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2019

MODEL RAILWAY

MAGAZINE

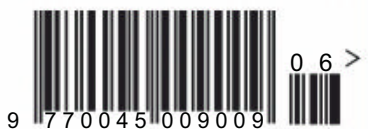
The Top End 1942



Billabong Marina 6
On the Workbench: SJM Cattle Wagons
Model Railway Signal Box Diagrams
Reviews • Mailbag • AMRM News

Issue 339 Vol. 29 No.6

ISSN 0045-009X





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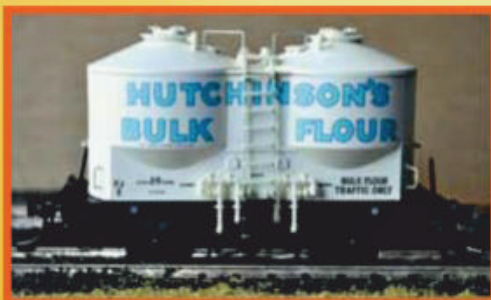
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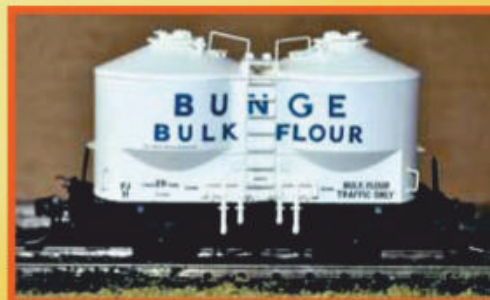
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NR class Locomotive

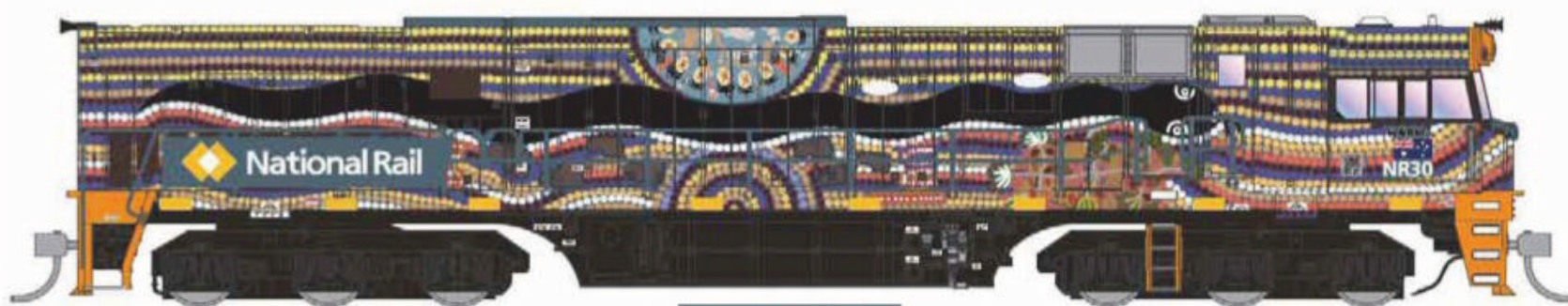
In late 1997 National Rail Corporation out-shopped two NR class locomotives bearing indigenous design based on the work by Alice Springs artist Bessie Liddle.

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.

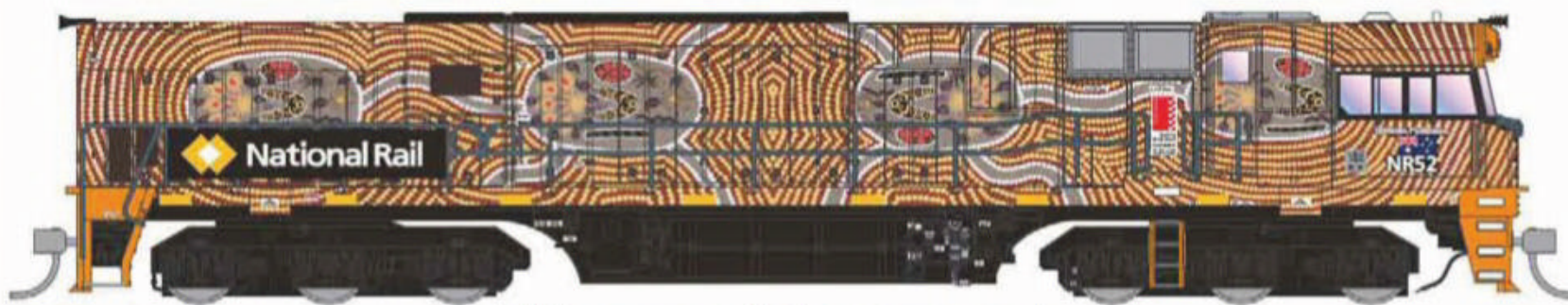
The second was launched in Alice Springs by Mark Vaile in December 1997, Kungara Mankurpa NR52, this design depicts the Star Dreaming story Seven Sisters. Decorated by Bessie, a dot painting showing the travels of the Seven Sisters and their pursuit by the Snake Man in Pitjantjatjara country.

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

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Editor: James McInerney

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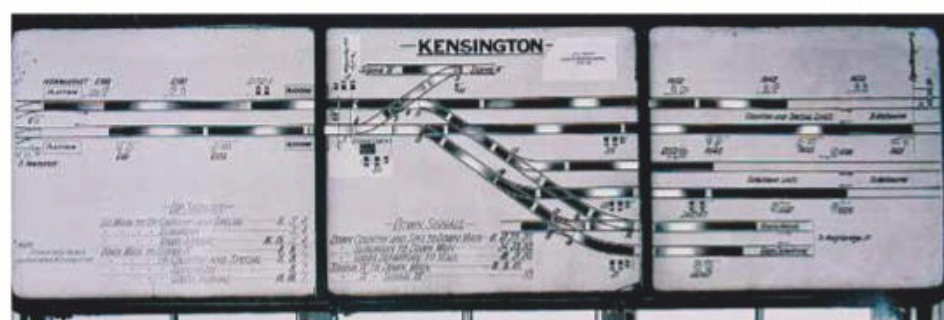
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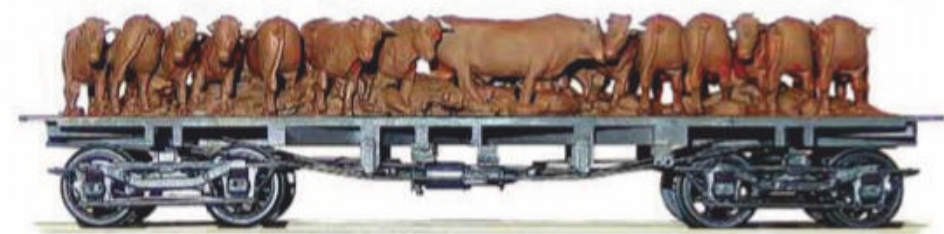


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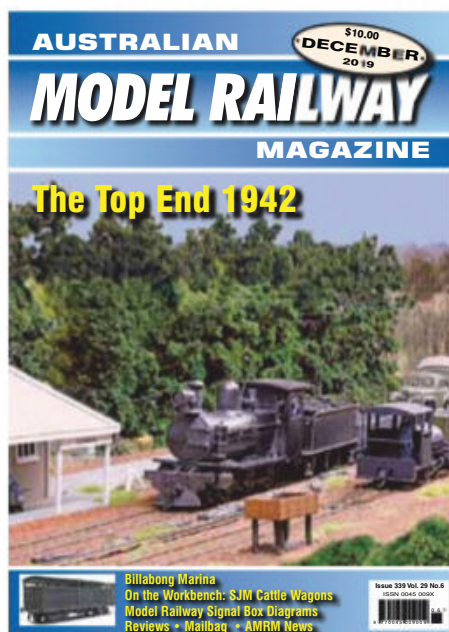
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ON THE COVER: It is 1942 and NFB46 approaches Darwin station building while 'Sandfly' waits authorisation for her next movement on Peter Lucas's On30 exhibition layout depicting the northern terminus of the 'Line to Nowhere' during the darkest days of World War Two. The layout is described in this issue. Photo by the author.



Creating an Illusion of Reality

One of my recreations away from model railways is a visit to the local cinema, where the offerings are from both the mainstream and off-beat producers. Movie producers have the task of creating a scene in which to present their story. In many cases it has been large scale model building, with only sections of a house or shed being shown – no point in building what does not appear on screen, is there? It is more than fair to say that most movies have done a good job in creating the scenes, especially these days with the use of digital imaging.

Some time back, our local theatre used a new clip to highlight that the theatre was fitted for special sound (Dolby Sound) with the image of a steam engine, complete with smoke and steam, charging across the screen with the sounds of the mechanical monster coming from everywhere. What a magnificent sight! However, on the second (and third) viewing, I was more impressed that the image was a model, or a digital image of a model, but, on further thinking, the whole scene was a fake. An illusion! An impressive illusion that made the viewer aware that the accompanying sound helped create the entertainment.

Model railways are just like this 'film' clip, which initially had me wondering why the producer did not use a model with finescale wheels; the flanges on the locomotive in the scene were far too deep for a real locomotive. But, on reflection, we with our models and our layouts also set out to create this illusion. While one can always appreciate the talent and craftsmanship needed to build a good model of any sort, putting that model into an appropriate scene gives the model life. The surrounding scenery creates atmosphere and much of this atmosphere is an illusion.

There are some scenes that use a lot of models to create this atmosphere. I think the best of this I have seen, in book, magazine or via the computer, is the 'Vale' scene at Pendon Museum in the UK. There is a railway in the scene, but it is the atmosphere of a period of time that remains in memory.

There are other scenes that use a minimum number of models to create this atmosphere and 'minimalism' works very well in the Australian context. There are many brilliant examples of this locally and AMRM has featured quite a few. A couple that come to mind are Alan Rockett's 1/4" scale representation of the Victorian Railways narrow gauge system in the Dandenong Ranges and *Beyond Bulliac*, a fantastic representation of the NSW north coast line. A recently featured example is *Fingal*, the 4mm scale Tasmanian layout featured in the August 2019 issue.

In all of these, and in the numerous others which space precludes their mention, the details of the small scenes complement the larger structures, models and the backscene to create the illusion that the scene is real. The detail may not necessarily be 'exact scale' but, overall, it creates a wonderful scene. The front cover of the August issue is a good example of this; the placement of weeds, grass, bushes, trees and other details disguise what may (or may not) be missing and create a scene that looks quite real.

In some instances, it is possible to create this illusion with a minimum of effort. On visiting a friend recently, I noticed that he had made a significant change to his railway (an urban scene with a marshalling yard and associated industries with an outward-bound through track). After enquiring as to what was new and expecting to hear a spectacular list, the answer was... a fence! He had fenced off one of the industries from the main line. A simple task and, although he is a skilled model maker, the fence came out of a box! So we all can do it. If one measured the fence, it is probably too high or the wrong design (it is of American origin), but any discrepancies are not seen when operating the layout, as one's attention is elsewhere, but the effect of the fence on the overall realism is noticed, even if only subconsciously.

Reflecting back to where I began this *Comment*, the advertising clip in the movie, the lesson is clear. A good model does not have to be exact scale to create the illusion of reality, it just has to look like it is real!

SOUTHERN CROSS MODEL RAILWAY ASSOCIATION

The Annual Membership Fee for SCMRA is \$60.00 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 \$30.00 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 news-sheet *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.

Secretary: Bob Gallagher

Membership Enquiries:

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	Advertising Deadline	On Sale Dates
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April 2020	1.2.20	15.3.20
June 2020	5.4.20	17.5.20
August 2020	7.6.20	19.7.20
October 2020	7.8.20	18.9.20
December 2020	2.10.20	13.11.20

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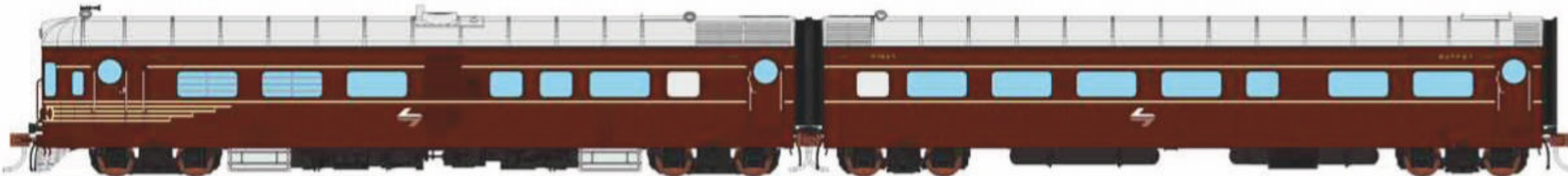
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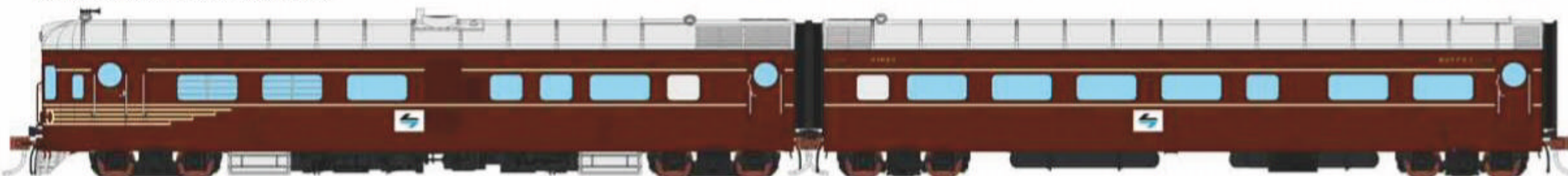
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Artwork shown for livery reference only. Number fonts, body versions and some finer details may differ on the production models



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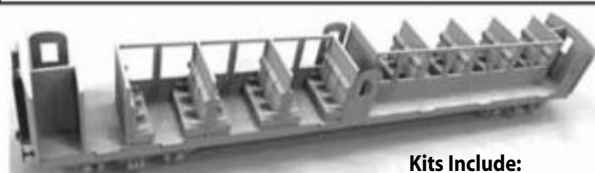
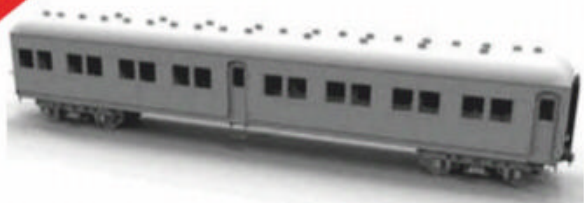


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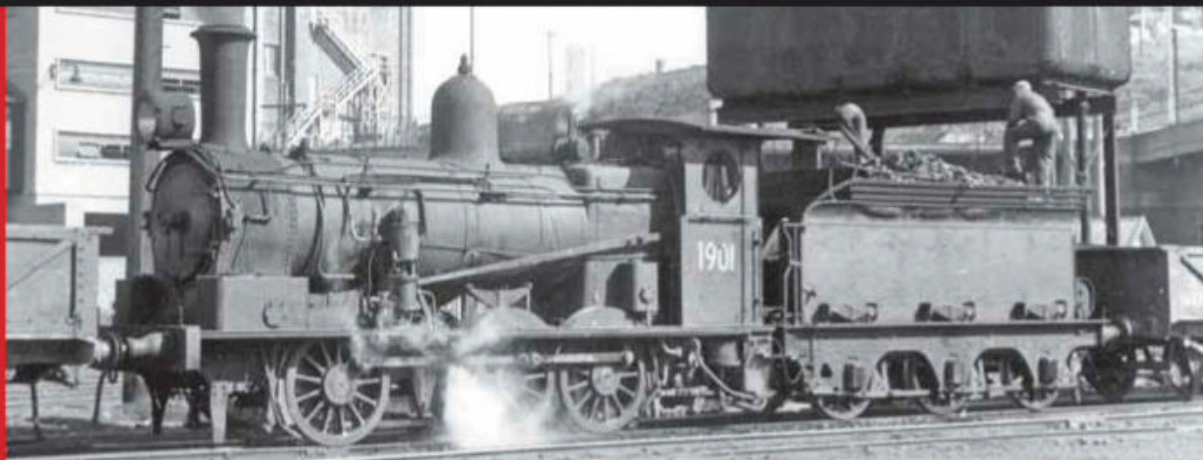
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	19-006 Cutaway cab, marker lights, BP tender with coal rails ☐ 1923 ☐ 1952 ☐ 1959			
	19-007 Cutaway cab, headlight, BP tender with coal rails ☐ 1954 ☐ un-numbered			
	19-010 Cutaway cab, headlight, Baldwin tender, cowcatcher ☐ 1954 ☐ 1957 ☐ un-numbered			
	19-011 Thow cab with BP tender, 1955 Centenary black with red lining, no headlight or marker lights ☐ 1948			
	19-012 Thow cab, BP tender, no headlight or marker lights ☐ 1925 ☐ 1948			
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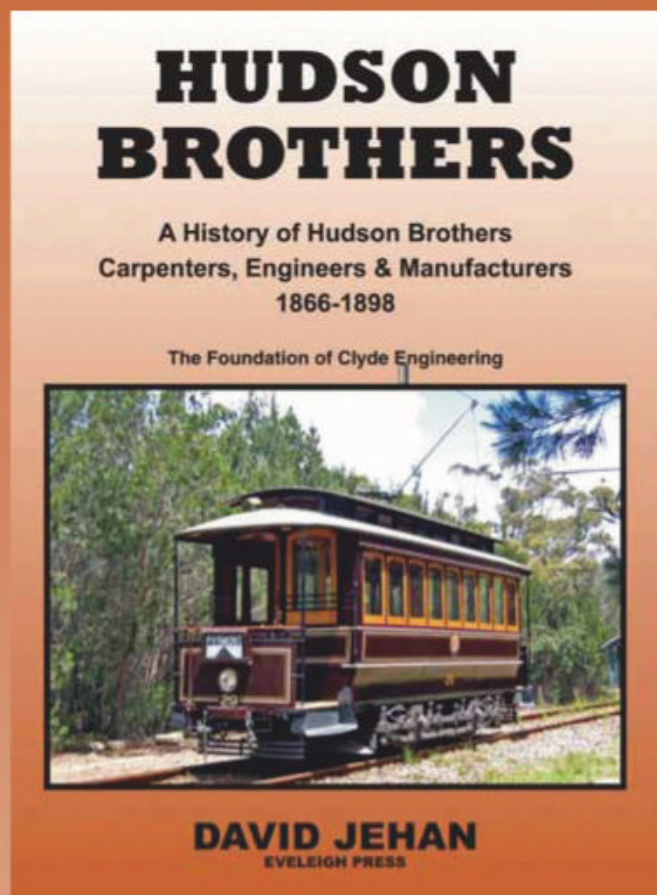
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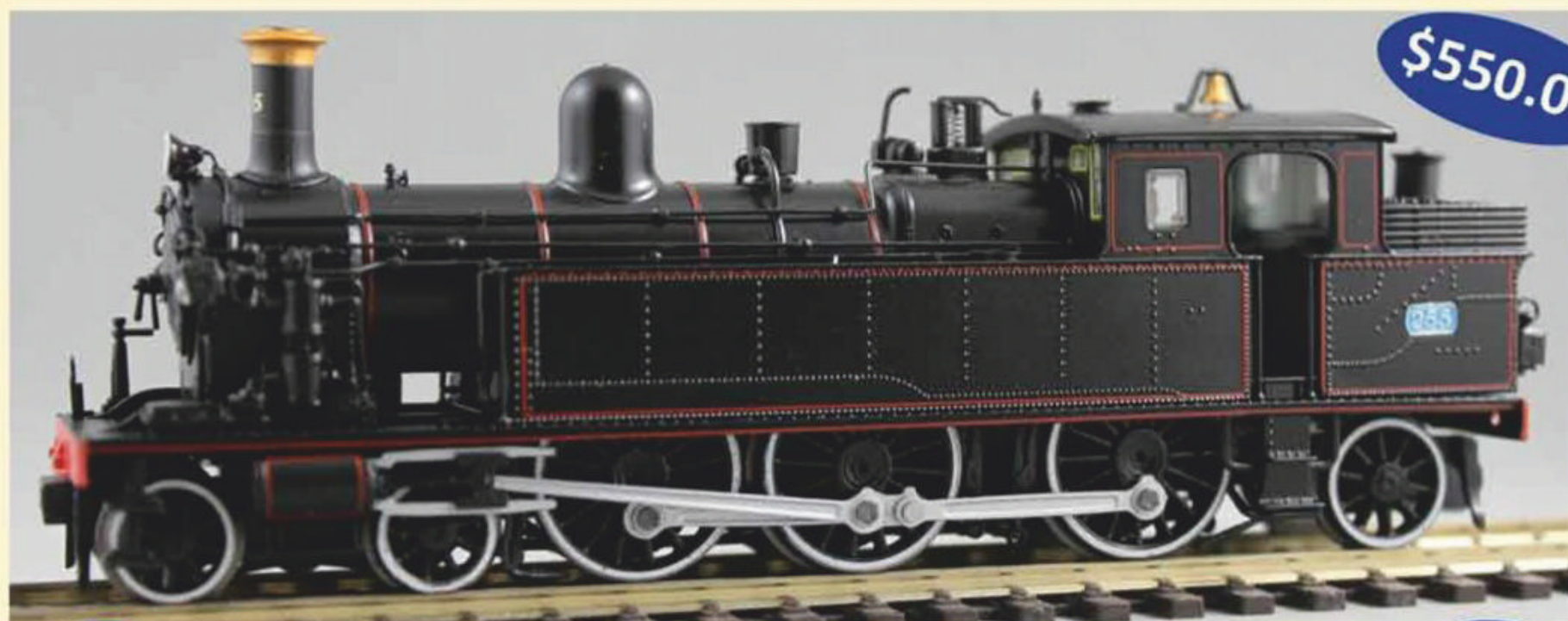
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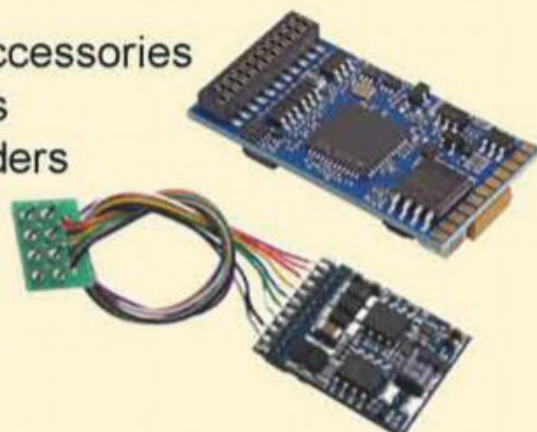


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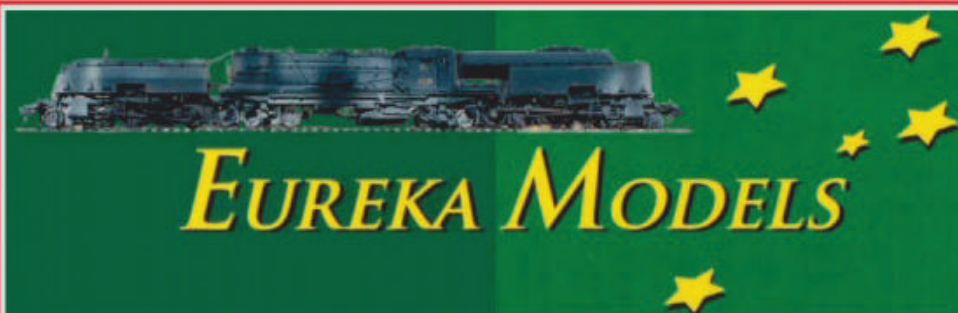
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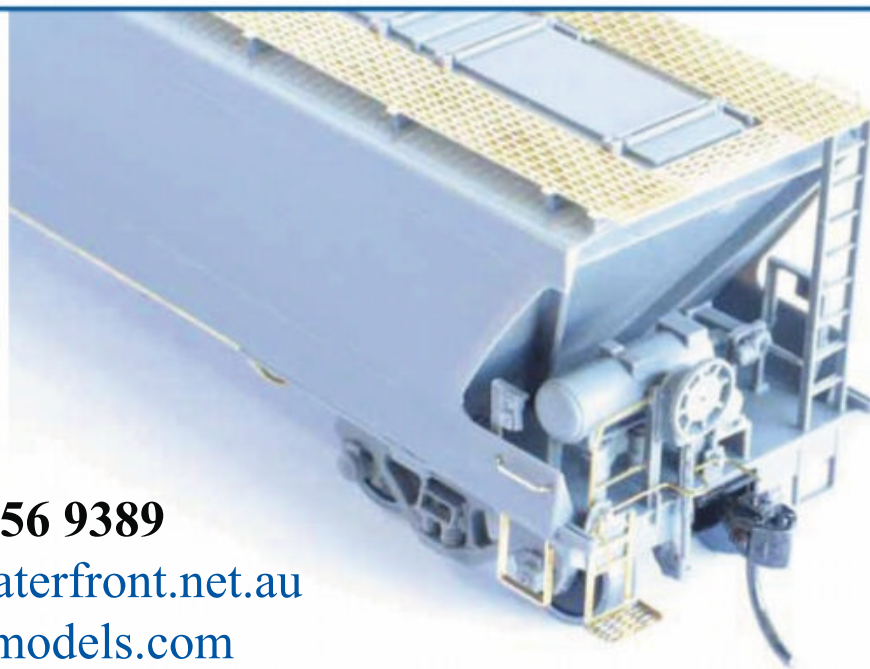
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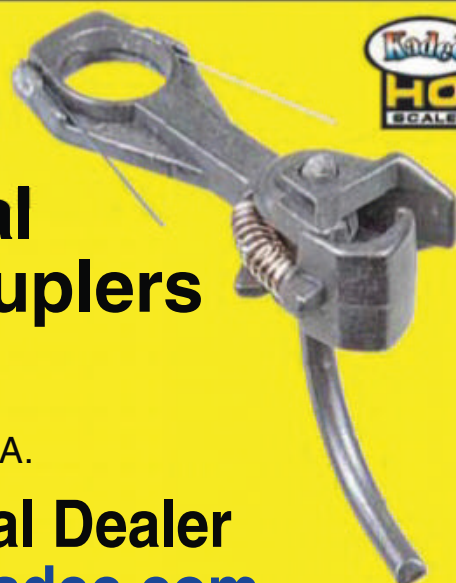
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▲ 'Sandfly', the NAR's famous Baldwin-built 0-4-0ST, shunts a wagon loaded with camouflage netting, squeezing between drums of petrol and an unexploded bomb in Darwin yard. Understandably, the driver is most likely feeling a little nervous!

◀ NFB46 waits to depart southbound with a train of military stores. The prototype locomotive was built by James Martin & Company of Gawler, SA, in 1897 for the SAR as Y156, then rebuilt with a bigger boiler and reclassified Yx in 1910. From 1927 it operated on the Eyre Peninsula, from whence it was sold to the Commonwealth Railways in September 1941, arriving on the NAR in January 1942. It served on the NAR all through WW2 and was then sold to the TGR in 1949 to provide spare parts for that railway's four F class locomotives (ex-CR NFB class).

▼ 'Sandfly' pauses on the jetty during shunting next to the sandbagged emplacement containing a 40mm Bofors anti-aircraft gun. Judging by the nearby remains of a Japanese Zero fighter, the gun team have already had a success... and a very close call! The crews' small arms are resting close-to-hand on the sandbag wall, just in case...





The first railcar on the NAR was a steam-driven vehicle constructed by Sentinel-Cammell in the UK in 1924, which quickly became known as 'Leaping Lena', due to its very poor ride. Originally used to provide a one-day service between Darwin and Katherine, by 1930 it was providing fortnightly service between Katherine and the inland terminus of the line, Birdum. In October 1936 it suffered an accident and was then rebuilt by US Army personnel, as mentioned in the text, including the corrugated iron covering the damaged engine compartment depicted in the model. Here the model of the modified railcar departs, southbound, from Darwin station. The single sandbag next to the coach indicates the location of an uncoupling magnet, of which there are several dotted about the layout.

The Top End 1942

*Peter Lucas has built an On30 exhibition layout portraying a very unusual prototype; Darwin during World War Two.
Photos by the author.*

How it began

It all started a couple of years ago when, by chance, I came across a couple of photos of Darwin in 1942. One showed the waterfront during the initial bombing and the second showed troops lined up on the jetty railway with wagons behind. At the time, I had no idea that a railway existed in the Northern Territory prior to the current standard gauge. Research started. A couple of books on the North Australia Railway (NAR) were located and purchased. These revealed an intriguing story of an eclectic mix of rolling stock and some decidedly quirky operations, that just had to be modelled. The fact that I had never seen a NAR layout provided further motivation.

At the time I had a large, British-based OO scale railway in a dedicated railway room. However the decision had been made to downsize and move to a smaller house in which I could only expect a bedroom as both office and railway room. Therefore planning had to start on a new and much smaller layout and it would be based on the North Australia Railway.

Layout Design

As far as I was aware, there were absolutely no ready-to-run or kit-based locomotives or rolling stock available. This left the question of scale completely open. However, the layout was going to need some military vehicles and quite a few troops, all of which were readily available in 1:48 scale, so that simplified the choice. The NAR was 3'6" gauge so that would have meant a 22mm gauge on the layout. However I didn't fancy scratchbuilding the entire track and point work so took the easy option of 16.5mm gauge. So far nobody has noticed this discrepancy, but then that's an advantage of modelling a little-known railway in the Northern Territory; few people know the prototype existed let alone what it looked like.

The overall size of the layout was chosen as 2400mm by 450mm for two reasons. Firstly, it would fit on some chests of drawers in my office and, secondly, because I wanted to exhibit the layout in future and needed it to fit into the boot of my Holden Cruze.

Operating a model railway layout is a priority for me and therefore I needed it to have shunting interest and lots of activity when on show at exhibitions. After a lot of thought, the plan on p.20 was selected after seven earlier attempts. The AnyRail 6 software package was used to design the layout with the result that everything fell into place first time and there were no track issues.

By necessity, this is a rearranged and very compressed view of Darwin's waterfront railway, but manages to include the station, one of the tunnels to the underground fuel storage, the flying boat base and a heavily foreshortened jetty. It also manages quite a bit of operational interest. The mainline which disappears behind trees top right is actually a removable cassette so that trains can be inserted to run into Darwin station and return. A hidden siding top left allows rolling stock to be temporarily stored out of sight while the sidings at the front give a lot of shunting potential.

Construction

The layout is split into two baseboards of equal length. A monocoque construction was adopted using 7mm plywood glued and pinned together and with access holes cut in the underside. This method was chosen because it gives a very lightweight, but strong, result which has not distorted at all in two years. All of the power supplies, wiring, point motors and other electronics are contained within the monocoque and are therefore fully protected during exhibition trips.



At A Glance

Scale: On30 (On2½)

Prototype: The North Australian Railway (NAR)

Period: 1942

Layout Type: Terminus to cassette shunting layout

Layout Size: 2.4m x 0.45m

Rail Height from floor: 1.2m

Baseboard: 7mm plywood monocoque

Track: Peco narrow gauge

Control: DCC with sound

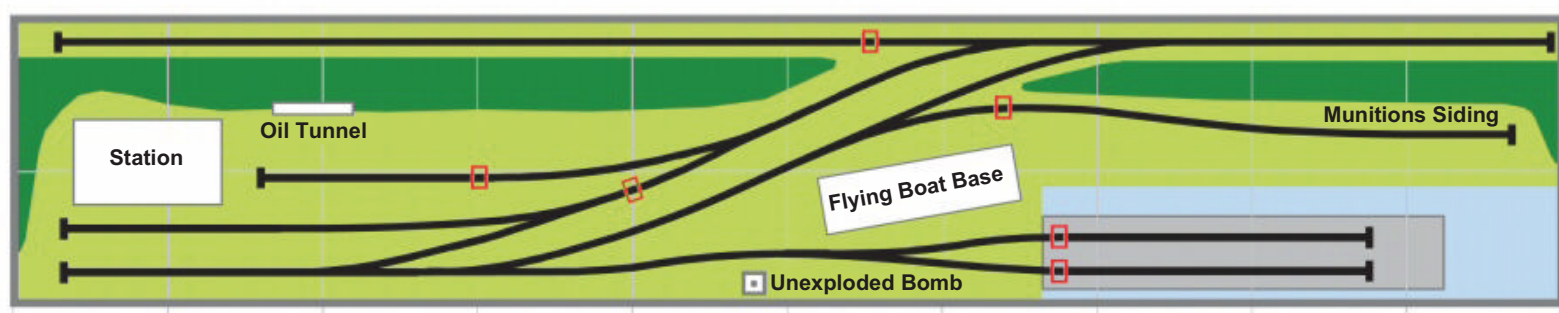
Structures: Scratchbuilt

Locomotives: 3D printed on proprietary chassis

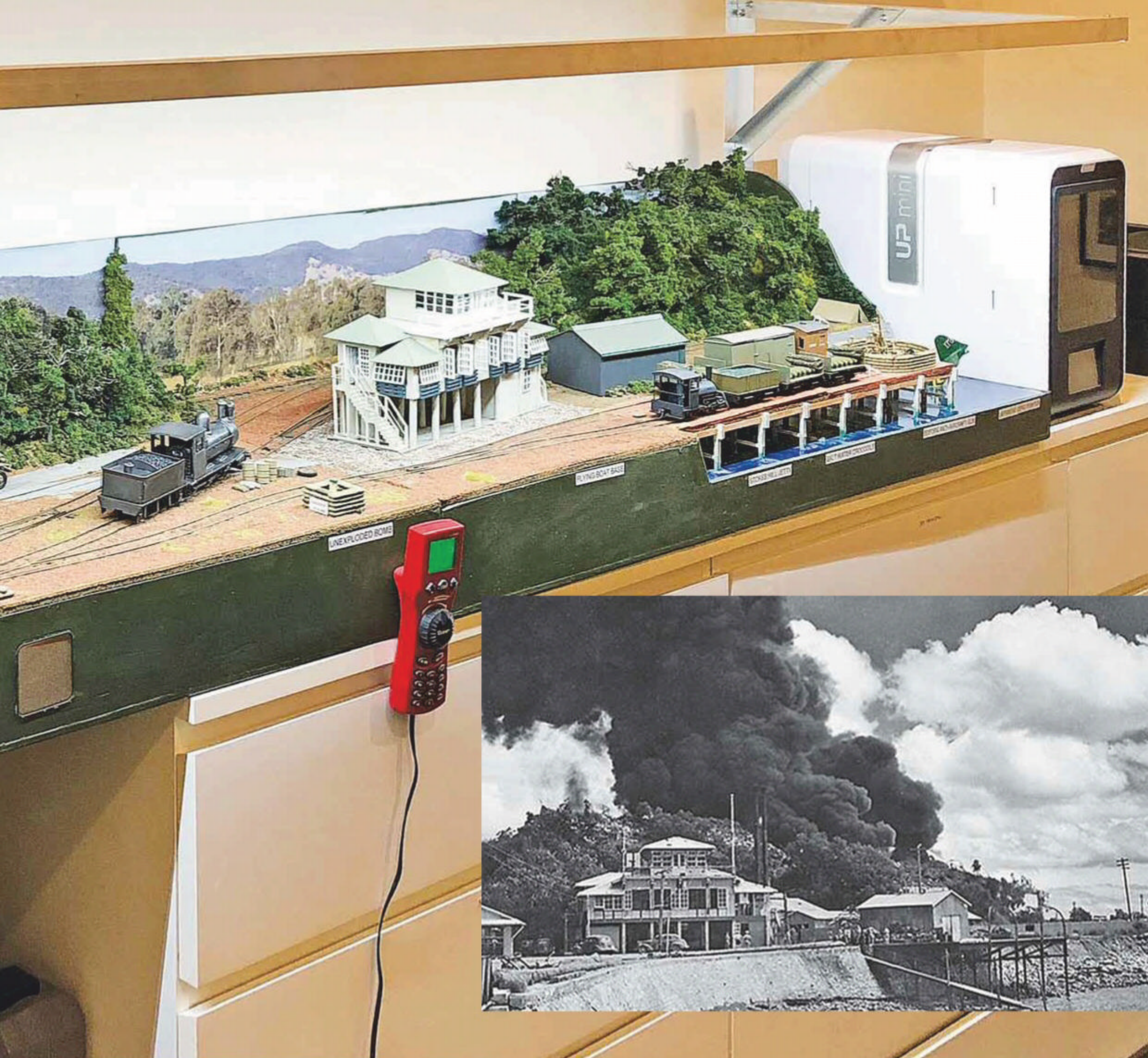
Rolling stock: One r-t-r, two kits and the rest 3D printed on Peco chassis kits

Builder: Peter Lucas

Top End 1942 — 2.40m x 0.45m (0.25m grid)



© Pete Grant 2019



An overall view of the entire layout set up in the author's office. The 3D printer used to produce most of the locomotive bodies and rolling stock can be seen at the far end of the bench.

Inset: *The oil tanks on fire behind the flying boat base after an air raid on Darwin in 1942. Photographer unknown from the collection of the Australian War Memorial.*

Track work is all Peco narrow gauge and the layout was wired for DCC from the outset using a Roco handheld controller. However, the Cobalt point motors are controlled by a small mimic panel using analogue DC. Kadее couplers are used throughout and therefore magnets needed to be installed for uncoupling. These are marked on the plan and a single sandbag is placed next to each one to indicate the position to the layout operator.

Working on the wiring is really easy because I just remove the rolling stock and tip the entire layout up onto its back so that I can work comfortably while sitting in my office chair. Illumination is provided by a strip of LEDs located behind a length of aluminium angle running the full width of the layout.

Modelling

Because so little was available r-t-r or as kits, much of the layout and rolling stock had to be scratchbuilt and extensive use was made of 3D printing using a UP Mini 2 printer seen just beyond the layout in the photo of the entire layout above.

Locomotives were made by selecting the closest off-the-shelf chassis and mechanism and then building on the body work using 3D printing. Finally, O scale detail components like brake pumps, safety valves and the crew were purchased and attached.

Most of the wagons were made in a similar way. Many of them use Peco chassis kits with 3D printed bodywork and munitions loads glued on. There is also one off-the-shelf On30 Bachmann tanker car and a couple of Australian On30 kits.

The US Army truck and staff car and the Bofors anti-aircraft gun on the jetty were all made from 1:48 scale kits. However, manning them with troops proved to be an unexpected problem. All the photos of the time show the Australian soldiers wearing shorts and a British style tin hat. However, an extensive search failed to locate any such soldiers in 1:48 scale and 3D printing such small details did not go well. In the end I had to resort to purchasing German Afrika Korps soldiers (in shorts, but the wrong hat) and British soldiers (in full battledress) and performing a full head transplant on each pair! This proved to be a very



'Leaping Lena' approaches Darwin station, rolling past a US Army truck.

expensive way of producing Australian soldiers and I will be having another go at the 3D printing.

The buildings were produced in the conventional way using styrene sheet from my local model shop, plus 3D printed components for window frames, staircases, etc. A drawing was found of the Darwin station building while the flying boat base was scaled from a number of photographs.

The backscene also came from my local model shop, as did the materials for making the trees and other greenery. There are many sandbags lying around and all were 3D printed. Photos of Darwin station at the time show soil covering the whole area including the track which has no sleepers visible at all. I found a single colour photo of the area which showed the soil to be a red colour, which was reproduced on the layout. However, much later on, further research showed that this red colour was probably caused by the imperfect film of the time and that the actual soil was much lighter.

Sandfly

The prototype locomotive is an 0-4-0 saddle tank with a Stephenson valve gear and was supplied by the Baldwin Locomotive Works of Philadelphia (USA) in 1887. It was originally purchased by the railway building contractors and was then sold to the railway on completion. It operated throughout the

war and was finally withdrawn in 1950, when it was placed on display at Port Augusta, then in Adelaide, before being returned to Darwin. It has been cosmetically restored by a local motor club and today can be seen in the old Qantas hangar.

The model was built using a Bachmann On30 Porter chassis and mechanism. A 3D printed cab, boiler and saddle tank were added, plus components from the original Porter locomotive body. On completion, the locomotive was found to pull next to nothing, because replacing the metal bodywork with 3D printed plastic made it far too light. Therefore, the saddle tank was reprinted in steel by Shapeways in the US and that solved the weight problem.

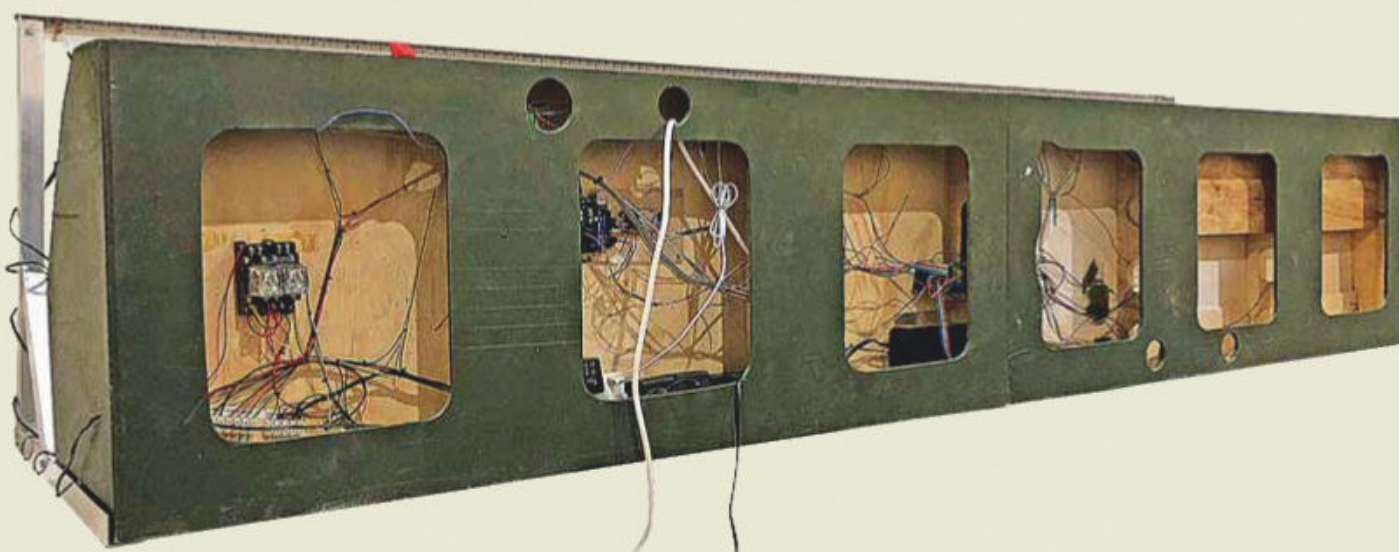
All my locomotives are sound-fitted and I strongly prefer that my steam locomotives should generate a deep realistic chuff. This means installing a sound decoder and a top quality speaker with a soundbox. *Sandfly* doesn't have the space available and so I solved the problem by permanently coupling a wagon to carry the locomotive camouflage netting, under which are the decoder and the speaker. A side benefit is that I then have eight wheels to pick up from the track and the locomotive runs and sounds much better than the original Bachmann Porter.

Leaping Lena

In 1924, the NAR purchased a Sentinel-Cammell steam-pow-



◀ *'Sandfly' shunts a rake of wagons loaded with camouflage netting and bombs. A pile of sandbags in the foreground stands ready as needed for such uses as protecting gun emplacements and building protective screens around unexploded bombs.*



◀ *The underside of the baseboard showing the plywood monocoque construction, chosen for strength and lightness.*



▲ 'Sandfly' stands near the station with another load of camouflage netting and bombs. General MacArthur's staff car has just arrived on a bogie flat wagon, which is stabled next to one of the fuel tunnels, newly-built in 1943 under Darwin township after seven of the eleven above-ground storage tanks were destroyed in various raids in early 1942. MacArthur will probably want the big white star removed from the roof of his car before the next air raid...

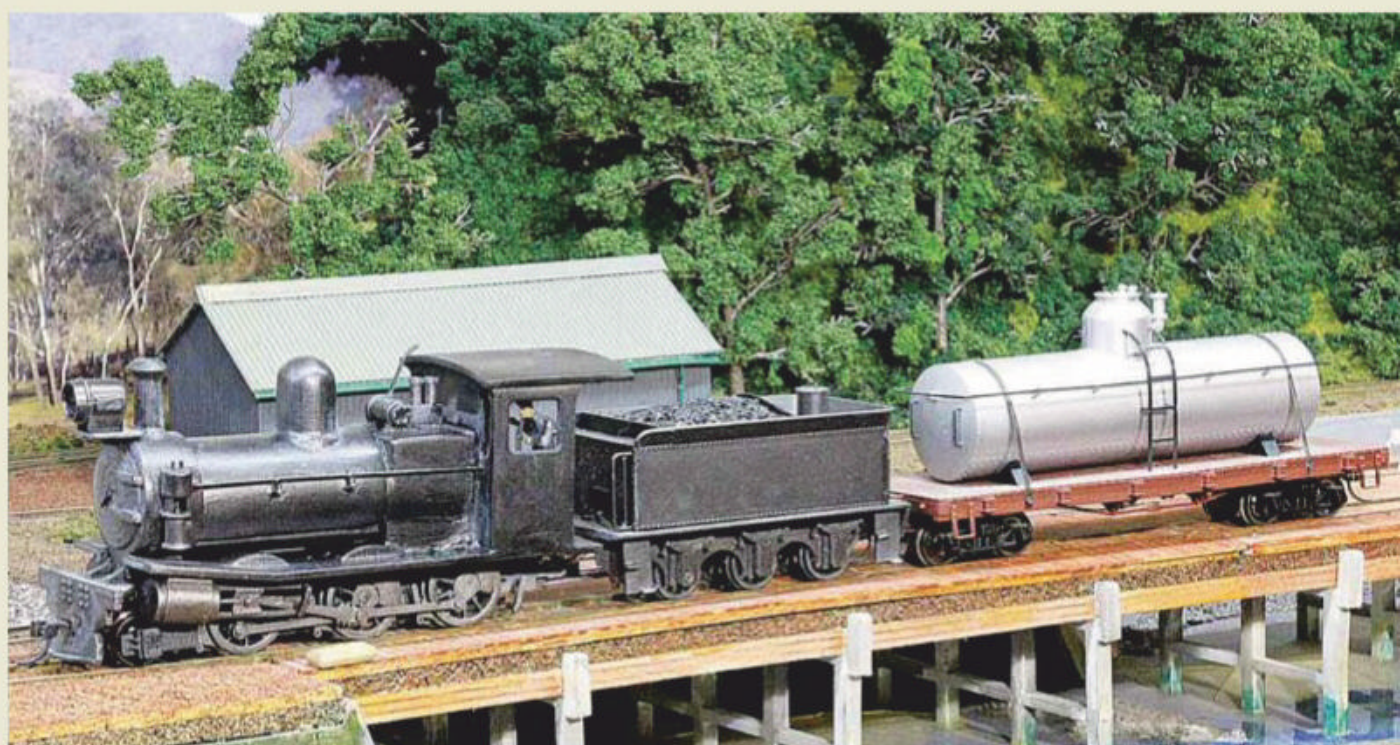
ered railcar from the UK in an attempt to improve the passenger service. It proved to be a disaster. The railcar was designed to run on pristine standard gauge track in a cool climate. On 3'6" gauge track deep in the bush it rolled all over the place. The guard had to write tickets before departure because it was impossible to write them in motion. The passenger compartment was too hot and smoke entered from the chimney. Things were finally improved by fitting a South Australian 'Short Tom' passenger carriage bogie, sunshades over the windows and a tall chimney.

In 1936, the railcar broke down just short of the southernmost terminus of the NAR at Birdum. It was hauled back to Darwin for repair and was then attached to the rear of a mixed train for return to its base at Katherine. South of Pine Creek the guard noticed that the railcar was missing and stopped the mixed train at the foot of a grade. After a short delay, a clicking sound became gradually louder and the railcar smashed into the rear of the mixed train. Its steam engine was destroyed and the railcar was towed to a Darwin scrapyard to end its days.

► NFB46 waits on the jetty with a rail tank car. In the harbour below, a 'saltie' (salt water crocodile) lurks in the hope of scoring a meal.



▲ The building that served the flying boat base, used for various activities such as housing VIP passengers (mainly important government and service personnel) enroute to and from London and Sydney while their aircraft was refuelled. It appears that General MacArthur has arrived and a reception is being held in his honour.





Passengers wait in the shade of the passenger station's verandah for the next train south as 'Sandfly' shunts the yard. In the background can be seen the entrance to one of the fuel tunnels that were constructed under the town after most of the above-ground fuel tanks were destroyed in air raids.

That should have been the end of the story for *Leaping Lena*, but it wasn't. In 1942, US Army troops were arriving in Darwin and desperately needed rail transport to ship goods from the harbour to their base camps. They saw the railcar in the scrapyard, removed the broken steam engine, fitted an American diesel engine, rebuilt the driver's cab using corrugated iron and returned it to service. There is no record of its use, but, with a story like that, it just had to be modelled.

Leaping Lena was recreated using a Hornby *Smokey Joe* chassis and mechanism with a cab built using styrene corrugated sheet. The passenger compartment was 3D printed and was mounted on a scrap HO coach bogie. A diesel sound decoder and speaker were added and the railcar now runs a shuttle service into Darwin station.

Other Motive Power and Rolling Stock

Between 1907 and 1924, many South Australian Y class locomotives were rebuilt and reclassified as Yx. Eighteen were acquired by the Commonwealth for service on the NAR as the NFB class. Six were retained after the war and, converted to oil burning, provided all the motive power until replaced by diesel electric units. My model of the NFB was constructed using a Bachmann On30 4-6-0 chassis and mechanism, converted to a 2-6-0. The Bachmann tender was modified and reused as were some components with the remainder of the locomotive being 3D printed.

Apart from *Leaping Lena* there is no passenger rolling stock as yet. The focus has been on freight with rakes of loaded and empty munitions wagons. These use Peco On30 chassis kits with the bodywork and the bombs being 3D printed. A couple of locally-produced wagon kits were close enough to NAR wagons and a Bachmann On30 rail tank wagon is the only r-t-r vehicle so far.

Operation

Currently the emphasis is very much on shunting. *Sandfly* assembles munitions trains which then depart southbound into the cassette behind the NFB loco. The wagons carrying bombs are then replaced with empty wagons, the cassette is turned and the NFB returns to Darwin station where *Sandfly* shunts the munitions wagons onto the jetty for loading. While this is going on, *Leaping Lena* makes periodic round trips into the station.

There is also scope for giving my grandchildren shunting puzzles. The most common is to get *Sandfly* to move General MacArthur's car from the station to the jetty; something which needs a bit of thought.

Exhibitions

From the outset, the layout was designed for display at exhibi-

tions. This requires continuous activity, but not at the cost of the operator being unable to talk to viewers or take quick breaks. An extra panel was hidden behind Darwin station with two Tam Valley shuttle units. One controls the movement of *Leaping Lena* on its shuttle service between the hidden cassette and Darwin station. The other controls the movement of *Sandfly* and wagons between the jetty and the munition siding using this shuttle unit's ability to switch a point between each movement. The timing of these two shuttle units can be set differently so that the viewer sees a constantly changing sequence of two trains which is completely automatic. Three double pole switches convert the layout wiring from automatic shuttle to manual operation at home.

In addition, there is a large air raid switch on a mimic panel which children are invited to press. An air raid siren is then heard followed by a series of explosions, each of which coincides with an LED flash in the scenery, mixed with Bofors anti-aircraft gunfire and finally an 'All clear' siren. This was built using an Arduino kit, SD storage and a speaker, all from my local Jaycar.

The Future

For the future, an eclectic variety of rolling stock remains to be constructed. Ex-South Australian 'Short Tom' carriages, the ambulance van for transporting leprosy patients, guard's vans, cattle wagons converted to troop carriers, a gunpowder van and the Leyland Titan four-wheel railcar.

For a wartime scene, the layout has a definite shortage of troops. US soldiers are easy to find as long as I don't mind them wearing trousers. The Aussie soldiers, in shorts, remain a problem if the full cranial transplant technique is to be avoided.

The layout will next be on show at the Milang Model Railway Exhibition on 23/24 November 2019 (Milang is an hour south of Adelaide).

References

Readers who want to know more about the NAR may find the following to be of interest:

The North Australia Railway 1911-1939, J Y Harvey, ARHS Bulletin 401 (March 1971)

The Never-Never Line: The Story of the North Australian Railway, J Y Harvey (Hyland House 1987)

The Line That Led To Nowhere, Ian R Stevensen (Rigby 1979)

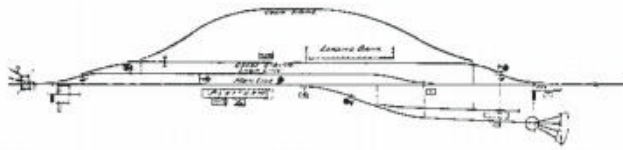
Iron Roads in the Outback, Nick Anchen, (Sierra Publishing 2017)

Outback Railwaymen – Life on the Commonwealth Railways, Nick Anchen, (Sierra Publishing 2019)

War Time History of the Commonwealth Railways North Australia Railway on the Comrails website at:

<http://www.comrails.com/wthcr/w04.html> .





IN THE LOOP

A Life's Work (and After)

Trevor Hodges has thoughts on which layouts are worth preserving after the demise of the builder, and whether they should be. Photo by the author.

It may not surprise you to hear that I like a yarn. My use of yarn is meant to be understood in the way it was used around me when I was a growing up in the company of people who'd lived through WWI, the Great Depression and WWII: not so much a story being told, but a chat or a gossip with stories woven into the talk. The sort of talking you do leaning on a farm gate or over a back fence. Perhaps it's a rather out of date term in these days of 'FaceTime' and social media, but I like a yarn and I would hazard a guess that a lot of the readers of this magazine do too.

I especially like a yarn with modelling friends I might not have seen for a while. I always try to make time to drop in and see such friends when I'm in their area. A particularly good friend of mine – I'll refer to him as 'Spots' to protect his privacy – and I had a long yarn a few months ago after paying a visit to a layout of a friend of his. The layout in question has been built by its owner in a large, purpose-built building.

This is no 'shed', but rather a huge rectangular building built and finished to a standard equal to a house. I find myself at a loss for how to describe the layout being constructed in this building, an unusual situation for me as I'm rarely lost for words. The word that most readily comes to mind when I think about this layout is phenomenal: the scale, ambition and quality of the whole enterprise is quite simply breathtaking. On the drive home after the visit I found myself shaking my head at how one man can have achieved so much (with the help of some friends) in such a short space of time. While it's far from finished, I understand he's been working on it for less than five years. It makes my paltry efforts over the past couple of years pale by comparison.

As is our habit, Spots and I sat around yarning about life, trains and the problems with the hobby for a few hours that evening. It would surprise no one to hear that the layout we'd visited formed the main topic of conversation. What the layout seemed to prompt in us, especially as the builder of the layout is older than both of us by a few years, were thoughts about what we'd like to achieve in the hobby before too much more time passes: the time left before we move into a stage of our lives where we may no longer be able to do the things we would really like to due to age or ill health.

For me it was to grasp the nettle and do something in a different gauge with some kits I'd owned for quite a while and a plan that has been kicking around in the back of my head for well over a decade. For Spots, the project that he'd been thinking about for many years was to build a reproduction of a small layout that had been covered in great detail in the modelling press many years before. Its owner and builder, John Allen, continues to be acknowledged by those familiar with his life and layout as extremely influential. I have to admit that Spots' (up to this point) hidden ambition to build this layout surprised me at first. My initial reaction was, "Why would you want to spend your time recreating a layout that was built something like 60 years ago? We've moved on!"

Unsurprisingly, Spots had a very sound reason for wanting to build this particular layout. His radically different approach to the question we were discussing was due to both the differ-

ent magazines we read in our youth and to a seven or eight years' difference in our ages. I came to the work of John Allen as an adult, but Spots had read about him and his early, initial 'test' layout as he was growing up. For Spots, building this recreation would be a "nostalgia trip" (his words) and he was guessing that many hobbyists in the same age bracket would feel the same.

I also reckon the fact that John Allen's layout was accidentally destroyed not long after his death was also a factor driving Spots in this direction. Even if John Allen's *Gorre & Daphetid* still existed, the chances of Spots ever getting to see it would be pretty small at best. The fact that it was destroyed by fire many years ago makes recreating a small slice of it quite compelling, especially when you consider that, as model railway hobbyists, this is what we do; build models and layouts.

Spots is considering recreating a part of the modelling inspiration from his youth that would allow him, and possibly others if he ever exhibits the layout, to experience a model that he never got to see first-hand when he was just starting out in the hobby. Unlike many modellers who strive to recreate their childhood experiences of the real railways in their layouts, Spots will be trying to recapture the inspiration that initially brought him into the hobby and possibly connect in a 3D form with just a little bit of John Allen's magic. Not a bad reason for building a layout when you think about it a little more deeply than I had done initially.

In the same month that I visited the layout of Spots' friend, I received an invitation to visit another large layout, belonging to someone (I'll call him 'Graeme') who just happened to be a good friend of the person who is building the first layout mentioned above. This layout was not quite as large as the first, and it is located a good 700km from the other by road, however it's almost as awe-inspiring in its ambition and size. This is a big layout by any measure. Like the first layout I visited, this one is primarily the work of one man and I jumped at the chance to see it in the flesh, having recently read about it in a UK modelling magazine.

After Graeme had shown me around the layout room and we'd talked trains for a couple of hours, we sat on the verandah of his home drinking tea, eating his wife's home-made cake and yarning about life, trains and the problems with the hobby. This seems to be becoming a habit of mine! After discovering we were born within six months of each other about 15km apart in 1960s suburban Sydney, our conversation ranged across a broad range of modelling and non-modelling topics, until he mentioned a story he'd read recently about a museum of model railways being established in the U.S. or the U.K. I've occasionally heard modellers of my acquaintance express the opinion that important layouts should be preserved in a museum. I've also heard of instances where layouts have been offered to museums and historical societies in the hope that a modeller's pride and joy may be preserved and enjoyed by others.

It's no surprise that when granddad passes away his family might wish to see his layout set up so others can enjoy it. However, I can also understand why the outcome of such an

offer rarely leads to that layout ending up being run regularly as a public display. Perhaps the largest hurdle to this sort of outcome is the fact that rarely, if ever, are home layouts built to be moved and set up in a new location. More often than not they're a unique mix of hard work, make-do materials, weird and wonderful experiments and eccentric wiring that requires the presence of the builder to get it to operate.

Model railway layouts are a reflection of their builder's personality and unique set of interests and skills and this leads to another and possibly even larger obstacle to a home layout ending up on public display after the passing of its builder. While the builder of a layout is alive and actively working on his (it is normally, but not always, a he) layout he's acting as a one-man maintenance crew. If a person is retired and spending significant time in a layout room, chances are that the work that goes into it will be divided between building new things and maintenance.

I have a feeling that few people outside the hobby, and quite a few within it who are yet to build a layout, have any real concept of how much work it takes to build and maintain even a moderately-sized model railway layout. Is it any surprise that, when a community group is offered the layout of a local modeller who has passed away, starts to evaluate in detail the cost and investment in time that would be needed to move and maintain it, they might well balk at such a prospect? It's a rare community group who would have the cash and resources, to say nothing of the special skill set, available to undertake such a task. I think they'd quickly come to the conclusion that a 'free gift' of a layout is hardly free at all and would involve significant costs.

As we drank our tea and brushed the cake crumbs from the front of our shirts, Graeme expressed the opinion that when he kicks the bucket he wants his family to hire a big skip bin into which his chopped up layout can be placed and then transported to the tip. He had no interest or concern about what happens to his layout after his passing and he certainly didn't want it to be a burden on his descendants. I expressed a long-held view that what made layouts interesting to me was the builder of them in the presence of the creation, not so much the object by itself.

Who among us hasn't visited a home layout that had only a few buildings installed and displayed the all-too-familiar rolling vistas of line-side plywood fields, but were never-the-less caught up by the passion and vision of the builder as they described what they hoped to achieve in this corner or over along that wall? At this point in our conversation, Graeme said he felt that layouts are infused with the animating spirit of their builders. Once those builders have gone it is a rare layout indeed that is worthy of preservation. I wish I'd said it like that,

but I found this summed up my feelings about my own layout pretty accurately. Once I'm gone I want my partner Louise to get what she can for the models and what happens to the layout is of little interest or concern to me.

For me the people who build layouts are of as much interest as the layouts themselves. Whether the result of their life's work is worthy of preservation is really the responsibility of history. If you'd like your work to be preserved by a local community group, I'd suggest you need to build your layout so it can easily be moved. It would make sense to make some provision in your will to help the group defray the maintenance costs of housing your layout in its new home. Whatever your intentions, as with all things in this realm, it would pay to talk about your wishes with your partner and children.

So, are the results of a life spent working in this hobby worth preserving beyond the life of the individual who produced them? You might note that I've broadened this question out from a narrow focus on layouts. I'd suggest that the hobby of railway modelling in this country has produced models and layouts that are more than worthy of attention and preservation as a way of remembering a unique and significant post WWII social movement. If hobbyists like us don't believe the models we produce are worth serious attention and the preservation of its more significant objects, then few outside it will.

The problem is perhaps in discriminating between what is significant to the hobby more broadly and what is significant within a family. I'm sure those of us within the hobby could all nominate layouts and other items that we felt were truly significant and should be preserved for posterity. However, there is a world of difference between this and preserving granddad's trains just because his grand-children are excited to see them running when they visit.

If I was a curator at the Australian Model Railway Museum (an institution that exists only in my imagination) and was allowed to nominate for inclusion just three items, the hardest part would be deciding what to leave out more than what to include. If you start doing this exercise yourself you'll very quickly realise how regionally biased we are when it comes to our own preferences of what we think significant. However, given the brief of preserving things that mark significant milestones in our hobby, and granted that I'm a one eyed New South Welshman, my three nominations would be the locomotives that were made to run on the NSWGR-built O scale layout that travelled the regions and appeared at the Sydney Royal Easter Show in the 1950s, the NSWGR HO layout *Beyond Bulliac* and just about anything made by the late Geoff Nott.

I know very little about the O scale rolling stock that ran on the layout that toured in the 1950s, other than what was written about it in this magazine [*NSWGR's O Scale Model Railways*]

While still in its early stages, Graeme's layout is well advanced with trains running and plans in place for the construction of a large terminal station. This station complex and its associated trackwork will be run from behind the photographer to approximately where the black chair can be seen in the middle distance. The author is particularly impressed, as all this is in O scale.



Issue 273 December 2008 and 'The First NSWGR Easter Show Layout at Newcastle' Issue 304 February 2014, both by Jim Longworth – Editor]. I never got to see this layout in person as I'm a little too young. It had been replaced by an HO layout at the Sydney Royal Easter Show by the time I was a small boy.

This layout is the one I was left staring at on my own as my parents wandered off to view the other displays in the hall; an experience I discovered was not unique... After my conversation with Graeme it turns out his parents used to do the same thing! However, if I had a dollar for every slightly older modelling friend of mine who has mentioned the earlier O scale layout and the locomotives and rolling stock that ran on it to me over the years, I reckon I could buy myself a good steak dinner. This layout (and I'm sure similar displays in other Australian states) and the rolling stock that ran on it was hugely influential in doing so much to draw into the hobby many young modellers from that post war generation. This was the generation who would form the nucleus of those who would come to see the modelling of local prototypes as something worthy of attention.

In making my three choices I've limited myself to just one layout that I was lucky enough to see with my own eyes. We could argue for hours, and I imagine I'll be approached by a number of hobbyists who will want to do just that in the wake of this *In The Loop*, about the most influential layout of this or that era or region. However, when I was trying to decide what layout I'd include I simply couldn't go past *Beyond Bulliac*. I still remember the first time I saw it in the flesh and the impact it had on me. It is quite simply the layout that has had the greatest influence on my own modelling over the past couple of decades and this is saying something when I remind myself that my short list includes such masterpieces as the Fry family's *Swans Crossing* and Rodney James' *Wingham*. And finally there is the work of Geoff Nott. Do I need to detail why Geoff's work is worthy of inclusion in this very short list? The man was quite simply a giant in our hobby and the world is a poorer place for his untimely death.

The more I think about it the more I've come to appreciate Spots' idea of rebuilding the original nucleus layout of John Allen's *Gorre and Daphetid*. It's not something I'd do myself, but I've come to the realisation that to some degree this is our hobby's equivalent of buying a motor bike in your retirement to recreate the motoring memories of your youth, and is probably a lot less likely to land you in hospital!

As to preserving my trains in a museum after I've kicked the bucket, I couldn't think of anything I'd like less. The thought of my jerry-built creations, with all their flaws and imperfections, being on show to the world for generations to come is enough to keep me up at night. The empire I'm building in the shed at the bottom of my garden will be long gone before my demise and most of the rolling stock sold off to reduce somewhat the huge mortgages my nephews and step-children will no doubt have to take on if they wish to own their own homes. And isn't that the way it should be for most of us?

Coasting to Clean Track

Steve Donohue stops drinking long enough to clean his track!
Illustrations by the author.

I've read many model railway magazines over the years and I've never read much in them about how to actually clean the rails. The only mentions I can recall are about someone using a track rubber by 'running it over the rails'. I've never actually seen a 'track rubber' and the rail cleaning wagons that are available seem expensive and all seem to work only on the tops of the rails. I also saw one bloke who recommended using a chunk of Masonite.

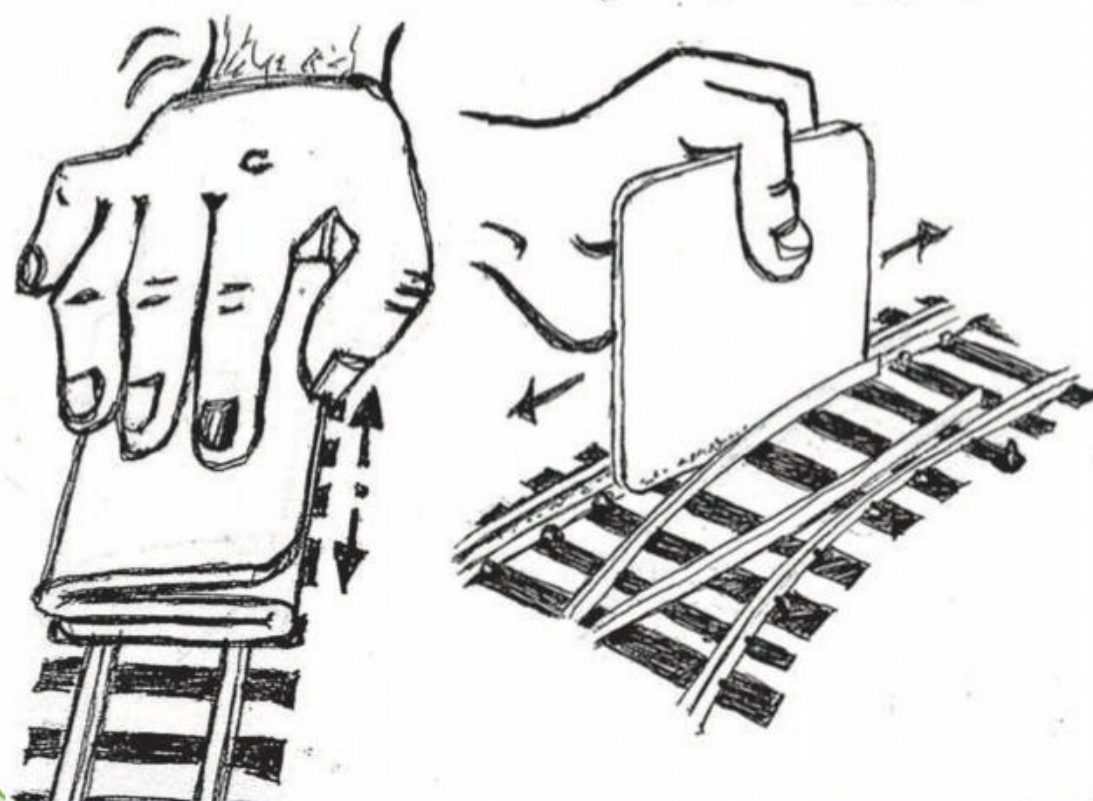
Anyway, my track needed cleaning and I came up with this idea as I sipped on a frosty one at my local club. I picked up one of those standard, fibreboard drink coasters for a closer examination. They're made from an absorbent, recycled paper with two folds and one can recycle them as track cleaners! The folded width (approx. 30mm) is perfect for cleaning standard HO gauge rails and you can see and feel the difference in the rail heads immediately.

One thing I've never heard discussed in the modelling press is anything about cleaning the vertical faces on the insides of the rails. By holding an unfolded coaster against the rail and running it along the tops of the chairs it's surprising how much gunge is removed. It also reduces a lot of the friction experienced on small radius curved track. The coasters are also the right thickness to clean the valley between guard rails and to carefully



slide between rail and point blades. The rounded corners prevent snagging too.

For really stubborn crud – moisten the coaster with a few drops of single malt modelling fluid!





No More Stalling!

*Peter Michalak installs an ESU PowerPack Mini in the Orient Express Reproductions SAR F class 4-6-2T steam locomotive.
Photos by the author.*

There is no doubt that the addition of DCC, especially a sound-equipped decoder, adds to the realism of a working model locomotive. However, even with the cleanest of track and wheels, DCC-equipped locomotives can be more prone to stopping, especially on dead frog points and dirty sections of track, than DC locomotives (often because the 'cues' offered by sound and the better motor control encourages one to drive locomotives at scale speeds, rather than treating them as slot cars).

The way to solve this problem is to add a 'stay alive' module, which are available under various names from most of the major DCC decoder suppliers. These function by storing a small amount of 'backup' power in capacitors for when the electrical supply from the rails is interrupted by dirt, bad contacts, insulated frogs etc. While this article describes how I added an ESU PowerPack Mini to my OEM SAR F class steam locomotive, the principles are the same for any installation. While there are obvious advantages to adding this module to any locomotive, in this case it does involve the removal of the boiler back-head detail (to create sufficient space for the power pack) and also prevents any locomotive so fitted functioning on standard DC layouts.

Installing the ESU PowerPack Mini

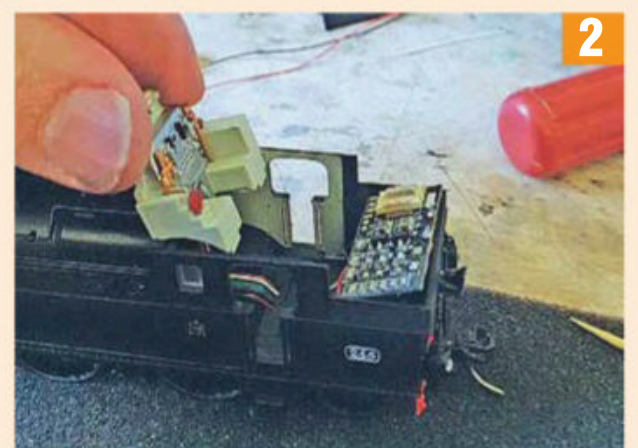
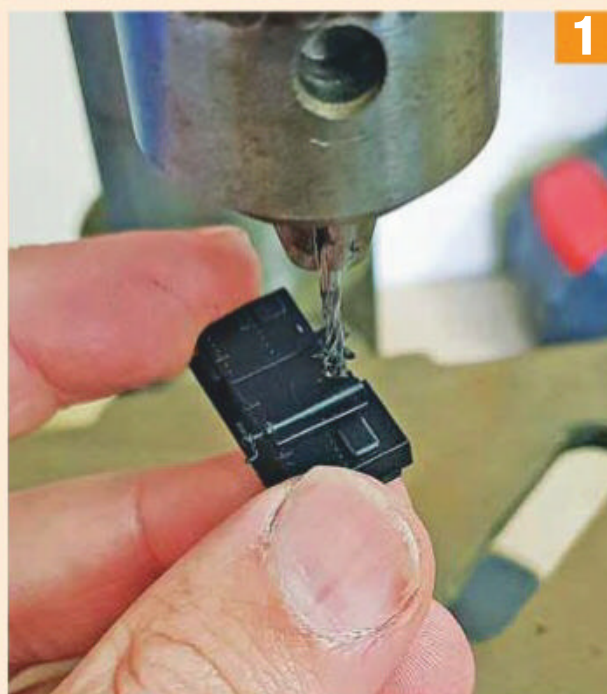
1. Remove the coal load/oil tank from the bunker as per the DCC installation instructions provided by OER.
2. Carefully remove the cab roof, by placing a toothpick between the front wall of the cab and the top of the tanks (one on each side), and carefully lifting the cab upward. This will dislodge the lugs that hold the cab in place at the front. Using two more toothpicks, carefully separate the rear cab wall from the side walls. Lift the roof away from the body, and set aside.
3. Remove the internal bunker/cab partition. You will note a small recess that allows the ribbon cable from the motor/front lights to run out of the bunker and under the cab floor. Using a 2mm drill bit [Photo 1] create a small notch here, to allow the wires from the 'stay alive' to reach the inside of the bunker. Once complete, set aside.
4. Carefully prise out the boiler back-head detail, by placing a screwdriver blade between the cab floor and the bottom of the firebox. The back head should slide upward easily [Photo 2]. Place this in your spares box.
5. Test fit the PowerPack Mini to the inside of the cab (mounted across the

cab, hard against the front cab wall [Photo 3]), trim the three wires (red, white and black) to length. Strip 1mm off the end of each wire and tin the ends of the wires with solder.

6. Carefully solder the wires to the three solder tabs on the decoder [refer Diagrams 1 and 2/Photo 4]. A little bit of flux and a steady hand is required here. If you don't feel you have the skills to do this, please contact your local hobby shop for advice, as it is easy to destroy the decoder.
7. Fit the decoder to the motherboard in the loco's bunker. A small amount of Blu Tack can be used to hold the decoder in the socket, as it doesn't sit flush with the board. Route the wires across the cab floor and install the PowerPack Mini into the cab. A small amount of Blu Tack will easily hold the PowerPack in place.
8. Place the loco on your programming track and set CV113 to 200 – this should give you approximately three seconds of backup power. You can test the unit is working by setting the locomotive moving, then picking the engine up. The headlights and markers should stay lit, plus the wheels should keep moving for about three seconds.
9. Once you're happy, re-assemble the locomotive by re-installing the internal bunker/cab partition, routing the wires from the PowerPack Mini through the notch you made earlier [Photo 5]. Install a crew in the doorways of the cab [Photo 6] to disguise

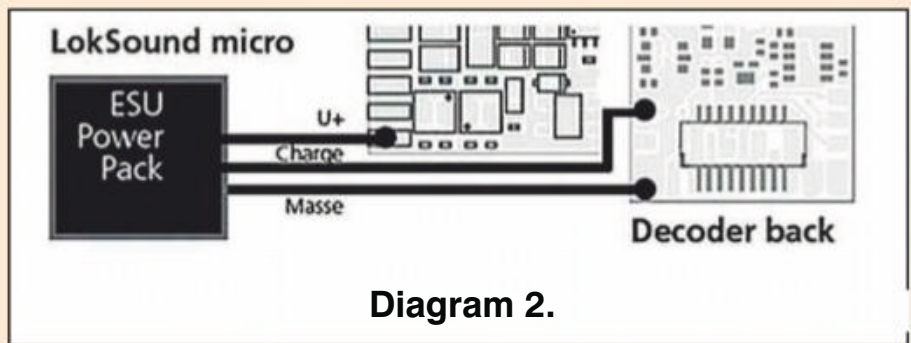
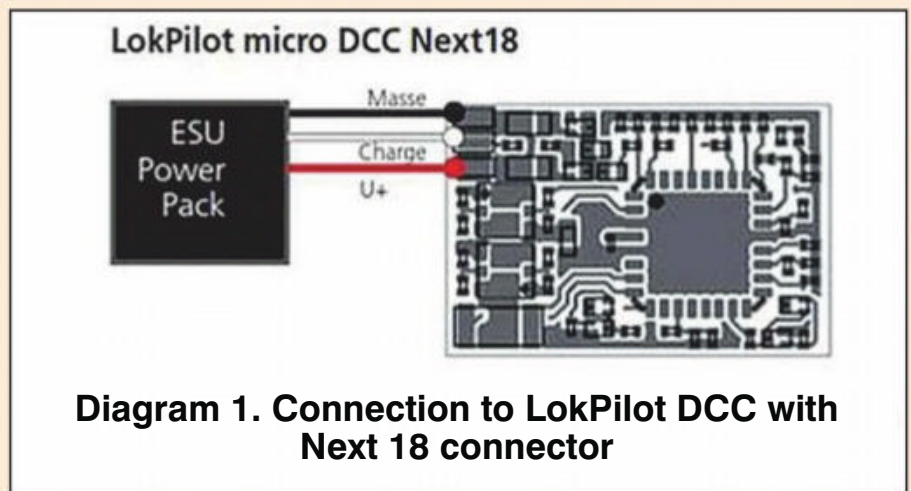
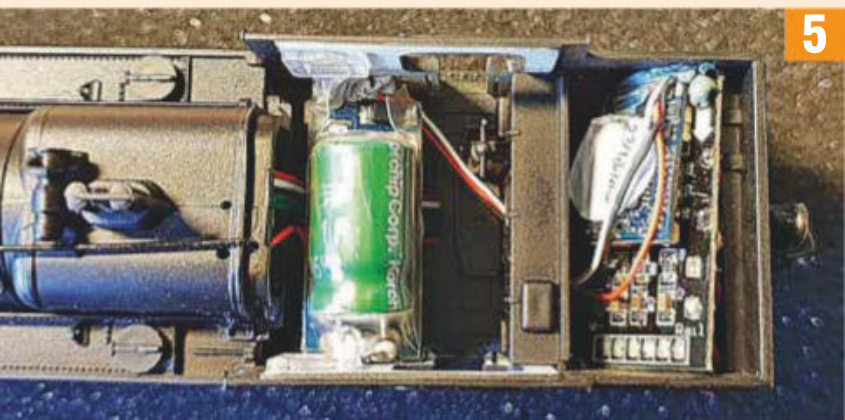
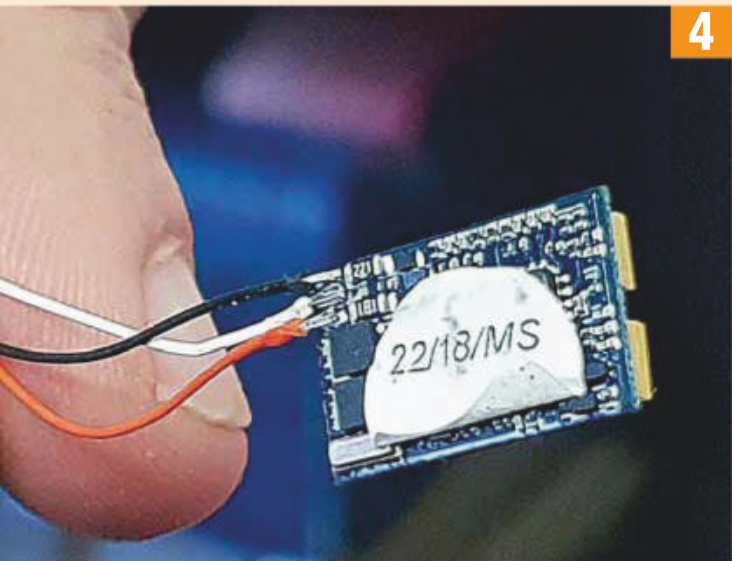
Items Required

- ESU LokPilot or LokSound decoder (with Next18 interface)
- ESU PowerPack Mini (ESU Part No.54671)
- Toothpicks
- 2mm drill bit and drill press
- Soldering iron with fine tip
- Solder
- Small pair of side snips
- Blu Tack adhesive
- Small flathead screwdriver



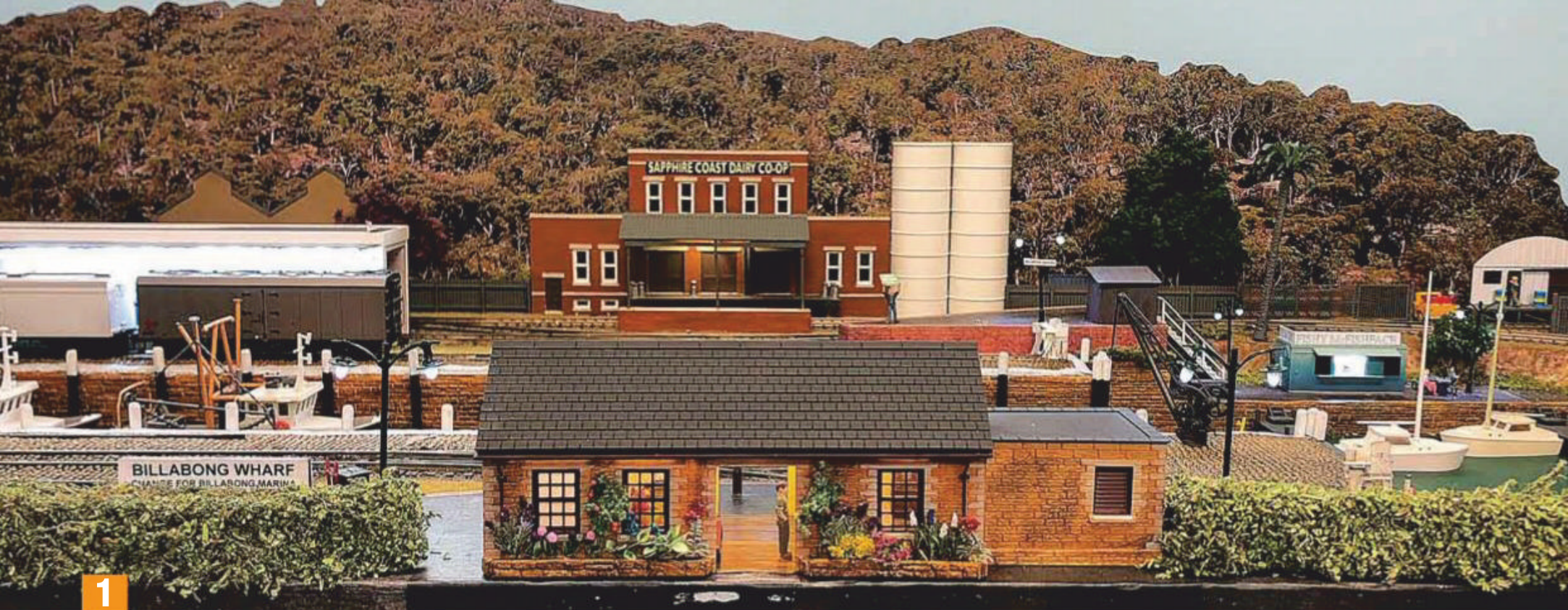
the PowerPack Mini, then re-install the cab roof, being careful not to damage the detail on the roof, or the locking clips. Re-install the coal/oil load in the bunker.

- Test your loco. During my testing of this installation, the loco happily negotiated a yard ladder made up of Peco code 100 Insulfrog points without stalling.



The finished locomotive, complete with lights, crew and weathering, shunts a siding in the Port Adelaide industrial area on the author's layout.





BUILDING BILLABONG MARINA 6

Even More Buildings (and a Scene or Two)

*Tom Carlos describes how he constructed some more of the buildings (and other features) on the layout.
Photos by the author.*

The Station Building

Even though the layout is small, there are a fair number of buildings. Apart from the fish co-op, the next most important building is the station building [Photo 1]. It's the railway's headquarters on the line. The platform was marked out on the baseboard and traced onto paper. This was then cut to use as a template and transferred to an old piece of timber that was big enough to use as a platform.

I wanted to give the platform a look of a moderately cheaply-built platform constructed by a private railway that, in its day, was trying to look fancy. I figured that the station building could be stone with a brick-faced, earth-filled platform for the passengers. Over the years the platform had the sandy surface replaced by tarmac. Wanting to keep my costs minimal, the platform was covered with tarmac and the brick facing came from the Scalescenes range. I had previously purchased these for a project a number of years ago. I usually spray the sheets with a matte varnish before I use them. Once the platform was complete, it was screwed into position.

The station building is a Peco British outline 'Manyways' kit that I had found at a second-hand stall years ago. I thought that I could use it somewhere on a previous layout. It turns out that it was waiting for this layout. It was painted using the dry-brushing technique that I used for the dock walls. I used craft acrylic paints for this. What I didn't do was prime the plastic first. This was a mistake and it should always be the first thing one does before one paints. I knew better, but I still missed this step because at the time, I didn't think that it would matter.

For a long time not much happened to the station building. It is located at the front of the layout and every time I worked on something at the rear of the layout, I knocked it over. So it was removed until the rear part of the layout was completed. When the time eventually came for the station building to be completed, I gave a bit of thought to what should go into it.

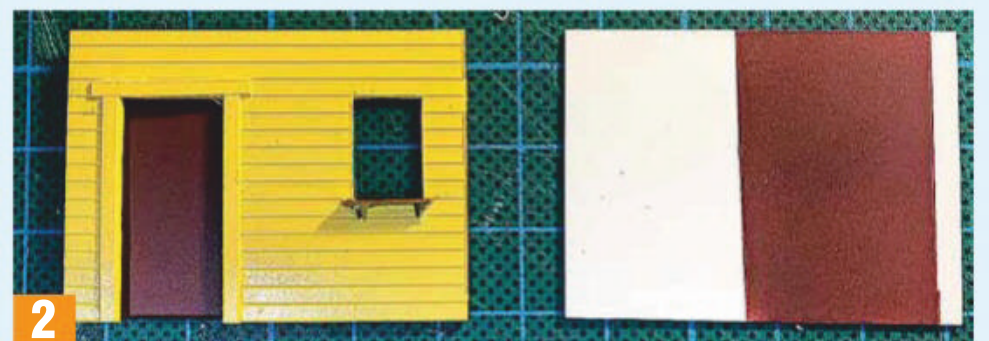
As the building is right at the front of the layout, I wanted spectators to be able to peer into it. I love the idea that people travel on my railway, so I populated the station building with

miniature figures. There is a lady in the waiting room, a man buying a ticket. The station master's office has a couple of posters and a desk. Open on the desk is the Train Register.

For the interior, Peco supply cardboard walls for the main passage from the entrance to the platform. These didn't look great so I made my own with some wood-panelled Evergreen styrene [Photo 2].

The doors were made with plain styrene. A ticket window was cut out as well, so my HO scale passengers could buy tickets. So that the doors looked as though they were in the walls, I made two of each wall so that the wood panelling could be seen on both sides and sandwiched the door between two door frames. On plain styrene I sprayed the colour of the door on both sides and sandwiched the door styrene in between the walls. For the clear styrene for the ticket office, I used the plastic packaging from Peco points. The ticket window was masked so that it didn't accidentally become a door. A floor was also cut to shape and painted with a suitable floorboard colour.

One of the windows was painted white for the Ladies' Room. The gents use a brick annex next to the ticket office. Next to the Ladies' Room is a small waiting room with a platform seat in it. Nothing too fancy here. All of the internal walls were painted Raileys Paints cream. About a year and a half after it was painted, I decided to install LED lights in the building. The lights are from a roll of warm white LEDs, the sort that you can buy in 10m lengths, cut to size and stick on. They are great as they have the



resistors built in. A mate at the club I'm a member of had bought a roll for some of the members.

It was about now that I worked out that I should have primed the inside walls, at least. There was a lot of light shining through the plastic. When I first started the layout, I had not thought about working lights. Now I had to hand paint many more coats of cream on the inside walls before I came up with something that was passable when lit.

The garden out the front of the entrance was created using Wills stone walls for the garden bed and foam painted brown. The foam came from the packaging that came with the plants. A few years ago, I went to the AMRA (NSW) Liverpool exhibition and bought no trains at all, but a whole stack of plants. They have sat in a box since then. There is a mix of tulips, a couple of tomato plants to represent something else and some... other plants. My knowledge of HO scale plants isn't that great.

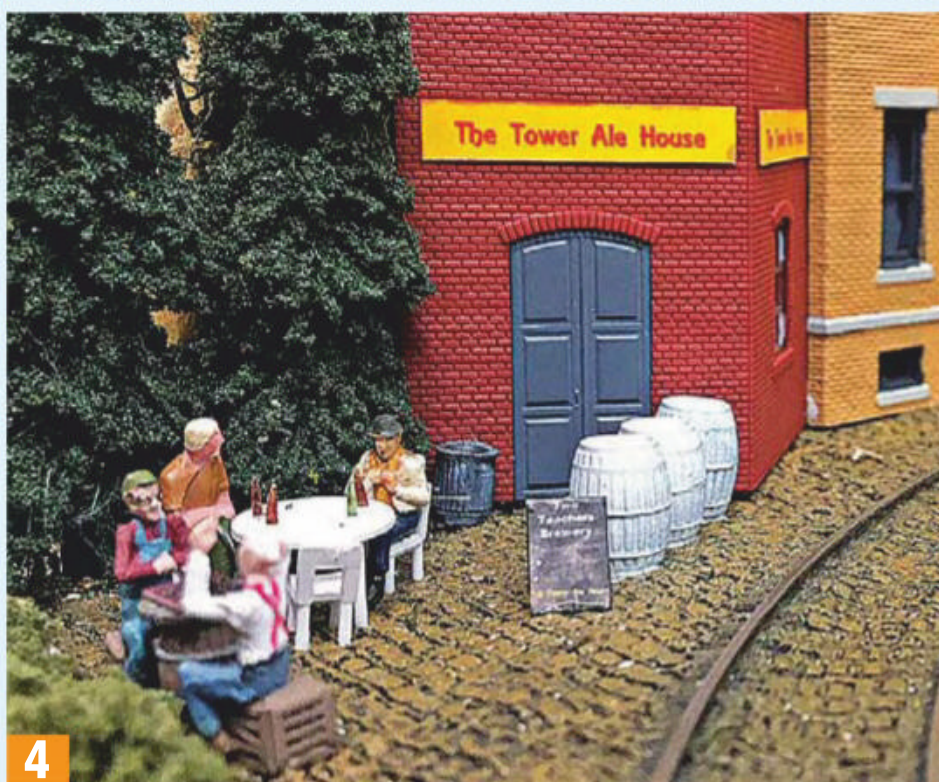
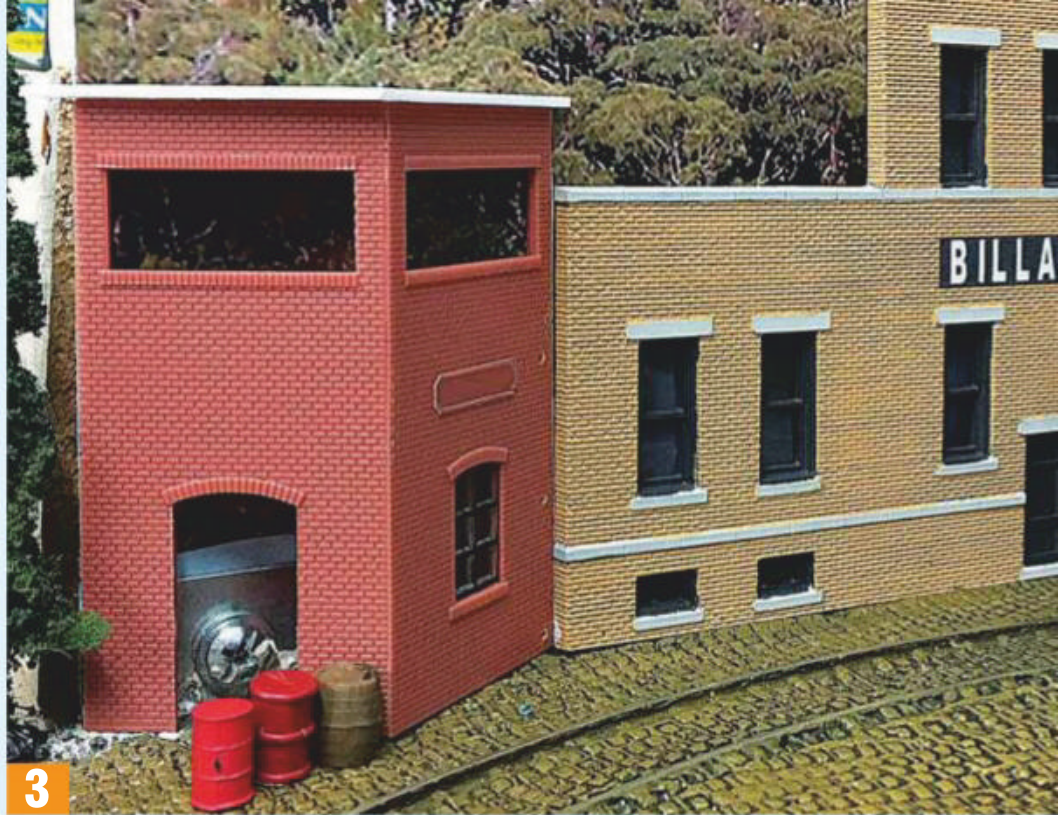
The hedge was created using hanging basket liner from a popular hardware chain, cut to size and sprayed with glue and coated in dried sawdust, again, something that I had bought many years ago. The hedge is another idea from Luke Towan's YouTube channel. (www.youtube.com/watch?v=zOs39RoYgYU&t=229s). The platform sign is from the Model Scene range, with the station name and information on alighting for Billabong Marina printed on plain copy paper. The platform lights come from an internet purchase for an old layout and reused on this one.

Tower Ales

Some people say that every layout needs a pub. This seemed like a good idea. The Tower Ale House [Photo 3] serves two purposes:

1. To serve fine ales to the dock workers and tourists.
2. To cover up a bracket holding the back scene in place!

After a lot of searching for small buildings, a Frateschi signal tower was found to be almost the right size. It has a really small footprint, which is good for the tight space. I thought that it would be an interesting feature too. Perhaps the tower was built during one of the world wars as a lookout tower in case the Germans or Japanese invaded. After the war it was abandoned and later turned into a pub.





My idea was to turn this into a low-relief building with a pitched roof. However, three walls of the building didn't fit with enough clearance for the trains. The windows would make it awkward to reduce the walls. However, if the building was turned 45°, with the walls spread out slightly it would fit the space perfectly. This did mean that the roof needed replacing. A triangle of styrene did the job for a concrete roof and gives the tower a more military look. I'm sure it was a perfect place for a roof-top mounted machine gun or searchlight during the war!

People were added inside the top floor and a small beer garden was added outside. There are white barrels to stop happy punters from walking onto the tracks and a couple of small trees as a scenic break between this layout and its extension. Woodland Scenics produce a few blokes playing checkers, which I purchased years ago. Playing outside an ale house on a sunny afternoon seems like a fun thing for these blokes to do. A couple of other chairs and tables were added to the beer garden [Photo 4].

I bought some Walthers beverage crates and bottles. The bottles are tiny. However, a couple made their way onto a table of drinkers. A blackboard advertising available drinks was made in Microsoft Publisher and reduced to a suitable size before printing onto card. It was then folded into shape and glued into position.

Jetty

Next to the station is the jetty for the ferry [Photo 5]. One can assume that the ferry chugs up and down the river carrying locals, tourists and backpackers. I'm not sure where the ferry goes to, as it can't fit under the bridge... Despite this, passengers seem to wait for it to arrive. The pontoon is the middle section from a Faller barge kit. It seems to have an extra section in the kit that isn't required. A few holes were drilled for balsa dowel piles to keep it in place and to allow the pontoon to rise and fall with the tide.

A couple of Peco station seats were painted and glued in place for the ferry passengers. An extra lifesaving ring from the ferry kit was painted and added to a pole, should one of the passengers have too many ales at the ale house and fall in. Access to the jetty is by crossing the tracks at an unprotected foot crossing and heading down some stairs. The stairs came from a pack of lad-

ders and stairs that I picked up at my local hobby shop.

As an aside, there are a number of boats in the layout. The two fishing boats next to the fish co-op and the ferry are both Kibri kits. There is also a barge next to the wharf which is a Faller model.

Cattle Dock

The platforms for Billabong Marina and the cattle dock were built in the same way as the main platform. For the latter, some post and rail fencing was

painted and glued on to resemble part of the cattle dock. This is in low relief, but at the front of the layout, as there wasn't much space available between the track and the edge of the baseboard [Photo 6]. The cows are removable as I don't always want them there.

The Marina

On the other side of the layout to the main station is the Billabong Marina platform. This platform for passengers also doubles as a loading platform for goods wagons. Facilities are sparse. There is a small shelter for passengers to wait in, with a seat and a passenger waiting, but as the shelter opens towards the back of the layout, no one will ever see him. The shelter is modelled using parts from the Wills Station Halt with Waiting Room. I couldn't find the whole shelter in my bits box, just one side wall, but that was enough for a template. It was constructed from corrugated iron profiled styrene with just three walls and a roof. After a coat of grey paint, it was ready to place on the platform. From here the plastic population walk down some stairs to the marina [Photo 7].

The Marina is a Kibri kit and is the centrepiece of the layout. The kit comes with a number of boats and a portable cabin for an office or a takeaway (it's hard to tell from the picture on the box and I can't read German.) It also comes with benches and tables and a couple of other bits and pieces. The idea of the kit is that it is a complete diorama with breakwalls, jetties and plastic sheets of water included. I picked it up from a second hand stall at an exhibition a few years ago.

There is a tiny space for the marina and its infrastructure, just enough for a couple of benches and a fish and chip shop. Who doesn't like fish and chips by the water? The fish must be fresh as the fish co-op is not far away. There is even a lemon tree growing nearby to provide slices of lemon for the fish. The name Fishy McFishface was born from that lovely era of Boaty McBoatface and Ferry McFerryface. The sign was made using Microsoft Publisher and printed on photo quality paper before being glued to styrene. The blended paint is the result of covering up a disastrous attempt to paint waves on the side of the shop.

Because the fish and chip shop is lit up, I wanted to have an



interior to the shop. A stove range, deep fryer and drinks fridge were all made from styrene and painted silver. A quick internet search provided an image of a beverage fridge which was then printed to the required size. As I was putting it all together, I used a man with a hammer at the counter to see what you could see past him. I left him there when it was all assembled as a man with a hammer is ideal to batter some fish. I am not sorry for the pun.

Around the marina you can find people eating fish and chips, taking photos, carrying jerry cans of fuel and a kid holding up a fish he caught to show his mum. People add little details to layouts to bring them to life and show something of the owner's personality or past. When my wife and I go on holidays, I generally pop into hobby shops and quite often make a small purchase as a souvenir. My wife gets to visit quilt shops.

As another aside, last year we went to the United States. The quilt shops there are places where you can buy quilt row pattern kits designed by the shop owners. Quilters stitch the rows together to make a complete quilt. These kits are only available in store and there are new ones every year. My wife suggested that hobby shops should do that, with every shop having a wagon specific to that shop as collectors' items for each year. It might encourage people to go to as many hobby shops as they can to build up a train. Realistically, I have no idea how successful it would be or how it would work, but it is kind of an interesting thought.

The bottles at the bar and on the table at the marina, along with a couple of other kits, were bought in a hobby shop in Strasburg, Pennsylvania, down the road from the Strasburg Railroad and the Pennsylvania Railroad Museum – you could stay in the Red Caboose Motel. The kid with the fish and his parents were bought in Denver, Colorado.

There are some lobster traps and other fishing items that were picked up in Edinburgh on a trip to the UK. Some of the flowers out the front of the station were picked up on a trip to the snow as we drove through Mittagong. There is a seal near the marina because, on a trip to Kangaroo Island with some friends, their daughters were chased by a seal. The blokes playing checkers were bought because I used to run a chess club at my workplace (I can't play chess, I just organised the teams!) They are little things to pick up on your travels, but are fun little details to add to the layout and remind you of holidays and other things.

The Pink Pig

One detail that I often point out to visitors is the pig under the stairs. My club held exhibitions with spotter questions for visiting children to encourage them to look at the layouts. One of our members decided to hide a pig under a goods platform on his layout, he'd even asked his daughter for advice. His spotter question was, "Where is the pink pig?" Unfortunately, this member passed away suddenly and at his funeral, the story of the pink pig was told. He was working on his layout in the garage of his house and had just placed the pink pig into position.

He called out to his daughter in the house urgently. Thinking something was horribly wrong she raced out to help her dad, expecting the worst. She found him looking at his layout and he asked her if she thought the pink pig was too hard to find. Words were had, but it was agreed that the pig could be seen. That year, club members displaying layouts put a pink pig on their layout in memoriam, along with the spotter question to match and I've had a pig on all of my layouts ever since. It's just a small thing to remember an old mate.

The Swagman

Not so much as a building with four walls, but a humble campsite. An obvious feature for a layout with "billabong" in the title is a jolly swagman. I'm not sure that in reality he would make his camp so close to a railway or oil depot, but space is at a premium on this tiny layout. The swagman is from a bulk pack of Preiser figures. These were bought second hand at an exhibition [*There is a bit of a theme developing here... – Editor*]. There were some good figures left in the box.

This particular figure is meant to be riding a bike. He seemed to have a shape that could fit the bill, so he was painted and put



on a rock. His campfire is constructed from bits of ground up twigs glued around a tealight candle LED. These LEDs have the flicker of a flame and it's a good effect when the lights are off. Next to the campfire is a rolled-up swag made from an old tea bag and tied up with the tea bag string. On the other side is a rather large tucker bag, presumably with a jumbuck in it. This is a Model Scenes mailbag painted in a more suitable colour. I figured that the billy might be too hard to see so that detail was omitted [Photo 8].

Behind the swagman is a squatter mounted on his thoroughbred (of course). This is a drover model from Kerroby Models. I have had him for a couple of decades and his leg broke off as I was getting him ready for his new role as a squatter. A little bit of super glue reattached the severed limb, reunited him with his horse and a touch of paint spruced him up a bit.

I'm sure that we all know the song. The swagman needed a coolibah tree to camp in the shade of. The coolibah tree was made from twisted wire and had bits soldered to give it a bit of strength to hold it together. It was then coated with caulking thinned with water. I normally use No More Gaps but there are a couple of coloured caulks available. The caulk I chose was way too dark and needed to be painted a lighter colour.

The final step was to spray the top of the tree with hair spray as it is a cheap adhesive and dip it into some suitably coloured ground foam. This was repeated a couple of times to make sure the tree had enough leaves. I have since started to use a spray adhesive instead of hair spray and the results are much better. A hole was drilled and the tree planted. Around the base of the tree is scattered some ground up twigs for leaf litter.

On the other side of the bridge, making their way from the station, are three policemen (troopers one, two, three). These are Austrian policemen from the Preiser range. All they needed was blue hats instead of white. This was an easy fix [Photo 9].

If you're ever interested in the origins of *Waltzing Matilda*, look up *Conversations with Richard Fidler* on ABC Radio National. It's more than just a tale of a bloke who stole a sheep... (www.abc.net.au/radionational/programs/conversations/waltzing-matilda/6498912).

The Next Step

After a couple of years in the building and six magazine articles later, the layout is as complete as a layout could ever be but, as they say, a layout should be complete, but never finished... The next step is to put some stock on it and run some trains. Next time, I'll explore some of the operational potential of the layout.



Signal Box Diagrams for a Model Railway

Wilfrid Brook and Chris Guy present a brief history of VR signal diagrams and then show the diagrams they created for their layout. Photos by Margaret Brook unless otherwise credited.



AMRM ran a series of articles beginning in March/April 1979¹ on Australian railway signalling and in August 1996 there was an article on building VR mechanical signals². Signalling Victorian stations was covered in 1997³ and two articles on Victorian colour light signalling appeared in 2007⁴. In 1985 a modelling project was described converting a British signal box to an Australian one⁵.

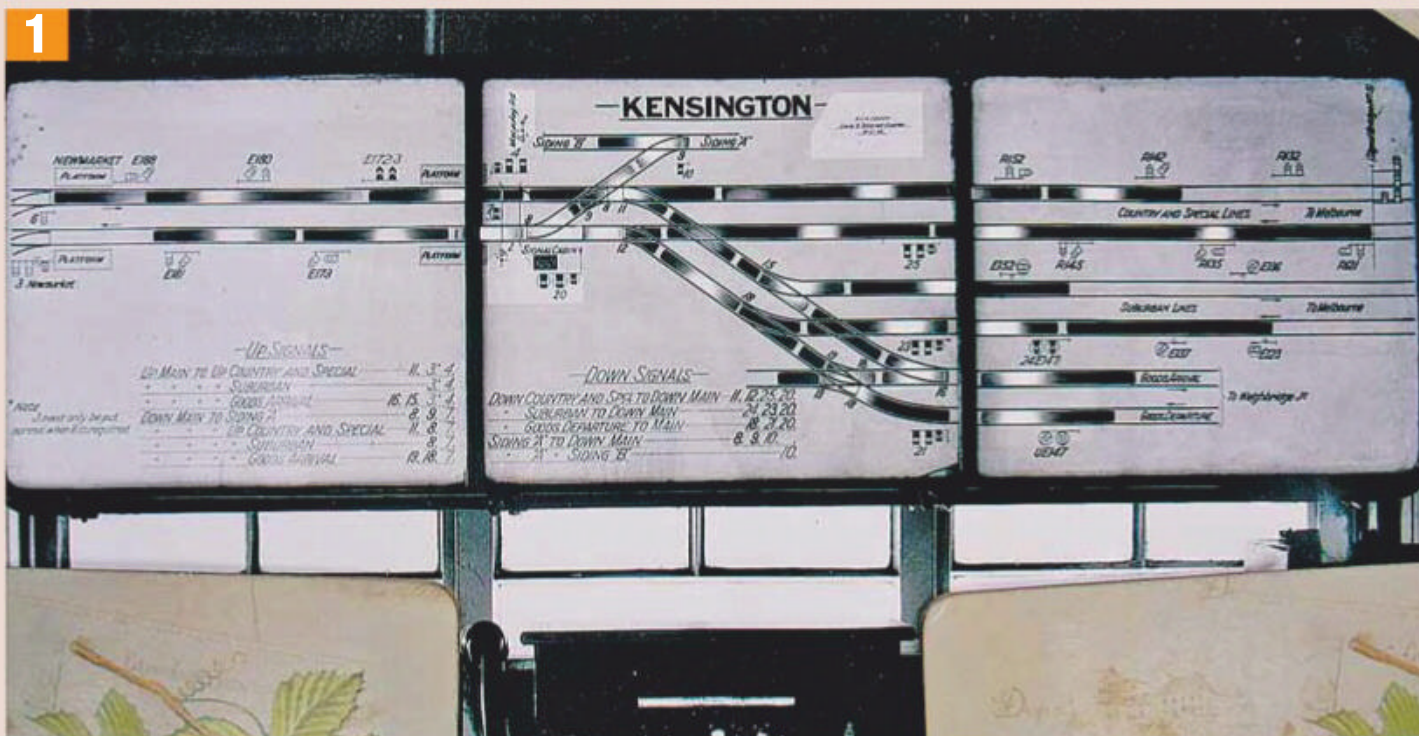
Modellers' conventions sometimes include building a signal box^{6,7}, but a feature of the signal box interior, if included, is usually not mentioned, namely the signal box diagram. I (WB) started building my layout in 1982 and a few years later my (then) young son built a signal box

out of matchsticks. The interior featured a lever frame made of matchsticks and a signal box diagram. It is planned that one day this box will be replaced by a Design Workshop signal box, as the kit has full interior detail, including a diagram.

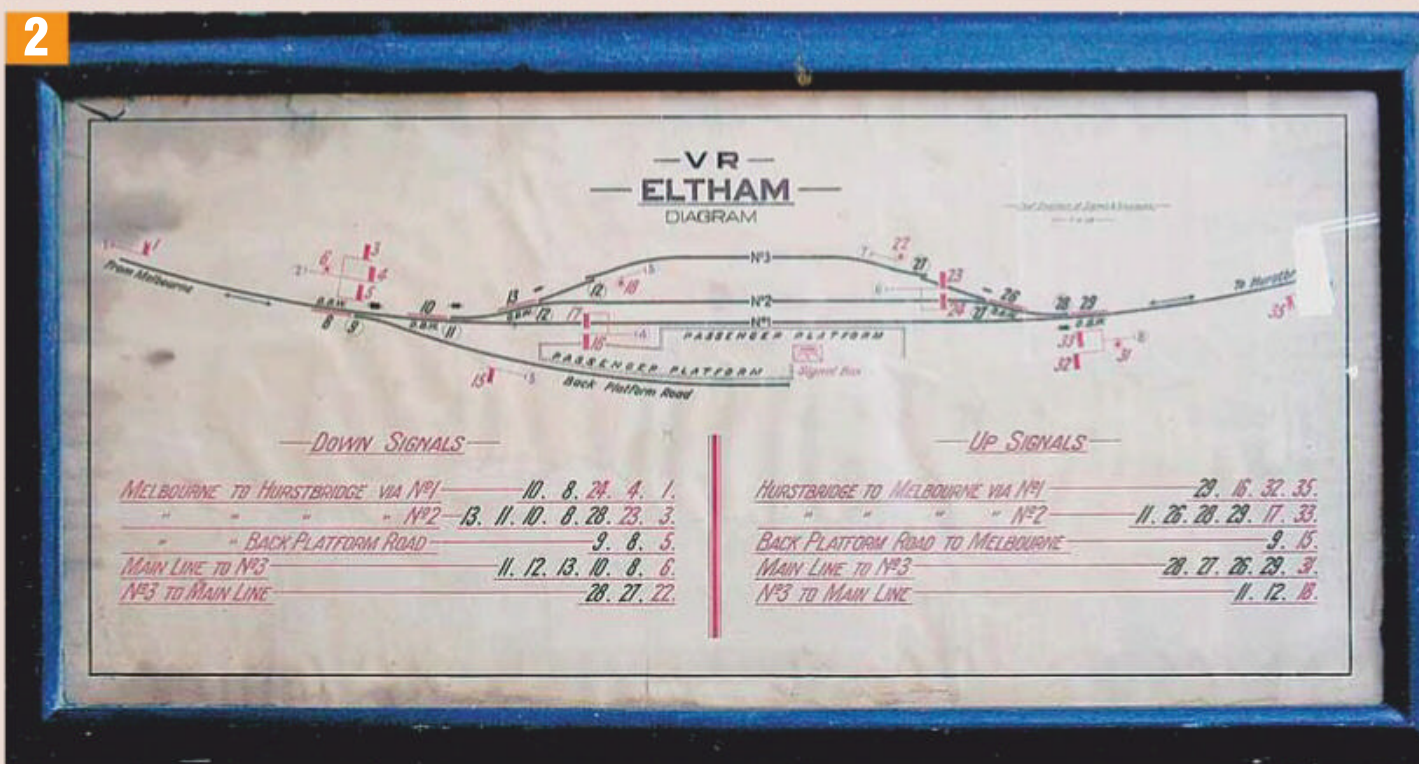
Sadly, the author of this article, Wilfrid Brook, passed away on 26 August 2018, after a recurrence of cancer. Don McGilvery observed: "Two of Wilfrid's passions in model railways were the Victorian Railways' somersault signals and making working vestibule connections. It is fitting that his final article touches on his love of VR signals, complementing his article 'Scratchbuilding Full Width Vestibule Connections for VR S Cars', which was printed in AMRM Issue 245 April 2004".

VR Signal Box Diagrams

The signal box diagram is provided to ensure that the signaller has a constant awareness of the track layout and signals he (she) is responsible for and as an adjunct to the efficient operation of the interlocking frame. Traditional signal box diagrams fall into two categories – illuminated (Photo 1) and picture-frame (Photo 2).



The illuminated signalling diagram from Kensington, an inner suburban station on VR's North East Mainline to Albury. Photo by Chris Guy.



The Eltham signal box diagram, illustrating the style used in the 1920s. Eltham is an outer suburban station on the line to Hurstbridge in Melbourne's north east. Photo by Chris Guy.

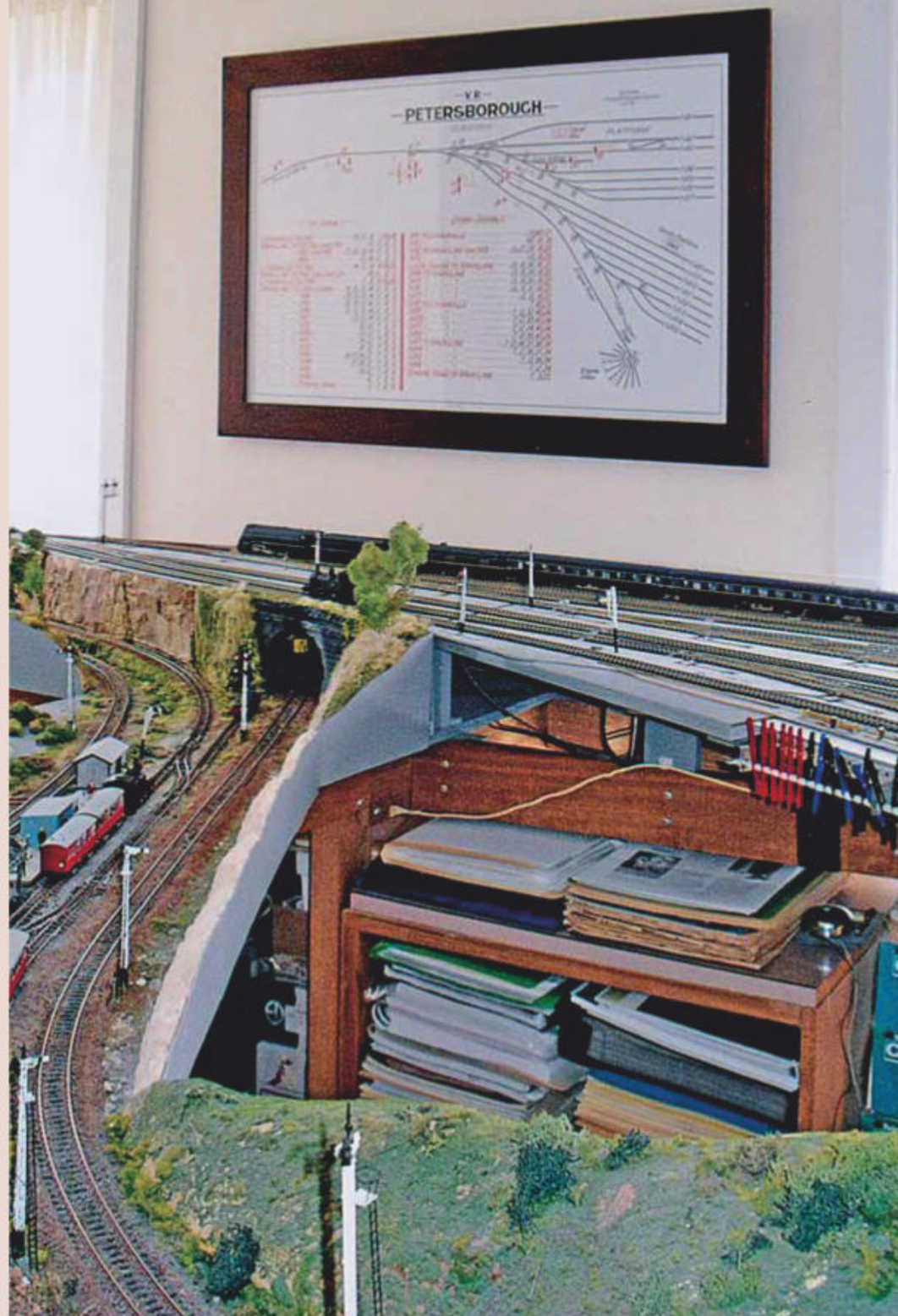
Illuminated diagrams were usually provided in track circuited locations to display the movement of trains within the track sections controlled by the signal box. This type of diagram first appeared at South Yarra in 1915. It featured fully illuminated track sections, was housed in a heavy, rivetted metal casing suspended from the ceiling on large hooks and was most impressive. Twenty six of these were eventually to be found at various city and suburban signal boxes and three survived in service at Brighton Beach, Sandringham and Kensington when this article was written.

In 1925, a more austere type of illuminated diagram featuring bullseye lamps within each drawn track section and housed in a timber casing was introduced. Examples could be found in both suburban and country locations, such as Footscray A and Violet Town. Apart from a few nondescript diagram types being produced in the interim, in 1955 a new concept in illuminated diagrams was introduced. This type featured water coloured track sections with small lamps in each section and may still be seen in service at St Albans and Greensborough and the 7¼" gauge Diamond Valley Railway at Eltham has chosen to replicate the type in its two signal boxes.

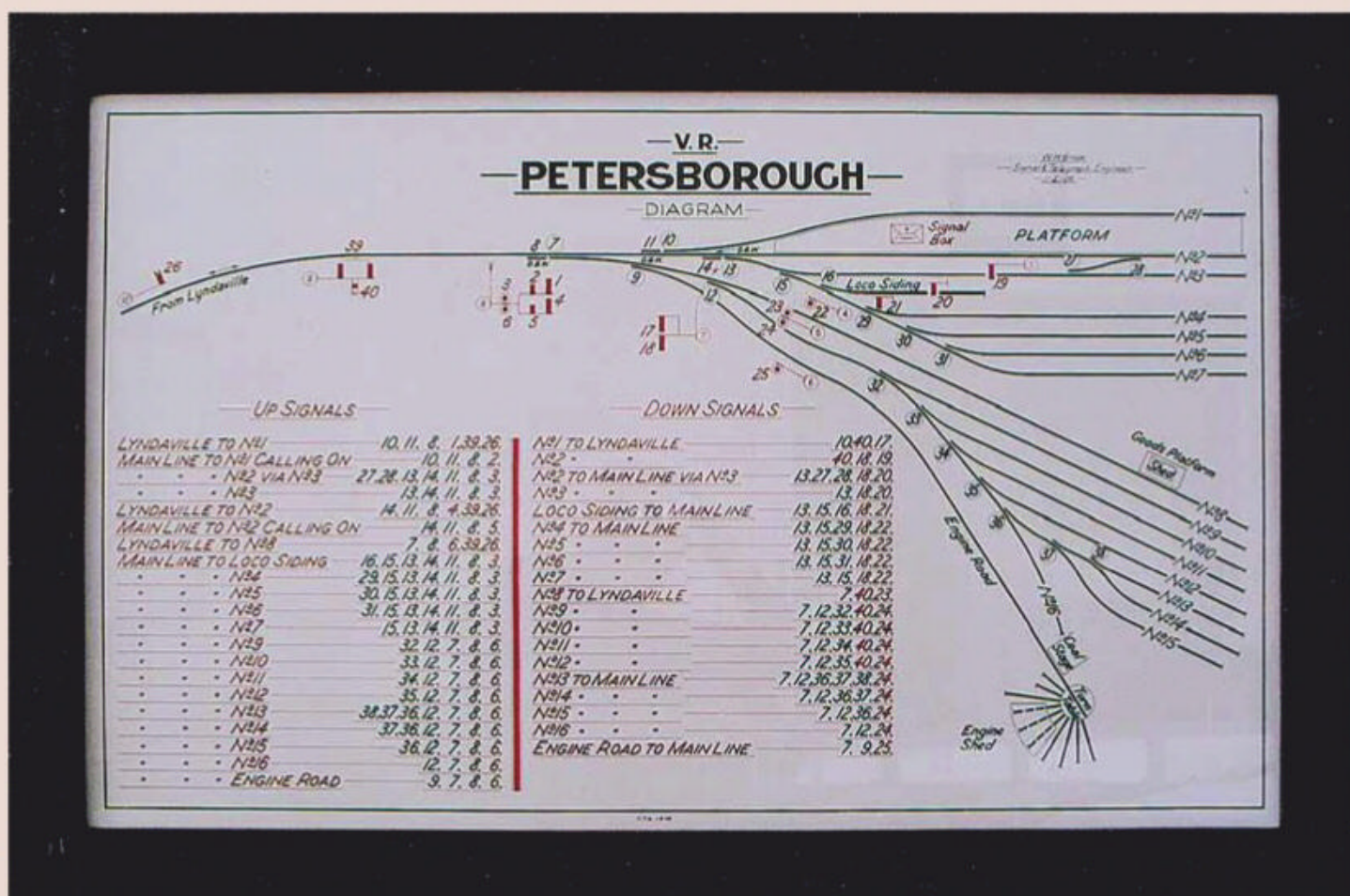
The first Victorian Railways interlocking was brought into use on 1 July 1876 at Essendon Junction, North Melbourne⁸, and picture frame diagrams possibly date from this time. On p.42 of the book *The Signal Box* is a photograph of the interior of the Lydney Junction Great Western Railway box taken in 1879 which shows a signal box diagram⁹. Signal box diagrams are mentioned in the Minutes of the Engineer of Existing Lines – the forerunner of the Victorian Railways Way and Works Branch – in about 1885. The information they display has changed little since then.

The size of the diagram usually relates directly to the extent of the location it represents. Drafting styles are of particular interest. Some of the earliest diagrams at Ballarat East and Bendigo C survived until the 1980s and were quite artistic and unique. This style of drafting gave way to a more contemporary form early in the second decade of the last century. The former Baxter and Greensborough diagrams typified the style. Even so certain features, such as the depiction of the signal box as a hatched box, lingered on until the style which eventually became standard was adopted.

This arrangement using standard symbols consists of the track layout with all associated signals, points, lock bars, gates and any other controlled equipment suitably numbered according to the lever that operates it. Signal lever numbers are shown in red beside the relevant signal; point lever and lock bar lever numbers are shown in black. Below this, all signalled moves are set out under the heading of either *Up Signals* or *Down Signals* depending upon the direction of movement within the area of control. Below the operation room of the signal box can be found the interlocking apparatus which safeguards against conflicting



Looking towards Petersborough station where a steam-hauled 'Spirit of Progress' waits in the platform. The Petersborough signal diagram hangs on the wall behind where the operator manipulating the frame can refer to it as necessary.



The Petersborough signal diagram.



Looking the other way from behind Petersborough platform towards Lyndaville station, where the signal diagram is prominently displayed on the wall in front of the Lyndaville operator's position.

moves being set up. Thus the levers can only be pulled in a particular sequence.

The layout of track and signals in the diagram had to be such that it could be readily understood without confusion. Most diagrams assumed a rectangular (landscape) configuration, although a few oddities could be seen, such as Northcote Loop Junction where the diagram was drawn in portrait fashion due to the track layout.

Close examination of certain diagrams produced in the

Victorian Railways drawing office will reveal to the attentive eye the superb penmanship of one particular draftsman who drew a large number of diagrams – both picture-framed and illuminated – over a period of at least twenty years. None of this person's contemporaries ever managed to equal his style. Sadly, some of the very last diagrams drawn could only be described as amateurish – perhaps reflecting the modern-day loss of the drafting skills formerly employed.

When one examines diagrams of Flinders St A, B and C Boxes or No.1 Box

Melbourne Yard it is difficult to appreciate the vast amount of time involved in laying out the details in pencil and completing the job in black permanent ink and red watercolour thickened with gum Arabic. One has to admire the results the draftsman achieved using tools of trade that are now considered obsolete. Because of their size and the danger of damaging such a large piece of cartridge paper, these diagrams – and others – were linen backed for strength and durability.

Alterations to diagrams were usually carried out in the drawing office at Spencer Street and a reduced photograph provided in the signal box in lieu. There were occasions when simple alterations were effected on site – especially when patches were placed over moves that no longer applied and the corresponding features on the diagram were either erased or simply patched over.

The Signal and Telegraph Engineer would put his signature to a newly-drafted diagram or one that had been altered. The Interlocking Engineer initialled and dated the diagram below the lower margin. Three known types of timber moulding were used in the manufacture of picture frames over the years, until the last was issued to service in the 1970s.

The abolition of interlocked frames over more recent years and the introduction of control panels complete with engraved track and signal layouts have virtually brought to an end the era of hand-drafted diagrams. Those that survive in private collections are highly prized, for they represent a significant chapter in the history of railway signalling. In June 2007 a diagram of the South Australian Railways 1886 *Balhannah Station Yard – Diagram of Points and Signals* sold for \$810.00 at auction.

The Model Railway

The layout is HO scale, VR prototype and consists of an oval of mainline measuring 15' x 6' (4.5m x 1.8m). Off the main line is a small terminal station and yard (Lyndaville) 6' x 4' (1.8m x 1.2m). Also coming off the main line is a 1 in 50 grade which leads to an upper level yard (Petersborough) which covers half the layout. There are storage sidings under Petersborough that come off a loop which passes through at Jenni's Junction. There is also a short narrow gauge railway line.

The yards and junction are signalled with VR mechanical signals. The signals and points are operated by levers and piano wire. The levers are grouped into three frames – one for each yard and the junction. A working signalling system is an important part of the railway and these mechanical signals (semaphores, discs, dwarfs and point indicators) give the model a characteristic Victorian appearance.

The walls of the train room are adorned with a watercolour by my son of a J class locomotive on a goods train on the Mansfield line and three tapestries by my wife of a K class hauling a passenger train, Puffing Billy and an old Denver and Rio Grande train. In 2006–2007 Chris drew and mounted a signal box diagram for each



The Lyndaville operator has an excellent view of the signal diagram mounted on the wall above the station.

► The Lyndaville signal box diagram.

▲ Jenni's Junction is in the foreground, with the operator's lever frame out of sight to the right of the Petersborough locomotive depot and the Jenni's Junction signal diagram on the wall behind, a glance to the right for the operator. On the right-hand wall are the tapestries mentioned in the text and a 'driver's eye' view from a train arriving at the station can be seen on the monitor underneath.

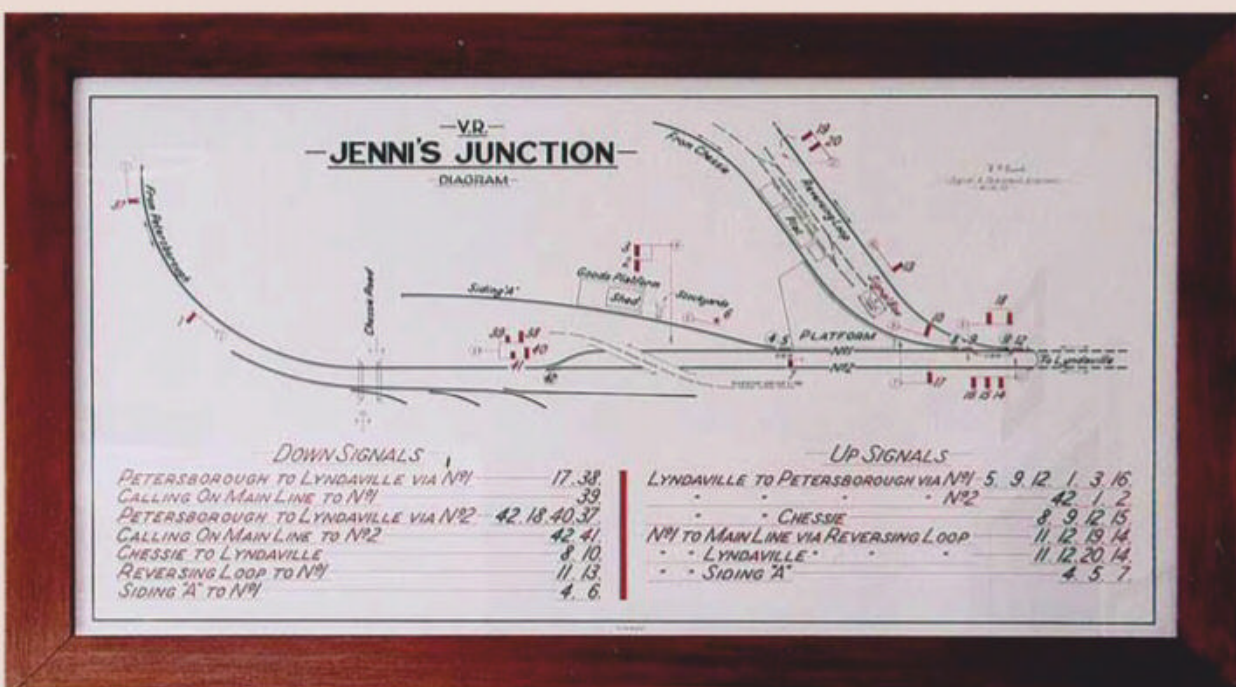
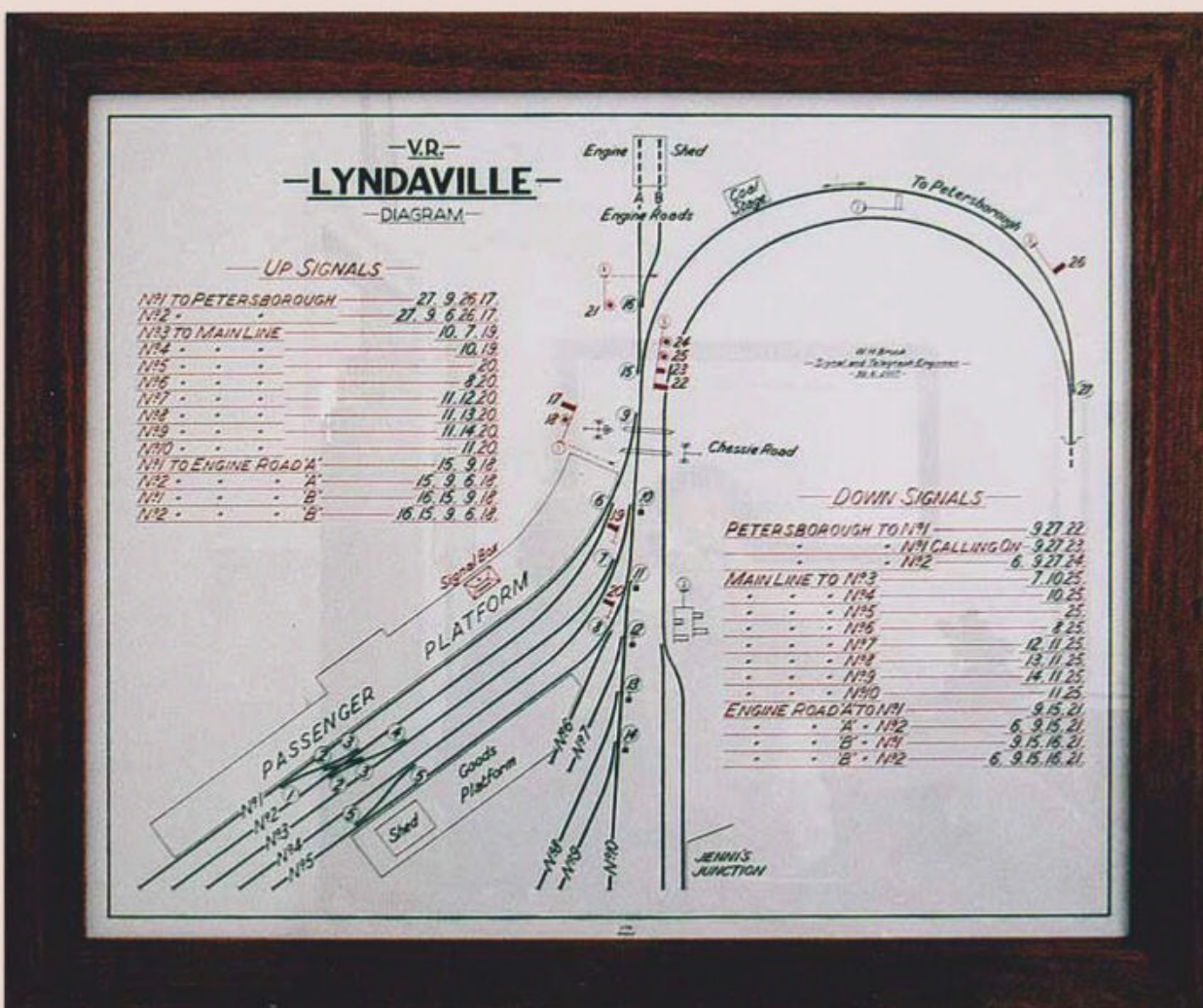
lever frame. The diagrams hang on the walls where they can be seen by the signaller operating the levers. So now there are three professionally produced signal box diagrams which are admired by visitors (I suspect more than the models) and have become an important part of the railway. One visitor even asked me if I had been a draftsman!

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Acknowledgements

Thanks must go to Michael Guiney for information regarding the early date at which VR signal box diagrams were mentioned. I would like to especially acknowledge Chris Guy for his expertise and willingness to draw and mount the diagrams.



The Jenni's Junction signal box diagram.



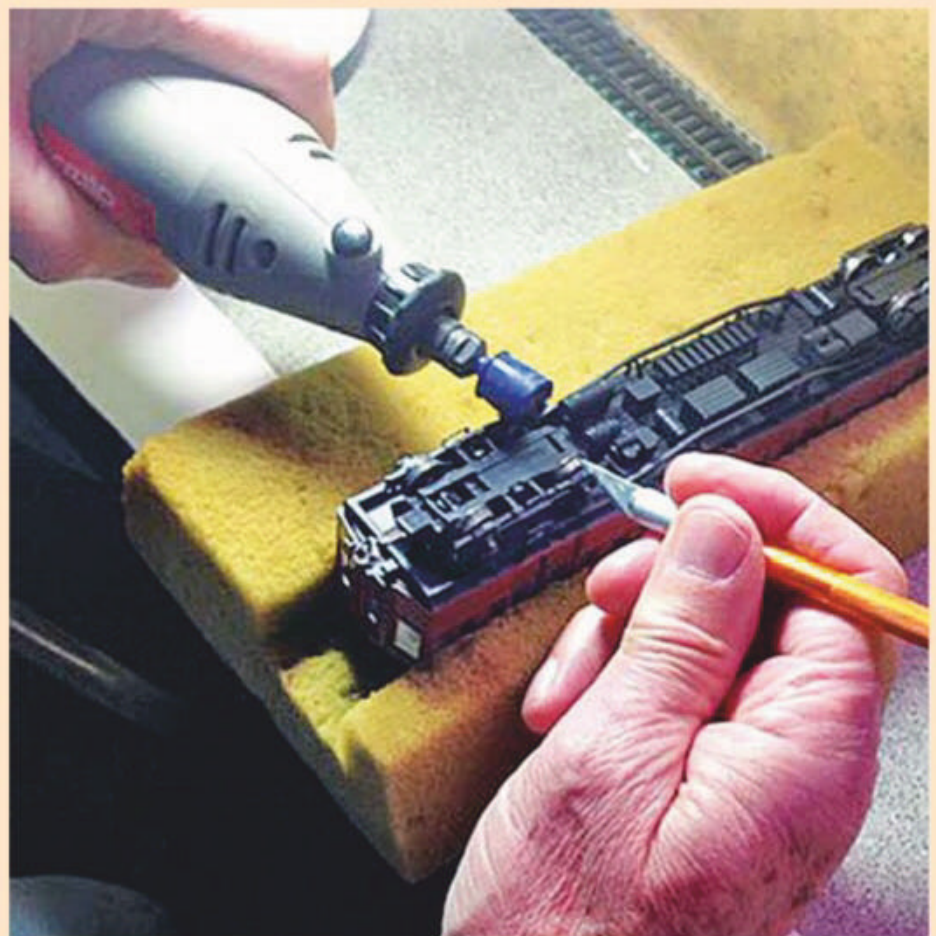
Cleaning Unpowered Electrical Pickup Wheels

*Jonathan Majer mechanises an age-old tedious task.
Photo by the author.*

There are various ways to clean powered pickup wheels, such as driving the tethered vehicle over an alcohol-soaked paper towel stretched across the track or by using a plastic block with two parallel strips of wire brush connected to two metal strips that rest on the track. Both methods are effective as long as the wheels are powered and turn during the cleaning process.

A problem arises when the pickup wheels are not powered and do not turn during cleaning. One way is to turn the wheel with your thumb while cleaning the opposing wheel by your favourite cleaning method. I find this to be tedious and not particularly effective. One such vehicle type that I find frustrating to clean is the Berg's Sydney suburban electrics, which only have one axle per bogie powered, although electrical pickup is from all four wheels. Manually cleaning the unpowered wheels is a slow process and does not totally clean the wheels.

I have overcome this problem by spinning the wheels by means of offering up a spinning Dremel tool with what appears to be a silicone rubber mandrel attached. The opposing wheel can then be cleaned by skimming the surface with a



The author spins up an unpowered pickup wheel to speed up the cleaning process.

scalpel blade. The mandrel (Dremel part No.EZ407SA) comes complete with an abrasive cylinder that must first be slid off the blue mandrel to expose the soft interior. The whole process of cleaning two bogies takes less than a minute and the improvement in pickup effectiveness is, to say the least, dramatic. One word of warning though; never try this on the powered wheels or you may strip the gears!



PROTOTYPE FILE

A Modern-era Small Grain Unloading Facility

Chris Jones has sent us a photograph and description of a small facility that would make an excellent minimum space model for the modern era modeller. Photo by the author.

This very basic grain unloading facility was situated at the 'Creek Terminal' in Melbourne until 2013, when it was demolished for the new Regional Fast Rail connections into the city. The primarily open-sided shed measured 20m long by 13m wide and covered a small concrete pit. This small pit could only handle a single discharge door at a time, and was deep enough to enable the yellow auger to fit underneath to convey the grain into road transport. Four large lights under the roof allowed for night time operations when necessary.

Not only were unloading operations slow due to the auger, but the siding length constraints meant that only a handful of wagons could be shunted over the pit towards the dead end of

the siding. On this day shunting was being undertaken by 4468, still in NSW Indian red, but in the employ of private operator Great Northern. It has been recalled by a driver at the time that the grain was coming in from southern NSW and being trucked from the 'Creek Terminal' to Cargill's crush plant located nearby at Brooklyn.

This operation was standard gauge, but the Volvo truck and dog tipper are sitting on a broad gauge track, which adds a further element of interest to the scene. For those looking to superdetail the scene, there are plenty of opportunities including a 44 gallon drum, traffic cone, ladder, an old generator and a small 'ATCO' site office.



Organiser, David Xuereb, with furry assistant, supervises the U-drive layout at the AMRA (NSW) exhibition on the October long weekend 2019.

Trains For Kids With Cancer

Brad Peardon, of Semi-Retired Foamer Media, outlines the history of this model railway connected cause that is definitely worth supporting. Photo by James McNerney.

'Trains For Kids With Cancer' is the brainchild of David Xuereb, modeller and rail enthusiast, who wanted to do something good for the community, both as a way to give something back to said community and to help counteract depression caused by a very dark period of his life when a marriage breakdown resulted in the loss of contact with his own children.

It all started in 2016, during the HR Holden Club's 'Nationals Weekend', when the idea of starting a fundraiser, based around the train hobby, began to go through David's mind, inspired by the HR Club's own fundraising efforts for the 'Kids with Cancer Foundation Australia' during that event.

Over the next few years he formulated a plan and developed the confidence to take on such a challenge. Come 2018, David was ready to accept the challenge and embarked upon a one-off event at Fairfield Showground on 1 December.

David discovered he had a surprising knack for talking directly to people and gaining their support, but wasn't too confident with promotion and publicity, so he approached his mate (the author) to handle that side of the project. Having lost mates to cancer, including my dear railfan/modeller friend, James Loosemore, I could hardly say no to helping out with this very worthy project.

The initial event at Fairfield far surpassed what had been expected, managing to raise \$5040.00 for the 'Kids with Cancer Foundation Australia' organisation. We were so inspired by the result that we decided to give it another go in 2019. The 2019 event took place over the weekend of 19-20 October at the Fairfield Showgrounds (Western Districts Live Steamers) and featured miniature railway train rides, heritage buses and cars, plus lots of kids' entertainment, including jumping castles, plus the inevitable sausage sizzle!

In the meantime, the idea soon grew well beyond just the event at Fairfield Showground. We have also attended two long weekend model railway exhibitions (Rosehill and Homebush), as well as our first Bunnings sausage sizzle.

One week prior to the Rosehill exhibition (June long weekend) I suggested to David that a U-Drive layout would be a great idea, giving a more concrete focus to our fundraising efforts. That week saw a possible record-breaking effort, with David straight off to Bunnings and a week's worth of very late nights, constructing the layout in time for it to appear at the exhibition. It served its purpose very well, at both the Rosehill and subsequent Homebush exhibitions, being very popular with the kids and greatly helping to encourage donations.

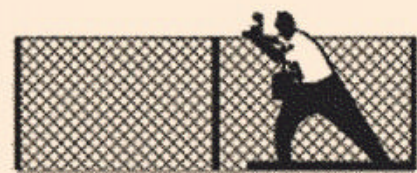
Our aim in 2019 is to reach \$10,000.00. At time of writing this (just after the AMRA (NSW) October exhibition at Homebush), we have just passed the halfway mark. We have already started to plan for 2020 and already look to be doing something different from the last two years. We have been investigating a possible main event based around a (real) train ride, while we hope to again attend some model railway exhibitions and also hit those Bunnings sausage sizzles!

Can you help us?

If you can help us with a donation, financial or raffle items, we would most certainly love to hear from you. We can also use more volunteers to help us at future events. Every little bit you can give helps us to help children in need.

Details of future events (and how to contact us), can be found on our website: trainsforkidswithcancer.wordpress.com and Facebook page: www.facebook.com/Trains-for-Kids-with-Cancer-2096154673930579. We also have a GoFundMe account 'Trains For Kids With Cancer' (www.gofundme.com/f/trains-for-kids-with-cancer) for accepting donations.

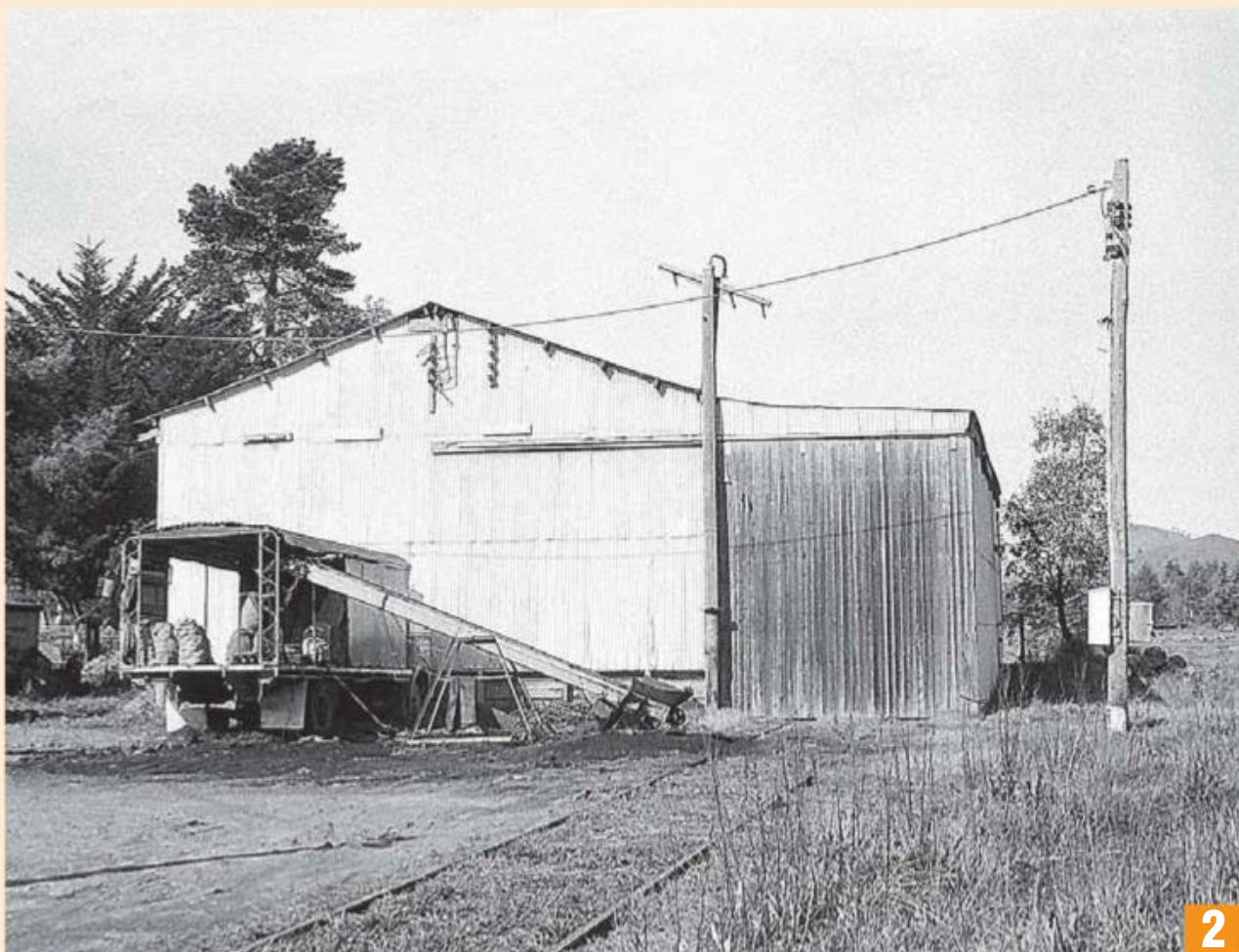
There are so many people that we would like to thank for their help so far. Most especially all the model train manufacturers and retailers (listed on our website) who have been incredibly generous with help. Also, a huge thank you to the Epping Model Railway Club and the Australian Model Railway Association for allowing us to be part of your exhibitions, as well as to the many, many kind people who have donated.



BEYOND THE FENCE

Unloading Equipment

*Phil Jeffery describes some interesting and useful items that would make a very nice detailing scene.
Photos by the author.*



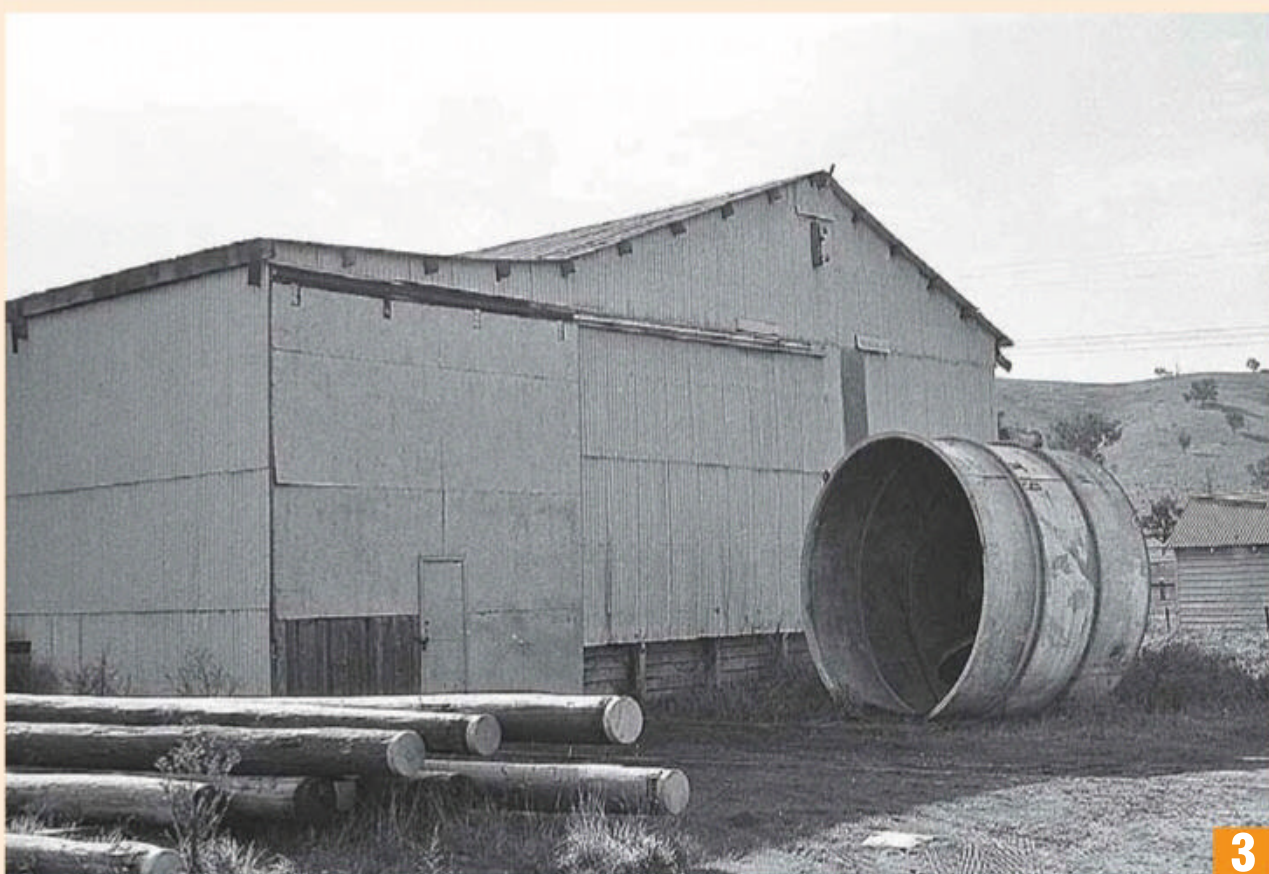
Have you ever wondered what to do with model road vehicles which are no longer up to the standard of the rest of your layout? How about the way the prototype vehicles shown here have been 'kit-bashed' by their owners?

Among some photos taken in August 1971 are these shots taken at Alexandra, Vic, (Photos 1 and 2), which show a storage shed on the far side of the yard. Briquettes and fertiliser were among the products that had to be transferred from open wagons at this location. The truck parked alongside the shed seems to be a long wheelbase Commer, with the tray area covered in and now being used to store bags of briquettes. A belt conveyor leads from beside the track up to a hopper which allows the operator to fill bags with briquettes. Photo 3 shows the other end of this shed where telegraph poles and a large water tank have been stored. Alexandra had a State Electricity Commission siding, so the poles could well be waiting to be loaded onto a train.

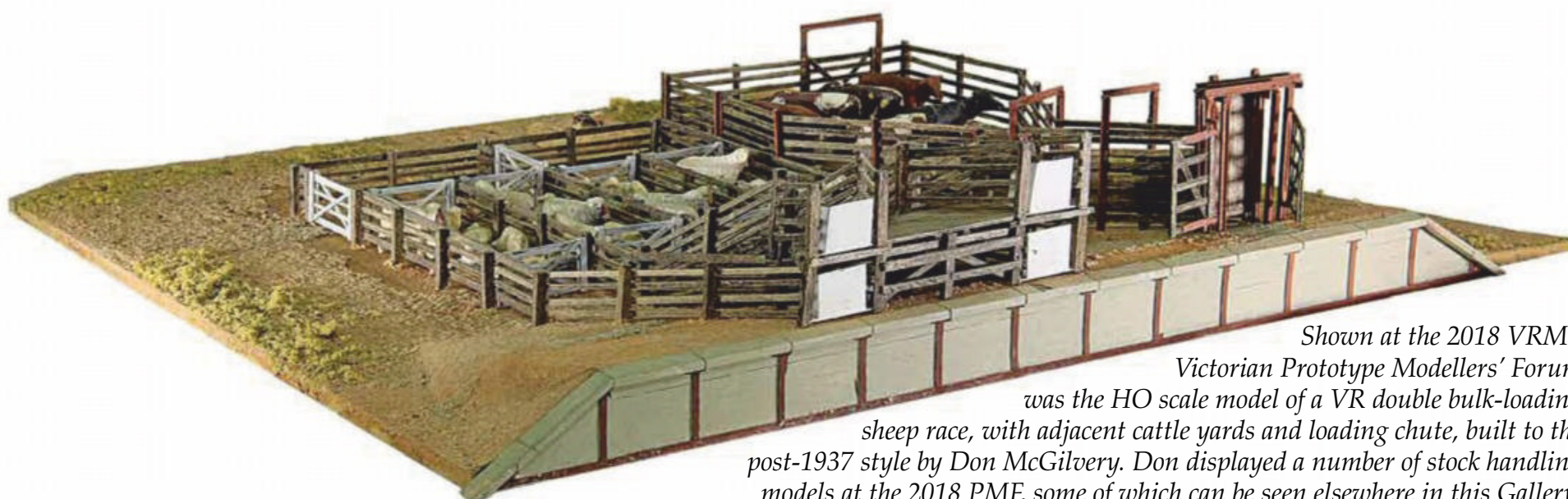
I remember a similar briquette unloader being in use at Greensborough. At Greensborough they had a tractor fitted with a blade for pulling the briquettes out of the wagons.

The converted EK Holden station wagon shown in Photo 4 was seen at Healesville in October 1979. An enterprising mechanic had added a screw conveyor to allow the transfer of fertiliser from GY wagons sitting on this siding. I don't remember looking to see if the car still had a motor.

Photos 5 and 6 were taken at Fish Creek in May 1985. A belt conveyor had been added to an old Thames Trader, resulting in this eccentric piece of unloading equipment. It is interesting to note that the rear wheels have not been thrown away, but left near the truck, which still seems to have its driveshaft in place. The second view at Fish Creek shows a different style of conveyor in use (behind the Trader) unloading fertiliser from another rail wagon into a hopper on the back of a Ford truck.



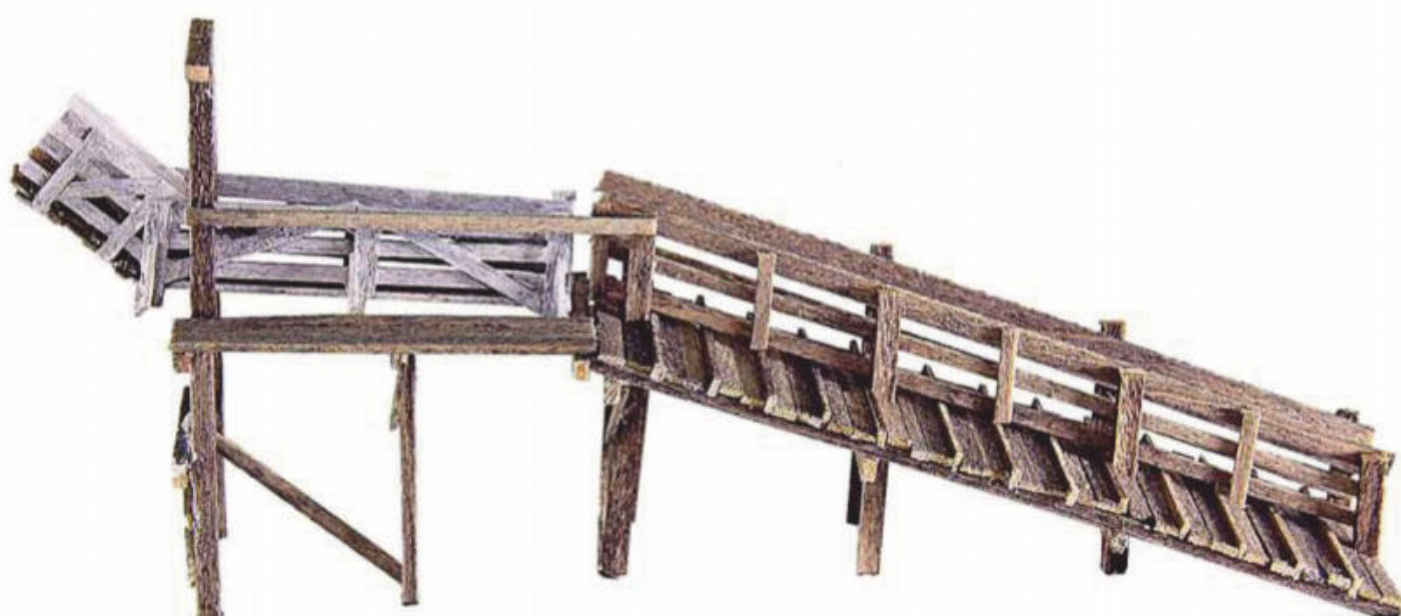




Shown at the 2018 VRMS Victorian Prototype Modellers' Forum was the HO scale model of a VR double bulk-loading sheep race, with adjacent cattle yards and loading chute, built to the post-1937 style by Don McGilvery. Don displayed a number of stock handling models at the 2018 PMF, some of which can be seen elsewhere in this Gallery.

VR Stock Handling Facilities

John McCallum photographed these models, illustrating the common theme of handling stock traffic on the Victorian Railways, at the 2016 and 2018 Victorian Prototype Modellers' Forums.



Another of Don McGilvery's stock handling models, an HO scale rendition of a VR sheep race, the 'economy' style as used on the Morkalla branch in the far north west of Victoria. The model was constructed from stained and painted stripwood, based on photographs and drawings of early Victorian stock race designs.



The other 'half' of stock transport on the railways was the rolling stock, which produced some very distinctive vehicles. This HO scale model of VR bogie sheep wagon, LF28, was displayed at the 2016 PMF by Alan Greenhill. The model features a scratchbuilt roof and underframe, while the body was kitbashed from two SEM L class four-wheel sheep van kits, suitably widened, using a photograph of the prototype LF28 as a guide to detailing.



Sheep were not the only type of stock transported by rail, and this under construction, HO scale, VR MF bogie cattle van represents the type of vehicle used to transport said cattle. Also displayed by Alan Greenhill at the 2016 PMF, this bogie cattle wagon was being scratchbuilt using Evergreen styrene strip and sheet. Some proprietary parts were being used, such as the roof, kitbashed from two Steam Era Models (SEM) four-wheel M cattle wagon roof sections, as well as SEM bogies and Kadee couplers.

Another model from Don McGilvery is this early style sheep race, as constructed by the VR prior to 1937. The model was built from timber following the information contained in Phil Jeffery's article 'Modelling Sheep Pens' in AMRM Issue 86 (September/October 1977).



While bogie stock vehicles were becoming prominent towards the end of the stock transport era on the VR, four-wheeled vehicles dominated from the first days of rail transportation of animals. This long wheelbase version of the ubiquitous M cattle wagon was displayed by Stuart Dix at the 2018 PMF. Starting out with the well-known SEM kit, Stuart replaced the central two panels with new versions scratchbuilt from styrene and then mounted the resulting modified body on a shortened SEM I wagon underframe.

Another of Don McGilvery's models shown at the 2018 PMF is this HO scale model of a VR heavy duty truck loading ramp. The prototypes were constructed when road motor transport became more common and permitted stock to be loaded or unloaded direct from the motor truck into the yards. The model was constructed from strip wood, stained with Indian ink diluted with methylated spirits, attached to a frame of old rail and painted a suitable rust colour.



Not all stations were provided with permanent stock yards; many of the smaller goods sidings which would only expect to load the odd wagon occasionally were provided with portable hurdles that could be positioned to load small consignments of stock, as required. Don McGilvery constructed this temporary yard using standard VR portable hurdles, constructed from strip wood stained with Indian ink and white paint.

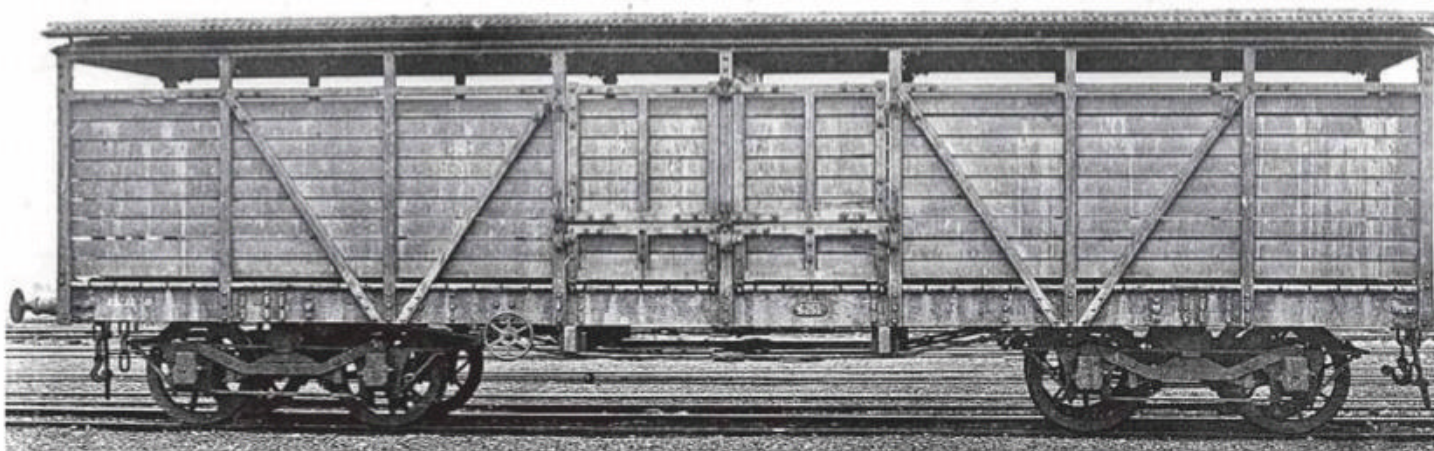


The almost completed 1890 BCW waits to be loaded at the stock race, along with two other 19th century wagons, an A type flat wagon, dating from 1855, and a contemporary HBW ballast hopper, also introduced in 1890. These vehicles could only prototypically appear together between 1891 and 1901. Photo by James McInerney.

The Stephen Johnson Models NSWGR 'Thow' Bogie Cattle Wagons in HO Scale

Ian Dunn outlines the prototype history of the NSWGR's Thow-era bogie cattle wagons and builds the SJM HO scale kit '1890' version. Photos by the author, unless otherwise indicated.

Stephen Johnson Models 'Thow' Bogie Cattle Wagon (1890, 1891 and 1895 types) kit in HO scale by Stephen Johnson Models, PO Box 31, Red Rock 2456. Facebook: [facebook.com/Stephen Johnson Models](https://facebook.com/StephenJohnsonModels). Website: www.stephenjohnsonmodels.com.au. Prices: \$80.00 (Kadee coupler version)/\$85.00 (screw-coupled version), plus P&P.



The first BCW to be constructed, 6251, delivered in 1890, seen here in 'as delivered' condition, prior to the fitting of Westinghouse brake equipment. The author's model replicates this vehicle as it appeared in the last years of the 19th century, after the Westinghouse equipment had been fitted. Railway archives image.

Prototype

Upon assuming office in 1889, William Thow set about having bogie sheep, cattle and refrigerator cars designed and built. The first bogie cattle wagon, using "*the American underframe*" (which was also used for the other two types) was built to Shop Order 2490 of July 1890, a single vehicle turned out in December of that year and numbered 6251.

As well as being built on the 'American underframe', by which Thow meant that the body was fixed directly to the sole bars, which were trussed with queen posts, No.6251 was fitted with "*passenger bogies*" which were, in fact, lengthened, close copies of the Baldwin tender

bogies found under the L304 class 'Mogul' engines imported in 1884. The 'passenger bogies' never found their way under any passenger vehicle, but they did permit the cattle vans fitted with them to travel at passenger train speed (40mph) and to be included in passenger trains. No.6251 entered traffic without Westinghouse brake, but this would have been fitted almost immediately.

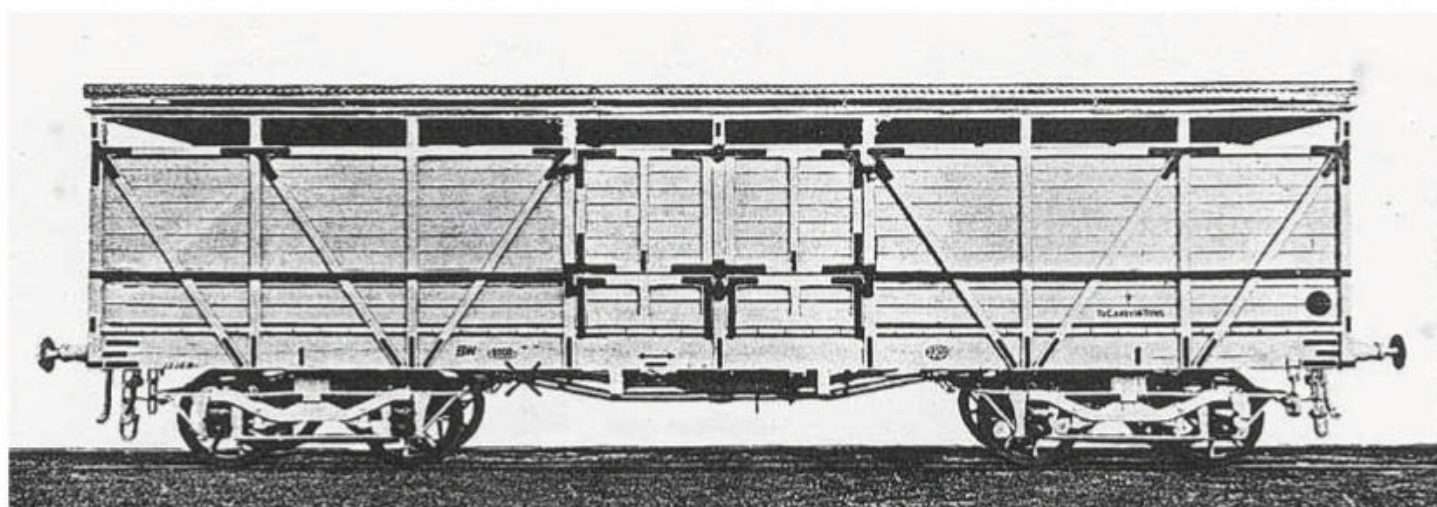
Even before 6251 entered traffic, twenty five more bogie cattle wagons were ordered. They entered traffic in 1891, numbered 9894 to 9918, and were almost identical to 6251, the only visible difference being diagonal bracing on the outer panels of each side, omitted on the prototype vehicle. This batch appears to have been fitted with Westinghouse brake from new, and utilised the NSWGR 'standard handbrake wheel' (spider) rather than the circular wheel of 6251. An official photo exists of 9903 with the classification BW rather crudely scratched on the negative, but it is doubtful if this really was the code.

Finally, in 1896-1898, a further ten bogie cattle wagons were constructed. While the body was identical to the 1891 vehicles, the underframe main members differed and they rode on Thow's new standard diamond frame bogie. They were, of course, Westinghouse fitted from the outset. They were numbered 1896, 4386, 5301, 5891 (1896-built) and 6259, 4553, 7423, 7752, 7824, 7934 (1898-built). All were coded BCW in the early 20th century.

Most of these vehicles lasted well, and were condemned in the 1940s and 1950s, the last to go being BCW9896 in 1957. No.1896 had a very short life, being out of service by 1899, no doubt the victim of an accident. Those that survived beyond about 1953 lost their shade roofs, which brought the rail to rooftop height down to 11'2".

Model

Stephen Johnson Models have produced kits for all three versions, each available configured for either screw-link or Kadee couplings. The parts consist of polyurethane castings for the major components, brass castings for the operating buffers and operating screw-link couplings (non-Kadee version), etched phosphor bronze spring for the buffers and the brake hand

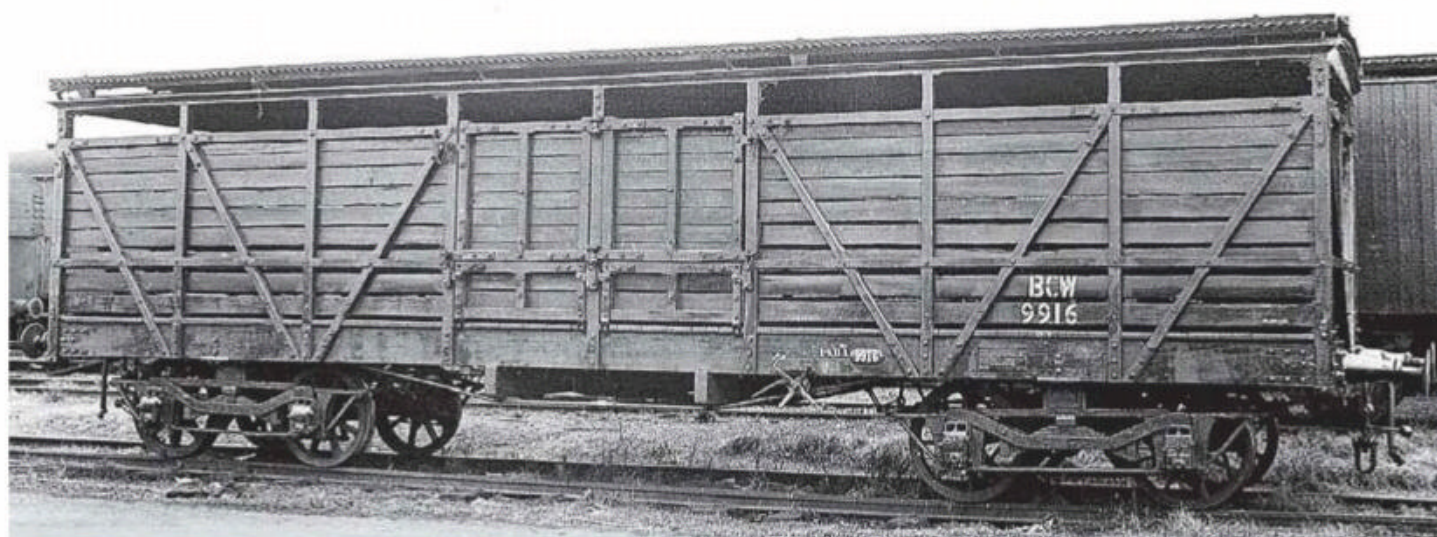


An official image of BCW9903 from the 1891-delivered batch, showing the 'BW' code mentioned in the text. The timber parts of the vehicle are painted what appears to be a light grey, while the metalwork is picked out in black. Railway Archives image.

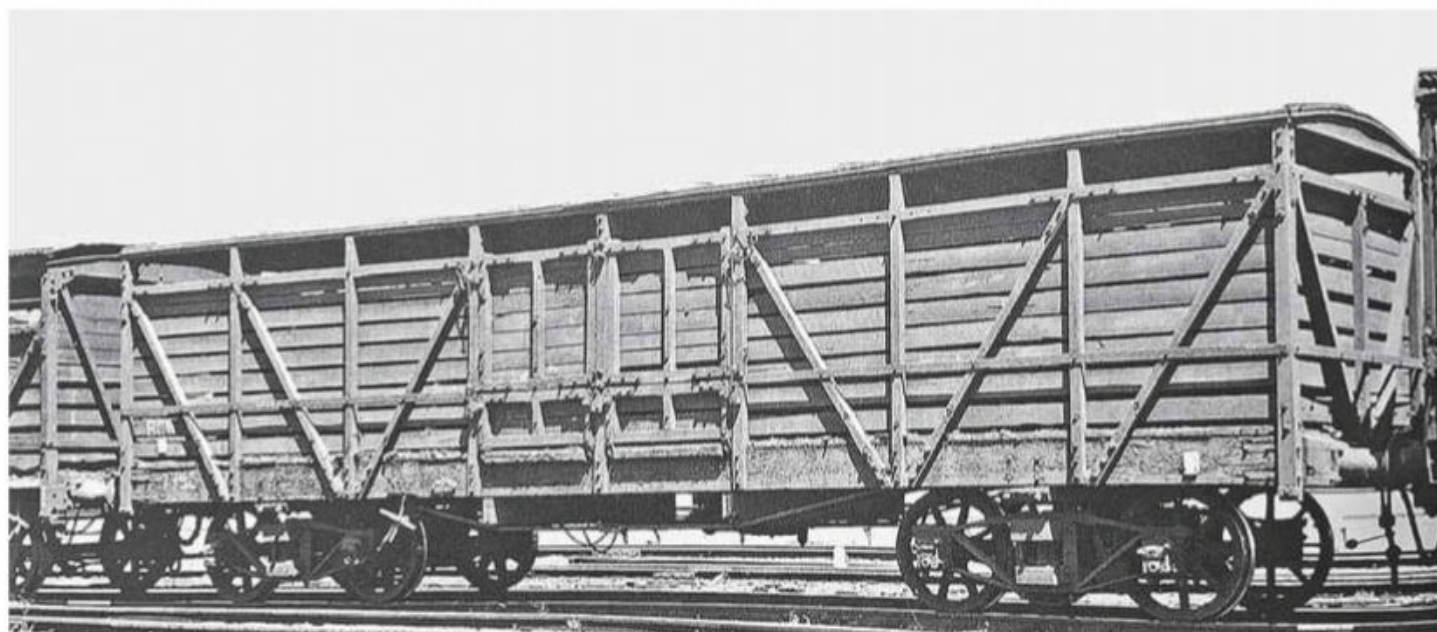
wheels, turned brass axle bearings, etched nickel silver bogie frames, brass wire for spindles and truss rods and eight-spoke RP25/88 wheels from North Yard Models.

An excellent instruction sheet and photographs accompany the kits, covering all three types. The castings are of exceptional quality and lie quite flat, making assembly

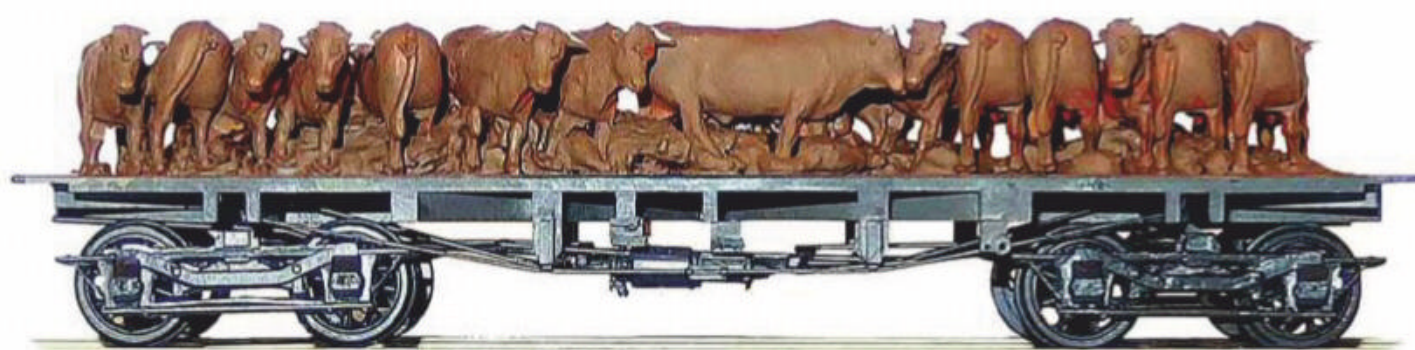
accurate and square. A very fine double roof is provided, as per the prototype. The roof parts were about 2mm over-length, which required removal of a 2mm slice



Also from the 1891 batch, BCW9916 is shown in its mid-life, circa 1930, with code and wagon number on the vehicle side. This vehicle has the number and code on the second panel from the right; after World War 2 a more common position was on the far-left panel. When first put in service, the code was not displayed and the number was only carried on the solebar. Railway archives photo.



A cattle wagon from the 1898-built batch, BCW7752, at an unknown location towards the end of its life, most likely some time during the 1950s. It has the code and number at the 'standard' location on the left-hand panel of the side and has lost its 'shade' roof. Unlike the 1890 and 1891 batches, illustrated by most of the other images, this batch rode on standard 'Thow' diamond frame bogies, rather than the 'passenger bogies' used on the earlier vehicles. Railway archives photo.



The completed chassis with a load of cattle. The block of cattle is an American product of unknown brand, obtained from Walthers a very long time ago.

The Thow bogie cattle wagons in service, circa 1950. A stock train climbs Cowan Bank behind the train engine, a 'roundtop' 36 class, assisted by a small tendered 53 class. The train's consist is typical of the time, a mixture of four-wheel and bogie stock, including two 'Thow' bogie cattle wagons (ninth and twelfth vehicles), complete with 'shade' roofs, and also two of the later '1927' bogie cattle wagons. Railway archives photo.



The completed model of BCW6251, the first to be built by the NSWGR, after painting, but before lettering and weathering.

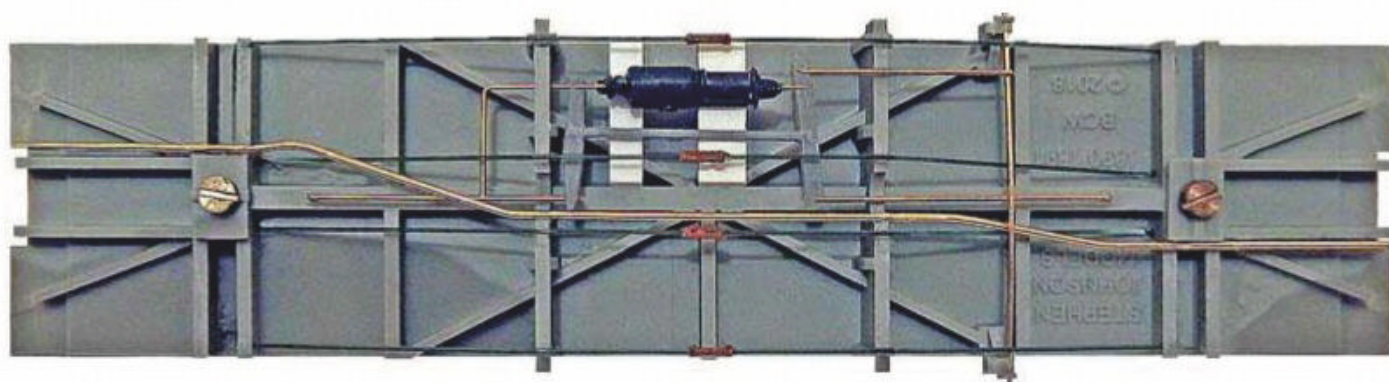
from the centre of the inner roof and 2mm off one end of the corrugated shade roof.

SJM recommend Zap Green superglue, but I have found that UHU superglue is excellent with this material. It is not available from the usual hardware chains, but from Officeworks for \$5.04 for a 3 x 1g pack, or online. I assembled the screw couplings and bogies first, both fiddly, but not difficult, jobs. After that I diverged from the instructions, which suggest dropping the floor into the assembled body before completing the underframe. I wanted to complete the whole underframe and populate it with beasts before inserting it into the assembled body from below. This can be done, providing the sprung buffers and screw couplings are not fitted until the whole vehicle is otherwise completed. The kits for the 1890 and 1891 types do not include a Westinghouse cylinder, but this may be requested when ordering. I opted to fit full Westinghouse brake gear to the model: a fiddly job, but well worth it.

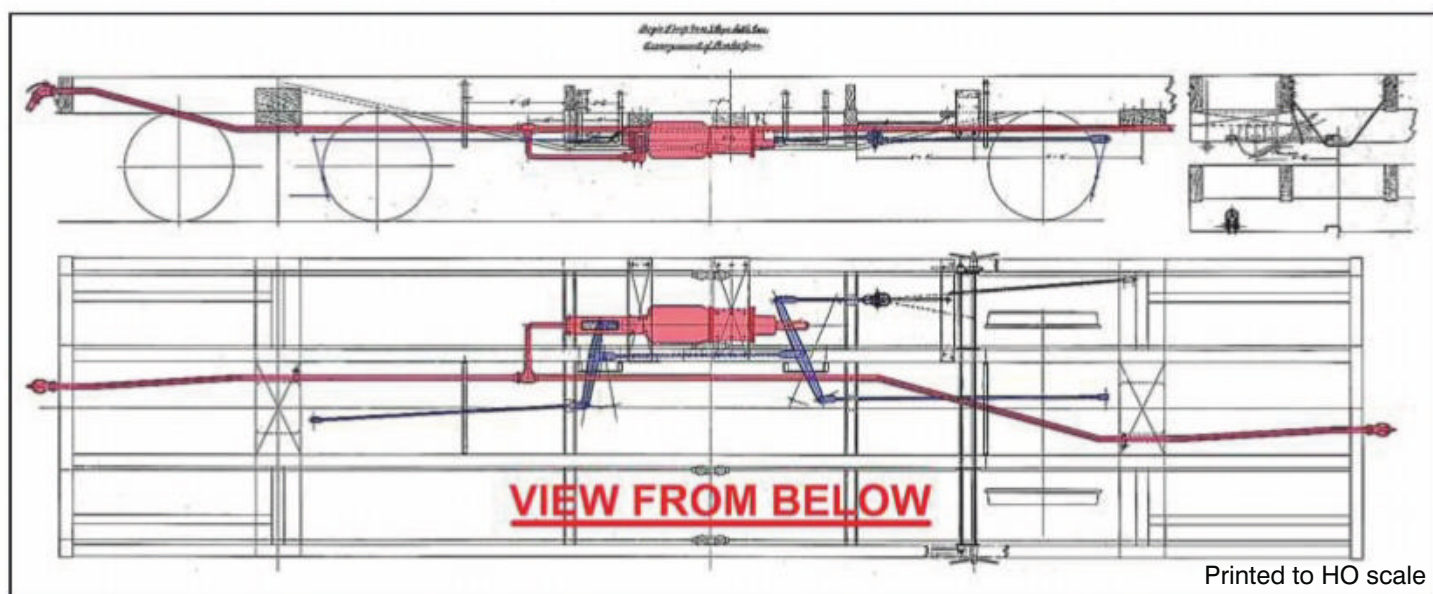
I began with the 1890 vehicle, No.6251, which is reviewed here. Assembly proceeded without any hitches, apart from the need to shorten the roof. When cleaning the (minimal) flash from between the boards on the sides, the use of a brass suede brush makes finishing easier. I inserted a mid-body internal partition, as per prototype, and managed to get sixteen cattle inside. I also prefer fishing line for the truss rods, rather than brass wire, but still employed the supplied turnbuckles, opened up with a No.77 drill.

Painting was dark grey exterior and dark brown interior. The Westinghouse brake symbol was a decal. I have yet to source sole bar numerals for the number plate and a tare mass inscription, and will not put any other markings on the vehicle for the period modelled. Those whose modelling extends beyond the 1920s should add the code (BCW) and vehicle number to the lowest two boards in the second panel from the right of each side.

Assembled, the model is accurate to within the odd inch – 5'6" wheelbase bogies (as per Greg Edwards' drawing – the GA shows 5'3") at 24'0" centres, body 36'0" long by 8'6" wide over corner



I am always a little bemused at how often models appear with every tiny detail modelled above the sole bar, but the gear below that level is just 'representational', usually nothing but a stranded air cylinder. The early bogie (and four-wheel) rolling stock used a combined air reservoir and Westinghouse cylinder. The cylinder acted as a ram on a pair of connected actuating levers, one at each end of the cylinder. These, in turn, were connected to linkages to each bogie and to the handbrake mechanism (the latter via a chain and pulley). These actuating levers and linkages are marked in blue on the accompanying diagram. The cylinder is a commercial moulding (they are available from several sources at good hobby shops), and the levers are modified AR Kits items, purchased many years ago, suitably lengthened with Evergreen styrene and shaped. (There's an opening here for a nice etched pair of levers and connecting rod in a small variety of sizes...) The lever furthest from the handbrake operates within a pair of 'slide bars' attached to the end of the air reservoir and these can be simulated with small pieces of Evergreen styrene strip. The ram on the end of the cylinder and the linkages to the bogies are brass wire of 0.15" diameter, glued to the levers and bent vertical to fit into a hole drilled in the centre sill close to the bogie pivot (not quite prototypical, but they do have to be anchored somewhere). The air supply to the system comes from the through, end-to-end Westinghouse pipe, and a small right-angled pipe running from that to the air reservoir. These parts are in red on the diagram, and are formed of (scale) 1½" and 1" diameter brass wire, suitably bent to follow the contours of the underframe. Note that the cylinder/reservoir centre line is almost exactly level with the bottom of the queen post transoms, and the levers slide more or less on those transoms. While making and assembling these parts is fiddly, the result is well worth the effort and the underneath of the finished model looks much more complete.

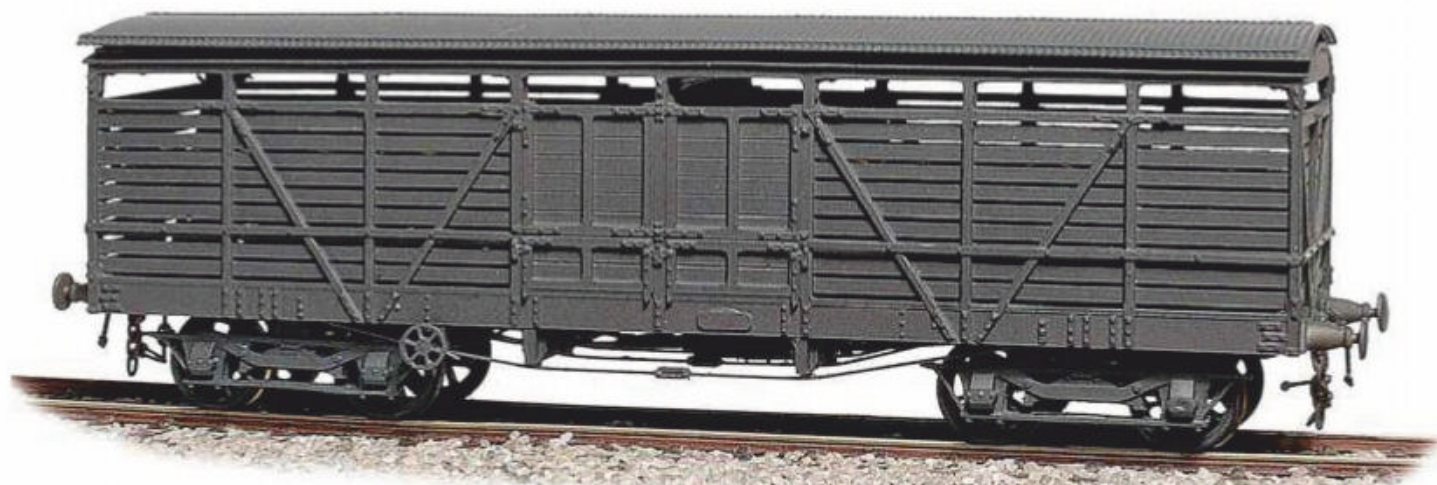


posts, and height from rail to top of shade roof 11'9".

These kits can be thoroughly recommended. Excellent pattern

making and casting are backed up by thoughtful design and first-rate instructions. We are promised the corresponding bogie sheep van and

the 1927 Tulloch-built bogie cattle wagon in the future, so there is still much to look forward to for the kit-builder of NSW rolling stock. 



The other side of the all but complete '1890' BCW. Completion has been delayed due to the late arrival (post magazine deadline) of suitable decals. Photo by James McInerney.

***Hudson Brothers A History of Hudson Brothers Carpenters, Engineers & Manufacturers 1866-1898* by David Jehan. Published by SCR Publications, PO Box 345, Matraville 2036. Ph: 02 9311 2036. Website: www.australianmodelrailways.com. Price: \$75.00.**

Sydney author and engineer, David Jehan, has written a number of books with railway themes, including the 2015 publication addressing the history of Tulloch Engineering. Now he has turned his attention to the seminal Sydney manufacturing firm, Hudson Brothers, a hallowed name for those with an interest in the rolling stock of NSW railways. This firm had many more irons in the fire than railway manufacturing though and this volume lucidly chronicles the firm's complete history, railways and all.

With a fluid writing style, a plethora of mouth-watering photographs, plus numerous drawings and diagrams, the author describes one of Australia's most important industrial enterprises of the nineteenth century, the tentacles of which extended a long way into the twentieth.

One can only admire the pluck of 28 year old Plymouth cabinet-maker, William Henry Hudson who, in 1841, set off on a five month sailing ship voyage to the Antipodes, with wife and three toddlers in tow, to seek a new life. Initially, they tried New Zealand, but conditions weren't entirely to their liking and they headed for Sydney in 1846.

William started a joinery business in Redfern, then a haven of artisan respectability. Hard work saw Hudson and Sons grow into one of the main building firms in Sydney, providing timberwork for many notable structures. They were the first firm of their kind in Sydney to use stationary steam engines to mechanise their workshop: lathes, planers, vertical drills etc. Their products included windows, doors, and portable 'knock-down' houses; in a sense the firm was the 'Ikea' of their time.

Many modern readers will gaze wistfully at photographs of the ornate timber work fashionable in the 19th century, a stark contrast to the bland 'modernism' of later generations.

In 1866, at the age of 53,

William Hudson Sr stepped back, handed the reins to his three sons and the firm became Hudson Brothers. They soon expanded, with sawmills at Myall Lakes (with its Smiths Lake tramway) and Pyrmont, along with a branch of the building firm at Hill End. Among many other things, they imported the latest wood-working equipment from America and by 1874 they had 134 employees.

The collapse of the rolling stock manufacturer PN Russell in 1875 left a vacuum that Hudson Brothers filled, initially obtaining a contract for 200 D type four-wheel open wagons. With equipment obtained from Russell's auction they soon set up a blacksmith shop for metal working and between 1876 and 1879 they built 700 goods wagons for the NSWGR.

Hudson Brothers participated in the construction of the Garden Palace in the Botanical Gardens near the State Library, where the International Exhibition of 1879 was held. A horse-drawn tramway was inaugurated to transport visitors from Sydney Railway termi-

nus. Hudson Brothers built the vehicles and thus was set in motion the evolution of Sydney's tramway network, from horse, to cable, to steam, to electric, eventually becoming one of the largest systems in the world.

Soon there were new plants at Granville (1883) and Wickham, Newcastle (1886) and they quickly became the major rolling stock manufacturer of the 1880s. The design of the Granville plant resulted from a tour of USA by Henry Hudson. He was impressed by the plant of the Wason Manufacturing Company, Springfield, Massachusetts, which featured long buildings arranged in two rows, one each side of a centrally located traverser.

Hudson Brothers' seminal passenger car contracts included the original 'Redfern' carriages, the improved Redfern carriages (double roof and sides incorporating a 'tumblehome'), the 'Cleminson' carriages and the early series of 'American' end-platform carriages with clerestory roofs, countless goods wagons and even cable

trams and steam tram trailers. They introduced refrigerated cars and astutely diversified into agricultural equipment – ploughs, chaff cutters, windmills etc.

In 1886, one of the brothers took charge of the timber building supplies arm and split it from the engineering works. Through various incarnations it survives today as Hudson Building Supplies.

Leafing through this book, many readers will be constantly reminded of a young Australia where manufacturing was a major component of the economy and culture.

Clyde railway station opened in 1883, the same year as the new plant. It was named after Glasgow's river due to the number of Scottish immigrants in the area, which had seen it unofficially known as New Glasgow. When the works commenced, a soccer club was formed made up of Scottish blacksmiths imported from Kilmarnock and Glasgow. Between 700 and 800 workers were eventually employed at the most modern factory in the country of the time.

It is fascinating to read of the timbers used in carriage construction, now regarded as exotic, but then common: Cedar, Huon Pine, Kauri, Baltic Pine, American Ash, Californian Redwood etc., though the use of Australian hardwoods became more prevalent with the passing of the years. Iron for underframes and other components came from the Esk Bank Iron Works of Lithgow.

The Wickham plant built countless coal skips for Hunter area mines, as well as other coal mining infrastructure.

Between 1876 and 1898 Hudson Brothers built over 5400 goods and coal wagons for the NSWGR. These included covered vans, sheep and cattle wagons, plus louvered vans for perishable traffic. The first bogie goods vehicles were built in 1880/81. At the peak there were said to be 13,000 of the archetypal non-air private coal hoppers in the Hunter region. A great many of these removable-hopper vehicles came from the Hudson Brothers' Wickham works.

Chapter 5 on coaching stock will be one of the most studied in this book. Famous author Henry Lawson worked for the firm and there are some memorable quotes from him. This chapter takes us through the early four-wheelers,

HUDSON BROTHERS

A History of Hudson Brothers
Carpenters, Engineers & Manufacturers
1866-1898

The Foundation of Clyde Engineering



DAVID JEHAN
EVELEIGH PRESS

six-wheelers, horse boxes, hearse and prison vans, mail vans and to the bogie coaches mentioned earlier in this review. The subject of radial cars is addressed, how these were shown to be inferior to bogie vehicles and eventually converted. Also described are the so-called 'dogbox' (Express Lavatory) carriages and the numerous end-platform suburban carriages. We learn of the NSW State Cars, as well as carriages built for the railways of Tasmania, along with the first bogie goods brake vans (later coded BHG), the Mann sleepers and the first electrically-lit cars in Australia.

It is arguably less widely known that in 1891 Hudson Brothers fabricated the iron work for the large wool shed at Darling Harbour, and iron bridge components for NSWGR such as those on the Carlingford line and the heavy plate web girders for road bridges replacing level crossings (e.g. Burwood) associated with the quadruplication of the main line to Strathfield.

Those readers interested in the intricacies of steam mechanics will enjoy chapters 7, 8 and 9 on the subjects of industrial boilers, stationary steam engines and cable car powerhouses. The latter proved a relatively short-lived episode in Sydney's transport history given the obvious superiority of electric tramways.

There are detailed descriptions and photographs of Corliss valve gear steam engines, which can still be seen on operating days at the Waterworks Museum, Goulburn. Also described are winding engines for BHP, a smelter for the Sunny Corner (near Bathurst) silver mine, and steam-driven stamper batteries for crushing ore. Additionally, the 1890s Hudson-built meat chilling works at such locations as Narrabri and Bourke are covered, plus the creamery refrigeration at Byron Bay.

There is an interesting discussion about Hudson Brothers' failure to obtain locomotive contracts from NSWGR and speculation about the designs they might have chosen.

The 1890s depression hit everyone hard, and Hudson Brothers were not immune. The Wickham plant closed. Chapter 10 deals with the machinations that led to the collapse of Hudson Brothers, and to the firm's re-birth as *The Clyde Engineering Company*

in 1898, symbolised by the choice of the mythological Phoenix rising from the ashes as the new insignia.

There follows a brief description of early Clyde Engineering undertakings, smelting furnaces for various locations including Mt Lyell (Tasmania), Blayney, Burruga, Barraba, plus other types of industrial equipment and the continuance of electric tram manufacture. There is finally a chapter on the Clyde Engineering offshoot Westralia Ironworks at Fremantle (1904-1925), which manufactured goods and passenger rolling stock for the WAGR, tram bodies for Perth and Fremantle, along with a small number of passenger cars for the Commonwealth Railways. One suspects the readership's appetite for a future history of Clyde Engineering will be whetted by the release of this publication!

In summary, this is an outstanding book, the author's finest to date in the opinion of this reviewer. It captures admirably, in words and pictures, a pivotal period in Australia's industrial, cultural and social history. While this book is primarily aimed at those interested in the development of the prototype, there is still much of interest for the modeller in the sharp and clear images of rolling stock and infrastructure.

Chris Sim

***Ted Payne The Steam Era • Victoria* edited by Richard Barrack. Published by Train Hobby Publications, LPO Box 5123, Pinewood 3149. Ph: 03 9499 9194. Price: \$52.00.**

Train Hobby Publications has found a real resource in Victorian photographer, Ted Payne. This latest book from THP is an 80-page, large format, all-colour book featuring more of Ted's visually attractive and historically significant photos, covering Victorian Railways steam from 1960, through to the end of everyday steam and well into the preservation era.

The majority of the images are printed one to a page, allowing careful perusal of the many interesting scenes portrayed. Although some of the early images are a little 'grainy' and/or 'washed out', the scenes and subjects are good enough to allow us to overlook the flaws. The publisher explains in the text that the film type used by the photographer was prone to those

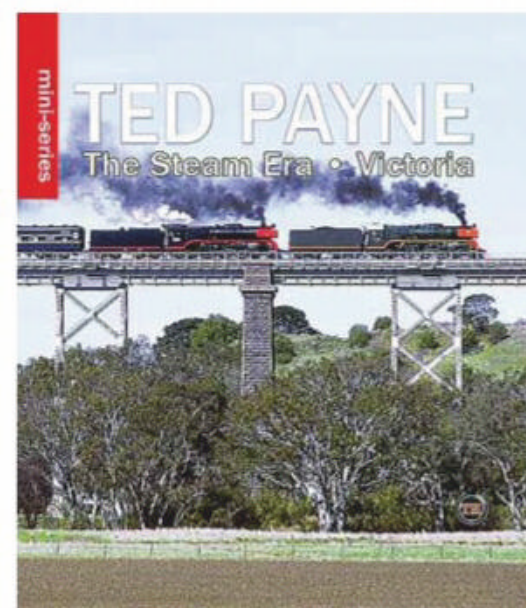
problems, but that the subject matter more than made up for the flaws in the film. I can only agree with the publisher's judgement on this!

The book is full of fascinating images, both from a historical, artistic and useful for modelling perspective. A variety of angles was employed by the photographer, including his signature 'high angle' shots, which are particularly useful for modelling purposes (e.g. the image on p.72 showing J547 at Nhill on 2 January 1968 shows a superb vista of a country station and environs that contains some incredibly useful details for modellers, such as colours and textures of the ground and track formation, building colours and disposition etc., that are 'pure gold' for anyone building a model of a typical VR country station).

While the focus is always on the train, quite often it is a 'train in the landscape' type shot, which provides much useful information about the surrounding area, such as the image on pp.34-35 showing K176 shunting the International Harvester works at Geelong in 1969. This image is just full of 'modellable' clutter, such as weed covered track, the use of old sleepers to build the ground level up to rail height for safety, the road crossing, plus an audience of local kids, complete with bicycles, any (or all) of which would make a great cameo on a layout. (Those kids and their bikes appear in other photos as well!)

Another very inspirational shot appears on p.58, showing N426 at Portland, illustrating a perfect juxtaposition of railway station and sea-side that would reward recreation in miniature. There are some absolute 'gems' captured as well; the image of 'Stephenson' A² 932 hauling two DERM trailers on p.4 would make a fascinating model, as would the image on p.39 showing tender-first N479 banking a goods train in the rear, crossing a picturesque timber and steel trestle over the Barwon River at Breakwater.

The photographer also had some amazing luck, such as was recorded on p.5, where he managed to record the last two X class 2-8-2 locomotives passing his van-



tage point within 30 minutes of each other, two weeks before they were both withdrawn, and the shot on p.78 showing a perfect 'cross' on the Maribyrnong River Viaduct in October 1993 between preserved R707 and the up *Melbourne Express*, hauled by double G class!

The text is unobtrusive and, as far as I can tell, accurate, supporting the images with interesting information about the locomotives and locations depicted, along with anecdotes from the photographer regarding the circumstances surrounding the capture of the image.

Summing up, this is another excellent publication from THP, providing magnificent photographs that should be of interest to anyone with a liking for the Victorian steam scene. For the modeller, the information that can be gleaned from a study of the images will definitely allow more authentic models to be created. It is also, apparently, merely the first in a planned series...

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



Eureka Models released their r-t-r HO scale NSW TAM sleeping and MCS sitting cars just before the AMRA (NSW) October long weekend exhibition. Both types are available in post-1954 Indian red or 1980s era 'candy' colours, with a choice of roof colours, direct from Eureka or hobby shops carrying the Eureka range.



Lyndon's Trains has released HO scale kits for two VR workmen's sleeping vans. The four-wheel version requires a purchaser-provided SEM I wagon underframe to complete, while the bogie WW is complete with brass VR 4' wheelbase passenger car bogies.



Andlan Models have released a number of new locomotive crew figures in both HO and O scales, including some 'early days' figures suitable for 19th century and early 20th century locomotives. The figures are also available to other scales to special order. All the figures are created by scanning real people wearing authentic clothing (mostly from the collection of the

Dorrigo Steam Railway and Museum) and the scans are then 3D printed, so the end result is very authentic and the reproduction is so exact that the figures are quite recognisable if you know who they were scanned from!



JEM Kits have released a kit of the Melbourne Z1 trams in HO scale. The kit is provided without any mechanism, but the instructions cover all assembly options: building the kit as a static model and options for motorising the model.



SDS Models have released a second run of their r-t-r, HO scale, VR outside sill GY four-wheeled open wagons. There are five new three-packs available, all with new numbers. Two packs feature VR red (with yellow grain stripe) with 5" Imperial lettering, two packs are in Hansa yellow with 7" lettering and one is a mixed pack of red (2) and yellow (1) wagons with 7" lettering.



Gopher Models have released a pack enabling the creation of either of the RAAF's World War 2 recruiting trains (sets 25a or 25b) in N scale. The packs consist of three r-t-r Gopher NSW 'American' end-platform carriages, suitable RAAF blue paint and appropriate decals.

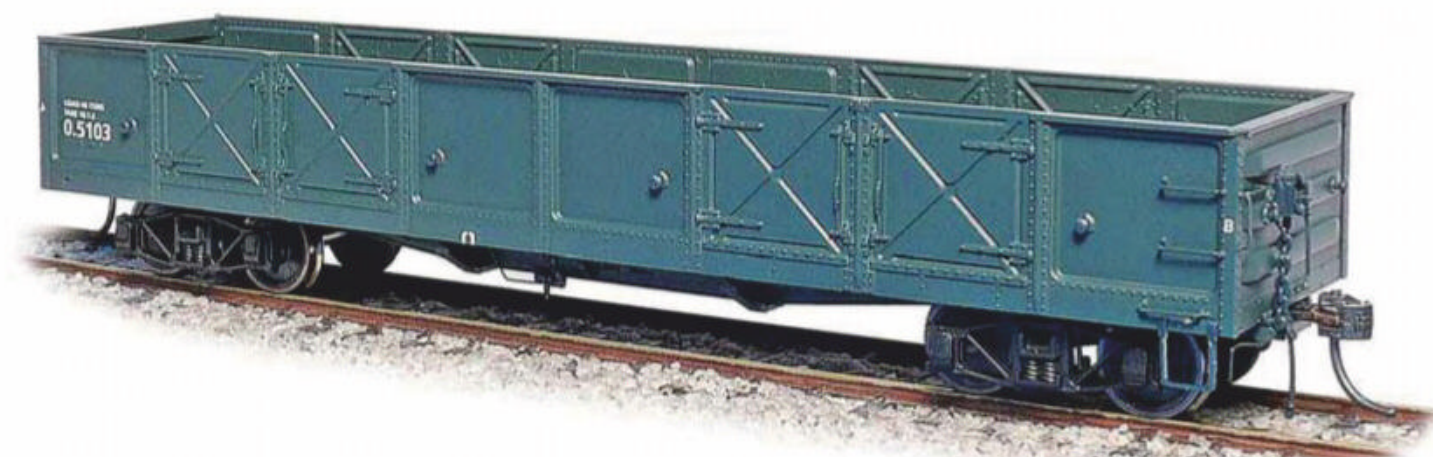


Minerva Models have released their range of r-t-r O scale Manning Wardle K class 0-6-0 steam locomotives. The models are available from their Australian distributor, Model O Kits. I wonder who will be the first to convert one into a NSWGR 127 class locomotive...



AM Models have released three new HO scale detailing items; a 'Bills' cast concrete horse trough (some of which have been preserved at various locations), packs of NSWGR station awning corbels for the A-type brick-built station buildings and a NSWGR standard fettlers' toolbox (a similar, if not identical, version was used by the NSW tramway systems). AM Models products are available from Casula Hobbies at Liverpool, NSW.

AM Models products are available from Casula Hobbies at Liverpool, NSW.



Phoenix Reproductions have released their full range of HO scale, r-t-r, Victorian E and South Australian O class bogie open wagons, of which only a tiny part of the range is illustrated here. See the Phoenix Reproductions website for the huge number of variations available.



Powerline have released a second batch of their Victorian Railways S type air-conditioned cars covering the classic blue and gold colour scheme used by the VR from 1937 until the early 1980s. The various cars produced in this production run represent those used on the broad gauge and feature fourteen different numbers sporting the Art Deco lettering font used by the VR until the mid-1960s and six cars with the Sans Serif font used from 1966 until 1981 when the Vicrail tangerine colour scheme was introduced. The carriages feature the appropriate font, depending on the period depicted on the model, including the replacement of 'SECOND' with "ECONOMY" from the early 1970s. As with the previous run of these totally new versions of the iconic VR S cars, they feature painted interiors, NMRA RP-25 profile metal wheels and factory-fitted Kadee No.158 scale head couplers.



Signals Branch have released a limited range of Australian-made HO scale, NSWGR lower-quadrant lost-wax cast brass signal, available in ether kit form or ready-to-place by special order. All items required to complete the model, including details and 3D printed mechanism to make them work, are included in the kit. Downloadable instructions and directions for ordering are available on the 'Signals Branch' blog. Currently available are single arm post in 23' and 27' heights, as well as left and right hand bracket signals. Locally producing the kits allows a noticeable reduction in price to the customer over the range of brass signals available through the Signals Branch shop on the Shapeways site, though the full range of currently available 3D printed signals remains available via Shapeways, as the rest of the range is far too extensive and specialised to produce locally.



Walker Models have released a laser-cut timber, three-bay, NSWGR locomotive shed kit, based on Tenterfield, in both N and HO scales.

Tamiya have available a range of Lacquer colours, some of which will be of great interest to local modellers. Model O Kits alerted us to the LP-60 Nato Black and LP-18 Dull Red colours shown here, which they recommend for the NSWGR 'gunmetal' grey goods wagon colour and post-1954 Indian red passenger carriage/1960s-1970s diesel locomotive colours respectively.



Southern Rail have released their range of r-t-r, HO scale, QR 2400 and 1550 class Co-Co diesel locomotives. The models are available for HO standard (16.5mm) and narrow (12mm) gauges and in two-person and 'driver-only' forms in a variety of different colour schemes carried by the prototypes, only some of which are illustrated here, as well as featuring a standard DC/DCC-sound option. See the Southern Rail website for the full range and ordering options.



Traction Scale Models has released a 3D printed resin kit for the Geelong SEC 'Butterbox' type single-truck tram in both O and HO scales. In O scale it can be ordered as the two-man original version (illustrated) or the later, more common, one-man version. In HO it is only available in 'one-man' form. The O scale version is designed to fit on a 'Tramworks' truck, as it has the correct 8' wheelbase (the Tramworks trucks are handmade to order). The HO version fits straight onto an SEM Black Beetle truck. Also now available are kits for the Geelong 'Meadowbank' single-truck cars, which can also be constructed as the version that ran on the Bendigo system, plus the Ballarat 'Meadowbank' cars, all available in both O and HO scales. Decals for all these cars are in preparation and should be available shortly, if not already, by the time you read this. All the trams mentioned above can be supplied assembled and painted to order.





A factory-assembled sample of Ixion Model's planned, r-t-r, HO scale VR J class 2-8-0 steam locomotive, in this case, the oil-burning version. While there are a few alterations yet to be done by the factory, running, painted samples are expected to arrive in November 2019. If all is satisfactory with those samples, production is expected to start in March 2020 with delivery expected some time in mid-2020.

AMRM Price Rise

Regrettably, from the next issue the cover price of the *Australian Model Railway Magazine* must increase. We have worked very

hard over the past five years to maintain the current price of \$10.00, but as costs outside our control continue to rise, we have to cover them with a price rise if

AMRM is to remain viable. From the February 2020 issue the cover price will rise to \$11.00. The subscription rate will increase to \$66.00 on 15 January 2020. Of

course, renewing your subscription (or taking out a new one) before 15 January will let you have the magazine at the old price for a further year...

New Products

HO Scale

Auscision have released their full range of r-t-r NSW BDX/NOBX/RCFX bogie open and steel carrying wagons. A number of four-packs are available, along with an unannounced single pack featuring BDX33663 as running in the 1970s with *Lysaght Steel* branding on the vehicle.

The release of the new r-t-r NSW 80 class and the re-run of the r-t-r NSW 422 class Co-Co diesel locomotives were expected to take place around the time this issue went to press and should be available from Auscision by the time you read this.

Austrains NEO are upgrading and re-releasing the Victorian APL/BPL/VPCL passenger carriages. The revamped models are expected to arrive in mid-2020.

Casula Hobbies report that tooling has commenced on their NSWGR Z19 class 0-6-0 steam locomotive project, with the first factory samples expected to arrive in Australia towards the end of 2019/early 2020.

Also mentioned is that a number of detailing parts for NSW steam locomotives, previously available as whitmetal castings, such as those from the old Prototype range,

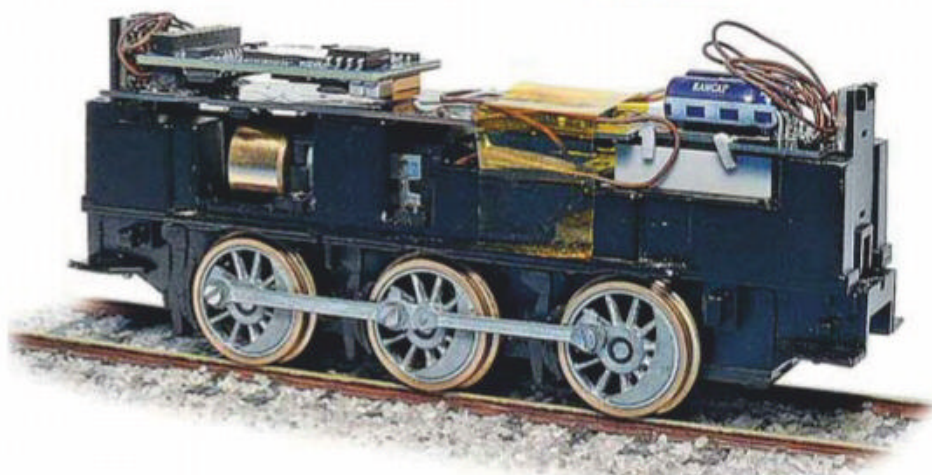
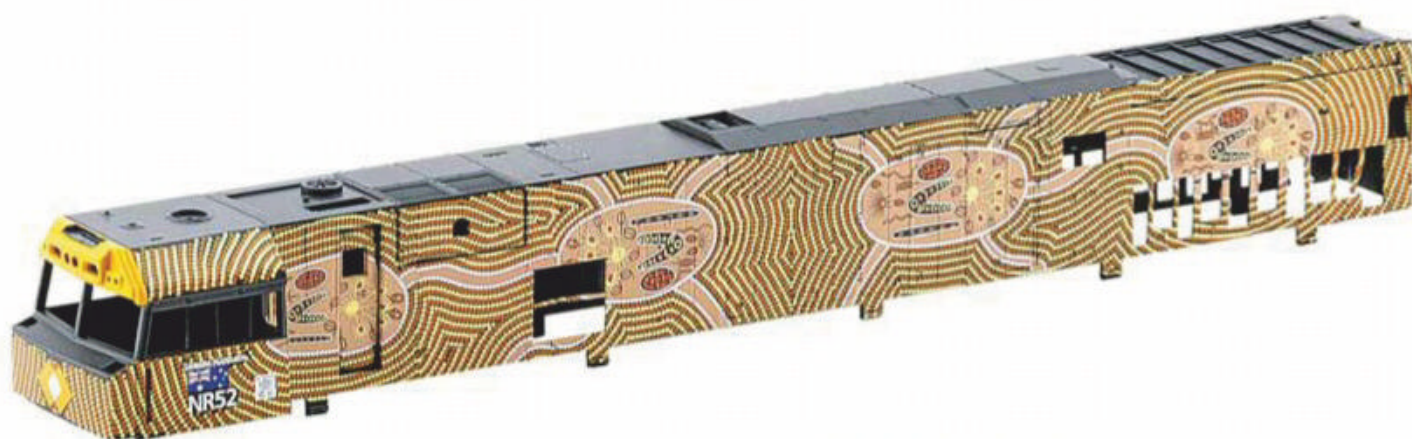


A sample of the r-t-r, N scale NR class locomotive announced by Auscision at the AMRA (NSW) Homebush exhibition on the October long weekend.



Along with the rest of their range of HO scale, r-t-r, NSW BDX/NOBX/RCFX bogie open wagons, Auscision released this unannounced version, a 1970s era BDX with Lysaght Steel branding, available only in a single-pack.

A factory-painted part sample of the Auscision HO scale version of NR52 in its indigenous colour scheme.



The chassis powering IDR Models' r-t-r, HO scale, VR W/NSWGR 7101 locomotive. This tiny chassis has been designed to accommodate a DCC sound chip, speaker and even a factory-fitted 'stay alive' module.



IDR Models have received running, factory-assembled and painted, samples of their next release, the r-t-r, HO scale, models of the VR 0-6-0 diesel-hydraulic W class shunting locomotives, including the 'one-off' demonstrator, 7101, that was trialled in NSW from late 1960 until mid-1961, before being repainted and sold to Victoria as W266, the only standard gauge member of the class. The production run is due to arrive in mid-November, 2019, around the time you are first reading this item.



Berg's Hobbies have received the first test shots of their r-t-r, HO scale, models of the NSW 'Sputnik' single-deck, power door, Sydney suburban electric multiple unit stock. The cars will be available with original style windows, or with the Beclawat sliding windows installed in many of the cars towards the end of their lives.





Manufacturer's sample of the HO scale kit for a VR two bedroom Departmental Residence, complete with outside laundry, dunny and water tank being developed by Broad Gauge Models. The kit will consist of laser-cut timber, card and etched brass parts. The laser-cutting is by the Outback Model Company and some detail parts will be supplied by Section 8. Kits for the three- and four-bedroom Departmental Residences are in development.



A sample of the body of the HOn30 EM Baldwin cane tramway locomotive that is now in production by Cane Trains (Lyndon's Trains and also available from BadgerBits) with expected release around Christmas 2019. The kit will consist of the one-piece body shown, a ready-to-go Life-Like N scale SW8 mechanism, detail items and decals.



The HO scale kit for the NSWGR's Railmotor No.2, affectionately known as 'Kathleen', is available from Redfern Works in very limited quantities. The model was originally developed by the late Peter Ford and released as a limited run 'Old Buggers' kit through the NSW 'early days' convention under Peter's Far North Hobbies label. The body and underframe are urethane mouldings with detail items of etched brass (end platform railings) and brass castings. It was designed to be powered by a Hollywood Foundry mechanism, but with the retirement of Hollywood's owner and cessation of the business, it has been redesigned to ride on a North West Short Line mechanism. The accompanying decal sheet includes smoking and non-smoking lettering for the windows.

as well as others that have been available from Casula in the past, have been recast in brass and are now available again under Casula's OzzyBrass sub-brand.

Another very useful item for the NSWGR steam locomotive modeller that has become available again is the range of steam locomotive lining decals previously available under the WAO brand. These are now marketed under the Ozzy-WAO brand.

Casula also have available the new CDA DC output transformer/controller which, unlike many older DC controllers, produces a 'smoothed' DC output that is compatible with modern era, proprietary DCC/DC chip-fitted locomotives and does not damage the control chips as many of the older items have been found to do. The units are available in either single- or dual-controller form.

IDR Models now expect to release their long-planned kit for the NSWGR's 4501/7100 Co-Co electric locomotive in 2020, once the pressure is off following the expected delivery of the r-t-r VR W/ NSWGR 7101 0-6-0 diesel-hydraulic shunting locomotive in late 2019.

On Track Models will be releasing another run of their NSW 45' louvred vans in early 2020. Along with the expected LLV/GLX and variants, there will also be new versions of the TLV/TLX 'tinplate' wagons and the NLBF/NLBX 'banana' wagons (on a blue, rather than weathered brown base colour as per previous releases), plus the two LLV vans

painted 'candy' at Cowra during the mid-1980s.

Phoenix Reproductions expected to receive the first factory samples of their r-t-r, VR D³ 4-6-0 steam locomotive in late October 2019, around the time this issue went to print. The running and factory-painted samples are expected towards the end of November. If all goes to plan, production will start in early 2020 with delivery possibly taking place in time for release at the Waverley Model Railway Club's exhibition at the Brandon Park Community Centre (Vic) over the Queen's birthday long weekend in June. It is hoped that samples of the VR K class 2-8-0 (being produced in conjunction with Eureka Models) may be available by then as well, as the current plan is that the K class will be produced after the D³ has cleared the production line.

San Mateo Line have released a kit for mounting servo motors to their semaphore signals. The kit consists of a brass etching, to mount on the bottom of the signal, a servo motor and parts to connect the motor to the operating rod.

The purchaser will need to supply their own electronics and program with the correct movement to suit the signal to be powered. This kit can be used for the VR lattice mast somersault lower quadrant signals and the VR and SA single upper quadrant signals.

SDS Models have received factory samples of their all-new r-t-r, NSW 81 class locomotives. The 81 class production run is expected to follow the NR class at the factory, with delivery in Australia slated to be towards the middle of 2020.

Southern Rail wish to apologise to their customers for the delays in responding to correspondence that were experienced during the transition period following the retirement of Rob Stevenson. Now that the new team is up to speed and the release of the QR 1550 and 2400 class locomotives has been taken care of, response to correspondence should take place in a more timely manner!

The release of their r-t-r RRAY/RRBY/RRGY five-pack container flat wagon project is now expected to occur in early March, 2020.

Wombat Models released the second run of their r-t-r NSWGR 30T 4-6-0 steam locomotive at the AMRA (NSW) Homebush exhibition

over the October long weekend. The models, available with a choice of the short, saturated smokebox or either of the two versions of the longer superheated smokebox, as well as a choice of six-wheel 3000 gallon ex-P class or 3650 gallon ex-T class bogie tenders, are available from the Wombat Models website.

Multiple Scales

Matt's Ballast has released 'Marrangaroo Fine', reproducing the material traditionally used for dirt-surfaced station platforms in NSW.

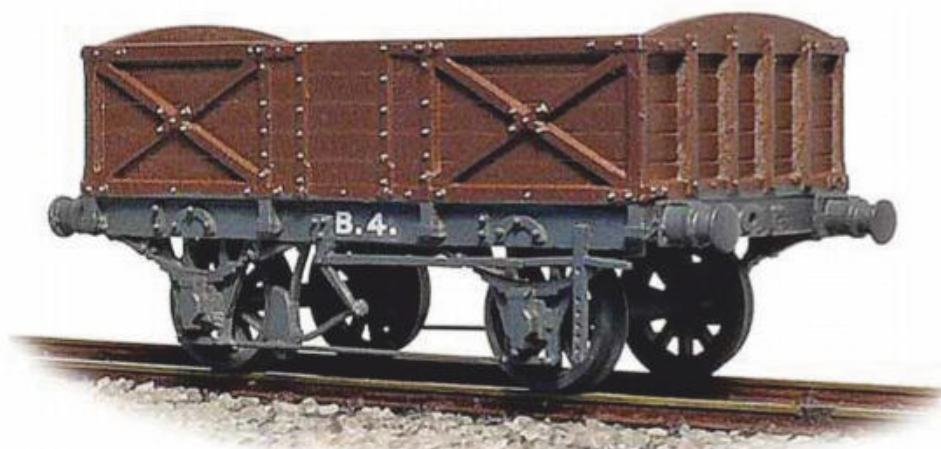
Scale Workshop are producing a range of ready-to-place models for HO and N scales with flickering LEDs that produce 'fire' and other flickering effects. Some of the items currently available include fireplaces, fire pits, drums with a

fire inside them, kilns, vertical steam boilers and smouldering tree stumps. Other 'flickering' effects include a welder and modified Road Ragers police and ambulance vehicles, plus a generic fire engine, with flashing lights. To power and control lighting effects, including such things as streetlights, a power distribution board with up to 36 separate outputs is also available.

A ready-to-place range of farm and domestic water tanks, including stands, is also available.

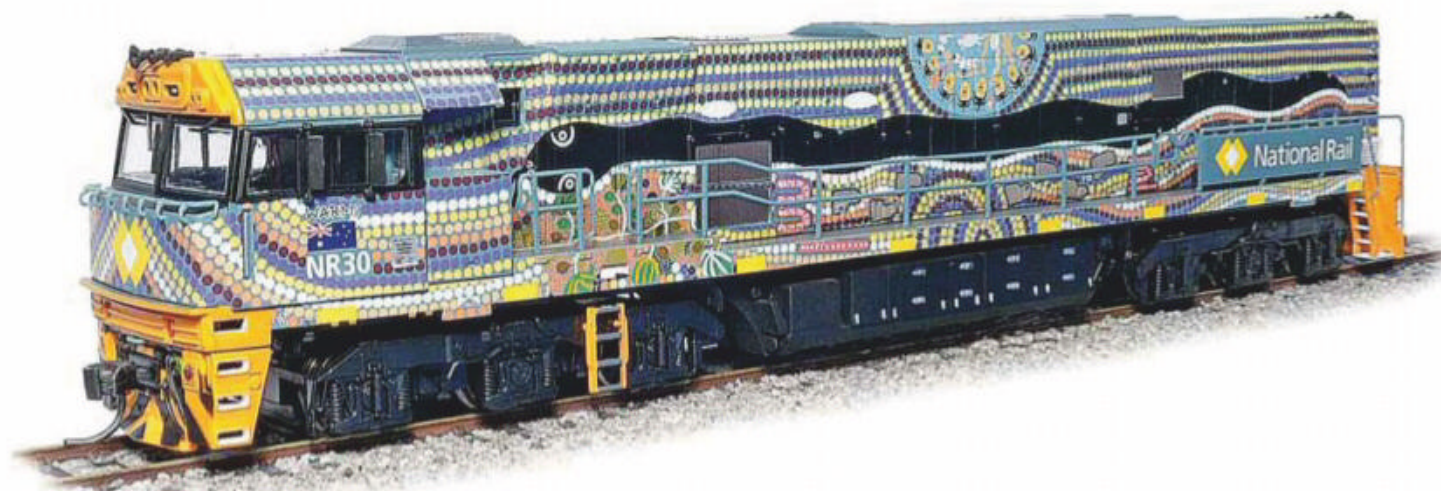
Also available, but in N scale only at this stage, is a range of building kits, including a pub, house, miner's cottage, shearing shed, VR goods shed with platform and a VR station building, all laser-cut in thin basswood ply.

Scale Workshop/Digcom items are available direct from their stand



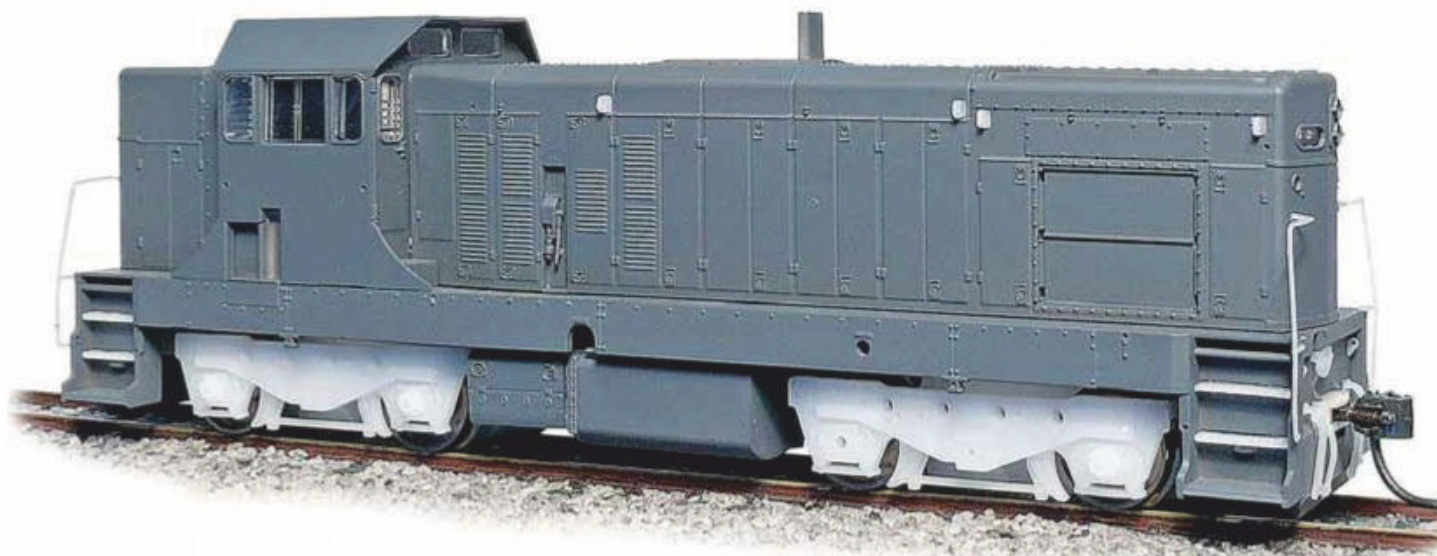
The next item to be produced in Redfern Works' HO scale 'early days' range will be this B type high-sided four-wheel open wagon, as introduced to the NSWGR system in 1858. The kit will have a one-piece urethane body moulding with cast brass buffers, brake gear and solebars/axle boxes. The pattern for the moulding has been produced via 3D printing and includes all plank and metalwork detail. This class of wagon was originally painted bright red, as outlined in Garry Saunders' recent book 'New South Wales Railways in Colour', and later adopted the umber brown colour scheme shown in this sample. The kit will be a limited production and available direct from Redfern Works (contact details in the Hobby Services Directory section of this magazine) and through the 'Old Buggers' network via the annual 'Modelling the Early Days of the NSW Railways' convention.

Samples of the r-t-r, HO scale, models of the two NR class locomotives, NR30 and NR52, painted in the 'indigenous' colour schemes. These two models are expected to arrive in November 2019, with the rest of the NR release expected to arrive in December 2019/January 2020.



A factory sample of SDS Models' r-t-r HO scale SAR 800 class diesel locomotive. Development of this model has been greatly sped up by the use of the proven Austrains NSW 41 class mechanism (if only the real thing had run as well as the model) and the production run is now expected to arrive in Australia in March 2020.





Some samples of the r-t-r HO scale VR T class locomotives in development by SDS Models under their 'Austrains NEO' brand for ex-Austrains produced models. The models are powered by the very smooth and reliable mechanism developed for the original Austrains T class, but everything else is completely new. This release, currently expected to occur in late 2020, will feature a number of variations not covered by Austrains, including the 'T2' version (the original 'flat top' body with a higher cab), as well as all the other versions of the high cab and low nose locomotives operated by the VR, in all conditions from 'as delivered' to currently in service.



A sample of a HO scale kit for the range of tubular post lower quadrant signals that are being developed by Ray Pilgrim for his 'Signals Branch' range of locally-produced brass and 3D printed kits of NSWGR signals.

Samples of the N scale kits for the NSW NLKY louvered van and VR E open wagon being developed by Lyndon's Trains, in conjunction with Aust-N-Rail.



SDS Models have received factory-assembled and painted samples of their r-t-r, HO scale, VR four-wheeled rail tank cars, modelled on the series OT505-513. The production run was in transit at the time this item was written and they should be available by the time you read this.



at selected exhibitions or by mail order via their website.

Stephen Johnson Models now have an online shop where their range of kits, decals and detailing items, along with copies of *Australian Journal of Railway Modelling* can be purchased. By the time you read this, the SJM '1959' BSV bogie sheep wagon kit should be available again. This excellent urethane and etched brass model has not been available for a considerable time. Also recently released in the detail parts range are a number of interesting small items, such as insulated canvas ice cream containers and

octagonal film canisters, once common sights being loaded/unloaded from passenger trains at many locations, as well as Per Way fuel containers, '1906' pattern locomotive jacks and the special jacks carried by the AD60 class Garratts.

O Scale

Model O Kits have released their kits for the NSWGR FS and BS steel main line compartment carriages. Kits are available from stock at the Model O Kits shop.

N Scale

Gopher Models expect to release

r-t-r models of NSW Newcastle area non-air coal hoppers in a variety of colour schemes/lettering styles in 2020. There will also be a government version, lettered LCH.

Lyndon's Trains are working with BadgerBits on some new VR wagon releases, including the original VR E bogie open wagon (pressed sides and ends) and some later Way & Works/traffic variations. Lyndon is also co-operating with Aust-N-Rail to make many of the older urethane Aust-N-Rail kits available again. The initial releases will include the later rebuilt (flat sided) VR E open wagon, plus VLEX and VLDX louvered vans, CP

guard's van, as well as the NSW NLKY louvered van, WAGR WFX container flat wagon and SAR M closed van kits. As resuscitation work is completed, they will be added to the Lyndon's Trains and Aust-N-Rail websites.

Publications

WrightLight Pty Ltd have released volume five in the Wheatley brothers' *Railway Portraits* series of high quality b&w works highlighting the last years of NSWGR steam, with an emphasis on the staff who kept the system going despite long hours and harsh conditions.

Compiled by James McInerney

Diary

SCMRA ACTIVITIES

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

8 December Family Christmas BBQ and visit to railway attraction. Tramway Museum Loftus. Contact Graham Windmill 9626 0351 with numbers by 3 December.

2020

11 January Open Day by SCMRA and EMRCI at Epping Creative Centre, 26 Stanley Rd, Epping. 10am to 4.00pm. Layout operation. Getting Started clinic at 11.00am. Free sausage sizzle lunch. Details from Trevor Moore 9876 3522.

8 February Meeting at the home of Marcus Ammann, Pymble.

EXHIBITIONS & EXPOS

MILANG – SA. November 23-24, 2019. Model Railway Show, Milang Institute and Railway Museum, an hour south of Adelaide. Free train rides. Entry adults \$10, accompanied children free. 10am-4pm (Sat & Sun). 0414 232 060 or www.milangrailway.org.au

PORT ELLIOT – SA. January 5, 2020. Port Elliot Toy Fair, Institute Hall, 164 The Strand, Port Elliot. Games, model trains, die cast, dolls, collectables and more 9am-3pm (Sun). Entry gold coin donation. 0447 136 468.

PHILLIP ISLAND – VIC. January 11-12, 2020. Phillip Island & District Railway Modellers Exhibition, Cowes Cultural Centre, Cnr. Thompson Avenue & Church St., Cowes. 10am-5pm (Sat), 10am-4pm (Sun). Martin Murden murden@bigpond.com

WARRNAMBOOL – VIC. January 11-12, 2020. Warrnambool Model Railway Exhibition, St. Joseph's Primary School Hall,

Botanic Road, Warrnambool. 10am-5pm (Sat) 10am-4pm (Sun). 0448 605 211. lbamford@anson.com.au.

UNLEY – SA. January 17-19, 2020. South Australian N Gauge Society display, Unley Civic Library, 181 Unley Road, Unley. 10am-4pm (Fri & Sat), 1pm-4pm (Sun).

secretary2@sangs.asn.au

<http://www.sangs.asn.au/>

NORLANE – VIC. January 25-26, 2020. Corio Model Railway Club Inc. New Venue, Centenary Hall, Corner Princes Highway and Cox Road, Norlane. 10am-5pm (Sat) & 10am-4pm (Sun). Adults \$10, Child \$5, Family \$20. Ray Jazyna 0419 329 793.

ARARAT – VIC. February 15-16 2020. Grampian Model Railroaders Inc, Alexandra Oval Community Centre, Waratah Ave, Ararat. 10am-5pm (Sat) & 10am-4pm (Sun). Stuart 0438 545 233. www.gmrinc.org.au

KYNETON – VIC. March 7-9, 2020. Macedon

Ranges Model Railway Club Annual Exhibition, 10am-5pm (Sat & Sun), 10am-4pm (Mon). Sacred Heart College, cnr Begg and New Streets, Kyneton. Brian 0427 047 411.

HALLETT COVE – SA. March 14-15, 2020. South Australian N Gauge Society display, workshop and talk, Cove Civic Centre, 1 Ragamuffin Drive, Hallett Cove. 10am-4pm (Sat), 1pm-4pm (Sun).

secretary2@sangs.asn.au

<http://www.sangs.asn.au/>

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

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). Secretary: secretary2@sangs.asn.au

<http://www.sangs.asn.au/>

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

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).

Secretary secretary2@sangs.asn.au

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OPEN DAYS

EPPING – NSW. January 11, 2020. SCMRA and EMRCI at Epping Creative Centre, 26 Stanley Road, Epping. 10am-3.30pm (Sat). Layout operation (HO). Getting Started in Model Railways Clinic at 11am. Free sausage sizzle lunch. Trevor Moore 9876 3522.

SALE DAYS

BRISBANE – QLD. November 19, 2019. Buy and sell night. Union Pacific Model Railroad Club, rear of Holland Park Sports and Community Club, 49 Abbotsleigh St, Holland Park. Registrations from 6.00pm, Sale commences 8.00pm (Tues). 0439 435 366. sec_upmrc@bigpond.com

EPPING – NSW. November 30, 2019. Model Railway Market Day organised by Epping Model Railway Club. 10am-1pm. Epping Creative Centre, 26 Stanley Road, Epping. Contact: Mike 0408 817 554 to book a table or contact@eppingmodelrailway.org.au.

De-bugging your Layout

I always enjoy reading the short articles, such as the one in the current [AMRM Issue 338 October 2019 – Editor] issue, *De-bugging your Layout* by Jonathan Majer, which rang true for me! I have a small N scale layout at one end of an unlined shed, which was regularly visited by a resident gecko. Unfortunately, I didn't see her egg in time to avoid breaking it. Other visitors to the layout are the tiny spiders, which I call N scale 'rabbits'. No.1 driver, Archer, aka my four-year-old grandson, isn't fond of spiders, so I'm afraid a couple of 'rabbits' became roadkill before he got the joke...

Thanks for a great magazine.

Clinton Horley
Bayswater 6053

Era Information Please!

Is it just me, or are we heading down a path where producers are listing more details about the features that their models include, but are also giving less information about what the model actually is or exactly when and where it ran?

Having just backdated eras for a new layout I am constructing, I noticed when poring through the websites of the advertisers that feature regularly in AMRM, that their earlier releases often included a lot more background information on the models compared with the more recent pre-release announcements.

Even as a seasoned modeller, transitioning to modelling and researching a different era, or even a prototype from another state for that matter, can quickly become a frustrating exercise. Trying to assemble an authentic prototype roster from what is readily available now or, as an upcoming pre-order,

means wading through the whole 'which numbered locomotive wore what colour and ran where and when' conundrum.

In years past, most manufacturers seemed to provide a brief background on the history of each locomotive or item of rolling stock in question. This included such information as when the prototypes were released, withdrawn, or passed into private ownership. Now it seems we're lucky if some even include in brackets a (circa 1997-2001) mention beside the order number for the particular model they are trying to sell. While most ardent modellers can make a pretty good guess at which liveries belong to what era when it comes to their favourite railways, the excitement of purchasing a new locomotive is quickly lost if you only discover afterwards that the particular numbered locomotive you have just acquired turns out to not quite belong in the era you are so pedantically trying to model. It may seem trivial to some but, after being caught out with my own research three times, I'm wondering if modelling anxiety such as this can be avoided with a little bit more information about the model itself, rather than just a description of the details each model comes with.

European model railway manufacturers all use an 'Era' designation with the same importance as the model's gauge and product number on their websites, making it a lot easier to assist a novice with their purchase. A significant proportion of Aussie modellers are a lot more era specific and loyal to a particular gauge or location than even our Anglo-Saxon cousins, yet can often find nothing to assist newcomers to the hobby when it comes down to the when, where or what to model.

In the end, I resorted to doodling my own research onto a graph chart in a notebook to determine what I would purchase for my new layout and be able to say that to the best of my knowledge the models all prototypically coexisted within a given five-year period.

There are some producers who are doing a good-enough job of providing some form of general description and timeline of their models on their websites. In turn these are the ones that I gravitate towards and ultimately support with my money. But to the rest; your models are still fantastic. Your details are to be applauded. We

even trust the excruciating hours of research you have put in to ensure that the models produced did actually once exist in the colour schemes you have produced them in. Can you just tell us when?

If every producer at least labelled their models with a simple 'circa 1997-2001' or whatever, it would make things so much easier for seasoned modellers and newcomers alike to be able to decide which goes with what before they open their wallets. Maybe then the next generation of Australian modellers entering our hobby would have a simpler starting point to work from.

Phillip Overton
Caloundra 4551

Thank You John Dennis

I want to publicly thank John Dennis for the superb photographs he took to accompany the article on my layout *Forest Creek* in AMRM Issue 338 (October 2019). The images definitely make the layout look better than it appears in real life! John drove from one side of Melbourne to the other and on to Gisborne on three separate occasions (a round trip of 150km in heavy traffic) to get all the shots he wanted - that's dedication. I cannot praise highly enough his skill and professionalism.

Tony Scott
Gisborne 3437

I can only echo Tony's thoughts; John is a wonderful asset to AMRM (as, indeed, are all our volunteers), consistently producing excellently composed, high quality images that need minimal preparation for publication. John's contribution to the continuing excellence of AMRM's production values is second to none – thanks John! – Editor.

More Suburban (Mis)adventures

Reading Roger Lloyd's letter (*Camden Comment*) in AMRM Issue 338 (October 2019), I was brought to reminisce on my young days and how safety and other things have changed so much in this day and age.

In 1959, Billy Graham came out to Sydney from America for a Crusade and, at the same time, the Sydney 'Ashes' test was on between England and Australia. My brother (aged 15) and myself (aged 12) accompanied our parents to Sydney to attend both events

where, as was quite common for country people at the time, we stayed at the People's Palace in Pitt Street.

Having, as young boys did in those days, an interest in trains and in Sydney suburban electrics in particular, as we never saw them in the country, my brother and I headed off alone from the People's Palace, down Pitt Street, through Belmore Park to Central Railway Station to ride the City Circle. We purchased our tickets and surprisingly, for young and inexperienced country boys, found the correct platform and waited for the train.

When the train arrived, we climbed aboard to start our adventure. We enjoyed the ride and in due course arrived back at Central and left the train. As we walked through the tunnel, we saw the sign to the City Circle platform. Why not go again, we thought! So we did, only this time when we arrived back at Central, we decided not to get off the train, but continue with our adventure.

The train stopped at several stations before we decided we should leave the train at the next station and return to Central. There was just one problem, the train did not stop at the next station, or the next, or the next! With age and experience, I now know it was probably an express 'skip-stop' service. Eventually, much to our relief, the train did stop, at an island platform station (I know not where) where we quickly got off and were able to walk across the platform and wait for the next train back to Central.

The train duly arrived and we once again climbed aboard. Boys being boys, once the train arrived at Central we thought, why get off here? So we didn't, probably thinking we would travel the city circle again... but the train didn't, so we headed out the other side of the city. We must have crossed the harbour bridge, although I do not remember doing so! We eventually left the train again, caught the next one and returned to Central where we quickly exited.

Again, walking through the tunnel, we saw the sign to the city circle platform. Well, if we went again that would land us on the correct platform should anyone question us. Being country boys we, of course, didn't realise that "all roads lead to Rome" with all platform exits leading to the same ticket bar-

MAILBAG

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Editor

rier exit where it was “tickets please!”

So ended after two hours, what should have been a fifteen minute adventure for two country boys! Reliving this long-ago adventure, I am reminded of the story about the outback gentlemen who went to the city by train for a week’s holiday. On returning home his friends enquired as to what the city was like, to which he replied “*I didn’t get in to the city as there was too much happening at the station!*” I can’t agree more!

This early experience definitely had an effect as, while I was not in a position to have a ‘train set’ in my younger years, I always had an interest in models. A very clear early memory is of attending the Sydney exhibition one year when it was still held in the Lower Town Hall. Things changed around 1970, however, and as my interest was in steam and even more so in ‘electric’ trains, I was attracted to Märklin because of their catenary system, and my first purchase was a European pantographed Bo-Bo and several bogie gondolas.

Over the years I built up my collection and ended up with a layout with an extensive catenary system on it. I stepped back for a while, probably around the late ‘70s/early ‘80s, due to work and family commitments. I attended exhibitions being held around the district (Armidale), eventually becoming a member and involved in the New England Model Railway Club Inc., which continues to this day.

Around this time a friend gave me a Lima 4469 and 4201, plus rolling stock, which had belonged to his, unfortunately deceased, son. This started an interest in Australian trains. In 1994 my wife and I purchased boarding kennels, so moved to another property and house where these were established. Eventually, I was able to obtain a room on the property to again set up my Märklin layout.

As I also now had some Australian outline, and extra space, I decided to build a NSW layout based on Armidale and the New England area, thus I gradually built up my NSW arsenal. We sold the kennels in 2006, retired and built a new home on three acres on the edge of Armidale township. This enabled me to have a purpose-built room for my layout. As I had now become more interested in the Australian scene, I started with that

as my major project, with the intentions of building a small Märklin layout with my beloved catenary on it. After time, it became apparent that this was not going to happen, so I reluctantly sold my Märklin and placed my finances and efforts in to the NSW scene calling my layout *Great Northern Railway*.

Attendees at a number of New England conventions have had the opportunity to see this layout on the convention layout tours. I still love the Sydney electric scene and would love to build a layout based on it but, because of finance, time and age this is very unlikely to eventuate now, though I am happy to continue enjoying the hobby with what I already have.

*Geoff Yeomans
Armidale 2350*

Picton Milk Pots

I received my October 2019 AMRM today and on browsing through it, I came across the letter in Mailbag from Roger Lloyd regarding Camden, starting on p.58.

Some further information on the ‘Picton Milk Pots’ may be of interest to AMRM readers. The ‘Picton Milk Pots’ started out of Picton at 10.50am, six days a week (Mon-Sat), picked up milk at Menangle and Campbelltown, then ran express through to Sydney Terminal, where it was scheduled to arrive at 1.04pm. It was initially numbered No.228, later renumbered as No.48 and comprised four passenger cars, plus a variable number of milk pots marshalled behind the passenger carriages, hauled by a 32 class locomotive.

The engine for the ‘Pots’ worked a late evening passenger train from Campbelltown to Picton (No.247) to be in place to work the ‘Pots’ the next day. It is noted in the Working Timetable as sometimes having a single EHO + CX attached, rather than the usual four carriages, which may explain Roger’s reference to a single carriage on the train he saw.

The earliest I saw and photographed it, the cars were three or four ‘Express Lavatory’ cars. These carriages were eventually replaced by a four-car ‘American’ end-plat-form set (either VUB set 75 or 76) then, later, four-car N set 115 covered the roster.

*Ray Love
South West Rocks 2431*

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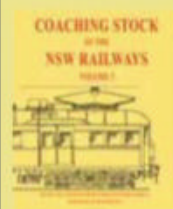
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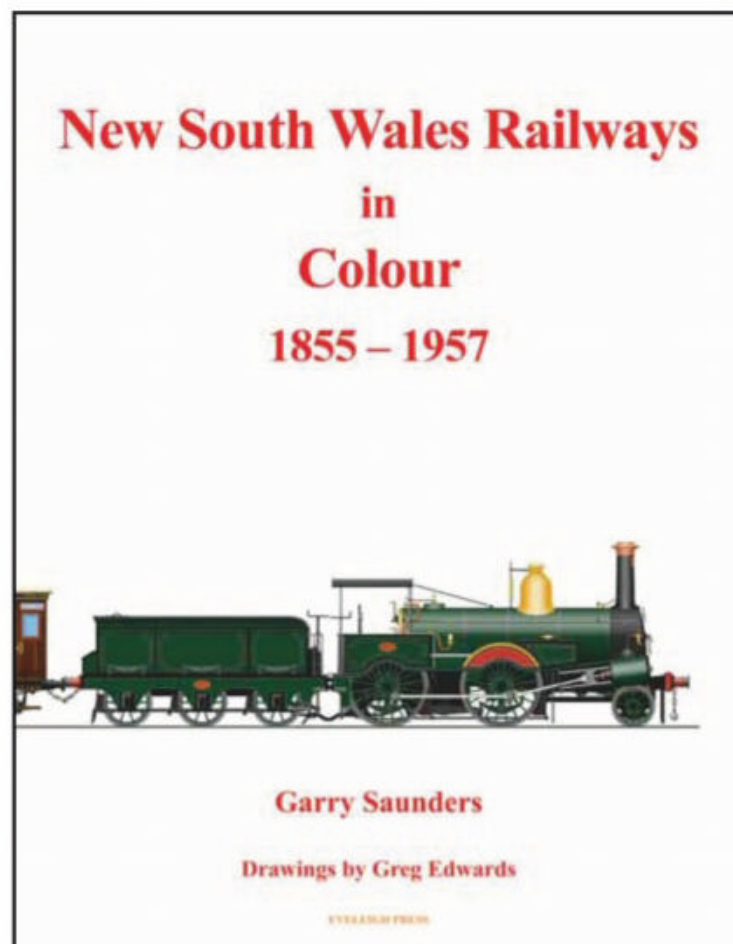
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The research has uncovered many original samples of paint colours taken from the fabric of NSW Railways historic



vehicles which have been analysed to unlock a wealth of information about the pigments, paints and colours that were actually used at different times during this hundred year period.

During the course of this research a great deal of new information has been uncovered, including NSW Railways documents describing the paints and the pigments used to make them, newspaper articles describing the liveries of the time, Parliamentary notes, long lost archives files and interviews with some of the men who were apprentices at the Eveleigh Carriage Paintshops in the early 1950s.

The results of this research have been used to create images of hundreds of items of rolling stock as they would have appeared, showing how their liveries evolved, influenced by the aspirations of the various personalities involved

in the development of the Railways, the fashions of the time, evolving paint technology, wartime and social change.

Illustrator for this book, Greg Edwards, has interpreted the data uncovered by this research to prepare more than 130 colour drawings to bring this black and white world to life.

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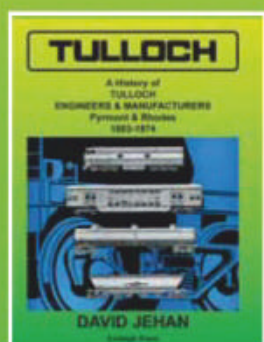
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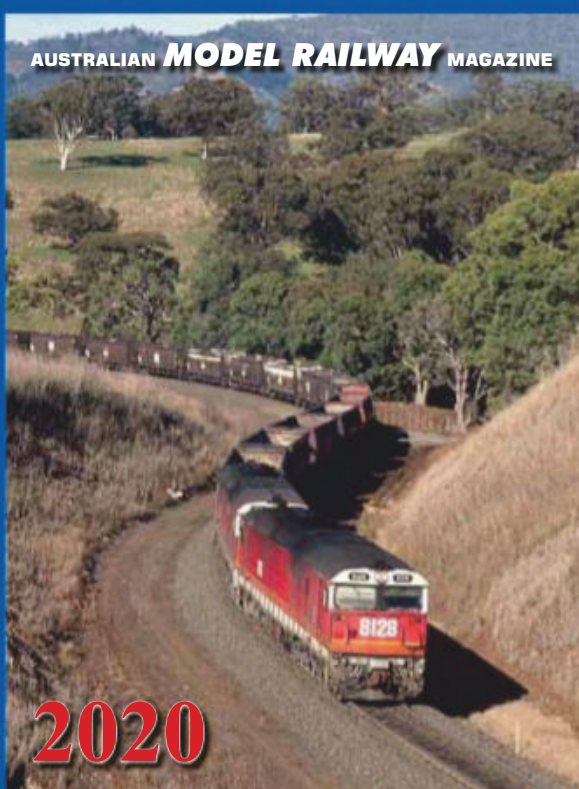
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The cover of the diesel calendar features 8128 and 8131 climbing the Liverpool Range near Pangela. Inside FreightLink service from Adelaide to Darwin hauled by FQ04/ALF18; El Zorro grain train at Llanely hauled by S303/B47/T357/Y415; SAR 846/844 on the Victor Harbor line; QR 2600 class locomotives 2601, 2609, 2177 and 2612 on Collinsville coal train; VR diesel T367 and Hudson steam engine R706 emerging from the Elphinstone tunnel; TGR Y3 departing Hobart with the *Tasman Limited*; WAGR A1512 hauls the Australind through Claisebrook; Austrac Redy Power 4814/4836 hauling a freight through Gunning; ANR 900 class 907/906 through North Adelaide; NSW 40 class between Gosford and Narara; NT73 stands in the yard at Boolaroo; Hammersley Iron coal train hauled by 4044/4049/4036 between Galah and Gecko.

The cover of the steam calendar features WA engine S542 *Bakewell* standing beside the coaling tower at Collie. Inside 3001T on the *Mudgee Mail* at Binnaway; VR J539 at Glenorchy on a goods; QR C17-817 at Esk; SAR Mikado 700 approaching Victor Harbor; NSW 3229 on a mixed to Crookwell; WA V1209 Mikado on the turntable at Collie; VR Hudson R748 at Cressy; SAR Garratt 400 at Gladstone; 3658 on Brisbane Express crossing the Hunter River at Singleton; QR B18¼ 915 approaching Ipswich; TGR H2 on the turntable at Hobart depot; 3532 and 5912 double-head a goods train between Dora Creek and Awaba.

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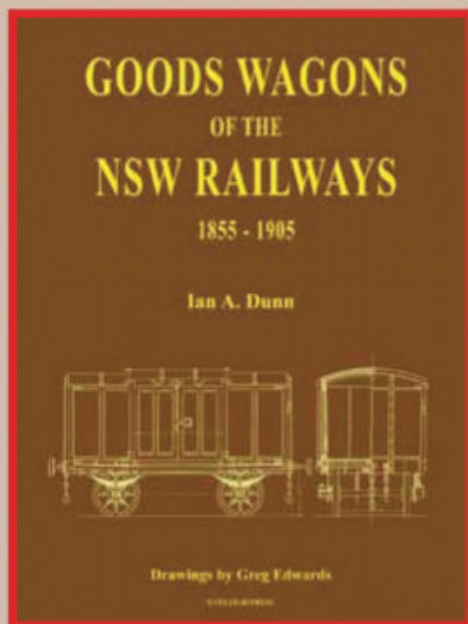
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refrigerator cars which floated around Sydney Harbour, wagons with underframe made up of gas pipe and imports from the USA made in dubious circumstances. Service vehicles are included, such as water tanks, gas reservoirs, breakdown cranes and workmen's vans. Wagons construction, engineering and paint schemes are given a chapter, and the various braking systems receive another. The personalities who directed the development of the system are outlined, shedding light on some curious episodes. There is a chapter on each type of wagon or van, photographs of each, generally illustrating a number of variations, and 85 superb scale drawings (at HO scale) of each type and most sub-variants, by master draughtsman Greg Edwards. This book supplies most of the answers for those seeking to understand the development of the NSWGR and its goods wagon fleet in the 19th century.

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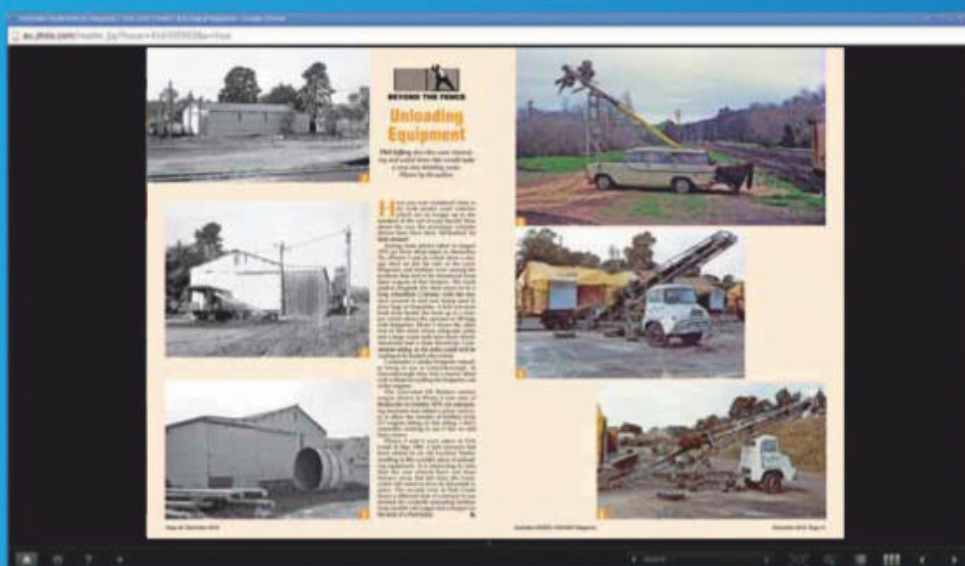
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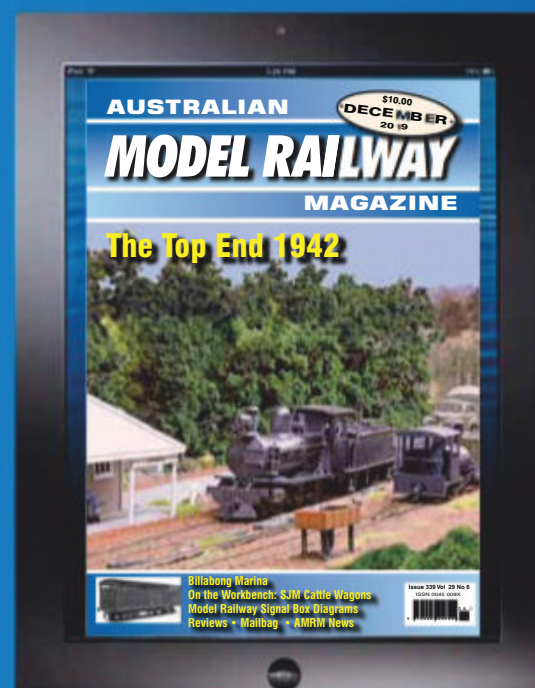
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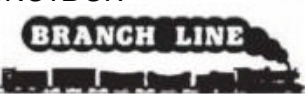
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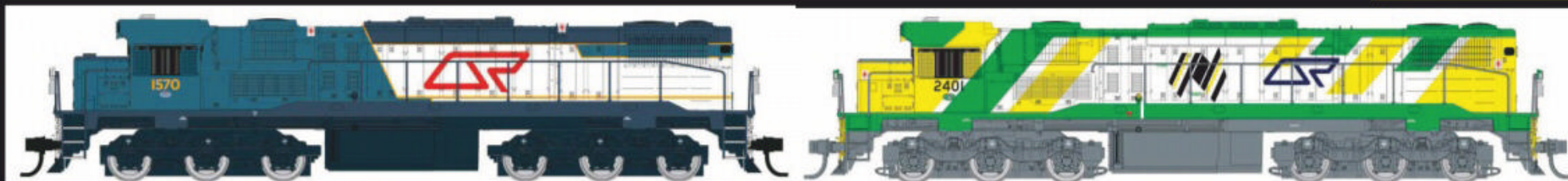
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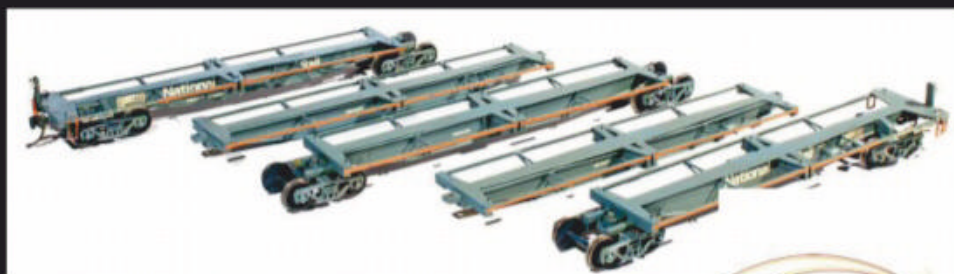


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Art Deco (BG)-Build date 1948-1952

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PC-408A	9 AS	FIRST	1948-56 & 1963-1968
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Art Deco (BG)-Build date 1940

Approx livery date

PC-404A	5 BS	SECOND	1952-1962
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PC-406A	8 BS	SECOND	1955- lates 1960s
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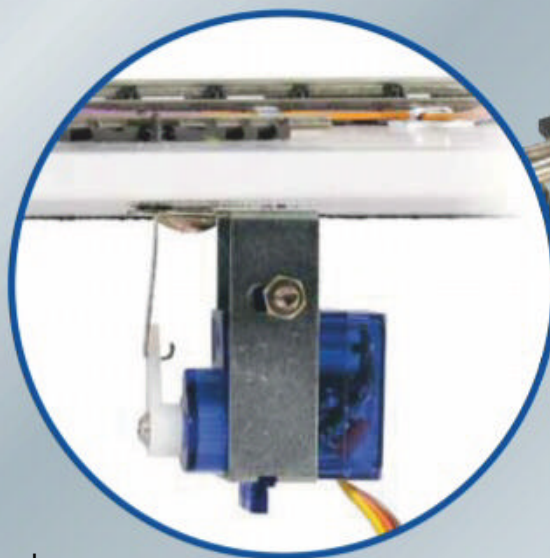
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