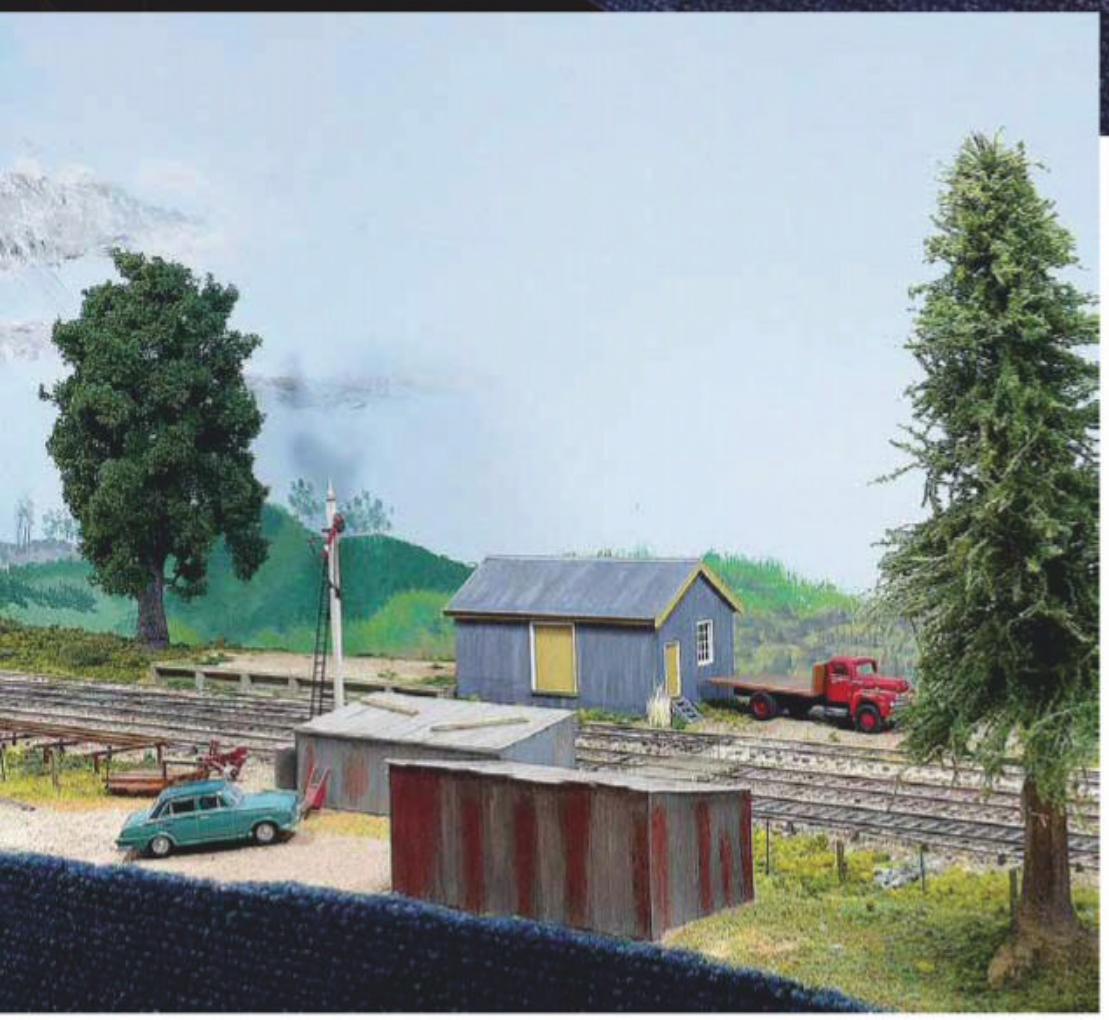
▲ *A South Australian 600 class, of which a number were 'on loan' to the NSW railways in the early 1980s, hauls an empty limestone train on the return journey to the quarry at Marulan South.*

▶ *A rather unlikely combination of NSW 49 class branchline locomotive, leading SAR 600 and CR GM12 class locomotives, heads south with a military special. Typical of the well-observed detail on the layout is the row of new sleepers laid out beside the track in very authentic disposition, waiting for a 'possession' to allow resleepering of this section of a very busy stretch of main line.*

▲ *The beautifully realised scene around Exeter station with the rear of the loaded ballast train passing through, displaying the plough and brake vans. Unlike most exhibition layouts even today, the station precinct was not the focus of the layout, as it occupied a small area at one end of the layout. The focus of the layout was, in fact, a long stretch of mainline running through scenery, of which the station was just one small part.*

▼ *A magnificent collection of scratchbuilt structures replicating the prototype location south of Moss Vale on the Main South.*

▲ *The 48 class-hauled ballast train passes a brick-built road over-bridge and a steel girder on brick piers underbridge, both structures very typical of the Main South.*



◀ *A view of the goods and fettlers' sheds at Exeter station.*

Reviews

NSWGR 5,000 Gallon Water Tank with 8" Jib and 10,000 Gallon two-tier Water Tank kits in HO scale from Mechanical Branch Models, PO Box 38, Beecroft 2119. Website: www.mechanicalbranchmodels.com.au. Price: $195.00 per kit.

These HO scale kits comprise 150 high quality etched brass, etched nickel-silver, cast polyurethane and 3D printed resin parts. Each kit includes assembly jigs for the joists and channel structural steel work. The general instructions for assembly and finish of both kits are accessed through the website (www.mechanicalbranchmodels.com.au).The instructions cover the assembly of both types of water tank. I suggest printing the instructions in colour, which makes them a lot easier to read and follow. The references used for the assembly of both kits are:

- The assembly instructions mentioned above
- *Steam Locomotive Watering Facilities An overview* by Peter Jarvis in AMRM Issue 288 (June 2011)
- NSWR General Arrangement Drawing Number 70045A for Standard 6' x 6' Plate Water Tank 25'0" A.R.L. Single and Double Tiered Arrangement 8" Diameter Water Crane.

The instructions cover prototype information, general guidelines and a list of parts with part numbers and some locations where these tanks were used. Peter Jarvis's AMRM article provides an excellent overview of NSWGR watering facilities and mentions both types of tank modelled.

Assembly

As always, read and understand the instruc-

tions before beginning assembly. Follow the instructions and you will always get a good result. It is recommended in the guidelines that excellent soldering results can be obtained with tin/lead solder using 10% phosphoric acid as a flux. Phosphoric acid can be obtained under the trade name of *Rannax* through Bunnings. The appropriate Material Safety Data Sheets (MSDS) should also be obtained. The combined gases of tin/lead solder and phosphoric acid flux can be harmful, so a fan should be used at all times to dissipate harmful gases. All drill sizes used are metric. I also used Loctite Super Glue No.1577327 for some of the assembly.

For the assembly of the tank stand bearers and joists, jigs are supplied to assist with the accurate assembly of the joists and bearers. I fixed both jigs to a piece of dressed pine to allow hands-free soldering. Take care when removing the flanges and webs as these are easily bent. On assembling the four joists and the assembly of the two beams, the straps which form the tension rings (which are a distinctive feature of this type of NSWGR tank) must be removed from the etch and soldered end to end (a jig is also provided to assist assembly of the rings to the supporting wires).

You may find that the tension rings will look a little 'square' shaped, due to the pre-drilled holes. I rolled each strap onto the shank of a tapered centre punch to attain the required diameter of the circular tension ring. Check the soldered strap ends are secure and the four holes within the ring for excess solder (they can be drilled out to 0.35mm, if necessary). I found this method easier than the method stated in the instructions.

The formed tension ring is placed into the jig (part No.1056). The 0.30mm nickel wire supplied was inserted diagonally (to form the tension rods to opposing corners) and soldered. Ensure the solder does exceed the etched fold line. The four tension rods within the tension ring were lightly soldered and then shortened with side cutters.

The construction of the panel assemblies is now required. Read the instructions very carefully as there are two jigs to be used. To obtain the correct dimensions, two panels are assembled by soldering web to web, and later joined by two panels soldered flange to flange. The use of correct jigs is highlighted in *red* (hence the advice to print the instruction in colour). When finished, a square box should result and it should stand evenly on the four joists.

The four tank sides are folded and soldered together by tinning. The tank corners are glued to the panels. Check the top of the corners are flush to the top of the tank sides and corner cornices are aligned. Glue two of the tank panels at right angles; once these have set invert both halves into the plastic jig, part No.1060 to form the tank. This may take time, one must constantly check that the tank is sitting

The parts of the 5,000 gallon tank laid out ready for assembly.

square and flush on a flat surface, inside the jig.

Once satisfied that all is well, fillet all four corners with glue to bind the tank sides. With each kit there are two each of the jig (part No.1060). These must be overlaid and screwed onto a piece of dressed pine wood to give enough depth for the fitting of the curved bottom edges (after filing off the construction tabs). I started with two opposing sides, which need to be tacked into position with glue after matching the curved cornices to the tank sides. When all four bottom edges have been fitted into position, gently remove the tank from the jig.

Check the balance and alignment of the corner cornices. A modeller may have to break one of the bottom curved edges outwards or inwards to attain the correct alignment and balance with the tank sides and corner cornices. Use the tank bottom which has been removed from the etch, but not fully constructed yet, to assist with the levels. Glue all four edges to strengthen and bind to the inner tank sides.

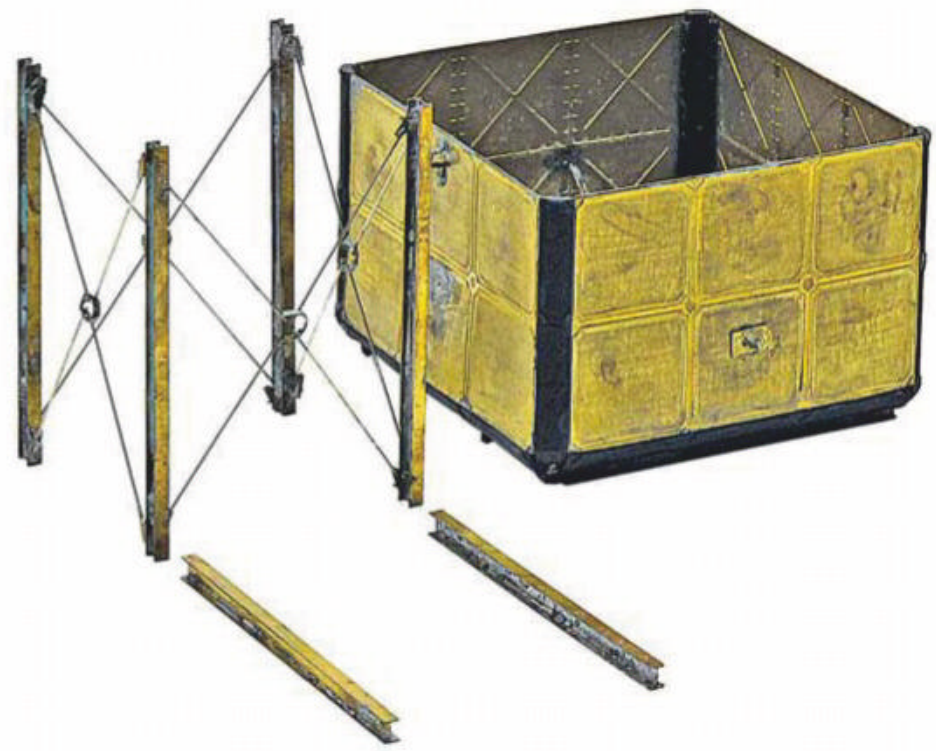
The assembly of the tank bottom is straightforward, making sure the tank bottom lies flat, not only on the bearers, but also on the internal floor. When the tank is fully assembled, check the bottom corners of the tanks as there are gaps. I used Tamiya putty to fill these gaps. The top edges of the tanks are fragile, so be careful.

There are eight internal braces which need to be folded and soldered into the slots on the 5,000 gallon tank floor and tank sides. The 10,000 gallon tank has the same bracing for the bottom tier; however there are additional slots in the top tier of the 10,000 gallon tank for another set of (longer) braces to be soldered in as well. I ignored these slots as the longer braces were not supplied in the kit and, while I could have scratchbuilt a set of representative braces, I didn't think there was enough room inside the 10,000 gallon tank to fit them satisfactorily anyway.

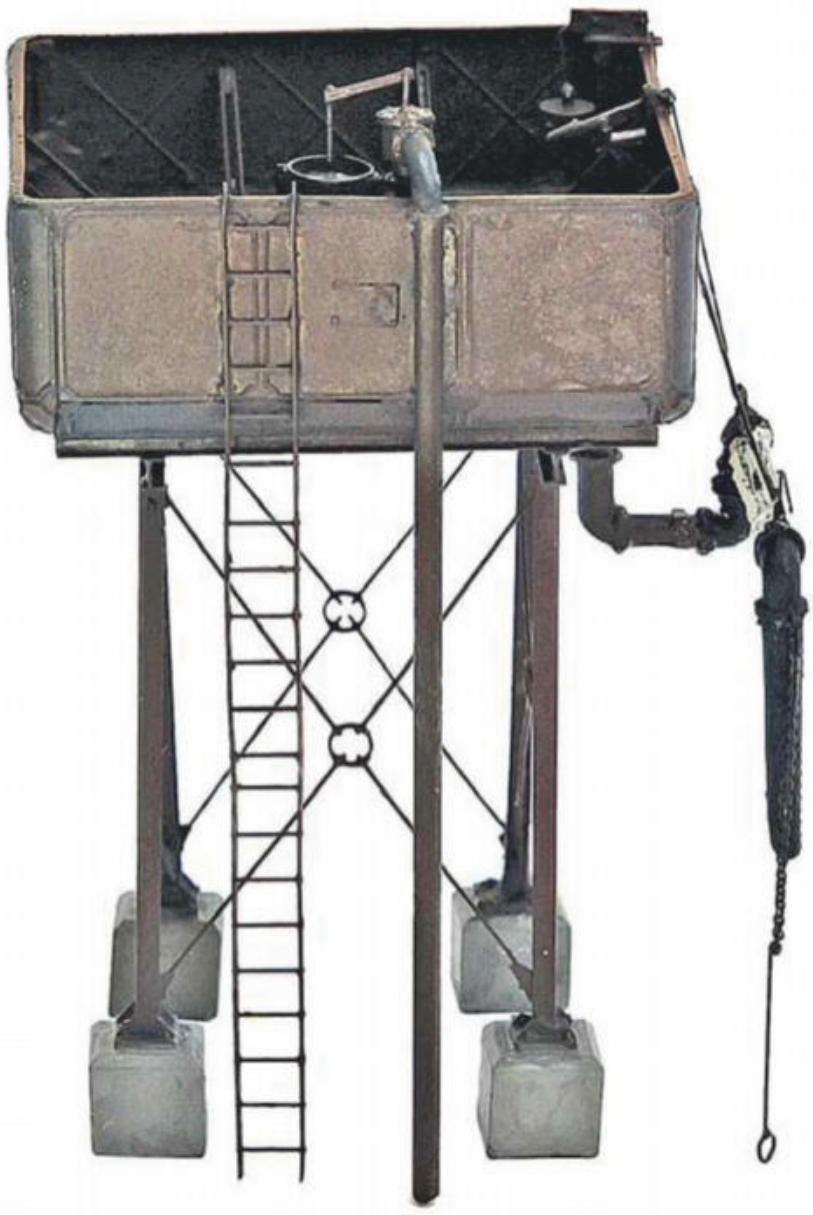
Upon completion of all the soldering, the tank should now be able to stand. Check that everything is square and level and all the tension wires are still attached; re-solder if required.

The tabs on the concrete footings may need to be cleaned with a file before gluing each to the joists. Use a modellers' mat to check for squareness and alignment of the footings. The assembly of the ladder is a slow process, though predrilling the holes in the stiles with a 0.30mm drill will make soldering the rungs into the stiles a lot easier. Hang the ladder off the side of the tank to check the angle to the ground. The ladder for the 5,000 gallon tank is too long (it is the right length for the higher 10,000 gallon tank), so it needs to be shortened.

The assembly of the water crane jib involves a brass U-shaped



The major subassemblies of the 10,000 gallon tank under construction.



The completed 5,000 gallon tank, showing some of the interior detail of the tank.

The 10,000 gallon tank, showing details of the water crane jib and other external fittings.

pipe, a boom and two bellcranks, needing to be attached to the tank. The instructions state that the modeller has an option here to fit the bellcranks and associated wiring, or leave it off, as it can be fiddly. Before fitting the jib and boom to the U-shaped pipe, two holes must be drilled with a 0.35mm drill for the later fitting of the outer fulcrum wire and column pull chain. Notes from the General Arrangement drawing (70045A), plus photographs contained in the instructions, indicate the positioning.

A brass strip 0.8mm x 0.2mm is to be fashioned as the outer fulcrums and soldered on the side of each tank above the jib. This is indicated in the instructions, as the plastic outer valve fulcrum is deemed not strong enough to hold the wire from this fulcrum to the jib. Fit this wire to the jib into the pre-drilled hole in the jib, solder the wire to the two bellcranks. Fit the water column pull chain. I used North Yard model brass chain 40 links to the inch.

The correct fitting of the internal fulcrum, water release valve, water inlet pipe, equilibrium valve and float, water level indicator, float and pulley are clearly described in the instructions (always read the instructions). Check the length of the inlet pipe for the 10,000 gallon tank, as additional length may be required.

There are some coloured photographs in the instructions to give an indication of age and weathering. I have used the following paints on both tanks:

- Mirotone – VY6615 grey etch primer
- Tanks internals – Model Master Rust 1785
- Tanks externals – very light dusting of Tamiya XF-64 Red Brown, indicating rust forming with some areas hand-painted to indicate medium rust forming
- U pipe and boom – Tamiya XF-1 Flat Black
- Jib – Tamiya XF-2 Flat White, weathered on top of both jibs with Faber-Castell black 7B pencil
- Footings – Tamiya XF-57 Buff, hand-painted with Tamiya XF-64 Red Brown to indicate rust stain from the joists.

Conclusion

I encountered no problems during the assembly of both tanks. The instructions are a sound guide, well written and in sequence, with coloured and b&w assembly photographs, a mixture of not to scale sketches and scale diagrams, captions and images from General Arrangement 70045A, correctly named parts and tips for the successful construction of both tanks. A beginner could construct these models, providing they possessed the appropriate tools. If you stuff something up, spare parts are available from Mechanical Branch Models at cost plus postage.

Mechanical Branch Models are to be congratulated for producing two fine HO scale kits that can be built into fine models that will enhance any modeller's miniature railscene.

Cliff Barrett

NSWGR Lower Quadrant Signal kits in HO scale by Signals Branch (Ray Pilgrim). Available via Ray's 'Signals Branch' blog: signalsbranch.blogspot.com. Prices in text.

The 'Byles' design of lower quadrant signals of the NSWGR were a very picturesque and distinctive part of the NSW scene from the early part of the 20th century until quite recently. They are a pretty essential part of most NSW model railways in that time period. Ray Pilgrim's now extensive range of 3D printed signals, available from his 'Signals Branch' shop on the Shapeways 3D printing website, have made it possible to model pretty much any 'Byles' lower quadrant signal that might be required.

The early versions of the signals, as described in my review in AMRM Issue 312 (June 2015), were, as I wrote in that review "*All in all, these items are a very easy way of building NSWGR 'Byles era' lower quadrant signals, especially for those with larger layouts who need a forest of them. The 3D printing technology, while still in its infancy, produces a very useable product, though the fidelity of reproduction is perhaps not yet good enough to win modelling contests (I suspect it will not be long before it is, though…)*

However, the finished items certainly look the part when installed on the layout and the simplicity of construction, plus the ease with which they can be made to operate, make them a 'must have' for anyone wanting authentic 20th century NSWGR signalling on their layouts."

This is certainly still true of the original range of signals available from Shapeways, but Ray has not been resting on his laurels and has continued to develop the technology, and has now released a supplementary range of locally-produced lost wax cast brass 'Byles'-era lower quadrant signals, cast from 3D printed masters.

These magnificent cast brass and urethane kits have addressed the issues of fidelity of reproduction that I commented on in my previous review and are now definitely capable of winning modelling contests. The kits are available direct from Ray via his blog site or at selected exhibitions. Prices range from $60.00 for a single post signal kit to $100.00 for a bracket signal kit. The signals are also available in very limited numbers built and painted to order; $100.00 for the single post signal and $170.00 for the bracket signal.

The kits, as with the older range, come complete with everything you will need to produce a working model. In the case of the review model, a left-hand junction bracket signal, the plastic bag contained brass castings, a standard 'Signals Branch' 3D printed operating mechanism, lengths of wire, including various pre-bent sections to form the operating rods, mounting screws, a jig for mounting the handrails and even a piece of foam to rest the signal on during construction!

The signal completed and almost ready to place on the layout. Painting was straightforward, the entire signal was given an undercoat of self-etch grey, then sprayed Tamiya XF-2 Flat White, once the undercoat had thoroughly dried. Then the bracket and platform was hand-painted Humbrol 63 Sand Matt and the metalwork picked out in Tamiya XF-1 Flat Black. The signal arms were painted Tamiya XF-7 Flat Red. All that remains is to give it a light weathering and fit the 'glass' to spectacle plates, then it will be placed permanently on the layout.

Assembly instructions are downloadable from the 'Signals Branch' blog site (https://tinyurl.com/uy5w-9na). Having the instructions downloadable allows updating in the light of feedback from purchasers, which indeed had happened between the time I took delivery of the review model and constructed it for this review.

The comprehensive full-colour instructions cover every step necessary to complete the model which, while it does involve slightly more work than constructing the older 3D printed models, the final result is definitely work the extra effort.

My only comment regarding the instructions, other than to repeat how essential it is to read and understand them before starting construction is that, to my mind, the order of construction appears to be reversed (which is good for that proportion of the population who always read from the back!) Despite it being one of the last items in the instructions, I assembled the handrails first, then assembled the operating mechanism, then finished with the addition of the ladder.

I did find assembling the handrails on the working platform of the bracket signal a little frustrating at times. I think I would have preferred to have the pre-bent top handrail not permanently attached to the post by the manufacturer, as I would have preferred to be able to adjust it before attaching it. As it was, it was a little diffi-

cult to get everything lined up and the handrails are not as 'tidy' as I would have liked. Also, the hole for the front handrail upright was not drilled, something I didn't notice until I was nearly finished soldering up the rest of the handrail supports. It would have been easier to drill out the hole if I had noticed that earlier…

There is some really quite clever design work in these signals, for example, the signal lamps are beautifully detailed with separate lamp tops and are designed to make it easy to illuminate them for those who desire lit signals. For those who, like me, aren't interested in lighting, one just has to glue the lamp tops on.

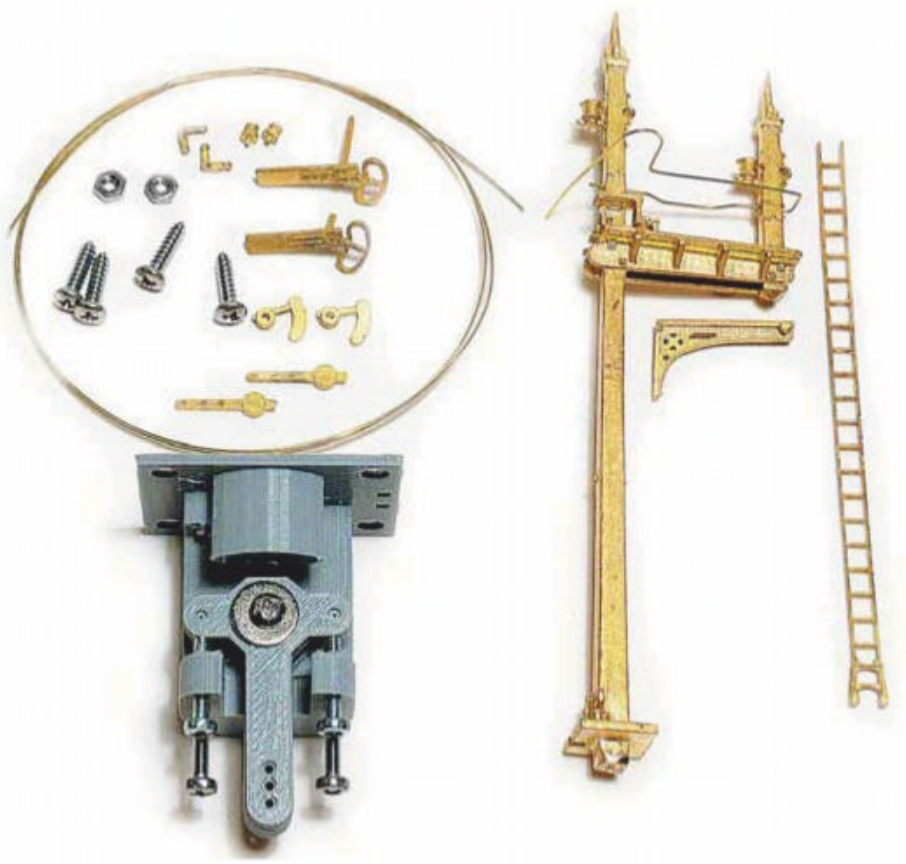
Most of the kit goes together with no effort, as most (see previous comment above!) of the holes are predrilled and everything fits together as it should. However, there is one component that does need a little adjustment, the bracket that supports the working platform and the dolly post. It has to sit up inside the bearers that support the platform, something that isn't obvious from reading the instructions. The side of the section that sits inside the bearers needed a little filing to make it fit.

Assembling the operating wires is relatively straightforward if you follow the instructions! The pre-bent operating wires provided in the kit speed things up considerably, except for one (rod 2) that was a little short in my sample and had to be redone to get the dolly arm to move properly. Also, some of the components are very small and 'slippery'; for example, one of the bellcranks slipped out of my tweezers and disappeared out into the universe. Luckily, I have learnt to keep the area around my workbench clean and uncluttered, so I eventually found it!

The instructions suggest gluing some items, such as the pivots for the bellcranks, balance weights, ladder and the ladder support wires, but I preferred to solder all of these for strength and durability. A clean joint, flux, a reasonably big soldering iron and being careful will result in successful and permanent bonds, even on bulky items such as the signal post where the ladder support wires attach.

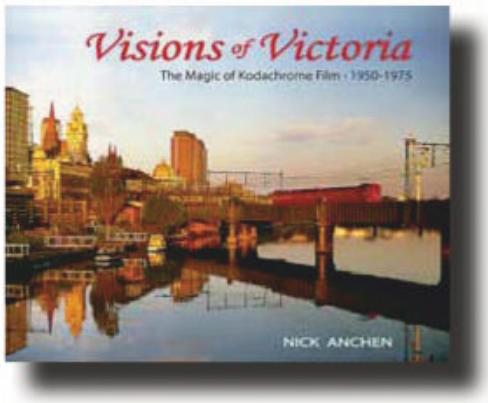
While not as quick to assemble as the older 3D printed models, these signals definitely rewarded the couple of hours spent 'fettling' them. Just follow the instructions and you will end up with a very accurate, authentic and high-quality model of a 'Byles'-era NSWGR lower quadrant signal that you will be more than pleased with. They are utterly superb and a magnificent addition to the Safeworking system on *Lambing Flat*. And this junction bracket will not be the last one I am going to acquire…

James McInerney



The parts of the kit, except for the pre-bent operating wires, the handrail construction jig and the piece of supporting foam, which were an upgrade on the original kit and arrived after this photo was taken.

Assembly complete and ready for painting.



***Visions of Victoria The Magic of Kodachrome Film – 1950-1975* by Nick Anchen. Published by Sierra Publishing, PO Box 8137, Ferntree Gully 3156. Ph: 0417 250 166. Website: www.sierraaustralia.com. Price: $69.95.**

As I have mentioned in numerous previous reviews, I'm always pleased to see a new Nick Anchen volume, as I can always depend on Nick's combination of excellent quality, well-chosen photographs with useful and entertaining text in support, to come up with a book that is equally useful to both prototype enthusiasts and modellers. This new volume from Nick, *Visions of Victoria*, is no exception, though it is not as 'railway-centric' as most of his previous volumes.

This new book, 184 full colour pages laid out in landscape format, features everyday (and some not so everyday) scenes of Victorian (the state, not the era) life, mostly Melbourne but with a substantial section towards the rear covering Victorian country locations.

These photos, all originally recorded on Kodachrome film, were captured by a number of photographers from the 1950s to the 1970s and record some fascinating images from the past. The vast majority of scenes depict general scenes of life, showing the people of Victoria going about their daily activities among a background of buildings, methods of transport and community activities, such as commuting, shopping, watching the 'footy' and the myriad other activities that marked life of the era.

Despite the lack of trains (though the occasional train appears here and there, as do plenty of trams) the real benefit of this book to modellers are the scenes showing all sorts of useful details for which the period modeller can find it difficult to find references, such as styles and colours of clothing, motor vehicle, building and 'fixture' colour schemes (and not just for the Victorian modeller,

as these things were fairly universal over much of Australia in this time). For example, the image on p.84 of the Batman Avenue tram terminus shows very clearly the styles and colours of clothing worn by the average citizen in 1971.

The book also has some very interesting and evocative scenes of aviation and shipping, plus major 'events', such as the 1954 Royal Visit and 1956 Olympics, as well as the 'typical' suburban scenes such as that of the Melville Newsagency on p.121 that would be just the thing for anyone looking for inspiration to detail a scene containing a corner shop.

Another image that would make a great scene on a layout is that on p.10, showing hay carting, with a clean, but not spotless, tractor hauling a trailer that has seen a few summers, but isn't decrepit, as well as two figures that show all the details needed to make a convincing model. Those with an interest in horse-drawn vehicles and suburban street scenes will find much to inspire on pages 128 and 129.

All-in-all, this is another excellent volume from Nick Anchen, which should find a place on the shelves of anyone with an interest in 1950s-1970s Australia, whether it be from the point of view of merely enjoying nostalgic images of the era, or looking for inspiration for a model, of which there is plenty!

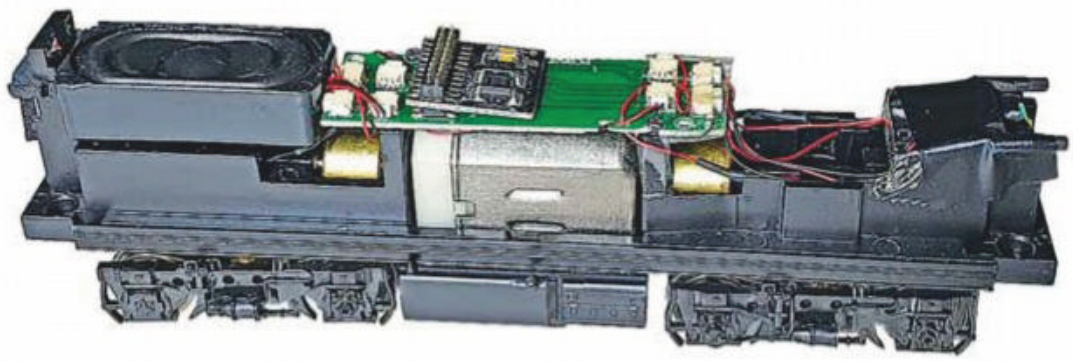
James McInerney

REVIEWS

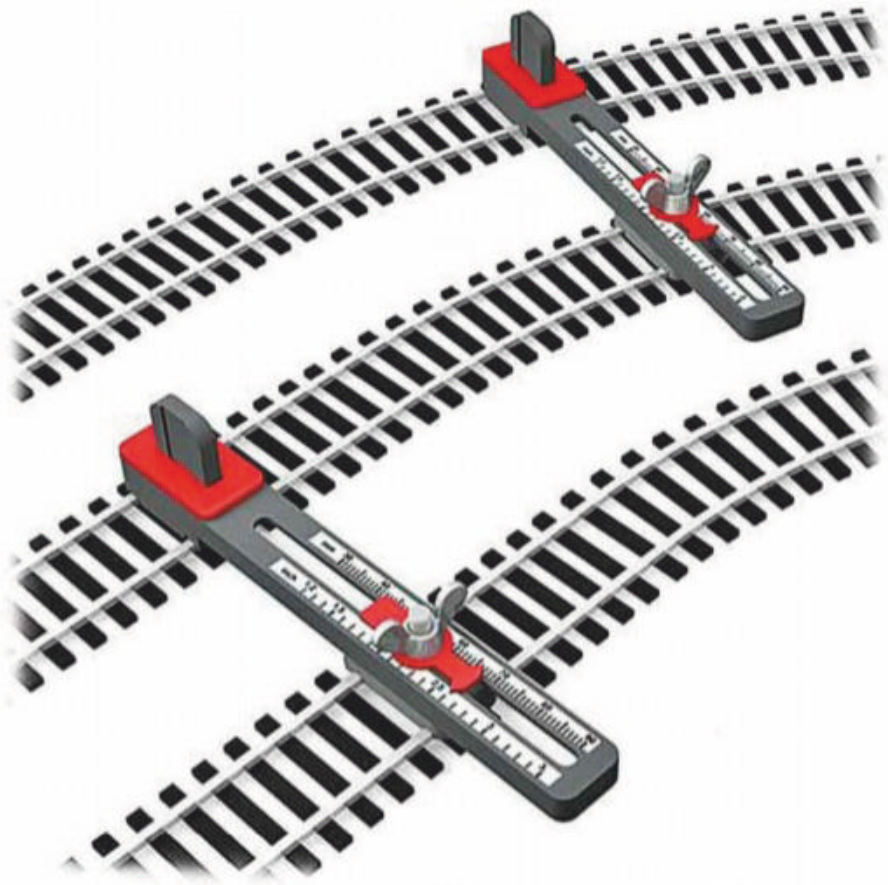
The products covered in the Review pages have been supplied or made available by the manufacturer, producer, importer or retailer listed in each product heading. AMRM welcomes access to new product lines for inclusion in the Review pages and requests items be addressed to the Editor at Australian Model Railway Magazine, PO Box 345, Matraville 2036. Readers are reminded that the prices quoted in the reviews are those applicable at the time of going to press. Those using the prices as a guide to purchasing products by mail order should always add extra for postage, or contact the supplier for the additional cost for mail order.

Editor

RECENT RELEASES



Powerline Models *released its modified and upgraded r-t-r, HO scale, 'series 3' VR T class 'low nose' diesel locomotives. Some of the changes from the original run, released about ten years ago, include an MTC 21-pin plug, factory-fitted speaker, modified LED light guides lit by golden white LEDs, additional pick-ups, blackened NMRA RP-25 metal wheels and metal knuckle couplers. The standard locomotive (DC, but DCC-ready) is available at all Powerline-affiliated retailers and from Powerline Direct. Also available from Powerline Direct, but in very limited numbers, is a run of the locomotives with factory-fitted ESU Loksound V5 decoders, pre-loaded with T class sound files created by DCCSounds from recordings of a prototype T class. This production run is available with the following numbers, T370, T371, T381 and T383, though Powerline plans to produce a run each year (including the 'high cab' series 2 locomotives as well as the 'low nose' series 3 machines), with alternative numbers and colour schemes, including limited runs of locomotives factory-fitted with ESU Loksound DCC decoders and DCCSounds sound schemes.*



Hobby Tools Australia *have available, in their extensive range of tools and modelling aids, an HO/OO scale Adjustable Parallel Track Tool. Each pack comes with two tools, enabling the convenient and accurate laying of parallel track, both straight and curved. The tool is adjustable, allowing the accurate laying of parallel track with mid-centres from 30mm (1 3/16") to 90mm (3½").*

Holzmann Modelismo *have released another HO scale, modern era, building kit in their now extensive MDF and acrylic range of architectural models created and produced in Brazil. The Onyx Tower (kit No. 04-100) is a typical modern commercial building found in cities all over the world, including Australia. The laser-cut MDF frame, coupled with clear acrylic glazing, allows the purchaser to fully detail the interior and light it if so desired (interior details and lighting components not supplied in kit). The kits are available in Australia via the producer's website.*

Trainorama *have released a new batch of HO scale, r-t-r, NSW 44 class locomotives, with some changes and improvements from the original model, first introduced way back in 2005. The body is now available with single marker lights, to more accurately reflect the prototype locomotives' early years of service, as well as the previously available double marker lights for more recent era locomotives. The variations in horn types are also modelled on the appropriate locomotives, including the single five-trumpet version originally fitted, which reputedly caused much angst among sleeping car passengers! Currently, eight of the nine models released are available (4438 in 'candy' sold out immediately after release). Shown here are 4401 'as delivered' in July 1957 with the aforementioned single five-trumpet horn on one end only, as well as single marker lights, no numbers on the side, no NSWGR crest and yellow painted filter panels; 4465 in original Indian red and yellow with red lining, single marker lights and horn over each cab, as running in the 1960s and early 1970s; 4474 in the simplified 'austerity' colour scheme introduced by the PTC in the 1970s, but still fitted with single marker lights; 4465 in the 'reverse' Indian red colour scheme introduced in 1979, the last year of the PTC, and now fitted with dual marker lights; 4420 in the 1988 'red terror' scheme, a simplified version of the SRA 'candy' colour scheme; 4483 in the colourful SSR yellow and black privatisation-era colour scheme and having had the buffing plates removed; 4403 as preserved by the NSW Rail Museum and repainted into its 'as delivered' Indian red colour scheme, but retaining contemporary features, such as dual marker lights, silver steps and pilots and yellow painted edge to the buffing plates (the yellow-edged buffing plates date from 1979 and should not be on the earlier period locomotives, though this can be quickly fixed by those who care about such details by applying a little matt black paint). Not illustrated are 4490 in original Indian red and yellow and the aforementioned 'candy' 4438 (sold out).*

AMRM News

Change of AMRM Phone Numbers

With the AMRM office about to change over to the NBN, some changes to AMRM phone numbers are taking place. We will no longer have a fax machine, so the AMRM fax line (02 9311 4323) and the secondary office phone number (02 9661 4046) will no longer be used. The current main office number (02 9311 2036) will remain in use and should be used for all communication. This change to office numbers will not affect the editor's phone number, as that is at another location.

Ixion J Class Delay

Ixion Models had been advised of an unexpected situation that had arisen at their factory which will delay delivery of their r-t-r VR J class 2-8-0 steam locomotive. Due to a new policy, the Chinese Government's Environment Protection Bureau (EPB) of Dongguan Province is checking industrial estates and factories to eliminate the illegal discharge of sewage from factories (and close them if they are found to be in breach). Although the Ixion factory has already passed an inspection, the owner of the industrial park where it is located is arranging new water separation piping and equipment to meet new EPB regulations. Water supplies in and outgoing wastewater systems had been shut down and work at all factories in the park is stalled until the work has been carried out and certified.

The factory was still evaluating the impact to the existing production schedule at the time this item was in preparation, though they have already informed Ixion that the next running sample and the decoration (painted) samples will not be arriving at the time previously promised.

Then, just before AMRM went to print, further communication was received from the factory regarding the Coronavirus outbreak in China, centred around the city of Wuhan. While Wuhan is a long way north of Hong Kong, travel restrictions have been put in place for Chinese citizens, virtually shutting down all movement between Hong Kong, which is an island, and the mainland. As with many factories in this area, the company HQ is in Hong Kong, while the factory itself is located some distance away on the mainland. To make matters even more difficult, the central government has extended the Chinese New Year public holidays, in an attempt to minimise the traditional movement of people across the country as they return to their workplaces.

As the situation in China becomes clearer, the factory will advise Ixion of the revised schedule and this will be communicated to Ixion's customers, initially via their Facebook page and then by inclusion in these pages in the next available edition of AMRM.

Not Phil Badger…

An error crept in to the attribution of the image of the CR GOX/AOOX bogie open wagon model at the bottom of p.53 in the Gallery article *The Commonwealth Railways Standard Gauge System* in AMRM Issue 340 (February 2020). The model was constructed by Malcolm Jenkins, not Phil Badger as stated in the caption.

Factory-painted samples of some of the new colour schemes to be provided when the re-run of Auscision's r-t-r HO scale VR B class locomotives arrive early in 2020. Along with the new colour schemes illustrated will be B65 in the simplified West Coast Rail 'austerity' livery, new numbers for the VR blue and gold colours in both 'as delivered' and modified forms, along with the following new numbers, B64, in Vicrail 'tea-cup' colours, B69 and B83 in V/Line orange and grey and B76 in WCR blue and white. Some of the more popular items from the first run, such as the two versions of B60 'Harold W. Clapp', B62 with the '1000000 miles' plaque, B84 in all-over V/Line orange, B80 in the bright 'Murraylander' scheme, B61 in SSR yellow and black and B65 in its elaborate 'Auscision Models' scheme will also be available again. As is now standard with Auscision locomotives, a factory-fitted DCC sound option will also be offered. Pre-arrival orders can be placed via the Auscision website.

New Products

HO Scale

ComRailModels are anticipating having 3D printed models of the air-conditioned, narrow gauge *The Ghan* carriages available through their Facebook page by June/July 2020. Carriages to be made available include the NARA and NARB lounge cars, as well as the NBRE second class twinette sleeping cars.

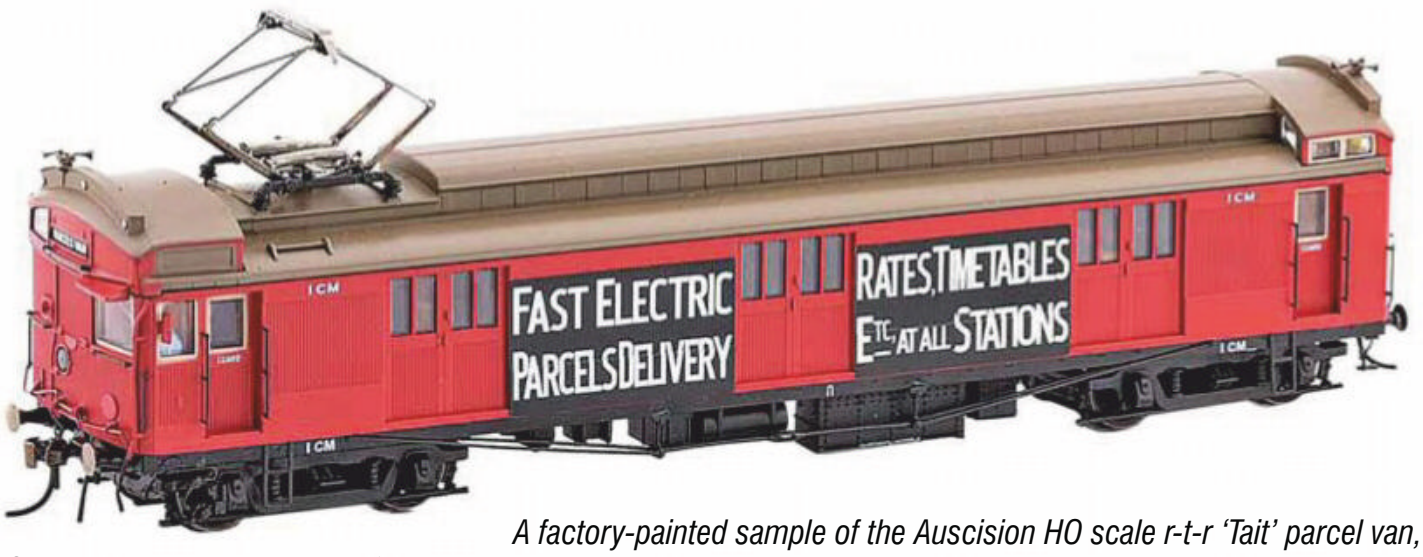
IDR Models received the first shipment of their r-t-r VR W class/ NSWGR 7101 0-6-0 diesel locomotives from China at the end of February, just before we went to print with this issue. The first shipment consisted mostly of standard DC models as most of the DCC versions were still at the factory being completed. A delivery date for the balance of the DCC versions was not available at the time of going to press, but it was not expected to be a long delay before the second delivery arrived in Australia.

Kerroby Models have added some parts that they used to produce for Hanovale to their main range. Now available are castings for 2BS bogies, side frames for the XPT and Tulloch railcar bogies, wire coil frames, a set of twelve hopper door latches for the NSWGR BCH/BWH family of bogie hopper wagons and 7mm diameter hand wheels for ballast wagons.

Latitude 32 are developing 3D printed locomotive and tender bodies for the WAGR P, Pr class 4-6-2 'Pacifics'. If all goes to plan, these 'scratchbuild aid' parts will be available around May 2020. The purchaser will have to provide their own chassis in order to get them running. If all goes to plan and the P/Pr parts work out, Paul intends to look into the possibility of a similar 'scratchbuild aid' for the WAGR E class 4-6-0 and F class 4-8-0 steam locomotives. Also in development is a body kit for the West Australian Q class Co-Co diesel, which should turn up in July/ August 2020.

Phoenix Reproductions report that production samples of both their r-t-r VR D^3 4-6-0 and K class 2-8-0 steam locomotives are expected to arrive in Australia in late March 2020. The production run of the D^3 should arrive late in the second quarter of 2020, with the K class expected shortly thereafter, assuming everything goes to plan in China.

Just some of the colour schemes to be available when Auscision release their HO scale, r-t-r, NR class locomotives later in 2020. The full range, which includes fifteen different colour schemes and at least twenty five different numbers, can be viewed on the Auscision website and at the 'Australian Modeller' factory shop. As is standard now, the locomotives will be available with a DCC sound option. Pre-delivery orders can be made via the Auscision website.



A factory-painted sample of the Auscision HO scale r-t-r 'Tait' parcel van, 1CM, in VR carriage red, with 'Fast Electric Parcels Delivery' lettering on the sides, still expected to arrive in early 2020 along with the rest of the VR 'Tait' suburban EMU sets delivery.

AMRM News

A factory-painted sample of one of the five different colour schemes to be available when Auscision's HO scale, r-t-r, QR QHBH modern-era 120t coal hoppers arrive in Australia, which, at time of writing this caption, was expected to be March/April 2020. The models will be available in four-packs and can be ordered pre-delivery via the Auscision website.

SDS Models report that the balance of the NR class Co-Co diesel locomotive production, including the models with factory-fitted DCC sound, will leave China late in March and assembly will then commence on the long-awaited NSW 81 class Co-Co diesel locomotives. At about the same time assembly will also commence on the SAR 800 class Bo-Bo diesel and the retooled VR PL series passenger carriages.

On the rolling stock front, SDS is currently negotiating production slots for the re-run of the NPRY cement wagons, ARX grain wagons and the SO/SOC ore wagons. Also later in 2020, modifications to the old Austrains tooling will see the re-release of the NSWGR LHG goods brake vans (including the GHO variant painted deep Indian red with golden yellow lining), a 1970s/1980s era plywood-sided KP mail van and a turn of the twentieth century era, fully-panelled LFX Express Lavatory ('dogbox') carriage in the elaborately lined colour scheme of the period.

Compiled by James McInerney

A factory-painted sample of a Powerline r-t-r HO scale VR AZ first class sitting car. The first production run is expected to arrive in 2020 (delayed, unfortunately, by the problems being experienced in China at the moment) and will consist of AZ/BZ (broad gauge) and VBK/VKF coded carriages (standard gauge 'Spirit of Progress'), as well as SteamRail's 'Hobsons Bay' (the carriage with the dance floor), all in the traditional VR blue and yellow colour scheme. Further colour schemes will become available in due course. The full range of production samples were expected to have been on display on the Powerline stand at the Train and Hobby Show at Sandown Racecourse over the weekend of 7-9 March 2020. These all-new carriages feature contemporary standards of exterior, interior and undergear details, running on metal NMRA RP-25 profile wheels and coupled by genuine Kadee No.158 'scale head' knuckles. The interiors are even finished in the correct colours for each class of vehicle; first class seating is dark blue and second class the appropriate beige/tan. Pre-orders are now being taken, either through Powerline Direct or via your local hobby store. The exact date of release will be advised via the Powerline Models Facebook page (and in the pages of AMRM) when it becomes known.

Diary

SCMRA ACTIVITIES

For all activities contact Eastern Division representative Graham Windmill on (02) 9626 0351.

21 March	SCMRA Seminar on NSW Rail Operations – Modelling the Prototype.
18 April	Running session on DCC layout of Mudgee at home of Tim Stewart, 2.00pm to 5.00pm.
9 May	To be confirmed.
6-8 June	Great Train Show, Rosehill Gardens.
11 July	SCMRA and EMRCI Open Day. Trevor (02) 9876 3522.

EXHIBITIONS & EXPOS

BUNDABERG WEST – QLD. March 21-22, 2020. 2020 Bundaberg Model Train & Hobby Expo, Bundaberg Multiplex Sports & Convention Centre, Civic Avenue, Bundaberg West. 9am-5pm (Sat), 9am-4pm (Sun). Adults $12.00, Children 8-16 $5.00, Family Pass $30.00 Graham 0407 559 086.

CANBERRA – ACT. March 28-29, 2020. Canberra Model Railway Expo. Canberra Model Railway Club, UC High School Kaleen, Baldwin Drive. 9am-5pm (Sat) & 9am-4pm (Sun). Chris 0400 116 016 or Andrew (02) 6231 9799. cmrcisec@cmrci.info

BENDIGO – VIC. April 11-13, 2020. Bendigo Model Railroaders Exhibition. St Killian's Catholic Church Hall, McCrae St, Bendigo 10am-5pm (Sat), 10am-5pm (Sun), 10am-4pm (Mon). Adults $10, Children $3, Family $25. Wayne 0499 164 824 or Matt 0458 792 400. bendigomodelrailroaders@gmail.com

DIAMOND CREEK – VIC. April 11-12, 2020. Yarra Valley Model Railway Club model train exhibition. Community Bank Stadium 129-163 Main Hurstbridge rd Diamond Creek. 9.30am-5pm (Sat), 10am-4pm (Sun). Adults $15, Child $5, Family $30. ptktray@bigpond.com

GILLES PLAINS – SA. April 16-19, 2020. South Australian N Gauge Society display. Gilles Plains Shopping Centre, 575 North East Road, Gilles Plains. 10am-9pm (Thu), 9am-5pm (Fri & Sat), 11am-3pm (Sun). secretary2@sangs.asn.au www.sangs.asn.au/ Find us on Facebook.

BOWEN HILLS – QLD. May 2-3, 2020. AMRA Qld Inc, Brisbane Model Train Show. The RNA Exhibition Grounds Exhibition Building, 601 Gregory Terrace (cnr. Costin Street). 9am-5pm (Sat), 9am-4pm (Sun). Adults $15, Concessions $10, Child (if accompanied by an adult) free. amraqld1@gmail.com

STANHOPE GARDENS – NSW. May 2-3, 2020. Hills Model Railway Society (HMRS). Second year at new venue and new dates. Blacktown Leisure Centre, cnr Sentry Drive and Stanhope Parkway, Stanhope Gardens. 9am-5pm (Sat), 9am-4pm (Sun). Adults $15, Child $8, Senior $10, Family $30. Secretary 0421 603 240. info@hmrs.org.au www.hmrs.org.au

ALBURY – NSW. May 23-24, 2020. Murray Railway Modellers, Model Train Show. Mirambeena Community Centre, 19 Martha Mews, Lavington. 9am-5pm (Sat), 10am-4pm (Sun). Grant 0417 538 700. galamy@bigpond.com

BALLARAT EAST – VIC. June 6-8, 2020. Ballarat & District Model Railway Club Inc. Annual Exhibition. At (new venue) the Recreation Centre, Fussell St, Ballarat East. 10am-5pm (Sat & Sun) 10am-4pm (Mon). $5.00 Kids/ $10.00 Adults/ $25.00 Family. email trains.bdmrc@outlook.com

GLEN WAVERLEY – VIC. June 6-8, 2020. Waverley Model Railway Club Annual Exhibition, Brandon Park Community Centre, 649 Ferntree Gully Road, Glen Waverley. 10am-6pm (Sat) 10am-5pm (Sun) 10am-4pm (Mon). Adults $12, Children $6, Family $30. exhibitions@waverleymrc.org.au

ROSEHILL – NSW. June 6-8, 2020. Great Train Show, Rosehill Gardens Grand Pavilion, off Grand Avenue, Rosehill. 9am-5pm (Sat & Sun), 9am-4pm (Mon). Adults $16, Seniors $12, Child $9, Family $45. Mike 0408 817 554. www.eppingmodelrailway.org.au

SEAFORD – SA. July 9-12, 2020. South Australian N Gauge Society display. Seaford Central Shopping Centre, 108 Commercial Road, Seaford. 10am-9pm (Thu), 9am-5pm (Fri & Sat), 11am-3pm (Sun). secretary2@sangs.asn.au www.sangs.asn.au/ Find us on Facebook.

STAWELL – VIC. July 11-12, 2020. Grampian Model Railroaders Inc. SES Hall Sloane St Stawell Victoria 9am-5pm (Sat) & 10am-4pm (Sun). Stuart 0438 545 233. www.gmrinc.org.au

PARADISE POINT – QLD. July 18-19, 2020. Miniature Trains on the Coast Model Train and Hobby Expo, Paradise Point Community Centre, 31 Falkinder Ave Paradise Point, (Sat & Sun). Secretary secretary@mtcgc.org.au or 0419 654 630.

CANBERRA – ACT. August 1-2, 2020. Malkara Model Railway & Scale Model Exhibition at Malkara Special School, Wisdom Street, Hughes. 9am-5pm (Sat) and 9am-4pm (Sun). Gavan Bennett 0401 308 926. malkara@actmrs.org.au

THORNLEIGH – NSW. August 8-9, 2020. Marklin Models Exhibition, Thornleigh Community Centre, Cnr Phyllis and Central Avenues. Open 9am-5pm (Sat), 9am-4pm Sun. Peter 0407 007 899.

INGLE FARM – SA. August 20-23, 2020. South Australian N Gauge Society display. Ingle Farm Shopping Centre, cnr Walkleys & Montacute Roads, Ingle Farm. 10am-9pm (Thu), 9am-5pm (Fri & Sat), 11am-3pm (Sun). secretary2@sangs.asn.au www.sangs.asn.au/ Find us on Facebook.

SEMINARS & CONVENTIONS

EPPING – NSW. March 21, 2020. SCMRA Seminar on NSW Rail Operations covering Modelling and the Prototype. 9am-5pm. Registration essential by 6 March to SCMRA, PO Box 345, Matraville, 2036. Cost is $45.

LIDCOMBE – NSW. April 4, 2020. Carnarvon Golf Club, 64-95 Notting Hill Rd, Lidcombe. The Aus7 Modellers Group O-Scale Modellers Forum. Seminars and modelling topics of interest to modellers working in any scale but with a focus on 1:48 and 1:43.5. 9am-4pm (Sat). T. Hodges, 0429 926 003. trevorchodges@gmail.com

ROSEHILL – NSW. June 5-9, 2020. National Model Rail Convention organised for all, by the Australasian Region NMRA. Clinics on all prototypes, all scales, local and international speakers. Layout tours. Prototype tour, convention dinner, 2 Day Partners Program, Meals. Peter 0413 226 825. www.nmra.org.au/conventions/index.html

EPPING – NSW. July 25, 2020. Modelling the Early Days of the NSW Railways Workshop. Dence Park Creative Centre, 26 Stanley Road, Epping. Registration essential. Regular attendees will be notified by post. amrmagzn@tpg.com.au

OPEN DAYS

MORTDALE – NSW. April 4, 2020. AMRA NSW Clubrooms, 48 Barry Avenue, Mortdale. 10am-4pm. Gold coin donation. (02) 9153 5901. Australian Model Railway Association, NSW Branch Inc. www.amransw.asn.au

EPPING – NSW. July 11, 2020. SCMRA and EMRCI with operating layout and clinic on Getting Started in Model Railways at 11am. Free BBQ sausage sizzle. Trevor 02 9876 3522 for further details.

ARUNDEL – QLD. July 12, 2020. Gold Coast Model Railway Club, 18 Kendor St, Arundel Qld. 10am-4pm (Sun).

SALE DAYS

CALOUNDRA – QLD. April 4 2020. The Sunshine Coast Model Rail Club Sale and Display Day at Uniting Church Hall 56C Queen Street, Caloundra, from 8.30am-1pm (Sat). (07) 5479 0339.

ZILLMERE – QLD. April 18, 2020. Sales tables at AMRA Qld. Inc. 20a Murphy Road (Dunsford Street lights) Zillmere 9am-1pm. Layouts running. Enquiries and table bookings President Bruce Meiklejohn 0433 440 031. amraqld1@gmail.com

RICHMOND – TAS. May 16, 2020. Hornby Railway Collectors Association of Australia (HRCAA) Tasmania branch Swapmeet. Richmond Primary School gymnasium, Henry St, Richmond. 10am-2pm (Sat). Entry is by gold coin donation. jaikob_ford@hotmail.com

◀ *The unused section between baseboards that was used for the Faller Car System.*

Retrofitting a Faller Car System to an Existing Layout

***Jonathan Majer** creates an animated road on his layout. Photos by the author.*

I was recently given a Faller Car System set as a 'significant' birthday present. It consisted of a motorised Mercedes Sprinter van, flexible wire to set in the road (which a magnet on the van's steering rack follows), filler to cover the resulting groove in the road, grey road paint and road marking decals. This immediately raised the question of where to install it on my pre-existing *Paterson-Keating* layout? [*'The Paterson-Keating Lines', p.18, AMRM Issue 333, December 2018–Editor.*]

Although the layout features an extensive road network, it is all A to B, whereas the Faller cars need a continuous circuit on which to operate. Furthermore, the cutting of the groove is a fairly brutal process, which would likely result in damage to the layout's scenery. Faller does sell a special tool for cutting the groove, but this is expensive and I did not think it economical to purchase for a small road set-up of the type I was planning.

How then could I install the system? It was clear that the system needed to be installed on a 'clean slate'. As with many layouts, mine has voids and gaps between various parts of the baseboard. One such void was the gap between the motive power depot and the carriage sidings (Photo 1 and AMRM Issue 333, December 2018, p.20). A road runs along the north side of this gap, which presented an opportunity for a turn-off into the gap.

I then cut a piece of 6mm MDF board to exactly fit the gap. A road system, which was essentially an oval with a connecting road across the centre, was then drawn on this. One set of guide wires was then set in the left-hand side of the road for the greater oval. A second set of wires was set on the right-hand side, but only for the southern half of the oval and across the connecting road. The groove was then covered with filler, the road painted and markings added.

The road was designed and painted so that it appeared as a turnoff from the main road of the layout (Photo 2). A Faller Transit van was subsequently acquired, to run in the opposite direction to the Sprinter van. The entire module was given some purpose by landscaping it and setting it up as a small industrial estate, with two food-orientated warehouses and a pop-up car yard, complete with an Arthur Daley-style Portacabin office.

The module was then suspended on Meccano angle pieces screwed around the perimeter of the adjacent baseboard. Being of light construction, the module can easily be lifted out by one person in order to facilitate maintenance and cleaning of the track behind the module. The entire system blends in well with the rest of the layout and was installed without any damage to the existing system.

◀ *The new section containing the section of road fitted with the Faller Car System guide wire and moving vehicles.*

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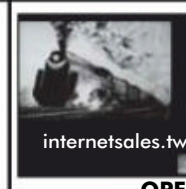

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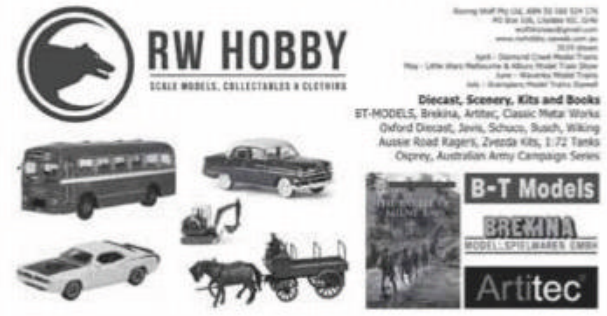

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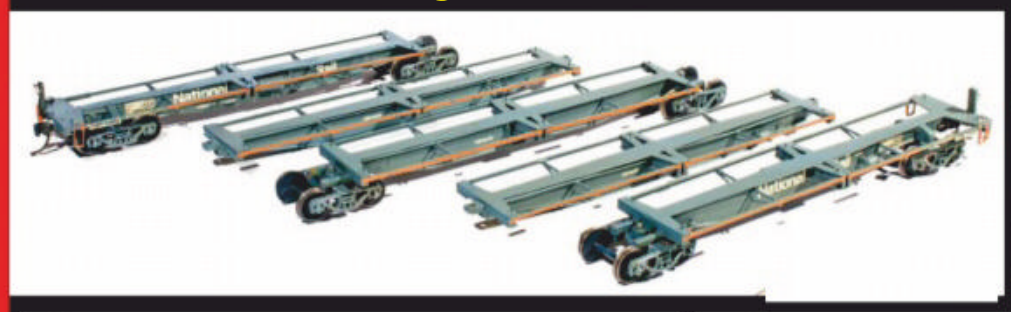

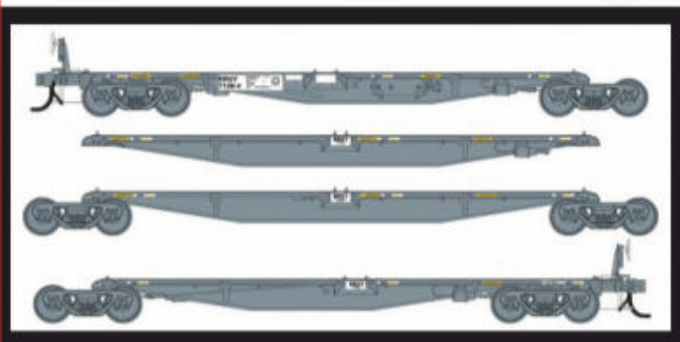

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