

7th HEAVEN

Issue 4 February 2005



In this Issue :

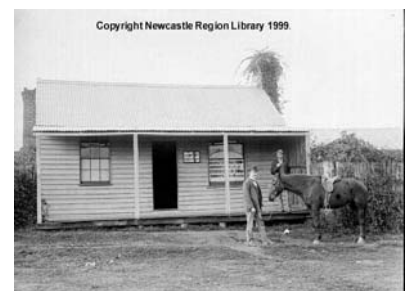
Build an 18 Class Part 1



O Scale overseas



Photographic resources



Aus7 MODELLERS GROUP NEWS

And the Winner is...

Eight entries were received in the competition to find a new name for the Aus7 Newsletter. After much discussion Seventh Heaven was chosen as the winner, and we would like to congratulate. .

You will hear from the committee shortly with details on how to claim your prizes.

Fourth NSW 7mm Forum

The fourth NSW 7mm Forum will be held on 12th of March 2005, at the Nth Sydney Leagues Club, starting at approximately 9.00 am.

If you haven't been to one of these events before you really should try to get along, they are always a great outlet for good modeling ideas and friendship. For further information ring Nick Sheridan on 042 10 58945 or 02 9956 6552.

Exhibitions

The group will participate as an exhibitor at the following exhibitions. If you are able to help out please contact the person mentioned;

March 5th and 6th at Forestville volunteers needed contact Keiran on 02 46772462 or 0409952874

April 30th May 1st and 2nd Brisbane Miniature Train Show contact Peter Krause

October 1st, 2nd and 3rd Liverpool Exhibition contact Keiran on 02 46772462 or 0409952874

Gunna's Group

Work is progressing on this project – for more details

STOP PRESS

Liverpool and Broadmeadow Venue Change

Dave Morris reports

'Mick Wade (AMRA Exhibition Manager – Liverpool) attended the last Gunna's meeting. He informed the group that the Whitlam Centre venue has been lost and this years exhibition is likely to be held at the Hurstville Aquatic Centre.'

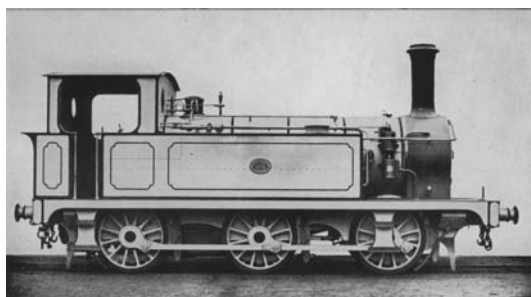
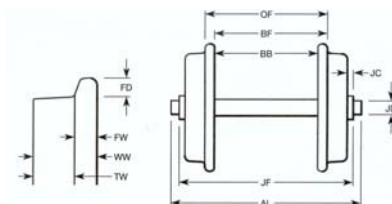
Also the Broadmeadow has been lost and another venue is being sought

Please watch the local model press for more details.

Correction

The table published in the last issue had several errors. The adjacent table is the corrected version. The error was the editor's and he apologises to Trevor and the reader

			BRMSB fine	NMRA
Back to Back	min	BB	29.0	28.40
	max		29.25	
Back to Flange Face max		BF	30.0	29.77
Over Flanges		OF	31.0	31.14
Flange Width	min	FW	0.87	
	max		1.00	1.37
Flange Depth	min	FD	1.1.3	
	max		1.125	1.57
Tread Width		TW	2.75	3.23
Wheel Width	min	WW	3.75	4.37
	Max		3.88	



The 18 class as built.

David Taylor begins his tale of scratch building an 18 class in this issue.

Also Bergs Hobbies have published photos of samples for their 18 class Kit see Commercial News for more details

BEGINNINGS AND ENDINGS

For three days leading up to New Years Day 2005 I was busy tearing down Morpeth, my permanent home layout. This was brought about because of a change of personal circumstances, which has led to a house move. I'd been working on this layout since just before Christmas 2000, so it had survived just a little over four years. Am I disappointed that I've had to destroy all of that work? The answer has to be yes and no: yes because the layout wasn't finished and no because now I get the chance to build a new layout.

After pulling down my previous HO layout I had resolved that I wanted this one to be more "portable" so that it could be moved if the need arose. With this resolution, and in the full knowledge that a house move was on the cards within about five years, I allowed myself to go ahead and build a layout that turned out to be as immovable as my previous permanent layout. The fact we all need to face is that there is no such thing as a "permanent" layout. At some time in the future, no matter how long that time is and whether or not you're still shuffling around this mortal coil to witness it, any layout you build will have to be pulled down.

I suppose I could have waited; waited until I had settled down, waited until I had the ideal layout room, waited until I had all the research I needed, waited until I got my duff off the lounge-room chair etc, etc. So you can already see my second point can't you? There is no point in

waiting because none of these conditions will ever be met and as such you'll never get anything sort of layout built if you wait. Far better to get in and build something now with all the limiting factors that real life throws at us than wait for some far off Nirvana which will never arrive.

I've had a great time modeling and learning about my new scale while I built Morpeth. I've salvaged all the structures from the layout and, if I was going to be honest, this is where the real investment in time was expended. Building the bench-work took a couple of Saturday afternoons and laying and wiring the track took a couple more. All of this work can easily be replicated on my new layout and having the structures available to recycle will speed up progress no end. The next layout will have its own set of limitations but I won't make one mistake again: this layout will be fully portable in every sense of the word. I may have pulled down two layouts in the past because of house moves but they will be the last. Next time the layout will be coming with me, and this has the added benefit of allowing me to share my layouts and modeling with members of the Aus7 Modellers Group and the general public.

Have a great new year and get started on that modeling project you've been putting off for so long. There's no time like the present.

Trevor Hodges

January 1st, 2005.

Farewell Morpeth



7th HEAVEN

Editor : Kim Mihaly

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All opinions expressed are those of the respective authors only, and do not represent any official view of the Aus7 Modellers Group.

On the cover :

Trevor Hodge's Pioneer, a conversion from an Agenoria Kit

PHOTOGRAPHIC SOURCES

Kim Mihaly

Everyone should already be aware of the photographic resources of the various ARHS branches eg www.ahrsnsw.com.au – consult the ARHS Digest for contact details other states and State Archives/Libraries eg www.sl.nsw.gov.au/picman/. Another well known source of photographs is Keiran Ryan's ARDP site <http://www.ardp.net/>.

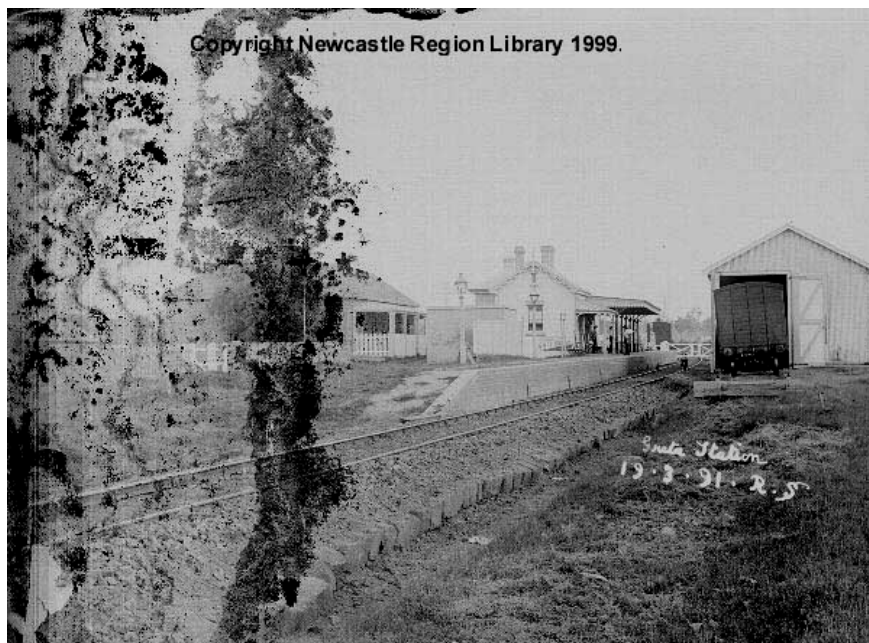
In addition there are many online sources of photographs of specific locations and eras. Even if you don't have a computer at home most local libraries have computers available for public use and offer some training in their use.

In this article I will describe three sources I have found.

Copyright and Photos

The Australian Copyright Council has several fact sheets on copyright on its site <http://www.copyright.org.au/page3.htm>

Under Australian Copyright law, photos taken before 1 May 1969 have a fifty year copyright from the end of the year they were TAKEN. Thus any photos taken by anyone before 1954 are now out of copyright.



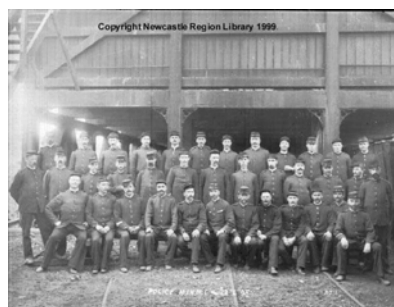
For photos taken after 1 May 1969 copyright exists for 50 years after they were first PUBLISHED, if they have not been published then copyright is indefinite.

Newcastle Public Library Photobank

203.12.147.218/isyscommand.html
The Newcastle Public Library maintains a huge collection of photographs online in its Photobank.

The collection includes all of Ralph Snowball's photos. Ralph was active in the Newcastle area between the 1849 and 1925. Nearly all the published photos of turn of the century collieries were taken by him.

There is a wealth of detail to be seen in some of the photos that aren't overtly of railway subjects.eg this shot of a police group at Minmi.



Another is the photo of Greta Station. Note the placement of the goods shed and station master's house and the lean on the siding

Picture Australia

www.pictureaustralia.org/

Another useful resource is Picture Australia, a division of the National Library. This is a collection of photos held by the National Library and several local councils around Australia.



Railways of NSW

<http://www.triode.net.au/~rolfeb/nsw/>

This site is compiled by Rolfe Bozier. Rolfe has set himself the goal of having photos of all the major pieces of railway infrastructure in NSW. With the help of other contributors he is well on his way to achieving this goal.

This site is organized by line and has many photos of various stations as they were – or as they are now.



Darling Harbour Goods Shed

BUILDING AN 18 CLASS

David Taylor

Introduction

This article is about how to scratch build a locomotive with no great amount of skill, and without the use of many tools. The most advanced tools I have are a pillar drill and a recently purchased jeweler's saw.

The article is meant to show that anyone can scratch build a locomotive as long as they're not expecting the results to resemble those achieved by Guy Williams etc. It also explains the mistakes I have made and how they were overcome (which in some cases is to just ignore the mistake!)

When reading scratch building articles I am always envious and a bit disappointed when I read the common phrases "simply chuck a piece of ... in the lathe...", "using the milling machine...", or "use anything handy from the scrap box". I did not have a scrap box when I started this project, and do not expect to have a lathe or milling machine within the foreseeable future. This article is meant to be encouraging for anyone who owns only basic hand tools, aside from a pillar drill which I would not have got far without (mine cost \$115 early last year, and can now be bought for about \$95).

The same day I started purchasing tools such as the scribe and steel rule I also went to some scrap merchants around Alexandria looking for brass and copper off

cuts. I found no brass at all, and no copper sheet, but I did find some short lengths of copper pipe and copper wire of various diameters. I had no idea what it would be useful for but I bought what I could for about \$10. So far the larger diameter pipe has been a lifesaver for the smoke box and splashers, and the wire is coming into play for the plumbing around the boiler. I purchased some K&S sheet brass of about 12 or 15 thou thickness, and a K&S assorted shim pack, which has brass, copper, and aluminium off cuts of various thicknesses. I have found this very useful. I also bought strips of 1/6th" brass for the frames. Other material was bought as required.

I have found a set of number drills and 8 and 10 BA taps to be very useful, and an assortment of brass 8, 10, and 12 BA screws and nuts to be indispensable. These were all bought after I had started. I have also bought imperial fractional drills as required – 3/16th" etc.

The locomotive is not yet finished, however it runs and the major pieces are in place. It has been built from the Datasheet, and the information contained in the book "A Compendium of NSW Steam Locomotives". I also visited the state archives and saw some wonderful drawings on microfiche, but these do not print well and I could not get printouts good enough to work from.

I would like to acknowledge Bruce Lovett, Roger Kershaw, and John M^cKenzie for the encouragement and advice they have given me.

As a beginner, I found the chassis very difficult to make. I have made four pairs of frames, three sets of coupling rods, and tried three designs for the frame spacers so far.

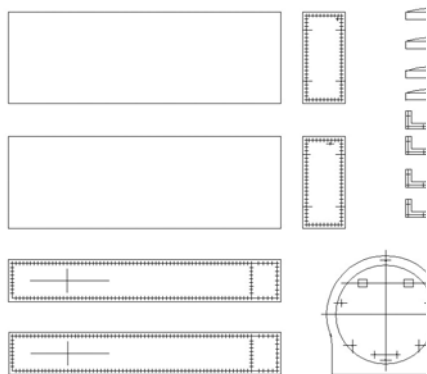
The chassis is not compensated or sprung, and I have used Slater's wheels, axles, and top-hat bearings. It has a slight rock but it works on my short length of test track.

FRAMES

The frames are made in the conventional way by soldering two pieces of 1/16th" brass together, and drilling the axle holes and filing the profile on both frames at once.

When drilling the axle holes the coupling rod material is soldered to the frames in order to make it more probable all the holes will line up correctly.

The first two sets of frames were rejected because I was not careful enough drilling the bearing holes, and when they had been opened out to size they did not line up properly. The bearing holes in the third set of frames all lined up across the frames, but the middle pair was 1mm higher than the outside holes – again, because not enough care was taken while marking out or drilling the holes.



I tried to salvage the third set of frames by making the middle bearing holes into slots but did a bad job filing these and made them



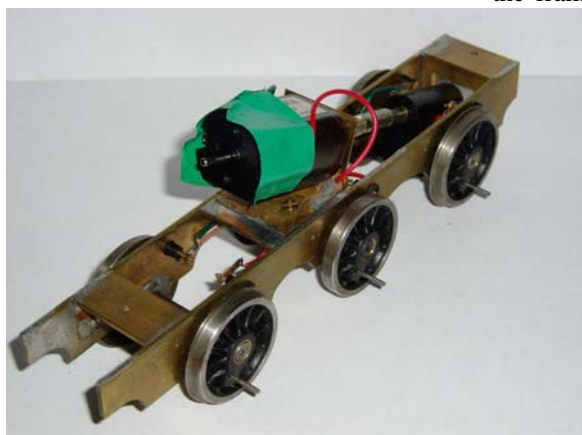
The 18 class in its final form. Domed boilers were fitted in 1907.

Some class members were fitted with cranes.

too big for the bearings. I decided to scrap these frames, because in addition to the middle axle problem I had forgotten to drill the coupling

rods with the frames so decided I had little chance of getting them right. One thing I did discover while trying to rescue these frames is that

the mitre box that came with my razor saw can be used as a check for the chassis. Fitting 3/16th brass rod as long dummy axles allows the frames to be sat inside the mitre box with the dummy axles resting on top and it can be seen where any rocking occurs (like most useful items I read about in scratch building articles, I don't have a plate of glass).



While doing all this I tried using 3/16th brass rod as frame spacers. The first set I made were cut with a razor saw and filed to length, then drilled for 10BA clearance with the frames drilled and tapped 10BA, 1" brass screws holding things in place while the spacers were soldered in. This didn't work because I could not file the ends of the spacers square so the frames were not parallel from top to bottom (meaning the axle wanted to go up or down rather than straight across to the other bearing). Next I tried a set of spaces from the same material with shoulders machined on a lathe. I did not much like these because they didn't have much "shoulder-space" for the frames to sit against and also because I could not make them myself.

I took great care while drilling the fourth set of frames, going up in drill size very slowly. I also made sure not to forget to solder the coupling rods to the frames for the initial drilling. The secret is to increase the drill size very slowly.

Other things to consider when marking out and drilling while the frames are soldered together are holes for the brake hangers and pickups. The brake hanger holes

were simply marked from the datasheet and drilled "small". I will sort out the proper size when I get around to fitting the brakes! I have used Slater's plunger pickups and to determine where the holes should be I scribed the outlines of the wheels onto one of the frames. This can be done accurately after the bearing holes are drilled to axle size (not bearing size) by putting one wheel on the axle, putting the axle through the frames and scribing around the

wheel. In this case, the middle wheels are flangeless, so these had to be used to scribe the circles for the middle plungers. Thinking about it now, these flangeless wheels would have been the best to use for all three axles as the plungers would then have been against the back of the wheel tread and not the flanges of the other

two axles.

For spacers, I thought square brass rod would be good but did not have any. I did have some 1/2" brass angle and decided that would be almost as good so cut and filed two spacers from that. These are put between the frames at the front and rear with one part of the angle along the top allowing holes to be drilled for the screws that hold the chassis and footplate together, and the other side of the angle towards the centre of the chassis to reduce their visibility.

Again, I could not quite get the filing perfectly square but managed to get it close enough. The frames were still not quite parallel and the axles too tight to turn freely so following the advice of John McKenzie I ran a 3/16th drill through the assembled spacers and bearings after it had all be soldered together and I had a set of wheels that turned freely and sat on the track, or near enough.

At this point I realised I had not filed the frames to the correct profile! There was no way I was going to unsolder this freely running chassis. I cut out the frame part of the datasheet, stuck it to one of the frames (after leaving enough space around the bearings so it

would stick flat), put the frames in the vice with the bearings resting on top of the vice jaws to keep it relatively straight and filed them to the profile shown on the drawing. I have no doubt the frames have slightly different profiles but I am not worried about it.

Another problem I found with this set of frames was that the axle holes are 1mm too far down from the footplate. I must have measured incorrectly, because all three axles are in line so I didn't just slip with the centre punch on one of them. I did not discover this until I started opening the holes out to bearing size and noticed room was quickly running out. If I had thought to, I could have filed the top edge of the frames down and lived with almost unnoticeable inaccuracy below the axles, but I wasn't that smart. I did not think of this idea until I had the chassis running with a motor and gearbox and am not about to remove the spacers now!

COUPLING RODS

I was dreading the coupling rods, even though they were drilled with the frames. They are made from O-scale coarse rail.

I opened the small holes drilled together with the frames out to size for the Slater's crankpin bushes (a no. 40 or 41 drill – not given on the sheet included with the wheels!) I then put the coupling rods on the wheels, trying them on both sides, and with both sides of the rod facing the frames, to get the best fit. Once I had what I believed to be the best fit I marked the rods so I knew which side they were for, and which side of the rod faced the frame, and went about removing the small amount of binding. I was worried that the wheels always bound when I put just one coupling rod on, with the front and back wheels getting badly out of alignment at the 2, 5, 8, and 10 o'clock positions. Putting the second coupling rod on reduced this to some tightness at these positions, and I was much relieved! With both coupling rods on, it seemed whenever one rod would have been about to bind at the above positions, the other rod would hold things together because it is 90 degrees away, so not at a binding position.

Not having built a locomotive before, I don't know if this is expected or due to lax workmanship but was happy that with both rods things were just tight, and not locked. It seemed the tightness was caused by the middle crankpin – by removing the crankpin bush from the middle crankpins I could see the crankpin did not stay centered in the coupling rod hole as the wheels were turned. I used progressively larger numbered drills in the middle hole of the coupling rods until the tightness was effectively gone. I have read that you should only make coupling rod holes larger by making them slots and not making the entire hole bigger, but I don't have the skill for that (remember chassis number three!) At any rate, with the middle holes made bigger the chassis would roll down a slope on its own so I was more than happy to consider the coupling rod ordeal over.

I have not filed the coupling rods to shape yet - I am putting this off in case I ruin them!

MOTOR AND GEARBOX

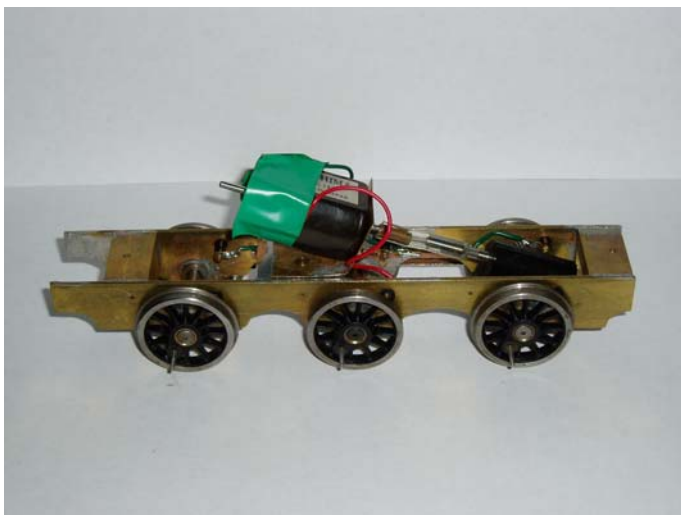
At this point it should come as no surprise that I did not have a motor and gearbox in my possession, or even know what size and shape they were. I had seen a scratch built Z18 so knew it was possible...

I had vague notions that the motor would fit in the boiler and the gearbox on the middle or rear axle. I purchased a Mashima motor and a NWSL gearbox and was determined to have the chassis running within a day or two.

When I got home and started looking at things, two problems became apparent. First of all, the motor has a 2mm output shaft, and the gearbox has a 1/8th input shaft. Much worse, the gearbox is a press fit on the axle and not a grub screw (as I was expecting) meaning I had to unsolder my freely running chassis after all!

I had to find a way of being able to take the chassis apart easily as I was expecting frequent disassembly while trying to get the motor and gearbox installed and running, while still having plenty of support for the frames when I wanted to run it.

After unsoldering one of the frames, I cut small squares of brass to fit in one end of the angle frame spacers on that side and soldered one to each spacer. I put the frame back on, put the axles in to hold everything in alignment, and clamped the frames together using some small “C” clamps. I drilled for 10BA tapping size. Needless to say,



I had my first experience of breaking a tap. The important lessons here are to use the correct tapping drill (I used the next size down, thinking I'd get a good thread from it), and to knock the tap back out from the pointed end, not try and knock it though from the broken end! I caused quite a lot of damage around the hole in the frame before this second point became clear. Once I turned the frame over and hit the point of the tap it dropped out immediately.



All this meant I had to drill the holes to 10BA clearance and use 10BA nuts on the insides of the brass squares to hold the screws in place. I soldered these nuts on after I'd lost three of them.

Now the frames were no longer

parallel as they sat against the spacers - same old problem - so the axles would not even go through both bearings. Having run out of patience and ideas I put the frames in the vice the same way as when I filed their profiles and used the long brass dummy axles to bend the removable frame to the point where each axle would go through relatively

easily and then ran the 3/16th drill through the bearings again. This seemed to free things up without causing undue damage.

Mounting and joining the motor and gearbox was the next puzzle. The

sizes of the two components made it necessary to put the gearbox on the rear axle, with the motor in the boiler.

The gearbox would not fit on the back axle without cutting away most of the rear spacer material between the frames. This isn't a problem structurally (remember the spacers are brass angle, and I only had to remove material from one part of the angle) but was getting tedious until I remembered I had recently bought an angle grinder for

a project in a larger scale. Brand new grinding wheels remove brass very quickly and I nearly removed far more than the spacer!

I made a mounting plate for the motor from a piece of brass shim that screws to a spacer I added to the middle of the chassis, over the centre axle. This new spacer was

made from a piece of frame material filed to width and soldered to the same frame the existing spacers were soldered to. As usual the first thing I did was lose one of the mounting screws for the motor, but made a lucky guess and found they were 10BA, so cut down a cheese

head brass 10BA screw as a substitute. I must have lost ten dollars worth of tiny nuts and bolts (and Slater's bushes and washers!) on my shed floor, amongst the swarf and filings.

Happily the motor and gearbox shafts lined up quite well when both were in place, so it only remained to join them up somehow. My first thought was to use rawl plugs (those bright plastic plugs used for putting screws into brick walls). I guessed at a size and bought a small packet. These were a very tight fit over the gearbox shaft (so tight they would not go on centered, so were not well balanced) and a not very tight fit over the motor shaft. Regardless of this I could not help but turn the chassis upside down and apply power to the motor... the wheels turned! After about ten minutes of this I noticed the motor shaft would slip sometimes. I tried superglue, loctite, and cable ties to clamp the rawl plugs to the motor shaft, but none of it worked. I think there was too much oil around, but the rawl plug plastic may also have been unsuitable for these things. I spent a week in Orange just before Christmas (having married into the Kershaw family) and after talking it over with Roger and John McKenzie we drilled a small amount of copper rod from Roger's scrap box to fit over the motor shaft to bring it up to about the same diameter. This was fixed to the motor shaft with loctite and some plastic tubing used to join the two shafts.

I was in favour of machining the gearbox shaft down to 2mm, but Roger thought that was over-engineering and far too fancy. The current solution is also more in spirit with the rest of the project, which is that I should be able to do whatever is required without a lathe or milling machine.

I had discovered the gear on the rear axle was slipping too. I was greatly confused by the way the gearbox input shaft could sometimes be turning with no movement coming through to the axle. I figured I could not have stripped the gears or it would not work at all, but had no idea what was going on. The gearbox was disassembled and the gear on the wheel could be made to slip so the axle cleaned, and the gear put on with more loctite.

I left the whole lot to set until I returned to Sydney. When I got back to Sydney the loctite seemed to have set and I have not had any slipping since.

Next time, I will get one of the motor/gearbox combinations I see on the websites of UK suppliers where the two components are directly attached and gear ratios of 40:1 or 50:1 can be supplied. I think these units will be much smaller and neater than what I have done this time.

PICKUPS

The Slater's plunger pickups seemed like a good idea, but as usual I took a guess at how they should be installed and only almost got it right!

The plungers do line up with the wheels, but the rear plungers interfered with the gearbox casing and the screws had to be cut short. I thought that putting them in front of the axles rather than behind (an arbitrary choice made when I was marking and drilling the frames) might have helped but I made a rough measurement and think they would still foul the gearbox.

I also had a great deal of trouble getting the screws that hold the plungers in place to also hold the metal terminals in place. I thought soldering the terminals in place would be a good idea, but this just melted the plastic cups that insulate the plungers from the frames, meaning the plungers have lost a lot of their spring. However, with six plungers installed the locomotive does not stall on the test track so I will leave things as they are.

At first, I joined the plungers on each side together with wire, and then ran a piece of wire from the front plunger on each side to the motor. This was a very messy and difficult way to do things. I bought some single sided PCB from Dick Smith, cut two thin strips from it and used Araldite to stick one strip inside each frame. Now I just have very short wires from each plunger to the PCB and a wire from each PCB strip to the motor. It is far more than twice as neat. I cut the PCB with a razor saw and did not wear a mask – the dust did not taste or smell healthy and I will be wearing a mask next time I do this.

Since installing and soldering the plungers as described above I have seen a photo in a back issue of MRJ that shows the plungers installed using two nuts – one nut to hold the plunger into the plastic cup, and a second nut to squeeze the terminal against the first nut. This looks like a much better way of securing the plungers and terminals.

KEITH'S TIPS AND TRICKS

Keith Vanston

Editors Note...

Keith sent me some examples of his trees and fences to be photographed – sadly Australia Post struck and I received a soggy bag of ground sea sponge and fence palings. I have almost managed to reproduce what Keith has done, but time has not permitted completion or photography. Photos will be published in the next issue

Keith writes

"I am a scratch builder , VR 1860-1960 and a 'near enough' one. I believe there is as much enjoyment in building as in operating a layout"

"By necessity, because of limited funds and location I have always scratch built mainly using Lima wheels and motors but now use Dick Smith Motors at \$4.95 which I find ideal to replace worn out Lima armatures "

"I have been modelling since 1948 and make most items – scratch , rough but fun."

Making trees from sea sponge

I collect sea sponges whenever I see them and find that they come in many shapes similar to trees, shrubs, hedges and bushes, ranging in height from 3 to 30 feet.

They need to be painted by dipping spraying, or brushing leaving the trunk unpainted.

Fixing is by a nail in the bottom, glued into the sponge.

The only problem is fine sand that has accumulated over the years Most can be removed by shaking then washing.

Another source of conifers is to buy a plastic Christmas tree, usually one can be found at 'Op' Shops or Flea Markets as well as the cheap shops.

Easy fences

Take a piece of staright HO track. Remove the rail, trim tops to a V if required, paint white , drill fixing

holes and voila – a fence.

If you want a two rail wooden fence , remove enough sleeper tops, centres and bottoms between posts 6' apart. Fix to the base by inserting a small pin with the head cut off.

Most rail fences were three rail – as above – glue a third rail in.

Likewise using HO sleepers its is easy to make a cross bar gate.

Vehicle Loads

The Railways do not like empty vehicles and try to backload whenever possible.

Our models track better with loads, and goods sheds and yards must have some freight on show.

With a collection of vehicles of the same type, say the VR 'IA' (or its NSW equivalent the 'S' wagon) it is possible to make a variety of loads that can be interchanged

Some loads I have;

- Tyres and wheels of cars and trucks
- Logs using twigs from the garden
- Coal and gravel using foam (and coal and gravel)
- Spare bogies and wheels
- Car, trucks tractors etc
- Gas cylinders using asthma puffers
- 44 gallon drums made from half inch dowel – a drum is 2'11" tall and 1'11 in diameter.

Video Components

Firstly there are worn out video tapes. What a great source of building materials – flat angles, curves etc..but best of all they contain 5 screws very useful in "O". Internally there are also gears and the like

I look at all plastic items, toys, electrical appliances and food

containers and test by applying a drop of MEK – if it becomes tacky, into the supply box it goes.

About to be thrown out video players are also a useful source of motors, gears and screws.

Worried that She Who Must Be Obeyed is spending too much on cosmetics ? The empty boxes supply good flat pieces, angles and curved pieces.

More than Tracks

A layout is more than trains, it needs people , animals and road vehicles to look authentic.

I carry in my wallet a small card marked in scale feet and if I find an article I could use on my layout , I measure it with this card before purchase.

A ready supply of people and animals from the discount warehouses eg the Warehouse, Crazy Clarks. They sell plastic bags of soldiers, firemen, policemen and farm animals. They are unpainted, but that is easily fixed and most figures wear peaked caps such as railway workers do. Some soldiers can have the weapon removed and those with a walkie talkie can make a modern era shunter.

Vehicles can also be found at these shops and also at Op shops and flea markets. Some even come with containers ! I have often bought a set with construction vehicles and the crew gives me a set of gangers or road workers.

Of course, not all in the packet will be suitable, but at the price we can be generous and give away these to the grand kids.

It is annoying to vendors when they observe me holding an article an I reach for my wallet. – They think I am reaching for money, but I am reaching for my trusty scale card – I don't want midgets or giants.

"GUNNAS" GROUP PROGRESS REPORT

Last issue Dave Morris called for a group of Modellers to build an exhibition layout. Several meetings have been held and the work is progressing well.

An early decision was made to use Capral Aluminium section and components, and sufficient material was obtained to build all the modules. Holes were drilled into the interface pieces and the materials were then packaged up into 'kits' for the various members of the group.



Corner modules

At the meeting held on February 13th, Rick White laid out a very large plan for the group to check and some final thoughts were put forward on the milk siding and loco facilities which both occupy space on the end modules. Rick was able to take away these final submissions so as to draw up the final track plan (some adjustments during construction will probably have to be done) but all in all, having Ricks scale drawings will reduce a lot of this.

The layout will be 52 feet long and

16 wide

Dave Morris showed one framework of a quadrant from the corner modules to the team, mounted on some steel trestles that belong to Keiran Ryan, this enabled the team to settle on the height of the layout and we resolved to copy and utilise this type of trestle.

It should'nt be too long before we start laying track and another point building day is to be run to tackle some of the points within the station area.

The left hand corner modules will be worked on first as we have a good impression of the landscape

required, the right hand corner

ARHS/nsw Railway Bookshop

67 Renwick Street, REDFERN NSW 2016

M - F 11am to 5pm

Sats 9.30am to 3.30pm

www.arhsnsw.com.au

MODEL RAILROADING BOOKS

An Approach to Model Railway Layout Design 64p	\$39*
Australian Railway Detail Photos Vols1, 2 & 3 on CD ea	\$22*
Data Sheets (drawn by Greg Edwards) entire range in stock.ea	\$6.60*
DCC Made Easy (Model Railroader Bks) 48p SC	\$20*
Designs for Urban Layouts. Ian Rice. Handbook Series V1	\$52*
Freight Yards (Model Railroader Books) 88p SC	\$28*
Historical Railway Modelling David Jenkinson. 176p.HC	\$105*
Intermodal Equipment and Operations (Model Railroader Bks)	\$25*
Light Railway Layout Designs (Wild Swan) 72p	\$35*
Locomotive Servicing Terminals (Model Railroader Books)	\$25*
Making the Scene-True to Life Scenery. 74p.SC	\$10*
Mainlines in Modest Places Ian Rice Handbook Series V2	\$55*
Narrow Gauge Railway Modelling (Wild Swan) 124p	\$59*
Nest Steps in Railway Modelling. Ellis. 96p SC	\$45*
Railway Operation for the Modeller Essery b&w 96p	\$45*
Railways in Your Garden. Live steam/electric garden railways	\$49*
The 4mm Coal Wagon- A Step-by-Step Guide. 154p	\$59*
The 4mm Wagon Part One - Opens, Minerals & Hoppers. 86p	\$36*
The 4mm Wagon Part two - General& spec.vans,tank wagons.162p	\$52*
Track Construction All scales & gauges withn CD ROM	\$49.95*
Trackside Scenes You Can Model (Model Railroader Books)	\$28*
Trackwork Manual (G. Edwards)NSWR Practice 1855-1940	\$33*
Wiring the Layout (includes TRAX CD) Geary b&w 56p SC	\$49.95*

MODEL RAILROADING EQUIPMENT

Century Models	
7mm O Scale D50 class kits (saturated or superheated) with 3650 gal. tender now available.	\$1,750.
Custom built also available.	
Z 19 0-6-0 kit with porthole or cutaway cab with Baldwin tender	\$1,650
NSWGR 7mm O scale Standard Sleeper sBag of 500	\$38*
NSWGR 7mm O Scale point sleepers. 5 x 600 mm lengths	\$11*
Structural Timber 7mm scale 12" square (Mt Albert)	5 for \$5*
Structural Timber 7mm scale 24" square (Mt Albert)	5 for \$11*

Aus7Members receive 10% of items marked with an *

modules will require more in depth consideration as it will be carrying the main, branch and milk siding.



Left :Detail of corner module showing bracing required for backdrop and lighting rig

Right Bruce Wood demonstrating how light the basic modules are



O SCALE OVERSEAS

Trevor Hodges

In 2003 I took a long delayed overseas holiday and came back with lots of photos and some very fond memories. I imagine you probably don't want to read me rabbiting on about my travels through Paris and the Greek islands so I'll avoid references to these places. However as I planned the trip in the lead up to leaving I made a specific attempt to include visits to some "attractions" that had become, in my mind at least, icons of the model railway hobby. I've been reading UK and US magazines and books for many years and, in that time, I'd developed an interest in the hobby in these countries and, far more recently as I'd moved into the scale myself, in the state of O-Scale modelling. Having spent years looking at the photos and advertisements in magazines such as **Railway Modeller** and **Model Railroader** I wanted to see for myself what was available to modellers in these countries and visit some of the shops and exhibitions I'd been reading about.

My planning for this trip was quite extensive and it is not my intention here to offer advice and tips for the traveller, even those travelling to railway destinations. You're more than welcome to approach me either by mail, email or at a convention or seminar and ask about things I might mention in passing here: I'll do my best to answer any questions you might have. However what I'd really like to do here is outline what I had *imagined* the state of O-Scale modelling to be in both the US and UK and compare this to what I actually found. So what sort of impression had I built up about the state of O-Scale modelling in these countries before I left? Well it was nothing particularly startling but I was sure of one thing: modellers in both the UK and US must have a huge range of products and sources available to them which would dwarf anything we have available in Australia. In terms of parts, kits, shops, magazines and publications, clubs and exhibitions I imagined these modellers would be overwhelmed and spoilt for choice with a range of dedicated outlets aimed exclusively at the O-Scaler.

At the very least they'd have to be better off than us wouldn't they? You can find a list of links at the end of this article.

Magazines

In spite of years reading overseas modelling magazines I was expecting to find some while travelling that I'd never heard of. A friend of mine introduced me to the Gauge O Guild **Gazette** in 2002 by sending me a few copies he'd picked up somewhere. This is an excellent magazine overall and the commercial news and reviews are extensive. It has a bit of a standard gauge bias and is almost exclusively devoted to 7mm scale however it is full of good ideas and there are always things of interest to read even though the prototypes are all from the UK. You can't get the **Gazette** over the counter at hobby shops, you need to become a member of the Guild first and the quarterly magazine is included in the annual membership fee.



Gazette – The Gauge O-Guild Gazette is a comprehensive guide to all that is happening in the standard gauge 7mm modelling scene in the UK.

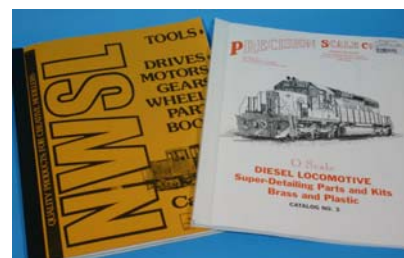
While I was in the US I picked up some copies of two magazines that are devoted to what they refer to as 2-rail, O-Scale modellers, as opposed to those who purchase and run the three-rail gear such as that manufactured by companies like **Lionel**. Both **O Scale News** and **O Scale Trains** are an interesting read and tend to focus on standard gauge with the advertisements being of particular interest. I haven't bothered to subscribe to either of these magazines but both are probably worth getting a single copy of just for the advertisements and the information these contain.



US O-Scale Mags – Some of the information in these magazines is useful but they weren't worth subscribing to as I'm not a US outline modeller.

Shops and Catalogues

One of the items on my list of "must sees" while I was in the US was Caboose Hobbies in Denver, Colorado. Over the years, in my mind, I had built this shop up to be the be-all and end-all of model railway shops, so it's probably not surprising that I was going to be a little disappointed when I finally visited the place. The shop is big (it used to be a supermarket) and it does have a lot of stock but 3-rail items dominated the O-Scale section, with virtually nothing on show for the 2-railer. They had an extensive range of 1/4" scale detail parts and some brass items for sale but, just as an example, they had no 2-rail Atlas-O locomotives on show. Even the narrow gauge selection was "thin", and this from a shop in a state with some of the most famous narrow gauge lines in the world within a couple of hours drive. I found this pattern repeated in both Boston and Chicago, where I visited about five different hobby shops in total: shops that advertised themselves as specialists in "O-Scale" were packed to the rafters with 3-rail products but the amount of 2-rail "scale" items tended to be tiny by comparison.



Catalogues – Catalogues from those such as NWSL and Precision Scale are a marvellous modelling resource.

While my experience of purchasing O-Scale items in the US was a bit disappointing there is an extensive range of 1/4" scale detail parts available and these can be viewed in the illustrated catalogues available from many US companies. Just two that come to mind are from **North West Short Line**, who sell an extensive range of wheels, gears and components and **Precisions Scale Co**, who market a huge range of detail parts. The **Precision Scale Co** catalogue you can see in the accompanying photo is for O-Scale diesel parts but they are also available for steam locomotives and for passenger/freight cars. My advice would be to get your hands on some of these catalogues and do a bit of web surfing to see what's out there. The Precision Scale catalogues are available from **The Railcar** and the NWSL catalogue was available from **Lloyd's**.

The other shop I really wanted to see while overseas was the **Home of O-Gauge** in Raynes Park, London. This shop sells an extensive range of UK prototype locomotive kits and parts and produces a thick quarterly catalogue of the items they retail which is not illustrated. The contrast with **Caboose Hobbies** could not have been starker: **Home of O-Gauge** is in a none too salubrious part of London and, when I arrived, the door to the shop was locked. I assume this was for security reasons; perhaps they found my Australian accent suspicious, convict ancestors and all that (although my parents are both Poms). The shop was small by any one's estimate and especially in comparison to the shops I'd visited in the US. In spite of this they had a good selection of locomotive kits in stock and it was a pleasure to be in a shop devoted exclusively to O-Scale. However I was probably expecting a generalist O-Scale hobby shop retailing a wide range of items from lots of different manufacturers and in this I was bit disappointed. **Home Of O-Gauge** was more focused on locomotives, wheels and motors and they cater well to this side of the market. Still, as a foreigner, looking for a range of more generic O-Scale items I felt the shop didn't really live up to my expectations so at least both sides of the Atlantic were on a par in this, but for admittedly different reasons.

Conventions and Exhibitions

The time of year I was travelling allowed me to attend both the Nth American NMRA annual convention and Guildex in the UK. The NMRA meeting was a very interesting event and reminded me very much of the Modelling the Railways of NSW convention, except that it is held over about a week and is much bigger. The 2003 Toronto event was affected by the SARS outbreak and threats of terrorism, which meant that many US citizens and companies didn't attend. However I found the experience well worth the miniscule risk and I got to meet a couple of my North American modelling heroes, Jim Provenza and Trevor Marshall. Jim's layout is the Santa Cruz Northern and Trevor writes regularly for the **Model Railroad Craftsman**. However, for me, the best part of this event was the chance to visit some local Toronto layouts and of course I honed in the O-Scale ones.

Probably the event that I was most looking forward to was my visit to Guildex in the UK and I'd actually timed my entire trip to coincide with this particular show. This was one feature of my trip that I was absolutely determined to see, Osama Bin Laden notwithstanding. The Gauge O Guild hold quite a few events each year but Guildex is their main exhibition and, not to put too fine a point on it, it is absolutely huge! In terms of floor space and the number of exhibits it's approximately twice the size of Sydney's Liverpool exhibition and is exclusively devoted to 7mm scale modelling and products. It was absolutely, bloody fantastic and I enjoyed myself immensely over the full weekend of the show. It's held in a town called Telford about 20km from the Welsh border at approximately the same time every year, in the middle of September. Just across the border in Wales are

half a dozen narrow gauge railways to visit and ride and, for this reason, I'd recommend you book yourself into a good pub for the weekend of Guildex plus a couple of other days just to fit it all in. If I were going to unreservedly recommend anything that I saw or attended while I was overseas it would be this event; if you're in the UK in mid September and you're even remotely interested in 7mm modelling then you must attend, you will not be disappointed.



As soon as I can afford it I'm going again and I'll be getting myself a bigger suitcase this time!

Guildex – This photo shows only about 1/3 of the floor space taken up by this huge show.

Conclusion

I wouldn't be communicating anything profound if I were to say that the O-Scale scenes are a lot bigger in the US and the UK than it is in Australia. However I came away with the distinct impression that the use of the numeral "O", with regard to railway modelling, has fundamentally different connotations in the two countries that go well beyond the dimensional difference between 1/4" and 7mm scale. The O-Scale scene in the US is dominated by the three rail collectors who seem to want to re-live their childhood memories of running **Lionel** trains around the room Gomez Addams style and, in this environment, 2-rail scale modelling has a tough time gaining a profile. For some reason the UK market, unlike the US, seems to have outgrown its tinsplate beginnings: coarse scale wheels and Hornby tinsplate are seen as quite separate sections of the hobby with Finescale and Scale 7 being where the real commercial action is.

Because of these differences ready to run items are few and far between in the UK market and they dominate in the US. The commercial items I've seen from the US market have gone through the same development path as those in the HO and N scale scenes: namely, beautifully detailed plastic and brass locomotives with smooth running mechanisms but oh, those awful wheels! In the UK it is just taken for granted that O-Scale modellers will build kits and wield a soldering iron with a reasonable amount of competence.

So what does this mean for O-Scale in Australia? Your guess is as good as mine! If you're looking for a lead in terms of scale modelling then I would suggest that the UK has it all over the US in the standard gauge market. There is simply no comparison between the scale fidelity of the items I saw readily available in the two countries. The narrow gauge field is a totally different ball game and, in the US, seems to be a haven for the more serious craftsman scale modeller. The sheer volume of high quality kits and bits available to the O-Scale, standard gauge modeller in the UK is mind-boggling and there's plenty to tempt the kit basher and those of us with an interest in

smaller, industrial locomotives. My visit to the UK and the US has taught me one very important lesson and that is, to some degree, a scale can be a victim of its own history. Once a scale comes to be seen in a particular light, for instance as the province of the toy collector, it can be very difficult for it to break out of the historical pigeon hole into which it has been placed and it can become a bit of a back water in terms of commercial support. Just look at what happened to TT scale. In this country we can probably consider ourselves lucky because we can dip into both markets for the items we need and still have plenty of room to help foster local manufacturers and suppliers to cater to our modelling needs. However I believe this won't just happen on its own: we need lots of modelling happening and a few layouts being built to foster interest and enthusiasm. So get those kits out of the cupboard and start cutting up that wood you've got sitting in the corner of the garage: life is way too short to leave your dream layout until you've got enough time. You'll never have enough all the time you need so use a little of the time you have available for this wonderful scale now.

Links and Addresses

Caboose Hobbies web site
<http://www.caboosehobbies.com/>
 500 South Broadway - Denver, CO, USA, 80209.

Home of O-Gauge web site
<http://www.ogauge.co.uk/> and 528, Kingston Road, Raynes Park, London, UK, SW20 8DT.

North West Short Line web site
<http://www.nwsl.com/> and, Box 423, Seattle WA USA, 98111.

Precision Scale Co web site
<http://www.precisionscaleco.com/>
 and PO box 278,3961 Highway 93 North, Stevensville, Montana, 59870.

O Scale News web site
www.oscalenews.com

O Scale Trains web site
www.oscalemag.com

The Railcar web site
<http://www.railcar.com.au/index.htm> and 17 The Breakwater, Corlette, NSW, 2315, Australia.



More photos of the disassembly of Morpeth by Trevor Hodges Left : The Oil depot and goods shed once stood at the end of the layout
 Mortpeth structures sitting on the Queens Wharf Module ... temporarily

GLEANED FROM THE GUILD

Trevor Hodges

There's lots of material I could cover this time but I'm attempting to keep this column short to act as a bit of a filler for Kim when he comes to edit 7th Heaven. Let either Kim or I know if you're finding these items useful and we'll decide where to take it in later issues. If you're not a member of the Guild then at least this column will let you know of some useful addresses that you might not be aware of. You can contact these manufacturers yourself for details of their full range.

Agenoria

In spite of my statement last issue that I wouldn't be including mentions of UK outline locos in this column I've decided to go against my own resolution this time in the case of Agenoria Models and its range of small industrial locomotives. Having recently put one of their locos together myself I can attest that the range is extensive, comparatively cheap and relatively easy to assemble if you can solder. There have been some recent additions to their range and some of these can be seen in the accompanying photographs. Many of Agenoria's range of locomotives are eminently suitable for kit bashing into models resembling Australian prototypes and the relatively low cost of doing so is a great encouragement to get in and have a go. I'll be writing a set of articles in AMRM on the Manning Wardle project I've discussed on the Yahoo! group during 2004 to show those who are interested how I went about just such an exercise.



Agenoria Avonside 0-6-0 - This could well pass for East Greta Coal Mining Co No 3 or 8 or Abermain No 1



Agenoria Avonside Leslie 0-4-0



Agenoria Ex Lambourne 0-6-0

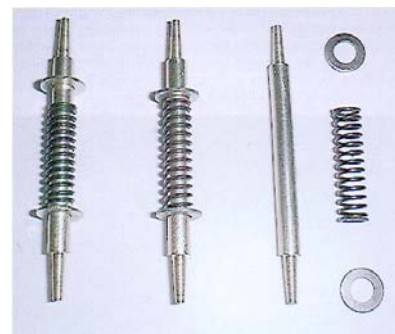
You can contact Agenoria Models at 18 St Peter's Rd, Stourbridge UK, DY9 0TY, or at agenoriamodels@yahoo.co.uk.

Metalsmith

A lot of people seem to be interested in obtaining corrugated iron sheet for their work in 7mm scale. I've long extolled the virtues of the VR Models range of O-scale aluminium corrugated sheeting which is readily available from Berg's Hobbies in Sydney. However there seems to be a continuing interest in other sources and one such is MetalSmith Ltd. This company sells packs of ten corrugated sheets in 7mm scale 8'X2'6" and 6'X2'. Another extremely useful item available from MetalSmith is their axle alignment tool (or jigs) that are used in the construction of compensated chassis in loco building. If you don't know what a

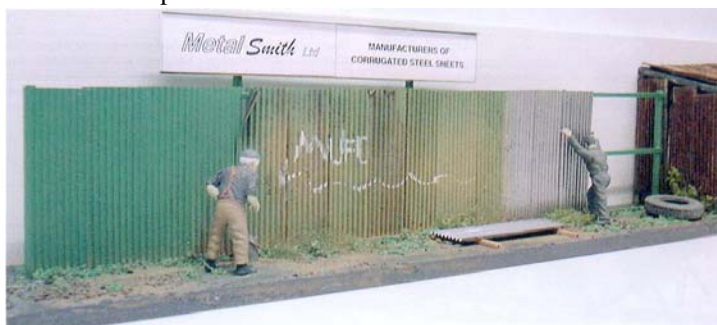
compensated chassis is or what possible use these jigs could be put to then let me know and we'll see if we can come up with an article explaining their use in a future issue. These jigs are manufactured from aluminium to resist soldering them in place and they are of the correct dia. to match standard 7mm driven axles from wheel manufacturers such as Slaters. A very useful item indeed! You can contact MetalSmith Ltd at Units 10-11 Enterprise Close, Telford Way Industrial Estate, Kettering, UK, NN16 8NS or at sales@metalsmith.co.uk or www.metalsmith.co.uk.

Metalsmith Corrugated Iron



Metalsmith Alignment Jigs

This information is provided with the permission of the Gauge O Guild, the UK's premier O-Gauge modellers' organization. If you would like to find out more about the Guild you can do so at their web site <http://www.gauge0guild.com> or from their membership officer Peter Matthys, 1 Station Cottage, Ystrad Meurig, Ceredigion, UK, SY25 6AX.



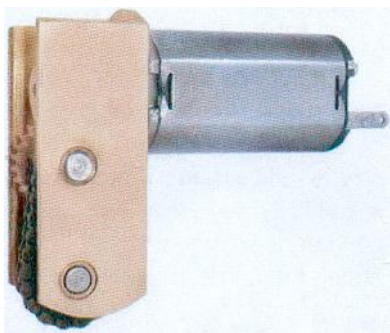
COMMERCIAL NEWS

Trevor Hodges

The quantity of commercial news is smaller this time for the simple reason that there was so much in the previous issue. That issue was released just after the Liverpool exhibition in October and many manufacturers, including those in O-scale, use this event to reveal their new product releases and this has a flow on effect with regard to what is available to include in these pages.

DJH Models

While I will normally try to keep the focus of this column on Australian prototype products, that doesn't mean I won't cover some overseas items, when they are of relevance to Australian modellers or are simply of a very high standard. I'm sure many of you will be familiar with the UK firm DJH from its excellent range HO and OO scale locomotive kits. However some of you may not be aware that DJH also manufacture a range of 7mm scale loco kits and recently has been expanding its range of accessories and detail parts. They release a quarterly newsletter and this is mailed direct to those who request it. They are now selling their kits direct to the public and the detail and motorising items look to be of a very high standard and should be useful to those Modellers in Australia who a scratch-building rolling stock. They can be contacted at DJH, Project House, Consett Business Park, Villa Real, Consett, Co Durham, UK, DH8 6BP, at sales@djhengineering.co.uk or at <http://www.djhengineering.co.uk/loc/o/default.asp>.



DJH Motor and Gearbox

Keiran Ryan Models

I've always admired people who get into manufacturing model railway items but I must admit that my admiration has increased since I've

come to know Keiran Ryan. I've watched as Keiran has gradually increased his line of 7mm modeling products through 2004 and marveled at the practical and enthusiastic way he's gone about filling gaps in the market, and let's face it, when it comes to Australian 7mm modeling, there are plenty of gaps to be filled. The two items you can see in the accompanying photographs are the result of such "gap filling" by Keiran and reflect his support of this scale. The ladder etching came about as a result of a request posted by a member of the Yahoo! Group. The resultant product will produce approximately 140mm of brass ladder, which matches closely the type of ladder commonly used on wagons such as BWH's and MRC vans. The ladder is prototypically thin in cross section and can be used to replace the chunky white-metal castings so often supplied with wagon kits.



The second product again comes as a result of discussions on the Yahoo! Group and reflects Kieran's commitment to the **Aus7 Modellers**

Group. The construction of track in 7mm scale modeling is an ongoing issue and as such the track gauges are an excellent and timely product. These gauges are produced in a set of four and are produced by Keiran as an **Aus7 Modellers Group** approved product with profits going back to the group once development and manufacturing costs are covered. As with all of Keiran Ryan's products, these gauges are available at a discount to Aus7 members and you can contact Keiran at *Keiran Ryan Models*, 39 Coachwood Cres, Picton, NSW, 2571, (02) 46772462, krmodels@ozzienet.net.



Aus7 Track Gauges

Berg's Hobbies

Berg's Hobbies, 181 Church St Parramatta, NSW, 2150, (02) 9635 8618, <http://www.berghobbies.com/> have made some significant progress on their 7mm 48 class project and you can see how far along things have moved in the accompanying photo, which shows a pilot model of the loco with an unlined coat of Tuscan paint. I won't repeat what Peter Berg told me about the locomotive and its development at the Liverpool show in October as I related this conversation at length in the previous issue. Suffice to say that everyone who has seen the parts of this locomotive in their various guises has been highly impressed with the quality and detail. You really should get in and place an order for this kit because I reckon demand will outstrip supply once they're delivered. I've said all I'm going to on the subject of the wheels on this loco however Peter has been doing some in-depth research on the subject and had a sample wheel in the glass cabinet in the shop in January that goes a long way toward addressing some of the concerns I've expressed.



I was in Berg's Hobbies in mid January and Peter Berg had just placed on show the unpainted pilot model of the 18 Class locomotive.



As you can see from the photos the majority of the bodywork is made up of several urethane castings. The castings were excellent: crisp, finely detailed and very square and true. Peter took the loco out of the cabinet and placed it on a short length of track and it really captures the look of the prototype. This locomotive will be promoted as an entry-level kit for the first timer in 7mm scale and the castings should make the kit a dream to put together. It will be supplied with the option of compensating the chassis to improve pickup and pulling power but it can be constructed with a rigid chassis. Peter told me that the kit has been fully subscribed prior to release and that anyone wanting one, who hasn't already put in an expression of interest form, will need to contact the shop ASAP if they wish to get their hands on one upon release. There will be an initial run and then there may be a follow-up run if demand

warrants. To my ear this sounds like the kit probably won't be available over the counter on an on-going basis. You have been warned. My

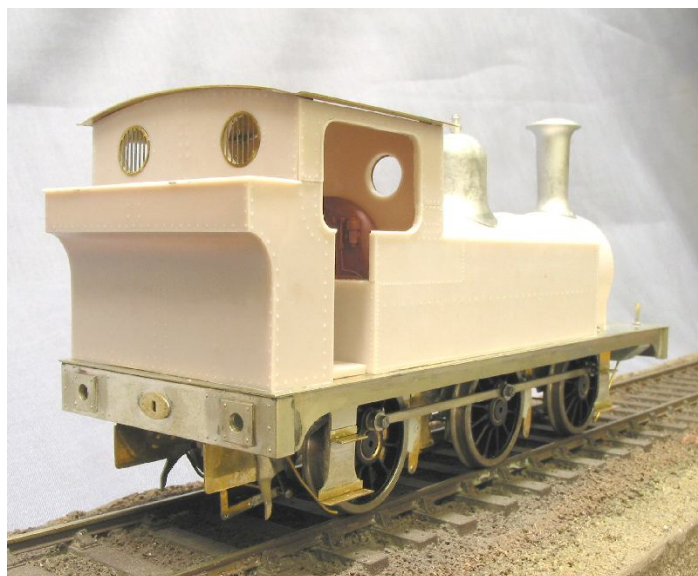
guess is the kit will be on the market during the first half of 2005.

If a construction article on this kit doesn't end up in AMRM I'll do one for 7th Heaven.

This should be a good follow-on to the scratch-building

series we're running on the 18 Class starting this issue.

There are some very interesting and exciting items coming onto the



market in the near future and this augurs well for the scale. I would hazard a guess that the best place to

read about the availability and construction of these items is going to be 7th Heaven and we'll do our best to keep you informed of upcoming releases. However you could do the **Aus7 Modellers Group** a favour by simply letting your modeling friends and the retailers you patronise know about 7th Heaven. If you've got a modeling friend who is potentially interested in 7mm/O-scale modeling then let him or her borrow a couple of issues and encourage them to join the group. If you're in a shop talking to the retailer or happen to be discussing a product with a manufacturer at an exhibition please don't hesitate to mention the group and 7th Heaven. Kim is more than interested in hearing from those thinking about advertising in this august journal and we want to encourage manufacturers to have a

go at producing kits and bits for our scale. The best way to encourage this is simply by talking about the group. You are our best advertisement to the manufacturers and retailers in our hobby so do all of us a favour and let your friends and

acquaintances in on the secret.