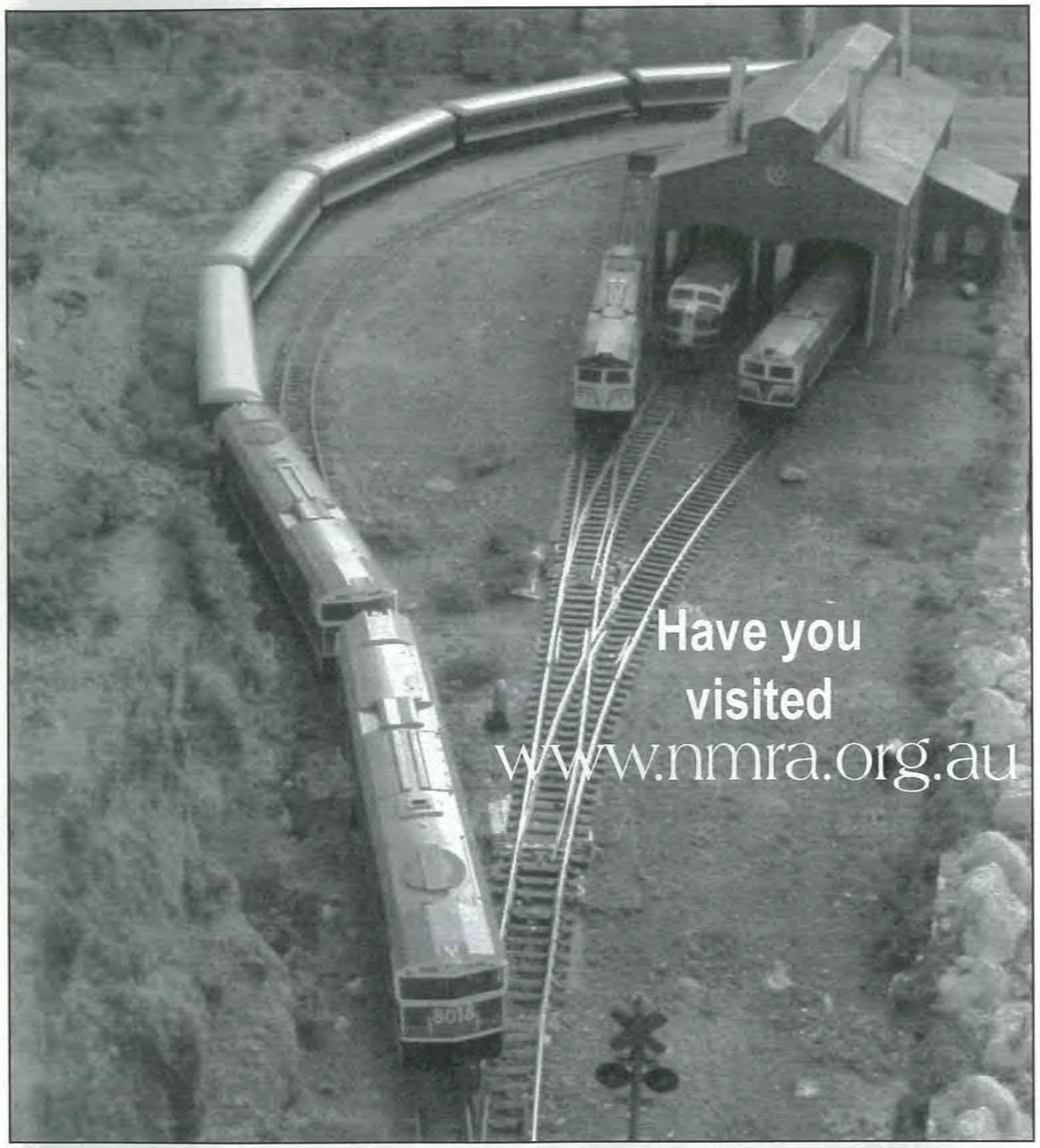
MainLine

National Model Railroad Association Inc - *Australasian Region*

Autumn 2002 Volume 19 Number 1



NMRA - SETTING THE STANDARDS IN RAILROAD MODELLING

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ACHIEVEMENT PROGRAM - Scenery

By Ken Scales, *MMR*

AP Chairman Australasian Region

The intention of this category is for you to demonstrate, "the prototypical rendering of scenic effects from the ground up." The type of scenery you model is up to you. It does have to be built to a high standard and it must have the required features. In particular it must contain the necessary scenic elements of terrain, structures, background, lighting, and realism/conformity as combined to achieve a realistic effect using applicable NMRA standards.

However you do not have to scenic a whole layout. You can be judged on parts of a layout provided they cover an area of sixty square feet in O scale, or forty-five square feet in S scale, or thirty-two square feet in HO scale, or eighteen square feet in N scale or other scales in proportional relationship to HO scale.

The scenery should represent the terrain by modeling the ground and all natural features such as rocks, water, trees, hills and depressions, as well as manmade features such as the railroad roadbed, cuts, fills, drainage ditches, embankments, streets and roads.

The wall, backdrop or ceiling should realistically depict depth and distance, horizon and sky. The scenery should contain all the necessary structures to create a realistic scene. Structures are judged from the standpoint of prototypical suitability, placement and appearance as scenic elements. Structures that provide scenic elements include bridges, trestles, culverts, buildings and all other similar structures.

Illumination effects are also judged and can represent day and/or night. An entirely daylight scene is acceptable.

The most important aspect is that the overall effect of the scenery must create an impression that the scene is a believable, miniature representation of prototype railroad.

You must prepare a set of photographs and a written description clearly describing the intended setting of the model railroad and the scenic details including towns or cities in the area being judged. You must also prepare a description of the materials and methods of construction used in creating various features of terrain, background, and lighting.

If you have a layout with scenery that has been constructed to a good standard you might find that it qualifies for this award.

Coal mine on the layout of Vic Quince

CONTENTS

Winter 2002
Volume 19 Number 2

Model - Vic Quince

On the cover...

The layout of Vic Quince was the venue for the April Sydney meeting. Vic models NSW prototype featuring coal trains and the Blue Mountaimns escarpment. Photo shows two 80 Class diesel locos pulling a passenger consist up the mountain. An excellent coal mine modcel is located on top of the cliff adjacent to the engine facilitiy. PHOTO: McCarron

Schedule of Divisional Meetings

New South Wales

Sydney meetings co-ordinator John Baker (02) 9629 2349. Meetings start 2:00 Saturday unless indicated differently.

June 29th	Sydney Convention Dence Park off Stanley Rd Convention Registration 8am for 8.45am start.		Epping	
July 13th	John Montgomery	12 Lindwall Place	Shalvey	(02) 9628 9921
August 11th Sunday	Ken Scales	19 Goliath Ave	Winston Hills	(02) 9674 1563
September 14th	Bob Best	34 Winicoopa Road	Blaxland	(02) 4739 1953
October 13th Sunday	Ron Cooper	47 Lincoln Ave	Collaroy Plateau	(02) 9982 1147
November 9th	Eric Bennett	33 Kananook Ave	Bayview	(02) 9997 7971
December 14th	Christmas Party	Baulkham Hills Uniting Church Hall		
	Ruth Garbutt	cnr Edgar & Charles St	Baulkham Hills	(02) 9686 4270

Canberra

6 Jul	Viv Brice	8 Berne Crescent	MacGregor	ACT	(02) 6254 8204
3 Aug	Tony Payne	24 Darmody Street	Weetangera	ACT	(02) 6254 6985
31 Aug	Ken Macleay	31 Shepherdson Place	Isaacs	ACT	(02) 6286 2624
28 Sep	Kerry MacPherson	35 Mol Crescent	Queanbeyan	NSW	(02) 6258 1421
26 Oct	Jess Brisbane	17 Forwood Street	Monash	ACT	(02) 6291 4260
23 Nov	Stephen O'Brien	138 Nemarang Crescent	Waramanga	ACT	(02) 6288 3614

Queensland

The Queensland meeting schedule is proposed. For details of venue and host, please contact Glenn Stevens on (07) 3201-5022. Meetings start at 1.30 unless advised

13 July	Toowoomba Double Header		
11 a.m	Mark Ward "OMA Belt R.R"	421 McKenzie St	Toowoomba
1 p.m	Lunch		
2 p.m.	DDMRC "Drayton Harbour R.R."		
	Old Maudsley House, Bailee Henderson Hospital,		Toowoomba
14 September	Grahame Davis "Silverton San Juan R.R." 41 Hersdon Ct,		Bonogin
9 November	Garth Fraser "Copper River Railroad" 28 Sylvan St,		Buderim
8 December	Division 1 Christmas Lunch		

Victoria

All meetings start 11:30 Sunday unless indicated differently.

9 July	Peter MacDonald *Electronic Controllers*	4 Boyd Street, Bacchus Marsh	03 5367-3601
13 August	Bob Backway *Sound & model RR*	4 Tor Road, Belgrave Heights	03 9754-6502
10 September	Steve Cullen *Figure Painting*	67 Mowbray Crescent, Melton	03 9747-6267

Editor's Note:

Once again ***MainLine*** is finally out, all be it very late. As a (very) mature age student, I am in my final year of studies at the University of Western Sydney and the pressure of completing assignments, together with work commitments, has again taken its toll on the production schedule for ***MainLine***. As the pressure will only increase during the last semester this year and I am getting tired of making excuses for the lateness of a magazine for which you pay dues, I have decided to call it a day for the moment and concentrate on my studies.

Your new Editor, David Judd, will produce the next issue of ***MainLine***. I am sure he will have your support as he comes to grips with the intricacies of publishing a magazine. I will certainly offer him every assistance to get up and running with a minimum of delay and Assistant Editor, John Saxon will, no doubt continue to offer a guiding hand.

Thank you for your support to me over the last few years, for without your stories there would not be a ***MainLine.***

MainLine

Official Publication of the Australasian Division of the **NATIONAL MODEL RAILROAD ASSOCIATION**

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Publication No: PP241616/00080

Editor Keith McCarron
Assistant John Saxon

SUBMISSIONS: MainLine welcomes articles, photographs, drawings, cartoons and other railroad modelling related material as contributions to the mutual enjoyment of the hobby by the membership. Material should have wide appeal and preferably be sent by email or post to the editor. Articles may be submitted on 3.5" computer disks in any Windows or Macintosh based word processing format. Sharp photos, either B/W or Colour are welcome. Don't own a computer? That's fine - typewritten articles are also welcome.

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President's Report

This year, 2002, is off to a great start with a newly elected Board Of Directors, the members of which, are full of innovative ideas and enthusiasm. It is great to have so many keen members who are prepared to represent you - the members - and give so freely of their time.

Mario Rapinett, from Victoria, brings to the Board - electronically and in person - an opportunity for greater interstate perspective. I am looking forward to working with this dynamic team.

I would like to see the Association continue to build on its strengths. These include the Achievement Program that encourages individual members to broaden their skill levels and the Special Interest Group (SIG) concept that encourages members to pursue specific themes.

The Module SIG members, based in Sydney, have built modules to make a large group layout and operate it using Digital Command Control (DCC). The many open meetings they have hosted have enabled many non-SIG members to get 'hands on' experience operating with DCC.

I have been encouraged to hear that Viv Brice, NSW ACT Superintendant, is actively promoting the Association in Canberra and similarly Glenn Stevens, QLD Superintendant in Brisbane. Grant McAdam Victorian Superintendant, supports the Region through encouraging Victorian members to submit articles to MainLine.

As promoted elsewhere in MainLine, Convention 2002 will be held on Saturday 29 June. The dual clinic streams aim to provide for a broad range of skill levels and interests. A convention is always a great opportunity to re-ignite your modeling enthusiasm and I encourage you to attend.

Whatever your particular interest, our common interest is model railroading and I look forward to the next two years and building on our Association's strengths and past achievements.

Allan Garbutt

Meet the new Board of Directors on Page 8

Around the region Pages 4-7

Sydney

Sydney Meetings Growing!

Last year, the February meeting attracted 49 people. In February 2002, meeting attendance reached a record of 102 members, partners and visitors. Recent meetings have had an average attendance of 60-70 people, which just goes to show what a great time of encouragement, learning and social activity the meetings are.

The January meeting was enjoyed by 75 people at the home of Allan & Ruth Garbutt, at Winston Hills.

Allan's double deck layout is in the planning stage and will be modelled on the Australian prototype of the Illawarra area around Scarborough and Bomaderry, on the south coast. Located in an 11'x 11' room, the layout will eventually be controlled by a DCC operating system.

A main feature of the layout is a hand operated vertical traverser that doubles as a display case. It has 10 tracks with capacity for a loco plus 4 – 6 pieces of rolling stock on each track. The setup looked quite interesting and it will be interesting to see the progress he has made, when next we hold another meeting at Allan's place.

During the afternoon, John Montgomery and Eric Bennett displayed some military and other models to inspire the members, while Alex Danilov conducted a clinic on making a screw-drive point motor. Piet Hamersma demonstrated his method of soldering feeder wires to the track, which is a necessary skill to have, for both conventional DC and DCC users.

John Baker was congratulated for having a photo of his layout printed in the NMRA 2002 Calendar. The photo, which was taken by David Jupp, was sent by email to the US by David North. A great team effort!

Thank you to Allan & Ruth for hosting the meeting.

February meeting – a record number of 102 people met at home of Gerry & Lauris Hopkins at Narara on the Central Coast.

Gerry has been working consistently over the past months to complete his new layout room and the results were outstanding. Gerry models Great Northern and certainly makes impressive use of the ***Cornerstone*** series of buildings to create the many industries that populate his layout.

Many members had the opportunity to see just how well the radio controlled DCC system worked on this layout.

Our thanks to Lauris and Gerry for their hospitality.

March meeting was held at home of Lorraine & John Hughes at St.Clair at which over 60 people attended. This was the AGM where the Board of Directors for 2002-2004 was elected. A ballot for Region member representatives was declared during the meeting and the results were three new members - Richard Roth, Mario Rapinett and Rod Smith.

John has a separate single garage dedicated to his dogbone layout. He models modern US prototype and he had concentrated on finishing for the day a section of layout which included some impressive scenery.

John Hughes

Some members took advantage of the items for sale and all had the opportunity to experience a great social time.

Our thanks to Lorraine and John for their hospitality.

Inspecting John Hughes' layout

Canberra

December 2001 – Our last meeting of the year was held, with spouses, at the Saigon Restaurant in Pierce, ACT and afterwards for coffee at the Bailey's. The turnout was excellent, verging on the spectacular, and while the food was perhaps not five star, the company was great and I for one enjoyed it enormously. This was the end of my first full year in the job of Division Superintendent and I want to make public my gratitude for the support that I've been shown by all our local members.

January 2002 – This was our first meeting at Jess Brisbane's and we were given an introduction to her Marshall Canyon pike, an N scale layout under construction of the late 1990's near Spokane in eastern Washington State. Jess provided us all with a very thorough written introduction to her layout, telling us in detail when, where, what and why and how she proposed to get there from here. We then viewed her not inconsiderable progress to date, which shamed a few of us arm chair modellers! Jess has invited us back in October to be present at her Golden Spike ceremony, something I'm sure we all look forward to.

February 2002 – Ted Ankrum hosted this meeting and introduced us to his Redwood Empire Route, set in Northern California. It is a single track main line on a North-South alignment, designed to be a feeder line to logging lines trailing back into the hinterland. We had visited Ted's only a few months earlier for a 'layout critique' and he had already implemented a couple of the suggestions made then. Again, Ted provided us with a thorough written introduction to his layout, and we will look forward to seeing his progress in the future. Unfortunately, Ted has had to return to the US recently on the death of his mother, and we all offer him our condolences.

March 2002 – This meeting was hosted by Rob Anderson and the main theme was to complete the plans for our stand at the forthcoming Canberra Model Railway Club exhibition. Rob had assembled the modules to be used for the exhibition to check that all was in order and to define what we would actually be doing with them at the exhibition. We also had a gentle operating session on his (yet again) revised layout, driving trains from Victoria to NSW via the coast! While Rob continues to revise his layout, his theme remains constant and the operability of his layout is always very good.

5, 6 & 7 April 2002 – The NMRA hosted a stand at the 14th annual Canberra Model Railway Club exhibition. The stand included a notice board with a series of layout photos, a display cabinet of a variety of models, a variety of promotional

material, a TV showing model layouts and 'how to' clinics, and four modules of our local exhibition layout, designed from the start as a means to show some of the stages in layout construction. As such, operation is minimal but only one module is anywhere near completed. In the past, this has generated good interest, giving the public some idea of what is behind all of the completed exhibition layouts. Last, and by no means least, Jess Brisbane spent the two days making some buildings for her layout. We attracted several interested people with a couple determined to join the NMRA soon! In addition, one of the local clubs is to invite us to give a presentation on what the NMRA is all about.

Canberra April Meeting

The meeting for April was held at John Bullen's home in Weston, and was noteworthy for the presence of three visitors form out of town. Gavin Hince, a member from Melbourne who is temporarily working in Canberra, was on and the other were our newly elected President, Allan Garbutt, and his wife, Ruth. The theme of the meeting was to get a report from the President on where the NMRA Australasian Region was going and to give the Canberra membership a chance to put their points of view. The discussion was quite lively at times, especially concerning 'what the NMRA does for the money I pay it'.

It was the first visit to Canberra by a sitting officer of the NMRA for some years and we all hope that it will not be that long before it happens again. There is a view in Canberra, and apparently also in Melbourne, that the NMRA AR is too Sydney centric. This is perhaps inevitable given the distribution of members with around half of the entire region's membership living there, but if this visit went step towards correcting that situation, as I think it did, then let them continue.

After the haranguing of Allan, John Bullen gave us an introduction to his proposed layout, a model of the Swiss railways during the 50s-60s. He showed us a wide variety of rolling stock that he has collected over the years, including a Märklin locomotive from about 1945 that even then included separate wire handrails and steps. Interestingly for us two rail DC modellers, John is using the European system of three rail AC. While the old style track was very 'tin-platish', the new track is very similar to two rail track, with the centre rail now reduced to studs coloured the same as the ties. It primary advantages lay in the simplicity of wiring (no reverse loop switching) and, since power pickup is by sliding contact (self cleaning!) and power return is by the wheels of the entire train, almost no need for track cleaning. We are looking forward to his first operating session!

Rob Nesbit then showed us an innovative approach to an N scale curved bridge that he is building for his club layout, utilising track running along the top of the truss (not a inverted truss). He also had constructed some very good looking piers for the bridge using wood blocks covered in bits cut from a plastic

Continued on Page 7/...

Canberra

Continued from Page 5/...

(vinyl?) sheet of moulded to represent stone. Gavin Hince then showed us how he models while on travel, with an O scale timber building, where the timber had originally been stained with gravy (yes, you heard it – gravy) and then weathered using 'no-wood' pencils, sort of a cross between a pencil and a crayon. The weathering was both simple and very effective.#

Queensland

The first Division 1 meeting for 2001 was hosted by Nick Negerevich and his Firtree Garden Railway. Attendance was up to the level we are starting to expect, with 10 members and six visitors. Nick was not running any trains, however we were treated to a display of very good modelling by Tony Reidpath (HO) and Wayne Spence (G Scale).

Wayne displayed a D&RGW pile driver, a caboose and box-car. All were scratch built, even down to the truck sideframes. Wayne gave a very good talk on the methods he used and the trials trying to make the necessary parts, mainly to keep his costs down. The amount of detail in all three items was enough to make any self respecting HO modeller want to go large scale, until we remembered our price and space advantage.# **DIV 3 - Page 21.**

Vic Quince's NSW based layout.

ARE YOU MISSING ANY BULLETINS?

NMRA Headquarters has advised that the contractor who handles their overseas Bulletin mailing has inadvertently missed mailing some recent Bulletins.

If you have missing any Bulletins for January to April 2002, please let me know on 0243 697 453 or jsaxon1@bigpond.com and I will advise HQ.

Missing magazines will be then sent to you by airmail.

Toni Saxon
Membership Officer

THE LIBRARY CAR

The inclusion of new tapes has slowed recently because the archiving officer is presently enduring house renovations and there has been too much dust to safely copy tapes. This situation will shortly be terminated and video archiving will once again hold precedence over any other activity. There have been six new tapes added which include vintage footage from Santa Fe, Union Pacific and Southern Pacific. See the latest listing in this issue of ***MainLine*** for details. Interstate and intrastate members can reserve their copies now from the librarian for issue when the tapes become available.

I managed a peek at one of the Santa Fe tapes, #104. (It was returned early for the next meeting.) There are three short vintage "films", showing the workings behind the railway. One film showed the inside of the workshops and the maintenance carried out on an EMD FT unit, including the stripping and testing of the 567-diesel powerplant. I have never seen footage like this in any other video. Highly recommended.

Members please note that tapes are loaned on a monthly basis. There are some tapes that have not been returned from November last year. If you can't attend a meeting, simply post the videos to the librarian or arrange for someone to return the tape at that meeting and then other members can enjoy the benefits of our library.

Several members have responded to my suggestion to donate their videos, which they now consider obsolete (to them). Many thanks. The names of the donors will appear on the coversheet of their videos.

Interstate division librarians / secretaries – give me a call and I can send the Division a bulk lot of tapes for your perusal. We now have enough tapes in the library that a dozen or so tapes can be sent every couple of months on a rotation basis. Let me know what your members' preferences are and I will try to accommodate.

I have recently audited the library and there are two videos which cannot be accounted for. Could you please look through your collections and return, if found, videos number 43 (BN on Crawford Hill) and 47 (Trains on Tehachapi).

Happy modelling,
David Latham

VIDEO LIST: Turn to Page 27

MEET THE BOARD

PRESIDENT Allan Garbutt – has had a passion for trains and been modeling from a very young age. Member of NMRA for approx 10 years and has served on the BOD as Secretary and Vice President. Layout theme is Illawarra Region of the South Coast in an 11'x11' ex-bedroom. Layout will be double-decked, HO scale, with a vertical traverser doubling as a display cabinet. Allan has a broad range of skills and is interested in all aspects of railway modeling.

Allan & his wife Ruth have 3 adult children and divide their time between family, home activities, work commitments and train interests – not necessarily in this order.

Allan has a strong commitment to the ethos of the NMRA and encourages all members to actively participate in Region activities so they may gain greater satisfaction and enjoyment from their membership.

SECRETARY- Rob Barker:

Rob moved to Sydney in 1997 from Chicago on a one-year assignment providing software support that eventually turned into a permanent position as Support Team Leader. Starting with a Lionel set on his third birthday, Rob was a keen modeller through his teens seeing an HO scale 4x8 layout to completion before starting University. Current modelling interests are super-detailing locomotives and freight cars to match specific modern era prototypes. Rob is an active member of the Modular SIG and can frequently be found 'On-Line' at many of the Model RR web sites and email groups.

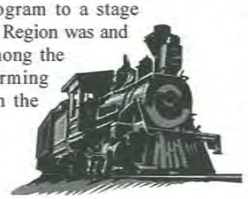
VICE PRESIDENT Julian Israel - has been an active member of the Australasian region of the NMRA for the past 11 years. His interest in model railroading developed from a young teenager when he was modeling NSW and freelanced roads under his parent's house in the early seventies.

His interest was re-kindled in 1990 when he met Peter Burrows at Lend Lease and started down the narrow gauge route. Julian has built a miniature narrow gauge empire based upon the Colorado and Southern and D&RGW prototypes. His layout has now been relocated several times over the past few years.

Julian has achieved three AP program awards (Scenery, Civil and Electrical) and when he gets the time would like to pursue a few more. His standard of modeling has benefited from his involvement in this great program.

Goal's for the Region: Julian would like to see more new members join the region and an increased participation rate in the regular meetings, SIG groups and the Conventions. He would also like to continue the enthusiastic work of the previous Board and ensure the Region has a strong and solid future ahead.

BOD MEMBER Richard Roth – modeler since high school days; originally in the USA, Berlin, London and Sydney since 1975. A member of NMRA since 1961 and a member of the Australasian Region since its inception. Richard was the Region's second Achievement Program chairman and helped build it from a minor program to a stage where the Region was and still is among the top performing regions in the program. Interests: Strongly committed to the NMRA and the Australasian Region.



Goals: Richard believes members' contributions to the Region are necessary and the flow of information back to the membership is vital. Richard will try to improve the passing of information from the regional level to the members; ensure that members' needs are brought to the Board's attention and improve the benefits and participation for members outside the major metropolitan areas.

TREASURER Ken Scales - I have been a member of the NMRA for 10 years. During this time I have served on four convention committees and the BOD as an ordinary member. I became a Master Model Railroader in 1997 and I have been Achievement Chairperson for the Australasian Region for the last 2 years. I have also been treasurer of the region for the past 6 months.

I model HO Standard Gauge, Hon3 Narrow Gauge and N Gauge. My current layout is a HO branch layout named Colorado and Western, which is now 11 years old.

I am employed as a manager by Land and Property Information NSW. I have worked in property development, cadastral surveying, land titling and digital cadastral mapping. I have also served in other voluntary organisations as secretary, treasurer and chairperson.

NMRA Australasian Region
TRUSTEE David North

BOD MEMBER Mario Rapinett – family man, self employed for 30 years as a Building Designer and Estimator (has served as secretary, Treasurer and Vice President for the National Building Designers Assoc). Mario also lectures for a computer software company and has developed various software packages within the building industry.

Mario's interests: sporting achievements including lawn bowls (won several Masters titles including two Champion of Champions); playing musical instruments and studio recording; small scale video production with a view to produce a series of videos covering various aspects of modeling railroading.

Modeling achievements: Involved in model railways since 1998 and is currently a Narrow Gauge modeler.

Goals: Mario is passionate about the hobby and has a high priority to establish greater communication with all members of the Region. Mario intends to bring an interstate (Victorian) perspective to the Board meetings.

BOD MEMBER Rodney Smith – has been retired for 5 years, after 41 years in the banking industry. Rod gained invaluable skills in people management and financial control and served the last 24 years of his career in both Branch and Departmental Management. Rod has been a keen modeler for over 23 years and a member of the NMRA for 18 continuous years.

Modeling Achievements: Rod's layout has been under construction for the past 11 years with a target date of completion to be Christmas 2002. The layout is modeled on US prototype Missouri Pacific in the transition period of diesel/steam in a mythical subdivision known as the Missouri & Topeka Valley. Several photos of the layout may be seen on the Region's web site under Layout Tours.

Goals: Rod looks forward to serving on the Board as your representative, willing to listen to you and progress your views forward.

COPPER RIVER
an O Scale Railroad

by Garth Fraser

The Copper River RR is a mythical mining road set sometime between 1910 and 1945 somewhere in the SW USA. It takes its inspiration largely from the Magma Arizona RR of the Magma Copper Company although there is some carryover from my earlier interest in the built in 1910 but now defunct Copper River & North Western RR. This line ran some 200 miles from Cordova in Alaska (near Valdez) up to the Kennecot mine behind the Saint Elais Range. Magma Copper was acquired in 1996 by Australia's BHP and now forms part of BHP Copper headquartered in Houston, Texas. Unfortunately however, the Arizona operations are now mothballed due to the collapse of world copper prices in 1998.

Entering the tunnel through module L1.

The layout:

I finally got started building the layout in 1994 after retirement and finding a house that satisfied our joint needs. The attraction for me was a completely enclosed basement about 9m x 10m (30' x 33'), of which 9m x 6.5m (30' x 21') would be available for the railroad after assigning the rest for workshop and storage. The catch was that about 3/4 of the railroad space was unexcavated, and remains so, out of consideration for my back, and for the foundations of the house. Despite these constraints, about 15m (50') of the total of 25m (80') of main line is readily accessible while standing, but functionally, it is a small layout.

The size limitation was no great problem to me initially as my major interest is in scratchbuilding railroad models, and it seemed big enough to provide a display setting. The "small is beautiful" concept seems to work out well for me now, although I must admit that when I started serious model railroading back in 1947/48 I had very grandiose plans. I now stick to equipment from the first half of the last century, and treat the CRRR as a short mine-owned line.

Scenery

Initially I had little interest in scenery, but aspirations escalated after attending the 1999 NMRA Convention in Sydney. And so I upgraded my "temporary" cardboard scenery to foam and plaster, and added backboards, and valance lighting. As a result of the dual sources of inspiration, modules L1 to L4 run through granite country **(G0111A-5)**, then past the "Great Copper River Fault Line" into the arid region of modules L5 to L7 around the mine and its township **(G0010B-24 & G0104-24).** It would make a geologist blanche, but it makes for variety in modelling.

Switching loads for the mine.

The mine and nearby buildings are roughly modelled in corrugated cardboard. The objective is to evaluate them for size and overall effect before committing to more detailed structures, e.g. **Fig 3.** I've found however that with a bit of care in construction, and some judicious painting, the overall effect in photos is not too bad. I aim to rebuild some with better detailing in the future. The three major bridges are also only temporaries yet. My plan is to make the two truss spans, from module L1 to Y1, using aluminium sections, for strength. Their exposed position is an invitation for visitors to lean on them, and the longer one has to be removed frequently for access.

Motive Power

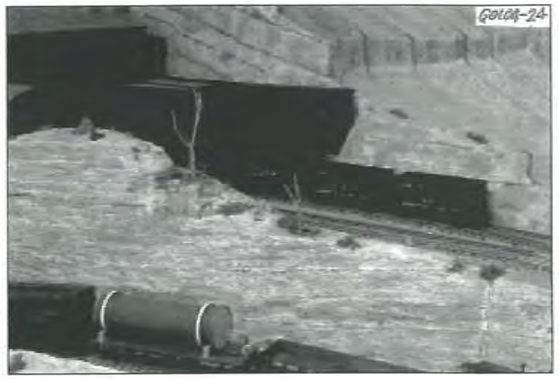
So far I've built three locos, the first, a 4-6-4, in 1948 when I was in final year at high school and had those grandiose ideas. (My dad had bought a lathe to build himself telescopes, but I took to it like a duck to water). The running gear and tender are all brass, but the boiler and cab are of wood and balsa with metal fittings.

Over the last two years, I've made a 2-8-0 modelled on Magma Arizona #5, and an RS-1, which is my only concession to dieseldom, and the reason I needed to extend my time setting to 1945. Both are all brass and both are yet to be painted. I hate to think about covering all that metalwork up with paint.

Rolling stock:

The score to date is:

1) 2 passenger cars complete, combination coach-baggage, and café observation. Prototypes are AT&SF from the 1948 plan book that AT&SF commissioned from Kalmbach. I still have two coaches to complete; I fabricated the sides back in 1951 per the Sept 1949 Model Railroader article by Joseph J. Fischer. Maybe its time to work up the enthusiasm to complete them!
2) 6 wood-sided reefers using pre-printed sides, some from MR Jan 1949
3) 1 freelanced wood sided boxcar,
4) 1 freelanced steel caboose
5) 2 USRA 50 ton hopper cars, all brass
6) 4 wood construction ore cars, circa 1910 (MR July '73 & June '78)
7) 2 flats, my only kits so far, from Ye Olde Huff-n-puff
8) 1 composite wood/steel gondola, (MR Jan '48); it also serves as a track cleaner car with a roller under a load cover.
9) 1 log car, actually constructed to check out a derailment problem.



Loading ore at the mine.


Switching at dusk at the warehouse.
All locos are fitted with high intensity white LED headlights.

All undersides are detailed with brake gear, and the passenger cars are outfitted internally. While a total of 20 cars may not seem much, they more than fill the main yard. I'd really like to build a set of early steel ore cars (e.g. RMC Oct 1981 p61) but cannot locate a set of plans. Another problem is that ore cars all seem to use 5'0" wheelbase trucks rather than the usual 5'6" wheelbase. As far as I can see from the PSC and Walthers catalogs none of the manufacturers make such a truck, and it would require distorting the proportions of the car to fit standard trucks.

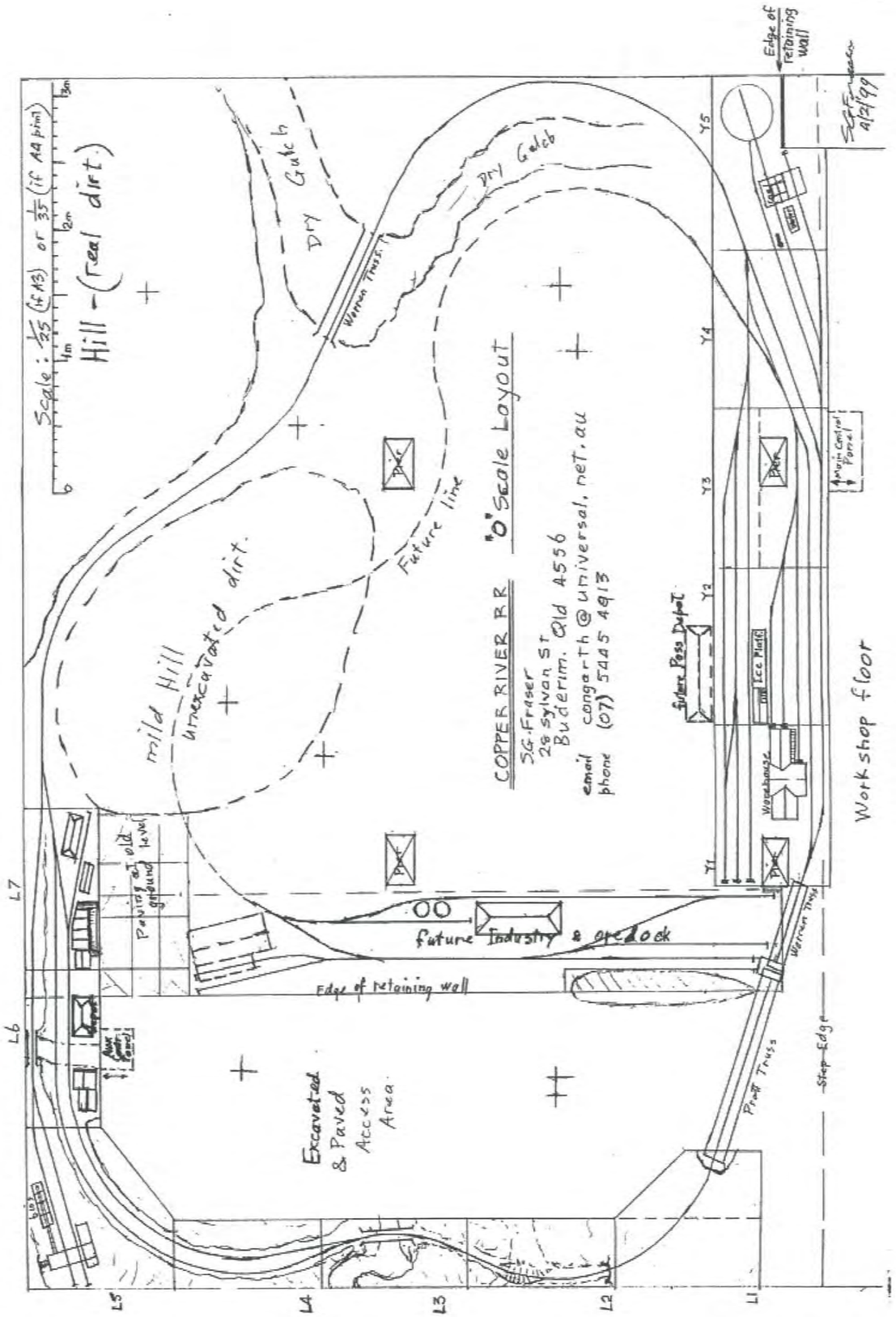
Close-up of the points and cross-over near the Loco Depot.

Most of my older cars are fitted with home cast Bettendorf trucks. Back in those dim and distant days of 1948-1953, buying items from USA was near impossible, at least for a penurious student, so I made my own dies of brass, and of course turned the wheels on the family lathe. A couple of years ago I discovered that Athearn and others make "O" scale trucks in a variety of styles, so have these on the more recent cars. I fabricated the archbar trucks for the four wood construction ore cars to satisfy the short wheelbase requirement.

Control and operation:

The layout is a simple single-track loop with two-yard sections and a loco facility along the most accessible side. At the other end of the accessible area, there is a passing track to service the mine branch, which is up a short incline. A two-cab control system is used for the main loop, yards, and loco facility via a mimic control panel. An auxiliary control panel and local cab can be switched in to take over from the main panel, in order to switch the mine branch. Until the planned port branch is built, operations are rather limited, but enough to get the feel of running a short line. But with bridges and structures to tackle, and all those great prototypes out there waiting to be modelled, who's got time to play at operations!

The loco depot sits in the shadow of Little Butte.



HOW DO I KEEP MY TRAINS RUNNING?

by Phil Knife, MMR

Even the best-looking and running layouts in the country need regular maintenance to keep them that way. So, how do we go about it, and what must be done? To start with, unless we get the track laid properly, and ruthlessly apply a common wheel standard, our trains will never run properly. Mind you, finescale standards do not necessarily lead automatically to better running. One of the best-running layouts I ever saw in this country was that of the late Ray Hoyle in Melbourne. It ran on the old coarse scale Wrenn flex-track. But all the wheels and track were of a common standard, and so it ran well. In more recent times others have had success in reliable running using the OO/HO AMRA/NMRA standards for track and wheels. It is important to remember that, while finer standards may give smoother running, they are not necessarily more reliable. In fact, the reverse side of the problem raises itself - the finer the standards and associated tolerances; the more susceptible is the whole thing to unreliability and breakdown. American modellers achieve absolutely superb running with track and stock straight out of the box (and, might I add, usually at less cost than the equivalent British models). That is because every single manufacturer for the American market builds his models to the appropriate NMRA standard. So too for European models, although there seems to be a little less rigid adherence to their NEM standards. That all said, however, I must admit to using P4 standards myself. With carefully laid track, and carefully built locomotives and rolling stock, the running can be absolutely superb - and the appearance of stock on track cannot be equalled!

So, where does that leave us? Having got our trains to run reliably, how do we keep them that way? We need a maintenance program, that's what. In my Navy days we called it "planned maintenance", usually defined as pulling some piece of machinery apart to find out why it's still working! Seriously though, we must maintain our trains, our track, and our electrical system if our layout is to continue to function reliably and well. Let's take each of those items in turn.

Continued on Page 14

Maintaining the Locomotives

We'll begin with the locomotives, our pride and joy. If you've followed standard advice, you will have checked out each locomotive when you bought it, and made sure it worked properly from the start. Let me assure you, no amount of wheel cleaning and oiling of bearings is going to help if your pride and joy runs like a dog to start with. There is a general rule in this game: you get what you pay for. To my mind, there is no such thing as a bargain. British outline ready-to-run models are relatively inexpensive - just compare the price of a Hornby or Lima model with a similar Continental one! They are often built down to a price and, while recent models are extremely well detailed, they are generally mechanically unsound. (A notable exception is, of course, the superb locomotives being produced nowadays by Bachmann Branchline). Chassis, motor cases and gears are all plastic, so don't expect them to last forever. Traction tyres are often used to compensate for lack of weight. And usually no two models are the same as far as performance characteristics are concerned. If you must purchase such models off the shelf, buy them from your local model shop. Not only does it help keep the shop in business (and that can only be good for our hobby), you can at least try your new model before shelling out the crinkly stuff. Don't hesitate to reject the model that doesn't run well, even if it is the last one in the shop (probably because everyone else has rejected it!). The shopkeeper can always order another one for you.

If you build your own locomotive, the same rules apply. I'm assuming you're building from a kit, because a scratch-builder would know all this anyway! You must ensure that you put the chassis together properly, that it is completely square, and that it runs as smooth as silk with all the valve gear attached and the body on. If it doesn't, then either rebuild it, or seek the help of someone who can.

To keep our locomotive running perfectly, we need to keep it well maintained. You will find that, as you use it, the running will improve remarkably as it "runs in". This means that the various bearing surfaces and gears are wearing away to remove inherent stiffness. But they keep on wearing and, especially if bearing surfaces and gears are plastic, will eventually wear out. Therefore, this is what I suggest you do regularly with your locomotives:

(1) Place the loco upside down in a suitable cradle (the PECO PL-70 is ideal), and carefully remove all fluff and gunk from axles, valve gear joints, and between wheels and pick-ups. This may entail unscrewing and removing the keeper plate under the chassis so that you can get the wheels out. With older models having a solid metal chassis, this is usually not possible. If you do take the wheels out, make sure you note which way round they go for when you put them back. If there is excess oil lying about the chassis, wipe it off with a tissue or cotton bud. If the chassis is dry of oil, then apply one drop only of oil using a pin at each point where the axles pass through the chassis. Use only a plastic-compatible oil! Ordinary oils soften plastic, rapidly increasing bearing wear, and assist in stripping paint from plastics - so beware! I recommend you use La Belle 108, obtainable from all good hobby shops. One small bottle will last you for years.

(2) Take the chassis out of the loco body. Most steam outline models use screws to attach the body to the chassis, and most diesel and electric outline models use catches built in to the body shell or glazing. Read the instructions that came with it! However, often instruction sheets are not exactly helpful in finding these catches. There are usually four, and spreading the body shell apart from the chassis disengages them. I recommend that you take four matchsticks, cut their heads off at an angle, leaving a sharp wedge-shaped point. This you can push into the body adjacent to each catch, and the chassis should just fall out. Sometimes, though, all efforts to get the body off lead to defeat. It's best to call for help from someone who might know!

(3) With the body off, you have access to the motor, gears and electrical wiring. Check all wiring to make sure that there are no broken wires, or loose screws. If there are, then fix them. Modern models have totally enclosed motors, so all you can do is to check that the visible shaft bearings have any oil. Use the same La Belle 108, again applied with a pin. If your model has an open frame motor, you may have to clean the commutator (the shiny copper bit that the carbon brushes bear onto) if it is dirty, and gently scrape accumulated carbon gunk out from between the commutator segments. I have found that a tiny squirt of WD 40 into the motor works wonders. At the same time it lubricates the motor, cleans the commutator and brushes, and repels any moisture that has gathered in the motor. But don't overdo it!

(4) Check the gears. These are usually plastic, and often are fitted very sloppily. This overall sloppiness contributes to the inefficiency of the drive system, resulting in a mediocre performance by the locomotive. If any of the gears are badly worn, cracked or split, they must be replaced. Hobby shops can usually order spare parts for you. They will often undertake repairs too, especially if you bought the model from them in the first place. Be warned: shop keepers are usually not sympathetic if you buy your models at bargain prices overseas, then expect them to fix them for you! If you have to take a chassis apart to replace gears, then carefully note which bit goes where. Remember, the instructions with the model are often not helpful in this respect. Finally, lubricate all the gears with a plastic-compatible grease, not with oil. Oil won't last long on gears, so they quickly wear out. I recommend La Belle 106T, which is Teflon-based grease. Buy yourself a tube of it when you buy the oil.

(5) Put the body back on the chassis, and check that external

wiring, such as between loco and tender, is in good condition. Finally, test run the model and it should be in tip-top condition, ready for service again. If you do this with your locomotives on a regular basis: say, every two or three weeks if you are using your layout daily, up to every four to six months if you use your layout occasionally or not at all. Of course, the better the models to start with, the longer they will last. And that depends on what you are prepared to pay for in the first place.

Maintaining the Rolling Stock

Let's move on to the rolling stock. There is little you need to do here on a regular basis, especially with modern ready-to-run stock. However, there are some points that we need to watch for. Firstly, avoid plastic wheels like the plague! Throw them away! Don't be tempted to keep them, because they are a real threat to good and reliable running. I know that this will involve you in extra expense, as virtually all modern stock comes supplied with plastic wheels. Again, echoing Nelson's advice, choose wheels that are compatible with your track standards. If you have hand-laid your track to EM or OO finescale standards, you will need to purchase appropriate wheels from such manufacturers as Ultrascale, available through the EM Gauge Society and other such bodies, or from good model shops. If you are using commercial track, like PECO code 75 or Shinohara, then you can't go past the locally available North Yard wheels (which are made in NZ). These are made to the NMRA standard. For PECO code 100 and similar tracks, the North Yard wheels should work fine, or you could use those made by Romford-Jackson. Always order your wheels with the same axle length as those that came with the vehicle in the first place. Generally speaking, British and American-made models come with 26mm axles, while those made on the Continent or in the Far East come with 25mm axles. Always use pinpoint axles - they don't need lubrication, and they give a built-in form of compensation for the vehicle. Older models should be converted to pinpoint axles by fitting with appropriate brass top-hat bearings. And always check the back-to-back measurement of each wheelset, adjusting if necessary, before fitting to the vehicle.

Why go to all this trouble to get rid of plastic wheels? They are very susceptible to picking up dirt which, in a surprisingly short time, can build up on the tread and cause derailment. They also spread the dirt and gunk along the track, adversely affecting our electrical pick-up. And being plastic, they are easily damaged and broken. On top of all that is the very subjective view that nothing sounds like a metal wheel upon a rail than a metal wheel! I like to hear the clickety-clack of wheels on rail joints.

Each item of rolling stock should be checked on a regular basis to ensure that the wheels are not dirty, they turn properly and are at the correct back-to-back measurement. The couplings should be checked that they are at the correct height and are functional. Such items as corridor connections, if they are functional, should be checked that they still work. And more modern models with close coupling devices should be checked to ensure that those devices are functioning correctly. In my opinion, the British manufacturers are way behind, here. For some years now, Continental manufacturers (including Lima) have had these devices on their rolling stock. It means that two scale length coaches can be coupled so close that their diaphragms touch on straight track, yet they are able to handle eighteen-inch radius curves without derailing. Wake up, British manufacturers! Wake up, British modellers, and demand these things!

Maintaining the Track and Electric's

Finally, there is the layout itself. Contrary to popular belief, there is much that can go wrong here. I would remind everyone that electricity is the life-blood of our trains. Without electricity they die! Never, ever, put up with trains

that hesitate every time that they pass a particular place in the track, or that invariably need a push at a certain spot on the layout. Sometimes it is the loco at fault, but more often than not it is lack of electricity! There are some general rules to follow here:

(1) Make sure that every individual length of rail is connected to electric power by a soldered joint. Individual lengths of rail can be electrically joined by soldering the fishplates to them (but don't forget to allow for expansion gaps), with power being fed through wires soldered to that combined length. Never rely on fishplates alone to conduct electricity.

(2) At points, never rely on point blade contact alone for electrical continuity. If you use live frog points, such as PECO Electrofrog or Shinohara, always provide separate switching for the frog. The better point motors, such as Lemaco, PFM/Fulgurex or Tortoise, have built-in switches for this purpose. PECO provide accessory switches for their point motors, which can be used for this purpose. Otherwise you must provide a micro-switch, or incorporate a changeover switch in your point rodding. Most brands of dead frog points, with the notable exception of PECO, have the rails wired straight through - but you usually need to solder flexible jump wires to the blades from the adjacent stock rails anyway. However, I much prefer that my layout is not a cemetery for our web-footed amphibious friends, and ensure that my frogs are all live! You need to check all the points on your layout regularly for unsoldered wires, bits of loose ballast or grit in the point blades, and sticky point motors.

(3) Even the best-laid wiring is susceptible to broken wires and unsoldered joints, especially if the layout is portable or moved about often. The inexpensive little switches we buy from Dick Smith and the like occasionally fall apart. A very weak spot in any layout is the plugs we use to join wires from one baseboard to another or to a control panel. Wires break or get unsoldered, and they're often hard to find. Generally speaking, the more neatly you install your electrics, the easier it will be to fault-find and repair. And make a note of what each wire is for!

The "Bad Order" System

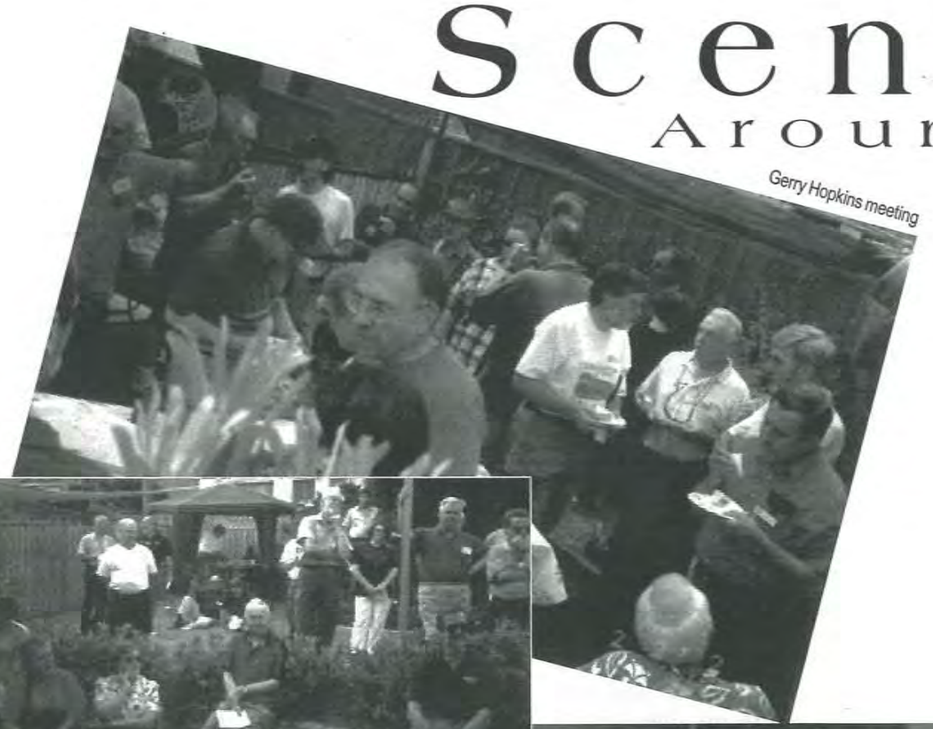
One last piece of advice: never ignore a problem on your layout, especially a recurring one. If a locomotive or piece of rolling stock derails at a particular spot, try it again a few times to see if it happens again. If it does, don't just ignore the problem, but check it out right away. If it is always the same vehicle, take it off the layout immediately, and make a note of the problem. Our American friends call this a "Bad Order Card". Put the "bad ordered" vehicles on your work-bench, with a filled out card for each, and every so often have a special work session just to clear the growing back-log of "bad order" vehicles. If it is the track that is the problem, such as a number of different vehicles derailing at the same place, then stop the running session and check it out immediately. It may be that there is an electrical problem, rather than one of derailment. Fix it immediately, or your running session will be permanently frustrated. There is nothing worse than trying to enjoy running a layout where trains always derail, or have to be pushed in a certain spot. And this is even worse at exhibitions, where it is all happening before a very critical public. They want to see us having fun, not seething with frustration and rage.

The Golden Rule

There is one golden rule of model railway operating practice: if the locomotive doesn't start, check that all switches are on, and all points correctly set, before you push the offending model. If your layout is well maintained, then the golden rule will save you lots of embarrassment. Beware of the gremlins, though! They have a habit of striking the best-running and best-maintained layouts just when people are visiting, or on the first day of an exhibition. But, if you follow the sort of advice I'm offering, the gremlins will have a hard time finding something to screw up for you.

Editor's Note: Phil Knife was the region's first MMR and now lives in Perth WA. He is renowned for his excellent exhibition layouts. both Continental and British and this article, although written for a different audience, certainly applies to all

Scene Around



Gerry Hopkins meeting

Allan Garbutt's meeting

Peter Weller-Lewis in Canberra

The Trustees Report at the AGM - Is the dog the only one listening?

NMRA modules at the Canberra exhibition

WORKING WITH BRASS

by Bernard Snoodyk

In this series I will provide an overview of the methods, tools, materials and techniques used in working with brass. The series will focus on creating an understanding of the characteristics of this wonderful material with the objective of taking away some of the myths that surround working in this metal and to provide some of the hints and techniques I use in achieving the best results with this material.

The series will be broken down into a number of articles dealing with the material itself, tools required and will further elaborate on the art of soldering with a range of tools.

To begin and to overcome the inherent fear that most of us have in working with brass let me begin by dispelling the most commonly held belief that working with metals requires a vast range of tools, sophisticated skills and years of practice. None of these are true. You can achieve excellent results right from the start with a minimum of tools and materials, provided that you understand how the material reacts to certain conditions and which combinations of techniques will best meet the requirements of the job at hand.

To illustrate this point let me set the scene based on my own experience some 30 years ago. I had long coveted a Michigan-Californian number 2 Shay in On3 and purchased a PSC brass kit to get started. At that time I did not have the required tools and, most importantly failed to educate myself in the basic metal working skills. On opening the box of parts and equipped with [what I thought] a state of the art Microflame torch proceeded to hack of the sprues and started to solder the pieces together, only to find out very quickly that the mess I was creating was never going to look like anything else than a big mess and could never operate properly. As a result the parts [and work "completed" at that time were exchanged for an On3 K27]. It took me 12 years to return to working with the brass. I have used this point to illustrate that even the "experts" had to start somewhere and made the same mistakes as most beginners.

So let us look at the fundamentals of the basics required to get started and avoid the basic mistakes. Firstly I without tools that actually do the job for which they were intended we are unlikely to achieve a good model.

Contrary to popular belief we do not need sophisticated lathes and machine tools. They are nice to have, but the same results can be achieved with hand tools. Without machine tools it may be necessary to make greater use of bought castings, but other than a little longer lead time this again will have little impact on your ability to achieve a great model. I know a model builder in Germany who produces the most exquisite 1:24 scale models of US narrow gauge locomotives using only basic hand tools. Having said that there is a need to acquire the best hand tools possible, including:

- § High quality butane or similar torch with a fine burning tip;
- § Jewellers saw;
- § 45-watt Soldering Iron;
- § Pin vices;
- § Selection of files;
- § Work surface;
- § Cutting block;
- § Soldering pad;
- § Locking tweezers;

If you wish to invest in machine tools I recommend that you focus on buying the best quality drill press you can afford. Take a tip and avoid the temptation to buy a lathe [which is the last tool you will need] or a Dremel. I realise that the Dremel is widely marketed as "the modellers tool" however in my experience it has very limited uses and is unsuitable for fine model building.

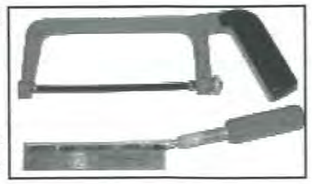
Lets' look at the tools a little more closely and identify those recommended;

Torch:

Dick Smith sells an excellent small butane torch (catalogue # xxxxxxxxxx) at about $75. This tool will handle all soldering work on a model locomotive. If you really want to go to town and lash out I recommend that you invest in the Little Torch. This torch operates on cylinder LP and oxygen and comes complete with a small range of tips allowing you to handle extremely fine work. I have had one of these for more than 15 years and would not swap it for any other tool. (The torch at right was $15 at Parkley Markets, Ed.)

Jewellers Saw:

This is an essential tool without which even a brass kit cannot realistically be built. Selection criteria for a suitable saw should include:



- Proper blade locking clamps;
- Deep frame throat (150mm preferred)
- Wooden handle.

Most frames are too shallow to be of use for anything more than cutting castings of sprues. The Australian Jewellers Supply Catalogue lists a very acceptable model. The thumbscrews fitted to the blade locking clamps tend to hit the work surface I therefore that you replace these with 5mm machine screws.

Soldering Iron

The soldering iron will mostly be used to solder wire and electrical connections for which a standard 240v 40 to 50 watt iron is sufficient. If you do not have a suitable unit I suggest that you look at a Dick Smith Catalogue, which offers one with a variable temperature setting. This also makes it suitable for a number of other soldering jobs, including the occasional whitemetal parts.

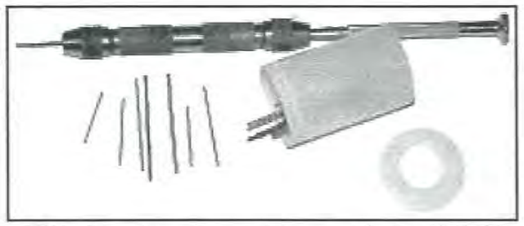
Continued on Page 20

Pin Vices:

This is an important tool in our line-up that gets used for a number of tasks beyond drilling. There are a number of considerations in selecting a pin vice, including:

- Do not purchase a straight handled style. Rather select a unit with a ball style handle and interchangeable collets.
- You need at least 2 units, instead of the usual double-ended type.
- The pin vice should have at least one collet that fits the 2.3mm standard jewellers tools shafts.

I use about 4 ball handled pin vices (from Aust Jewelers Supply, about $28.00 or Maxon brand) at any one time.

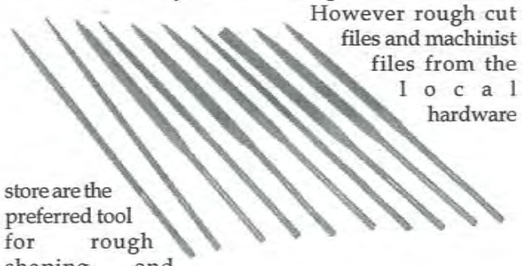


A 35mm film canister makes a good storage container for twist drills.Ed

Files:

Files are the most used tools and have a material impact on the speed at which you can complete the model. Good Swiss files will, with a little care, last a lifetime making them great value for money in spite of their initial higher cost.

The better quality files are used for all finishing work and where you are working to fine tolerances. However rough cut files and machinist files from the local hardware store are the preferred tool for rough shaping and where a lot of material has to be removed. Keep in mind that the "10 files for $5.00" are less than useless. Pay a little more and get quality files even when these are of the normal machinist variety.



To provide a suitable range for model work you will need:

- Fine rat tails,
- 10 mm flat with one blind edge;
- 10 mm half-round
- 15 mm medium cut flat
- Jewellers rifler set

Work Surface

A stable flat work surface is important for most work. It does not need to be sophisticated, but must be fitted with 2 stops underneath that will stop is from moving on the table. I made my own from a sheet of FDP board 1200 x

900 x 12mm thick [15mm is even better] with the stops made from 2 pieces of 20mm square pine glued underneath in a position where the work board overhangs the table or desk by about 60 to 80 mm. It is not necessary to paint the surface although a couple of coats of clear lacquer would be nice.

Cutting Block

Next you need to fit a jewellers cutting Vee-block. I made mine from a wonderful piece of walnut that has to date lasted about 15 years of constant use on 3 continents [available from the model boat building suppliers] 60mm wide and 6 mm thick. Plywood can also be used or masonite at a pinch. You will need a piece about 150mm long. Shape the cutting vee to the dimensions shown on the sketch and fix to the work board with countersunk brass bolts, making sure that the nut & washers are fully recessed in the work board underneath. It is essential that the bolt heads DO NOT project above the cutting vee. I have also found that some small diameter holes through the block and a 2 mm groove are very useful to hold parts in position. (Note: The sketch was not available at the time of publication. Email author for details.Ed)

Soldering Pad

This is an important part of the tool selection since an incorrect surface will either draw too much heat, shed fibres onto clean work or fail to act as a proper heat barrier. For all work including silver and soft soldering work I have found that a piece of flat asbestos cement sheet about 200 x 250 mm and 6mm thick with one smooth face meets all needs. This may be difficult to find and could be substituted with Hardieflex external wall cladding sheeting material. I recommend that you do not use one of the soft pads or charcoal [as often used by jewellers] it is useful to glue [white glue is great for this] 20mm wide strips of the material along the narrow dimension of the underside of the soldering pad. This will place the main body of the pad clear of your work surface and gives even better heat distribution values.

Continued on Page 27

Continued from Page 7

Victoria

Meeting Reports

December 2001

Once again Divisional Superintendent Grant McAdam hosted the Christmas meeting with his usual good humour and over abundance of food, being renowned for his baking skills. Holding functions at this time of year is a careful balancing act between family and other social commitments for many of the attendees and as a result the numbers were down compared with previous years. Many of the Division 3 members phoned through their apologies for not being able to make it and even so 15 members and partners were in attendance.

It was a very pleasant day, passed in great company with the topics of discussion being wide ranging. During the afternoon Grant took the opportunity thank all those who had hosted meetings throughout the year with and made special mention of Mario Rapinett's efforts to get to today's (Sunday) meeting. On the Saturday he had been in Sydney for the NMRA Christmas function and left late in the afternoon to travel down the Hume Highway to reach Melbourne in time for the Division 3 Christmas break-up. He stopped along the way to get some sleep but made it in plenty of time to help celebrate with the rest of the Division.

The usual show and tell items were a little down this month. Reading material was furnished by Stephen Holian with "Mountains of Ash", John Dennis with "A Day in the Life of G42" and Grant with the magazine "Narrow Gauge World". Steve Cullen brought along an O scale workshop and boiler that was destined for his On30 layout. Mario, another of our prolific builders, showed off his latest project, Maxwell Harbour. This was a highly detailed harbour scene with many people on the foreshore dominated by a large building and ship. John Dennis brought along his first attempt in On30 modelling, a small open wagon.

February 2002

The exhibition season starts early in Victoria with this year having four exhibitions over three weekends in January! So with many members also being away on holidays our first meeting of the year is held in February.

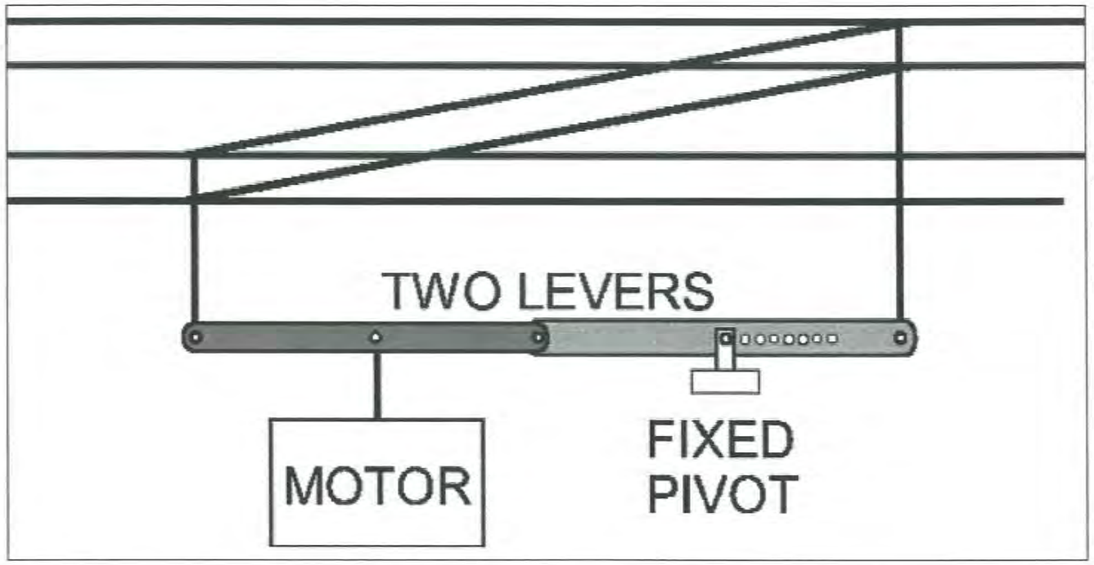
Traditionally the first meeting is held at the home of Paul Richie in Ballarat, as by holding the meeting during summer, there is a chance of getting some nice weather. (Ballarat can be bitterly cold during winter). However, although for the past several years it has been hot and dry when we have visited Paul's this year was different. It was cold, wet, windy and sunny and this all occurred over short periods of time repeatedly through out the day! However, given our recent good fortune we were bound to strike a bad weather day eventually.

Ten members were treated to Paul's hospitality. The members are always keen to see the progress Paul had made on his S scale exhibition layout. The main part is modelled in Sn3 with a standard gauge feeder. Several new structures were nearing completion and were placed on the layout to show the final effect. Paul had also acquired a backdrop for use on the layout from Backwoods Warehouse Easy Backdrops. He also

Operating a Crossover
with One Points Motor

by Ångström

Someone asked a question in the British Rail Modellers Email Group as to whether a crossover could be operated from one point motor. Of the replies that were forthcoming, the answer was a resounding yes. There were no suggestions however as to how the mechanical linkages should be made, so I thought a short article on the subject might be appropriate.



Actually I have never used a points motor in my life and never will, but I have operated a crossover with ONE mechanical points lever. The mechanics of the system, whether the prime mover is an electric motor or a human hand are the same, so here goes.

The first problem to be encountered is that the tie bars of the two points that make up the crossing must move in opposite directions. This is overcome by using a centre-pivoted lever with one tie bar connected to each end of the lever. The centre bearing of this lever is, of course, fixed to the baseboard. This is the right-hand lever in the diagram. If this were the only problem, the motor (or other prime mover) could simply be connected to either end of the lever.

The second problem is that the amount of travel of the two tie bars might be marginally different or, in addition, the pin joints on each end of the lever, might have different amounts of slop. This problem is overcome by incorporating a compensating lever (the left-hand one in the diagram) having a pivot connected to the motor's moving rod. The two levers are not rigidly connected together, being linked via a pin joint only.

The third problem is that the amount of movement of the motor is probably much larger than that required by either tie bar. This problem of course exists even if the motor is driving just one tie bar. Rather than building in some complicated spring device to take up the excessive movement of the motor, motion can be lost simply by moving the pivot point of the right-hand lever more to the right. This is shown on the diagram as a series of holes in the lever in question. By trial and error, the fixed pivot can be connected to any one of these holes until perfect operation is forthcoming.

As to where all these levers should be located on the layout, that is up to the individual to decide. However, I am a strong advocate of putting them on the top of the baseboard and hiding them in a building or in some sort of covered walkway.

Editor's note; This article was supplied for interest by Phil Knife MMR

Report from the retiring president
Geoff Hoad

As I finish my period in office as President, I have reflected upon what has been achieved during the last two and a half years by both myself and the Board of Directors.

- Membership Survey
- Mainline Magazine
- Membership
- Marketing
- Video Library
- Member Participation
- Modular SIG
- Operations SIG
- Association Website
- Cost Management
- Recognition

Membership Survey

The first and as it turned out one of the most important initiatives was the Survey. I had put the idea forward when Vice President and was able to make it one of the first major initiates when I came to office.

Well, what did it do?

- Firstly, it gave us hard information about the Association instead of inaccurate opinion
- We established for the first time some significant information about our members and why they belonged to the Association
- We were able to articulate what members liked about the activities of the Association and made some important discoveries about the profile of new members, which has been invaluable in recruiting new members
- It enabled a Marketing Plan to be developed
- It encouraged us to experiment with different types of member services such as the Video Library and more on-line communication
- Communicated the satisfaction in the way the Board was doing its job

Mainline Magazine

With the support of the Board we experimented with the format and production of the Mainline. Keith McCarron, our tireless Editor, made a raft of changes to the way the Mainline, looked and was presented. In fact, I haven't seen any of its sister publications come close. Many people have even gone on to say that it compares very well with the Bulletin! High praise indeed! Member feedback was very positive and has encouraged us to even test editions on the web! *(Thanks must also go to now ex-member Dieter Chidel, whose negotiations with the ABC Printers halved the printing cost of MainLine. Ed)*

Membership

Membership has always been a big issue for us. The value of the Australian Dollar over the last decade and the perceived value of the Association have both had major effects on the size of the Association in Australia, and also in New Zealand.

A combination of absorbing fee increases and wisely managing our money ensured that we didn't have to increase fees. When the time did come to increase fees we were able to structure membership to soften the blow. I have been against the mentality of some who felt we should pass on all costs to members. That's simple and easy but I wonder how many members we would be left with if that had been done.

In addition, we applied our Marketing Plan and actively sought people who fitted the profile we identified in the survey. Needless to say, that has encouraged many new members and I believe will attract many more in the future.

Marketing

Whilst the Association has always been interested (as it should be) in getting and retaining members we were applying a 'shotgun' approach targeting everyone. The consensus that we should focus on younger members was refuted by the profile the survey created of mature, family oriented people who now had the time and money as well as the desire to get back into the hobby. And, surprise, surprise, that is exactly where our new members have come from.

Trying a number of other initiatives such as advertising and special offers to "try before you buy" have also been successful. The main point here is that we developed a plan and saw it through to implementation as a very successful initiative.

Video Library

From a situation a little over two years ago where we had no videos, we now have an extensive library that is growing all the time. The main driver for this has been David North who has even sourced funds from the US to support this. From the feedback of members this has been one of our most significant and successful initiatives.

Member Participation

It never fails to amaze me how many of our members forget that this is a voluntary organisation where things get done by volunteers. These are the people who don't sit and wait, or expect it to be done for them, but people who get involved and help out. I am very pleased to report that our ongoing campaign to get the members to realise this and contribute it whatever way they can has paid off handsomely. We have discovered many members with great skills who have stepped forward to help out and in turn, increase the value and enjoyment of being members, both for themselves and others.

Modular SIG

Although this was started almost three years ago, the Modular SIG has proven to be a veritable showcase of member talent. The creation of such a group was strongly opposed by a number of people. That didn't stop us from pressing ahead and developing a concept which has given great satisfaction to both its participants and well as everyone who sees their efforts.

Continued on Page 24

Continued from Previous Page

Operations SIG

This is another initiative which spun off from the Modular SIG. One of the things I am particularly proud of is that the Board and I have always listened to members and where we can support an initiative, we have done so with great enthusiasm. I heard one complaint that there wasn't a Narrow Gauge Group. Pity no-one had asked us to support such a group! It brings the issue up that if members don't communicate then they should have no expectations that their comments will be heard. I like to say that I have two degrees, but neither of them is in mind reading. The message here is help us to help you. Nevertheless, these two SIGS are thriving and attracting interest all the time.

Association Website

One thing in the electronic age has been the ability to communicate to many people, especially members on a regular basis, at low cost. The Internet has been a great vehicle for this and over the last few years we have been able to build a very strong and professional looking website. Through it we have spread and communicated a huge amount of information to members. Indeed we are very luck to have had members support us on this. Many thanks to Wayne Eagle and Gerry Hopkins.

Cost Management

It costs a lot to run and manage even a small voluntary organisation. The Board and I were very confident that if we were able to manage the costs better, then we could afford to increase member benefits and ensure the cost of membership did not increase. This we did. For example, the ***MainLine*** costs were halved for production and in many other areas we imposed controls which ensured we were not drawing on our reserves. This has to be one of our most important, yet least well known achievements as a Board. The outcome has been that your membership fees didn't go up, and that we were able to embark upon initiatives such as the Marketing program, all of which cost money.

Recognition

One of the things I believe is important is recognising the people who have supported the Association. Through the President's Award I have been able to provide very clear recognition not only to the people involved, but to the members to show what hard workers and dedicated people were in there helping them. To all of you who have helped and supported either myself, the Board, or the Association in general, please accept my heartfelt thanks. There are two Board members who have been pillars of strength and truly dedicated to the Association and its members. Many, if not most of the initiatives I have recorded here would not have been possible without the support of David North and Allan Garbutt. My time as President would not have been as successful without your contribution. Thank you!

Geoff Hoad

A Wheel Cleaning Tool
For Compensated Locos

by Phil Knife MMR

Introduction

In order to get the best electrical pick up from a model locomotive, the wheels must be clean. With a conventional model, a common way of cleaning is to turn the loco upside down and apply an electrified wire brush to the wheels, or some other abrasive material such as a fibreglass brush to the spinning wheels. Anyone who has tried to clean loco wheels using this method, where the wheels are sprung or compensated, will know that it is almost impossible. Furthermore, even with rigid wheelbase locos, there is a potential for damaging the fine detail on the loco during this process.

Cleaning however is not so critical on a compensated loco because, with all wheels hard on the track, pick-up, even with tarnished wheels, is still likely to be good. Often it needs no more than to spin the loco wheels on the track while physically holding it back to knock some of the gunk off. If wheels are very dirty however, or even rusted, something more needs to be done.

Therefore, if a device could be constructed that avoided heavy handling of a model, advantages for all model locos would be considerable.

Considerations for a new system

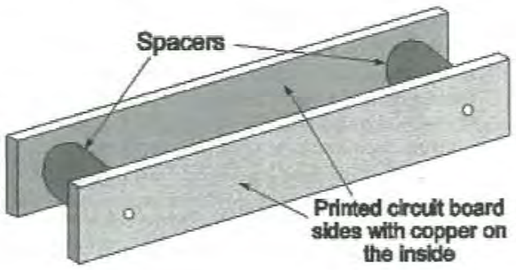
In developing a new, reliable and easy-to-use system, I considered making up a special piece of track where the rails were mildly abrasive. The problem was that most abrasive materials that I could think of, were not electrically conducting, and were either too abrasive and/or would wear too quickly.

Remembering the fibreglass brush technique, I considered that the best abrasive material, if electrical conductivity was not an issue, would indeed be fibreglass. Moreover, I knew that this material could easily be obtained in sheets in the form of printed circuit board (PCB), and thus I decided to proceed along these lines. Should anyone not have a supply of PCB, it can be obtained from some electrical shops such as Dick Smiths and some model shops. However, it must be of the fibreglass variety as the Bakelite type would be useless. By far the easiest and cheapest way of obtaining the material however is to visit a printed circuit board manufacturer, and ask if you can raid their rubbish bin for off cuts.

Basic construction of the device

Finding some 1.6 mm single-sided PCB in the scrap bin, I cut two rectangular pieces about 50 mm in width and of a length just more than that of the longest loco needing wheel cleaning. Setting these pieces of PCB on edge with the copper sides facing each other, I made up a piece of 'track' by screwing the pieces together using spacers of a length equal to the track gauge (see Fig.1). I could have soldered the sides together using scrap pieces of PCB, but knew that the whole thing would need to be dismantled again before the whole device was finished.

The, using some coarse-grade emery paper and a dead-flat surface, I sanded the tops of the 'rails' until a perfect running surface was obtained. Finally, I made sure all the emery dust had been removed by brushing before moving on to the next step.



Electrical pick- up

The only method that I could think of to attain electrical pick up was to construct some device that would make contact with the bottoms of the flanges of the loco. Any system of bringing wires out directly from the loco would have caused too much complication.

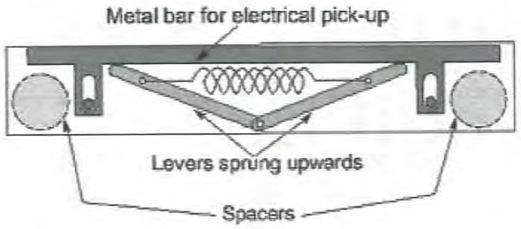
In order that electrical contact should be reliable, two metal bars were made up, one for each rail, and these were arranged to be sprung upward (see Fig.2). I made these bars out of 3.2 mm thick brass, which again I got from the scrap bin, but in the absence of such material, a piece of PCB could be used (ideally double sided) with sheet metal soldered to the contact face.

Having made the contact bars, they were screwed to the inside faces of the running rails. Elongated slots were made for the screw holes in such a way that the bar could slide up and down, and when uppermost, the bar would be just below the height of the running rails.

A simple springing device was then needed. Fig.2 shows how this was done with two levers sharing a common pivot point, and an extension spring pulling the two together. Again these were made from the same brass sheet as the contact bars, although any rigid material would do. A variety of springs can be obtained from almost

Continued on Page 26

Continued from PreviousPage



any hardware shop.

The sprung levers and contact bars would, of course, need to be assembled separately with the PCB plates that make up the running rails. After that, all that would remain would be to assemble the whole thing, solder a wire to each of the inside faces of the PCB plates, and the device should be ready for use.

Additional construction and maintenance

If metal spacers between the running plates had been used, these would cause a short circuit, and would need to be isolated by cutting gaps in the PCB. Also, something needs to be done at the ends of each running rail to stop the loco running off the end of the device. The easiest thing here is to solder on some scraps of PCB to act as stops.

When loco wheels have been cleaned using this device, the fibreglass contact faces will be filthy. A rag and solvent such as methylated spirits need to be on hand to keep everything clean. You will be amazed how much dirt comes off. Also in time, the contact faces of the fibreglass will become smooth and lose efficiency. Depending on how much the device is used, one should expect a year or two before this happens. When it does however, the contact faces should be roughed up again on a flat surface using coarse emery paper.#

Continued from Page 21./...

Victorian Reports Cont.

described how to make gum trees. Several people had locomotives on display and they included: Peter Macdonald with a Steam Era 'R' class 704; Steve Cullen with a Bachmann HO Shay that he had converted to On30; Grant M^cAdam with a small On3 railcar; and Laurie Green with an On3 Shay built by Bernard Snoodyk. Grant M^cAdam also brought along a range of magazines and books to stimulate the mind. Rolling stock was a little scarce, but Laurie Green brought along an On3 water car that was fitted with a steam sound unit. Needless to say it will need to be coupled next to a locomotive. With all the locomotives on display we hope people are also working on their rolling stock. The last item for display was a small steamroller by Peter Macdonald.

March 2002

Our March meeting saw our members heading for Emerald and the home of new member Bill Black. Bill has dabbled in several scales and prototypes over the years but has now settled on modelling the RGS in Sn3. His layout, which is still under construction, is housed in a separate building. We are sure the members will be very interested to see how the layout progresses with time.

Whether it was the new venue for a meeting or a good weather forecast, over twenty members and visitors attended this meeting, more than half the Division. It was our usual barbecue lunch followed by a short meeting normally kept as brief as possible so the socialising could continue. There were two main items that Grant addressed and they were the results of the recent NMRA elections and the upcoming one-day convention in Sydney. Grant congratulated Mario Rapinett on behalf of the Division for being elected an ordinary member to the Board of Directors and gave a brief update on the upcoming convention in Sydney. As there were a number of visitors to the meeting, Grant explained how the NMRA works in Division 3. After he had finished speaking he invited Mario to address the meeting in his new role as a member of the Board of Directors. Mario invited the members present to provide any feedback that they felt would help to improve the NMRA.

The items for display this month were many and varied. Grant had been busy painting figures and animals once again. He also had a small English style cottage in O scale that was nearing completion and an O scale billboard kit. The recent good weather and at the insistence of his wife Jan, Ron Wrigglesworth had brought along the plan and photographs to show progress on track laying on his garden railway. Laurie Green had been busy, bringing along the Soda Creek Railroad, a layout that occupies 1.5 square feet in On30 with two locomotives in operation. The trees on the layout grabbed everyone's attention but at two hours to make one tree, Laurie said that about four was his limit. He also had some 3/8n18 rolling stock and locomotives and the start of "Barlow Motors", an O scale gas station. More rolling stock had appeared from the Steve Cullen stable with a brake van in On30 from the Tullah Tramway. The recent release of the BGM kit of the NA in On30 has seen several of them starting to appear at our meetings. Peter Macdonald, a noted locomotive builder, had been responsible for assembling five NAs so far and brought along numbers 16 and 7 that were finished and another almost ready to visit the paint shop. To list all the items that Mario Rapinett brought along would take almost as much space as the rest of the items for display. He brought along several modules that were destined for his new layout that featured town scenery in the George Selios style. He also showed the video he had taken of Geoff Nott's Leigh Creek Railroad whilst on display at the recent Forestville (NSW) exhibition. The video generated lots of discussion and we all look forward to seeing the layout in person.#

All too soon another very pleasant day had passed and I am sure all the members are keen for a return visit to Bill Black's in the future to check the progress on his layout.

Continued from Page 20

WORKING WITH BRASS

Soldering Tweezers

The selection of soldering tweezers can be broken down into 2 components, i.e. tools needed to hold parts together during the soldering process by clamping and tools used hold the work in position by weight or point load.

Where we merely want to solder 2 components together I normally use a pair of self-locking stainless steel tweezers approximately 170mm long. These tweezers readily take heat and will hold work in position even when red-hot. (Check the Markets for these.Ed)

In many instances however we need to solder a small part to a partially completed model, where clamping is inappropriate or impossible. For these situations I use a modified tool consisting of a cast iron stand fitted with a ball joint [Dick Smith Catalogue "Third Hand"] into which I have fitted a self-locking tweezer. This tool can than be used either to clamp the part to be soldered to the locomotive or by tilting the cast iron base on its edge whilst the point of the tweezers puts pressure on the part to be soldered.

Other Tools

There is an almost endless list of additional tools that will find their way onto your workbench. These will be described in future episodes as we start to fabricate models. This ends the initial article. Good luck sourcing the tools described and have fun trying them out on some scrap materials. In the next article we will take a look at solders, basic raw materials, castings and wheels, which are all required to get you started.

Until than, call me if you need more information or write to me at my email site, themodelworks@ozemail.com.au and remember stay between the narrow gauge rails.

Note: Photos are provided as illustrations only and do not necessarily represent the tools described by the author. Ed

THE LIBRARY CAR

Video List as at 14/02/02

NO.	TITLE
VT14	USA Railroad Layouts (compilation videos 1-6)
VT15	USA Railroad Layouts (compilation videos 7-13)
VTI6	Airbrushing for Model Railroaders
VT17	Weathering Railroad Models by Malcolm Furlow
VTI8	Scenery Tips No.1 Rock Moulds by Donald Davis
VT19	Scenery Tips No.2 Backgrounds by Donald Davis
VT2O	NMRA Australasian Region 1993 (Tony Koesters Clinic) by Kevin Brown
VT2I	Waitemata (Auckland NZ) Convention 1990 by Gerry Hopkins
VT22	Piki Piki Tram (visit to famous NZ NG layout of Merv Smith)
VT23	Diamond Valley Lines (visit to famous layout of Fred Gill) by Gerry Hopkins
VT24	US Pittsburgh Convention by John Saxon
VT25	All Aboard An Introduction to Model Railroads by Madeline Trimby (Kevin Brown's video conversion of tape/slide clinic)
VT26	Optimum Use of Space by John Allen (Kevin Brown's video conversion of tape/slide clinic)
VT27	Gorre & Daphetid Railroad by John Allen (Kevin Brown's video conversion of tape / slide clinic)
VT28	NG&SL 1991 Convention Clinic by Gerry Hopkins
VT29	Exhibition Layouts 1982 to 1989 by Gerry Hopkins
VT3O	Layout Tours No 3 by Gerry Hopkins (Visits to Sowerby Smith's & Geoff Nott's layouts
VT31	Realism with plastic Structures (video conversion)
VT32	Convention 1993 and Three Layout Tours
VT33	The Clinic (Woodland's)
VT34	Distinctive Rolling Stock by Dean Freytag
VT35	Convention 1995 at Marayong & Layout Tours
VT36	Rocks & Basic Scenery Made Easy by Dave Frary
VT37	Painting Model Structures by Dave Frary
VT38	Finishing Your Scenery by Dave Frary

VT39 Southern Pacific Vol.2 (Tennessee Pass)
VT4O Union Pacific Vol.5 (The LaGrande Subdivision)
VT41 Santa Fe's Arizona Mainline
VT42 Santa Fe's Mojave Mainline
VT43 Burlington Northern's Crawford Hill
VT44 NMRA Australasian Region 1998 Thornleigh Mini Convention (Rolling Stock, Soldering, Weathering Your Models & Pine Trees.)
VT45 Trains On Location Stevens Pass
VT46 Toronto To Chicago Railfan Way
VT47 Tehachapi Trains on Location
VT48 Great Layouts US Prototype
VT49 Scenery Tips No.3 by Donald Davis
VT50 Prototypes To Make You Comfortable by John Armstrong Memorable Locomotives by Charlie McCoy
Frequently Seen, Seldom Modeled by Jim Cope

VT51 Signals Made Simple by Mark Hanslip
Computer and Railroad Together by Mark Hanslip
VT52 Trees from Weeds by Louis Godbold
Weathering and Ageing with Pastels by Robert W Baily jr
Rolling Stock from Cardboard by W Meijndert Van Alphen
Foamcore Buildings by Robert Hubbard
The Art of illusion by C J Riley
VT53 N Scale and N Track by Jim Fitzgerald and Ben Davis
Model Railroad Photography by John Allen
VT54 NMRA National Convention 1998- Kansas City Layout Tours
VT55 Convention at Marayong 1995 and Clinic Presentations by Allen MeClelland
VT56 Union Pacific BIG BOYS volume 2
VT57 Southern Pacific 1941 volume 1
VT58 Santa Fe 3759 Final Run Over Cajon Pass
VT59 Santa Fe - War Bonnets Through Raton Pass
VT60 Santa Fe Odyssey Vol.1.
VT61 Santa Fe Odyssey Vol 11.
VT62 Santa Fe - Seligman Sub and New Mexico Main
VT63
VT64 1997 National Convention, Madison USA
VT65 Little Engines of NZ
VT66 The Two Foot Gauge Tramway (NZ)
VT67 Model Railways of Australia
VT68 Gateway 2001 USA Convention Models, etc
VT69
VT70 Great Northern Vol 1
VT71 Great Northern Vol 2
VT72 Great Northern Vol 3
VT73 The Milwaukee Road Vol 1
VT74 The Milwaukee Road Vol 2
VT75 The Milwaukee Road Vol 3
VT76 Utah Midland – GMR#4
VT77 L&N Henderson Div – GMR#9
VT78 Cumberland Valley – GMR#10
VT79 Virginian & Ohio - GMR#11
VT80 Piedmont Div of WM - GMR#12
VT81 Yosemite Valley – GMR#15
VT82 Cat Mountain & SF – GMR#17
VT83 Erie Railroad – GMR#18
VT84 F & SM – GMR#24
VT85 Rock Island Railroad (Pentrex)
VT86 BSNF Sand Hills Sub
VT87 All Aboard Series Vol 2
VT88 All Aboard Series Vol 5
VT89 Rock island Railroad (Grn Frog)
VT90 Forks Creek Central - Ron Morse
VT91 California's Baldwin Diesels
VT92 Santa Fe's Raton Route
VT93 Santa Cruz Northern - GMR#35
VT94 ATSF Argentine Div - GMR#29
VT95 East Broad Top
VT96 Classic Chicago Railroading
VT97 All Aboard Series Vol3
VT98 SP's Central California Mainline
VT99 NYC – The Beach Collection
VT100 Union Pacific
VT101 Southern Pacific – Cab F'ward; 1941; The Coast Lines
VT102 Union Pacific
VT103 Union Pacific
Vt104 Santa Fe – Challenge for Tomorrow; Vintage Diesels; The Diesel Loco
VT105 SP – Geeps; Diesels; Daylights, Cab F'ward & Diesels

CD1 DCC Forum Chaired by Peter Jensen
CD2 1999 Convention Opening Address by Jack Burgess
CD3 PC Data – photos, shareware, etc.
CD4 Alberta Coal Branch by Lynne Zelmer

All the above listed videos are available from:
David Latham
86 Marine Drive
Oatley NSW 2223
Phone: (02) 9570-5338 (h)
Email: lathamd@optushome.com.au

Requests from interstate are most welcome and at no cost to members. Requests for specific videos will be given priority when they are returned from loan.

Australasian Region Directory

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Another view of the layout of Vic Quince, showing his model of a lighthouse.

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