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# Main Line

National Model Railroad Association Inc.

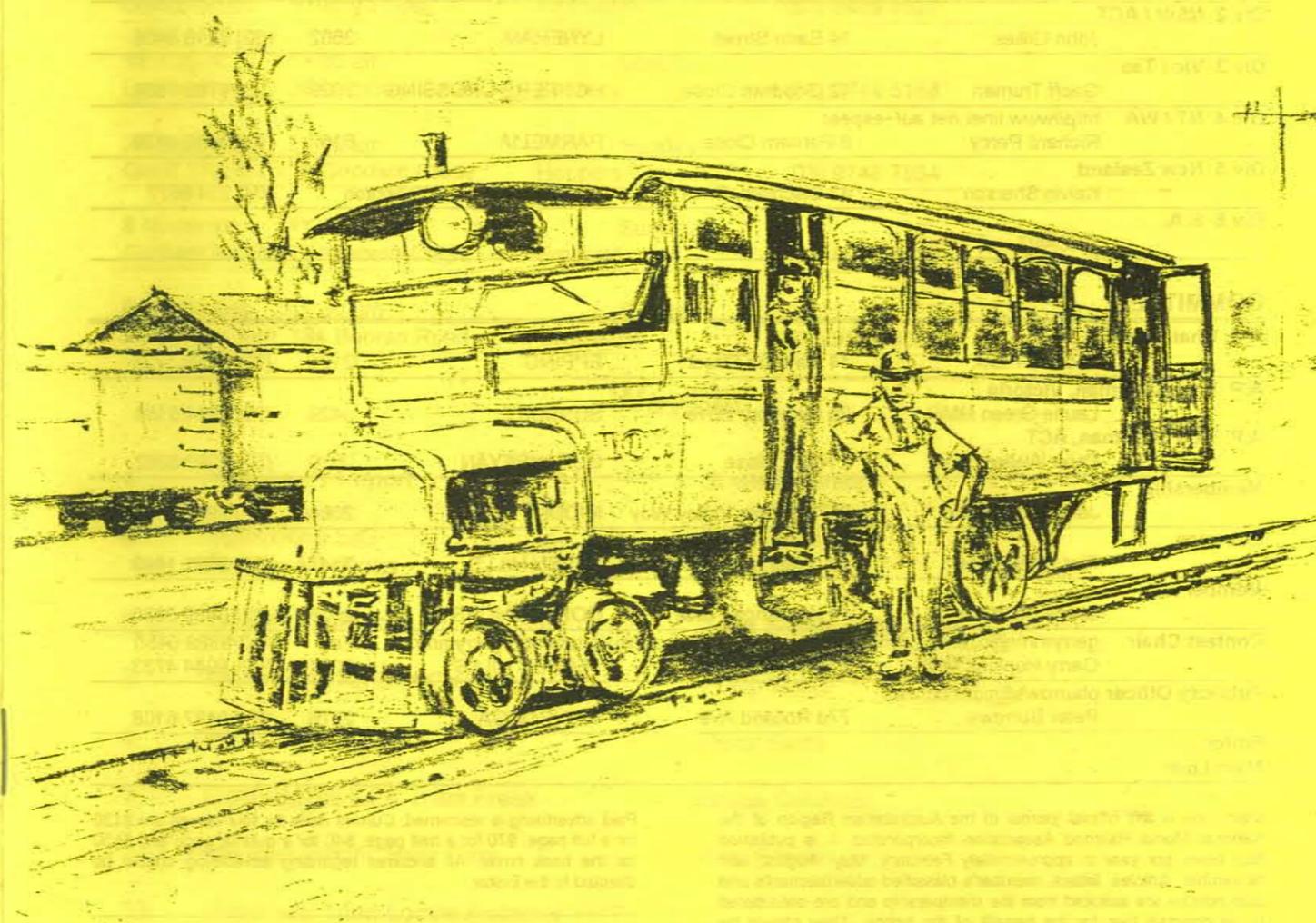
Volume 15 Number 1

Registered By Australia Post

Australasian Region

January, February, March 1998

Publication # PP241613/00080



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## Australasian Region Directory

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### Editor Main Line

Main Line is the official journal of the Australasian Region of the National Model Railroad Association Incorporated. It is published four times per year in approximately February, May, August, and November. Articles, letters, member's classified advertisements and club notices are solicited from the membership and are considered to be donated free for the benefit of the hobby. They should be mailed to: THE EDITOR, Main Line, 7 Booralie Road, TERREY HILLS, N.S.W. 2084. Articles can be submitted on a computer disk 3.5" or 5.25". Most WP packages can be read at this time.

Paid advertising is welcomed. Current rates for four issues are \$130 for a full page, \$70 for a half page, \$40 for a quarter page and \$150 for the back cover. All enquires regarding advertising should be directed to the Editor.

### COVER

## REGIONAL TIMETABLE

18 April	2:00pm	Saturday	
Sowerby Smith	174 Fullers Road	Chatswood	(02) 9411 5726
19 April	1:30 pm	Sunday	
Steve Cullen	67 Mowbray Crescent,	Melton	(03) 9747 6267
May	2:00 pm	Saturday	
Vic Quince		Granville	
17 May	11:30 am	Sunday	
Grant McAdam	194 Booran Road,	Glenhuntly	(03) 9578 8685
<b>20 June</b>	<b>8:30 am</b>	<b>Saturday</b>	
<b>MINI CONVENTION</b>		<b>Thornleigh</b>	
21 June	1:30 pm	Sunday	
Peter MacDonald	4 Boyd Street,	Bacchus Marsh	(03) 5367 3601
19 July	1:30 pm	Sunday	
Gavin Hince	6 Perry Street,	Alphington	(03) 9489 4527
16 August	11:30 am	Sunday	
Laurie Green	20 Nambour Drive,	Sunbury	(03) 9744 5188
20 September	11:30 am	Sunday.	
Geoff Truman	12 Goodwin Close,	Hoppers Crossing	(03) 9748 7864
8 November	11:30 am	Sunday	
Graham Meyer	2 Elizabeth Court,	Emerald	(03) 5968 4518
6 December	11:30 am	Sunday.	
Grant McAdam	194 Booran Road,	Glenhuntly	(03) 9578 8685

### WayBill

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## Presidents Report

As you know we are about to have a changing of the guard with the Trusteeship of the Region.

John Saxon MMR stands down on March the 31<sup>st</sup> and our New Trustee David North takes over. After 14 years in the role John's input and guidance will be very hard to replace. I wish David well in the role I am sure he will be a marvellous ambassador for the Region.

John Saxon's role in the region has been enormous. Without his powers of persuasion in the early 80's we would not have the Australasian Region today. John has been not only the Trustee for 14 years he has served 2 terms as the President as well. In addition he has been directly involved with every convention and Mini Convention that we have held. He has been a tireless worker on behalf of the Region and it is to his credit that he steps down from his role as Trustee with the Region being in good health from a membership point of view and sound financially. Not only has John been active in Australia, as the Regions representative in the US he has filled other roles on the international stage. Heading up the finance committee for several years in a bid to improve the financial viability of the parent body. I would like to take this opportunity on behalf of all the membership to thank John for all his hard work on our behalf.

I don't think we will be losing all the input from John in the future. He along with his wife Toni, are the registrars for our up coming Mini Convention on June the 20<sup>th</sup> and I am sure we will be able to persuade both John and Toni help out in the future.

Just a reminder about the closing of our Company Store, as we mentioned in the last Main Line the company store will no longer be in operation. The very last opportunity to grab the final remaining items will be at the June Convention where they will be disposed of. I must thank Shirley MacMicking for all her hard work over many years operating the Company Store for us. We will continue to supply local member ship name badges. All other items of NMRA paraphernalia continue being available from head office in Chatanooga.

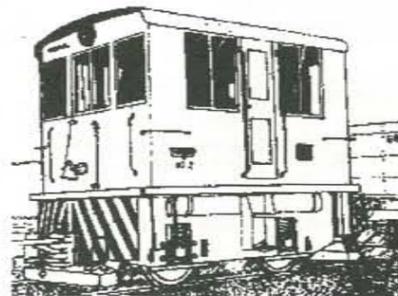
You will have all received your nomination papers for the Board of Directors. Now is your chance to join the board and help shape the future direction of your association. You must

be a financial member of the Parent NMRA and the local region to stand. If there is more than one nomination for a position a postal ballot will be conducted. The result will be announced at our AGM that will be held in conjunction with the Sydney May Meeting to be held at Vic Quince's 76 Good Street, Granville NSW 2142 Ph (02) 9637 6683 commencing at 2pm.

As this will be my last Presidents Report I must mention the retirement of our long standing membership officer Jack MacMicking. Jack's held the post since the Region restarted 14years ago. He, along with John Saxon, are the only original office bearers and it has been a fantastic effort. I would like to thank Jack on behalf of all the membership for his many years of service to the group. Also Shirley MacMicking for her many years as our Company Store Co-ordinator. A marvellous duo to have on board. The following month in Sydney we are holding our Mini-Convention. Don't forget to get you registration in early as it saves a lot of delay on the day and helps us to be better organised. I look forward to seeing you all there in my role as Immediate past President.

I would also like to take this opportunity to thank all the members of the BOD and all the members of the Association that have helped and contributed to the Association during my time as President. A special thanks is due to Gerry Hopkins MMR who for more years than I care to remember has been editor of Main Line. Actually I believe Gerry has been editor since 1989! A fantastic job, well done Gerry and Many Thanks.

### Sowerby Smith



## The Operations SIG

The Operations SIG continues to meet on the 3rd Tuesday of the month. The format of the meetings start with an operating session on the host's layout, followed by a debrief of the session and an informal discussion on operations.

To date, we have visited and operated two layouts. We visit each layout for 3 to 4 months so that everyone can become familiar with the layout. Both layouts were steam/diesel transition layouts with a single-track main line.

But that is where the similarity ended ... one was a Southern Pacific layout with large steam locomotives, first generation diesels, and long trains. Four operators and a dispatcher were busy keeping trains on schedule.

The other was a Maine Two-Foot railroad. The pace was a little slower, and the train lengths were a little shorter. There were two mainline cabs, and three yard cabs, plus the dispatcher.

In both cases, having a purpose for operating the train made the operation sessions more enjoyable. While the environment and equipment was different, the skill and enjoyment of taking your train through its journey was the same. At the debrief, we discuss problems that arose during the operating session, and how best they may be overcome for next time.

One example has been the introduction of radio headsets for communications between the engineers and the dispatcher. These headsets have certainly raised the awareness and realism for the operating crews. I will report further on the headsets in the next Main Line, as we become more familiar with their operations.

We are now investigating various card systems for generating random car movements. More will be detailed on this after we have our first formal session using these cards. We realise this is a Sydney based SIG, and that it may be difficult to involve members from other areas.

If you are interested in operations, have questions or ideas, send me an E-mail and I will raise it at our next meeting.

Peter Jensen

## Sydney Meeting Report

### February '98

This month's meeting, the first for 1998, was held at the home of Ken Scales at Winston Hills. Forty five people attended the meeting on a very hot afternoon and Ken's wife and helpers were kept busy supplying jugs of ice cold drinks, appreciated by everyone. Also Ken's water-cooled back sun room roof made a big difference to the temperature in the back room. Some people were also paddling in the swimming pool.

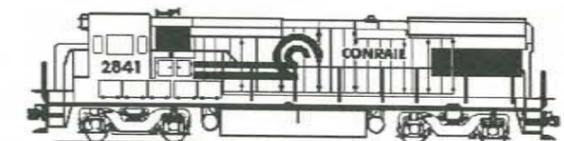
Ken's layout, "The Colorado and Western Railroad" located in the garage is one of those nearly complete layouts. The layout is mainly "HO" with a small section of dual gauge in the Lizard Head area of the layout. "Santa Fe" and "Denver & Rio Grande Western" have running rights over the main lines, so there is a good selection of locos and rolling stock to be seen.

With the business part of the meeting over, two Achievement Awards were presented. Also on display were samples of the proposed modules made up by the Module SIG for their sectional layout.

Gerry Hopkins MMR gave a clinic on what is required on rolling stock when building models for entry in the contests or achievement program - from a judges point of view - very interesting and helpful when someone explains what is needed. Most helpful to the average modeller with presentations of more of these types of clinics - maybe more people should have a go. GOOD ONE GERRY!

Once again, thanks to Ken and his wife for supplying the afternoon tea - those ice cold drinks on such a hot day were needed. Another successful Sydney Meeting.

### Bob Carr



## THANKS A MILLION BUT IT'S TIME TO GO!

As they say, all good things must come to an end and my long term as your Trustee will be over when you read this. I was very pleased to support David North's nomination as my replacement and of course, he was duly elected as no other nominations were received. The Region will be in good hands with David and I know everyone will extend to David as much help and support as I have been pleased to receive over the last 20 years.

Both David and I attended the parent Board meeting in San Diego in February and David certainly left a good impression behind. He will fit in well and is well equipped to continue to watch our interests and to contribute to the future of the NMRA and its 24,000+ members throughout the world.

Also, as I write, the election for a new Board is under way, and, as I understand some other board members and officers will not be continuing. It seems that together with some recent new faces, there will be a new team with fresh ideas to ensure our Region will continue to prosper and to provide a focal point for local modellers.

At times like this, one wants to mention all the people who have helped me over the years but clearly, space would not allow this. There are, however, a few who stand out and who I must honour as a result of their continued dedication to the local NMRA over many, many years.

Heading my list is Fred Gill **MMR**, whose invaluable help was instrumental in forming the new Region back in 1984. He then went on to serve twice as President and as Achievement Program chairman, was instrumental in our tiny Region being the best performer for 3 years in this valuable Program. Thank you Fred.

Then there is Sowerby Smith who, despite being co-opted as President on more than one occasion, has served almost as many years in that role as I have as Trustee. Sowerby has been a pillar of strength to me over the years and his continuing dedication

to the NMRA is undoubted. And thank you also Sowerby.

Gerry Hopkins **MMR** is stepping down as Main Line editor. He has done a fantastic job over many years and continues to produce one of the 5 best regional newsletters in the NMRA despite a very busy career, being a regular on the exhibition circuit and the development of many very fine layouts. Gerry will continue however to be around the NMRA and I look forward to many years of continuing our friendship.

I must also mention Jack and Shirley MacMicking who have decided to retire as Membership Officer and Company Store chief respectively after many valuable years of unselfish service. They will be a difficult act to follow and I hope we continue to enjoy their involvement if only as members.

Finally, I want to publicly record my thanks to my wife Toni without whose encouragement and unselfish support to me over the last 20 years my job would have been ever more difficult. She has been my unfailing supporter, has kept me on course many times when I was about to falter and has also given unstinting support to the Region in many ways.

So my sincere thanks to the above and to also to all the many dozens of others who have dedicated their time and efforts over many years to the Region. Without their efforts, there would be no NMRA in Australia and New Zealand to provide an umbrella for all railroad modellers. The NMRA has also been the source of many fine friendships for many people and I encourage you to keep up your involvement. You will never regret it.

Toni and I will continue to attend meetings and hope that many of you will choose to visit us on the Central Coast. We are only 40 minutes North of Wahrenonga and all are welcome (but call 0243 697 453 first!). Who knows, there might even be a new Cedar Valley under way to view.

**John Saxon MMR HLM.**

## RAILFANNING AROUND CHICAGO.

by Philip Moss.

While doing some research late last year for a trip to America I came across a lot of very useful information on the Internet home page of the NMRA about some great railfanning locations around the country and among them was one on Chicago.

Having a detailed road map, showing all the rail lines and locations of over two dozen railyards in an area approximately twelve by six miles, I was able to plan a route around the city to take in as many places as possible.

Arriving in Chicago by plane let me see a lot of the yards from the air, however once on the ground it was a different matter. I very soon found out that you could not see, or get access to, most yards, as they were surrounded by buildings, or in the case of the huge Ashland Street yard, I could hear trains but not see them, as the road went through an underpass beneath the tracks. So instead I used the Internet information to find several very interesting locations.

First stop was the Roosevelt Street Bridge, which was a great spot to see both Amtrak and Metra passenger trains, as it is at the point where all the commuter lines converge from all around Chicago. On the west side was a Metra maintenance facility, and on the east side was the Amtrak maintenance facility, while in between the trains go underground to the main entrance of Union Station which is three blocks north of the bridge.

I then went to the nearby 21st street crossing only to find the entrance blocked by two freight cars and several semi trailers. I was about to leave when the semi's drove off. This was lucky as behind the building was a small railyard and a huge lift bridge over the Chicago River, and coming slowly across were three Union Pacific SD70MAC's hauling a very long intermodel train.

For a change in pace, I next went to the Chicago Museum of Science and Industry to see one of America's largest museums. On display was a Santa Fe 4-8-4 loco no.2903, a

Burlington *Pioneer Zephyr*, engine 999 the first locomotive to travel at 100 mph and a 3,000 square foot 'O' scale model railroad.

After several unsuccessful attempts to see some more yards I went on to the Brighton Street crossing. The Internet information I had seemed a bit strange until I got there as it said that you turn off at a Burger King restaurant into a laneway that goes from their parking lot up the hill into the bush. I did this and found myself at a main crossing spot controlled by an old style signal tower that regulates trains by semaphore.

Running north south are both four tracks used jointly by Conrail and CSX, and an overhead Chicago Transit Authority commuter line, while east west is a single line of the former Illinois Central, now mainly used by Amtrak. While there I saw a westbound Amtrak passenger train hauled by a GE Dash 8-40BW, which must have been in a hurry as the driver blew the horn continuously while being kept waiting at the crossing.

From there continued on to the suburb of Cicero where after long last was able to easily see a large busy yard, namely the BNSF Clyde Yard. On the north side of the yard is a busy BNSF main line, while on the south side is the passenger platform accessed via an underground tunnel. This proved to be the best place to see the action as you had both freight trains and METRA and AMTRAK passenger trains to be seen on both sides of the platform.

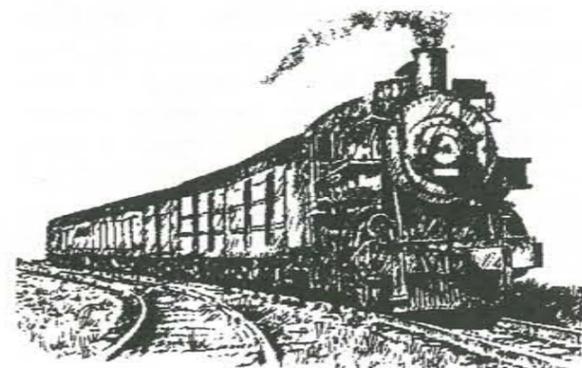
Next stop was to see Mayfair Crossing. I had to park across the other side of a very busy main road which I found impossible to cross on foot, when as luck would have it a semi trailer got stuck under the nearby railway underpass, thereby causing a massive traffic jam. I crossed the road for a quick look but found it very quiet, although it can be a very busy location at times as it is the crossing point for Metra commuter trains and Union Pacific main northwest line.

As a finale to my Chicago trip I took a detour to the northern suburb of Union to visit the Illinois Railway Museum and the Valley View Model Railway Display, which unfortunately was closed the day I was there. However the museum alone was worth the visit as they had some 300 pieces of equipment of all types out on display.

These included a Norfolk & Western 1922 Alco 2-8-8-2, 1929 3-truck Shay, a Milwaukee Road 1944 Alco 4-8-4, a Frisco Lines 1918 Baldwin 2-10-0, a Chesapeake & Ohio 1943, Alco 2-8-4. Diesels included a Milwaukee Road Fairbanks Morse H-10-44, a Santa Fe FB45, a complete 1936 stainless steel *Nebraska Zephyr* train and several from Union Pacific including a huge DD40XX and a rare turbine set. Fresh from the paint shop was a restored excursion train in Burlington Northern colours headed by a matched ABA set of FP7's, while among those waiting restoration were a Long Island Alco PA2 and several E8's.

In addition to the trains they have a large variety of interurban's, which are similar in size to the old Sydney "red rattler" train carriages, except they travel and operate like trams, some over long distances using the railroad tracks when out of the inner city. Today we would call this type of streetcar 'light rail'. Most days they have several interurbans giving rides to visitors along four miles of former Elgin & Belvedere Electric Railway track, which the museum now owns.

If you are intending to visit Chicago in the future please give me a call, as there are many other places I can tell you about that I have not mentioned in this article.



## 20 Handy Hints

1. For ease of oiling, fix a hypodermic needle directly to the spout of an oil bottle.
2. After you have glued down a cork track base, run over the whole cork with a 'Surform' file paying particular attention to the joins in the cork. This flattening process will pay dividends in the long term.
3. When making your own points from flat-bottomed rail, make the actual blades from bull-head rail. The extra flexibility will make point operation easier.
4. When using a water-based paint for painting stonework, rocks, etc. mix some plaster with the paint as this will give an ultra-matt gritty stone-like finish.
5. Hammer rows of staples under a layout wherever wiring is run and thread the wires through the staples. This will keep the wiring tidy and will pay dividends when alterations need to be made or faults located.
6. When track cleaners start getting worn down, glue them to a piece of 5mm thick balsa wood. This will double the life of the track cleaner as it won't crack up when it gets thin.
7. Take along some green, brown and grey plasticine with you to an exhibition with your layout. Use the plasticine to hide the base-board joints. It will only take 15 minutes.
8. Make the last sleeper before a baseboard joint from printed circuit board, nail it down and solder the rail to the sleeper. Any small misalignments can then be corrected with a soldering iron.
9. If you receive brass buffers with a loco kit or coach kit, plate the buffer heads with solder as this will simulate steel. This is done by cleaning the surface, applying flux, touching the surface with a hot soldering iron, and then wiping off any surplus solder with a rag.
10. If you are having difficulty straightening the nickel-silver wire provided in kits for handrails etc., hold the wire taut between two pairs of pliers and anneal the wire over a candle flame.
11. An easy way of modelling stone walls is to make the walls from balsa wood and then burn the stone outlines into the wall with a hot soldering iron.
12. If you find a lump of foam sponge rubber or sponge plastic from an old cushion or pillow, tear it up into small pieces and use it as foliage for trees or bushes.
13. When painting coupling rods and the like with silver paint, mix the paint with about 50% of matt black as this will produce a more steel-like effect.
14. If you don't like the appearance of the chromium plates wheels that you get with some proprietary models, paint the sides of the tyres and flanges with matt varnish mixed with a little matt black. Avoid getting paint on the wheel treads though.
15. If you feel like making your own coupling chains, go to a stationery shop and buy a box of lilli pins. These are about the right size for one link in a 4mm-scale chain. After snipping off the ends, bend the links to shape with a pair of miniature round-nosed pliers.
16. It is very difficult to solder two pieces of piano wire together. However, if you bind the piano wire with fine copper wire first, soldering will be easy.
17. Never screw a worm wheel to an axle with the grub screw provided. This will always leave the worm wheel slightly eccentric. Instead secure the worm wheel with 5 minute Araldite. If it is required to remove the worm wheel later, a touch with a soldering iron will kill the Araldite and the item will be easily removed.
18. When modelling in cardboard, first paint the card with a coating of shellac as this will stiffen it.
19. If you break or wear out a needle file, don't discard it, but grind the end into a

small chisel. These are very useful for cleaning off excess solder from a model.

20. If you use soldered trackwork on copper clad sleepers, solder any connecting wires directly to the rail rather than to a sleeper, as the joints between rail and sleeper have a habit of breaking off with fatigue.



## CONFESSIONS OF A TRAM FREAK

I first fell in love with trams in pre-war Auckland, but my family then moved to Melbourne in 1940, just in time to travel on Melbourne's cable trams. We moved to Sydney in 1946, and I enjoyed trams there for ten more years until I joined the Army and was forced to transfer my mechanical affections temporarily to tanks for the next 30 years.

Visits to Auckland every few years between 1941 and the mid- 1950s kept me in touch with trams and trolley buses there, and I took advantage of a visit in 1945 to travel the entire extent of Auckland's tram network. In my extensive Auckland tram travels while aged 9, I used to sit as close to the driver as possible, and mentally drive the tram for him. I became so confident of my untested ability to drive trams that I had a death vasli on the poor drivers, hoping that one would drop dead at the controls so that I could take over and continue the service uninterrupted. I don't think it ever occurred to me that the conductor might elbow me out of the way, or that cont' to ferry passengers would not have been the top priority in the event of disaster to the driver! Anyway, Auckland's tram drivers

were fortunately a tough breed (as also were Melbourne's and Sydney's, I found), and it obviously took a lot more than my juvenile death wish to throw them out of stride! As a result I had to wait a over 50 years before I finally drove my first tram, a Brisbane drop-centre car at Ferrymead, Christchurch.

I knew how to switch the tram on, how to operate the control handle, the air brake, and the much more rarely used manual brake, how to change the trolley pole and destination signs, and how to change the points just ahead by cutting off power at the right point. Not until I drove the Brisbane tram in 1995 did I come to grips with electrical braking, but it turned out to be not all that difficult.

In the trams of Auckland, Sydney, Brisbane, and Melbourne (but only up to Y Class), all the essential controls were hand operated on the control panel in front of the driver. An exception was the foot operated bell.

I visited Melbourne recently for the first time for the best part of 20 years, and put some time in on the modern fleet as well as the faithful W Class which still runs on many, but not a]L routes. The W2s, W3s and W4s have all been withdrawn, but W5s, W6s and W7s abound. Older classes, including the Peter Witt X and Y Classes, are preserved in Melbourne's Heritage Fleet, but are not in everyday use. However my interest this trip lay in catching up with the latest developments, namely the Z, A and B Classes of the 1980s and 1990s.

They are easy to tell apart. The Z Class cars have narrow noses, and have the route numbers away from the destination sign in a box of its own. Their car numbers range from 1 to 230. The newer A Class cars have broad noses, and have the route number incorporated with the destination sign in a much broader box. Their car numbers range from 231 to 300. The latest B Class cars are very similar to A Class, but are an articulated double car, and are fully airconditioned. Their car numbers range from 2001 to 2132. OK so far?

I persuaded the driver of a B Class tram at the terminus to show me the controls, and was pleasantly surprised by her warm response. She was delighted that someone

was interested in her tram, but I found it had virtually nothing in common with what I had mentally been driving for the last 55 years.

First, all the basic driving controls are foot operated. On the left is the big dead man's pedal, kept depressed by the left foot. To the right are the brake and accelerator, operated by the right foot exactly as in an automatic transmission car. On the control panel in front of the driver are a heap of hand operated minor controls, switches and instruments, such as turning indicators, gong, door operation, lights, etc. Out to the left are two display screens. One is like a miniature black and white television, enabling the driver to see that all entrances are clear before closing doors and moving off. The other screen displays whatever route number and destination is displayed in dot matrix form in the destination window outside, and is operated by a numeric keypad beside the screen. Behind the driver is a chart listing all the keypad codes for all the possible destination signs. Not only can the tram tell you where it is going, but it can also flash messages alternately such as OUT OF SERVICE and SORRY. I took care to photograph a particularly courteous tram saying SORRY just before running me over.

The older trams have trolley poles, and the newest have single arm (frog leg) pantographs, but there are exceptions to this. A few W Class trams have pantographs, and several Z Class trams have trolley poles. I even saw one tram with a pantograph at one end and a pole at the other, obviously for test purposes as lines are steadily converted for pantograph running.

The arrangement at railway level crossings is fascinating. The trains and trams are on entirely different voltages, but they share the same overhead wires at a crossing. A short section of wire leading in all four directions is isolated from the main power lines, and is switched into either the tram system or the train system, depending on which is using the crossing. The switching is controlled by the signal box operator at the level crossing, and every tram/train level crossing in Melbourne (and there are plenty of them!) is manually controlled from its signal box. Of course the operator is helped by interlocking safety systems, involving stop/go lights for trams, road barriers, etc. Nonetheless accidents do

occasionally happen, and when a tram gets train voltage, its motor and a few other vital organs go into meltdown. Worse still, any other tram close to the stricken one will also go into meltdown, so it can be a while before service is restored.

My juvenile death wish on drivers was immediately replaced by an eager desire to witness a tram meltdown, but I must report that all signal box operators were highly resistant to the moccers I tried to put on them. All I saw was one leaping trolley pole, which caused a delay of fully ten seconds.

Of the 20 or 30 tram drivers and conductors I saw, every single one appeared to be Asian. All were courteous. Most were efficient. Our W7 Class ride to St Kilda in mid-morning on Sunday was packed like a Tokyo suburban train at peak hour. The conductor, an Indian I think, very quickly gave up any attempt to collect fares and simply concentrated on checking that the door was clear before he tried to close it.

The crush was such that one could hardly blame him, however, I can never remember a Sydney tram conductor in R and RI Class corridor trams in the 1940s and 1950s passing up such a challenge! And fares were only threepence and sixpence then!

Which reminds me of the delightful dedication in the front of a book "WATCH FOR TRAMS", which reads "My mother had two aunts who were so fat that they each took up two seats on the tram. To the conductors who only charged them one fare each, this book is dedicated."

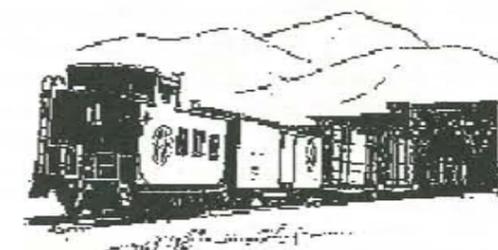
#### NMRA MEMBER DONATES TROLLEY MODELS TO U.S. MUSEUM

Association Member Bruce Ballment has been corresponding with one of the contributing editors of the NMRA Bulletin in the United States regarding trolley (train) matters.

A recent letter to Bruce from Bill Everett in California advises that he has donated over 100 trolley models - 0 scale - to the California State Railroad Museum, one of the two finest railroad museums in the U.S.A., to be on permanent display on a rotation basis.

None of the over 100 trolleys are powered, but Bill has duplicate models on his home layout which are; - cost of the power trucks are the restricting factor.

Bill who has been modelling trolleys for the last fifty years, has taken well over three years to complete the set - would that we all could model at that speed!



## Missouri Pacific Beer Cars

The term "beer car" has been applied to a group of 62' long insulated boxcars assigned to transport beer from the Adolph Coors' Golden, Colorado brewery. Pacific Car & Foundry (PC&F) built these boxcars for six western railroads and featured cushion underframe and air cushioned interior bulkheads, capable of protecting the load under an impact of 14 MPH. The model was based on scale drawings and prototype pictures from the November/December 1981 issue of Mainline Modeler.

### Missouri Pacific Prototypes

The Missouri Pacific acquired 17 beer cars, numbered #793000-793016, in 1977. The cars were painted boxcar red with a silver roof. I decided to model a car in its delivered paint scheme to match the 1983 era I model. Many of these cars have been repainted and relettered to Union Pacific and are still active today. The model started with an undecorated Eel River Models kit. The kit features separate ladders, tackboards, stirrup steps, and brake piping, but additional details like end grabs, train air line, and coupler lift bars were added.

## Getting Started - Underframe Detail

After trimming the plastic sprues from the car sides, smooth any flashing from the sides, ends, roof, and underframe with a file or fine sandpaper. I prefer to have the coupler boxes screwed on for ease of coupler maintenance. After drilling through the center coupling post with a #56 drill, 3/16" long brass screws were installed. Add the underframe detail per the instructions. Additional details to be added include the train air line, formed from .015" wire, and brake rod safety straps, formed from .010" x 1/16" brass strips. Since I do not remove the trip pins from the couplers, air hoses were not added. If air hoses are desired, they should be mounted on a styrene bracket, attached to the side of the coupler box.

The last detail is the most visual striking addition to be added, coupler lift bars. The coupler lift bars, on the prototype, must be able to adjust for movement of the body on the cushion underframe and consist of the coupler handle attached to a roller guide bracket, which rides inside the linkage to the coupler. The model coupler lift bars are comprised of four main parts: bracket, coupler handle, linkage, and roller guide. Start by forming an angled bracket from .010" x 1/16" brass strips, bending it 90 degrees in the middle. After drilling a hole, using a #78 drill, attach a DA-2206 eyebolt in the center of one leg of the bracket.

Attached the bracket on the edge of the underframe, just inside the car end. Using a #78 drill, drill a hole at the end of the coupler pocket for mounting the coupler linkage. Using .015" wire, form the coupler handle and the linkage to the coupler. Form the roller guide from .010" x 1/16" brass strip. Attach the roller guide to the linkage using ACC, leaving room for the coupler handle to feed through the roller guide. Feed the coupler handle through the roller guide, glue in place with ACC at the eyebolt. When the ACC has started to set, place the roller guide/linkage to the coupler handle and secure, with ACC, into the hole at the end of the coupler pocket. Using a toothpick, add ACC as required until coupler assembly is solid. There is enough bend in the coupler bar to remove the coupler cover for access to the couplers.

After installing the supplied weight, additional A-Line weights were added to bring the car's total weight to about 5.5 ounces.

## Detailing the Body

Starting with the ends, drill out all ladder holes with a #71 drill. After cementing the ladders in place, drill three holes for the grab iron with a #78 drill even with the top rung. The grab iron was formed with a piece of .015" wire and cemented from the inside, with a DA-2206 eyebolt placed in the middle of the grab iron. Finish the ends by cementing the tacboards, end platforms, and brakewheel as per the instructions.

For the car sides, drill out all ladder and stirrup step holes with a #71 drill. Then, attach the ladders and stirrup steps. Since the car has a silver roof, I waited until after painting to attach the roof. Assemble the ends to the sides per the kit instructions, then attach the underframe to the body. When complete, wash all parts with detergent and water and let dry.

## Painting

A jig was built before painting to hold the car upright without damaging the underframe during painting (and installing the roof). Start by airbrushing all parts with Accu-Flex Primer Gray, as the car's roof and body are moulded in different colored plastics. Start by airbrushing the bottom of the car and then place the body on the painting jig and finishing priming. Then, prime the roof. When dry, paint the car with Accu-Flex Light Tuscan Oxide Red, including the underframe. The roof is painted with Accu-Flex Santa Fe Silver.

Place the body and underframe on the jig. Test fit the roof, sanding as necessary for a perfect fit. Then, glue the roof in place. Take care when gluing as to not get excess glue on the outside joints; thereby, affecting your paint job. Attach rubberbands around the body and jig to hold the roof in place until secure.

## Decals

Spray with Testors' Gloss-Cote before decaling. Oddball decal set #187-118 covers all lettering. The ACI labels came from

Herald King Lube-1 decal set and the lube plates from Herald King Lube-2 decal set. Solvaset was used as a setting solution. When completed, spray the car with Testors' Dull-Cote to protect the decals and prepare the car for weathering.

## Final Details

I prefer sprung trucks, so I substituted Walthers roller bearing trucks with Kadee 36" wheelsets. After the wheelsets were painted Rust, the treads were polished using a Dremel tool to simulate shiny metal treads. Install the wheelsets to the trucks and install the trucks to the underframe. After airbrushing the Kadee #26 couplers with Rust, install into the coupler boxes, checking, and then adjusting the coupler height as necessary. Although I have yet to weather the cars, I would strongly recommend that the cars be weathered, at least lightly.

This is an excellent kit and additional details really make the model stand-out, especially the coupler lift bars. The completed models are now ready to enter service and make good on its' nickname as a "beer car".

## Bill of Materials

### ERM Models

100U PC&F w/12' door - undecorated

### A-Line

13002 flat weights

### Accu-Flex

16-12 Primer Gray  
16-14 Light Tuscan Oxide Red  
16-32 Santa Fe Silver  
16-172 Rust

### Detail Associates

2206 eye bolt

### Herald King

Lube-1 lube plates  
Lube-2 ACI labels

### Kadee

25 couplers  
522 wheelsets

### North Yard Model Railway Parts

506.15 brass mini-strips (.25 mm x 1.5 mm x 150 mm)

### Oddball Decals

187-118 Missouri Pacific PC&F insulated beer car decals

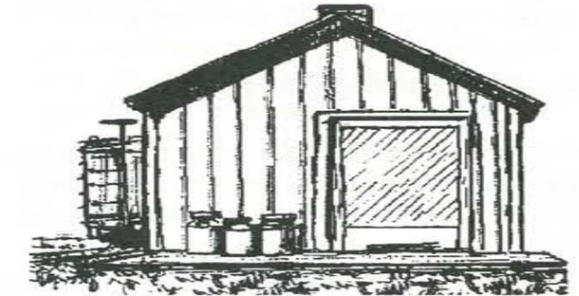
### Precision Scale

4869 brass wire

### Walthers

1005 roller bearing sprung plastic trucks

## Kenneth Edmire



## HAVE YOU TRIED LOCTITE RETAINER YET?

This article first appeared in *The Clearing House*, the quarterly journal of the **British Railway Modellers of Australia**.

## Introduction

Since returning to the fold of British prototype modelling, I have been trying to catch up with the new directions that have taken place in finescale modelling in my ten-year absence. One of the great advances has been in the area of locomotive and rolling stock chassis construction. In fact, one of the best buys I ever made was Iain Rice's *Locomotive Kit Chassis Construction in 4mm* (Wild Swan, 1993) which is a book that I would thoroughly recommend to anyone building locos from kits or from scratch. I have long admired Iain Rice's very practical approach and easy writing style, and found this book to be no exception. After a start in OO to get things moving, I decided to return to EM and proper finescale modelling (well, almost "proper" - I'm not into P4 yet!) for a new exhibition layout. And so I was back into the business of kit-building locos and stock, just where I left off with the old Somersetshire Midland.

With Alan Gibson wheels and Ultrascale gears, I came face to face with the problem of fixing them to axles and shafts. In the past I had used superglue, but with very uncertain results. Well, in his writings Rice goes on somewhat about Loctite 601 and 242. He swears by the stuff, but have you ever tried to get it at your local BBC Hardware? No-one has ever heard of it here! Undaunted, I found that Loctite have an office in Sydney, and a phone call to them told me who their local distributors were. And so I was able to buy it locally.

### Loctite Retaining Compounds

But before I tell you how to get it, let me tell you about these Loctite retaining compounds. Please read this, because when you buy the stuff it comes without instructions (you are supposed to have their catalogue, I gather, which apparently reveals all). First and foremost, it is not superglue, in fact it is not any sort of glue. It is a retaining compound, and is used commercially to retain pinions on shafts (Loctite 601 Retainer) and nuts on bolts (Loctite 242/243 Nutlock). It is a dark blue fluid of watery consistency, and smells like apples! The bottle calls it an ester, which my schoolboy chemistry told me was the taste and smell in organic compounds (such as apples, bananas, rum, etc). Anyway, Loctite works by expanding, thus locking the objects together, rather than by sticking them as superglue does. To work it needs steel as a catalyst and air to be excluded. Therefore, sliding a plastic-centred Gibson wheel over a steel axle smeared with Loctite 601 sets up the required conditions, and it goes off. Mind you, the excess fluid outside to joint will not go off - so don't sit there waiting for it to cure, for it won't! Being very liquid, it flows into a close joint by capillary action, thereby exactly centring a slightly loose fitting gear wheel on an axle. It takes about 30 seconds to a minute to grab, and an hour or so to cure. Once set, it is a very tight bond, but it can be overcome by brute force, aided by some heat (but don't try that with plastic-centred wheels!).

Loctite 242 (now sold as 243) is called Nutlock, and that is what it is for. It looks and smells the same as 601, but does not bond as strongly. It is used to lock nuts onto steel screws so they won't come loose, or steel grub-screws into gear-wheels or collars.

Being weaker it can be overcome using ordinary tools, but it won't come loose in normal use. It is excellent for retaining those tiny nuts on Gibson crank-pins, or preventing Romford gear-wheels coming loose. But it won't work on brass screws unless you use steel nuts. Remember, these Loctite retainers need steel to set them off. Of course, it goes without saying that you don't use a steel pin or nail to open or seal your Loctite bottle. If you do, you can kiss that bottle goodbye, because it will set up solid!

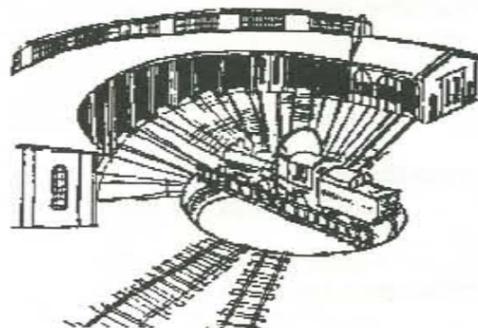
### How do I get them?

I have found these compounds easy to use, and they work exactly as described. No more setting up solid gears, wheels, chassis and fingers with superglue! These Loctite retaining compounds come in 10ml plastic bottles and cost \$9.89 each. In Sydney they can be bought retail from:

J Blackwood & Son Ltd  
13 Cooper Street  
Smithfield 2164  
(02) 9203-0111 Fax (02) 9203-0533

Just phone through your order, no matter how small, and it will be ready for you to collect from their sales counter when you get there. If you aren't in Sydney, then Blackwoods are suppliers to the engineering trades and would probably supply your needs through a local retailer. Outside Sydney and interstate, ring Loctite Australia on (02) 9525-8366 and they will tell you who your local distributor is. I don't believe that they sell direct to the public.

So, if you haven't tried these Loctite retaining compounds yet, can I encourage you to give them a go? I know that you will find them very effective and very easy to use.



## The Tyers Valley Tramway .. Part 1

### The Harman Geared Locomotive

Tenders were invited up to the 27th May 1927 for the supply of a geared locomotive, weighing approximately 16 to 18 tons.

Replies were received from the Climax and Lima Companies in America and one from Alfred Harman of North Port Melbourne. The latter firm was the only local body interested and accordingly, an order was placed with Mr. Harman.

The locomotive was delivered at Moe by the Victorian Railways on the 29th November 1927 and it was off loaded onto the Walhalla branch line. The following day it travelled under steam to Collins siding, in charge of a Victorian Railways crew. On arrival, it steamed over a temporary connection with the tramway and commenced the run to Tyers Junction.

This engine was of an interesting and unusual design. The boiler, built by Messrs. Johnson & Son, was 6' 6" long, with a diameter of 2' 10" and total heating surface of 257.7 sq. ft. made up as follows: firebox (4'3" x 2' 5" x 3") 45.2 sq. ft., tubes, 212.5 sq. ft. The boiler pressure was 200 lbs. per square inch.

The main frame was constructed of rolled steel joists (12" x 6" x 54 lbs.), with the boiler rigidly attached at the firebox and supported on a cradle at the smokebox end.

The locomotive was carried on two four-wheel bogies, which were constructed with heavy side-plates, carrying the horn cheeks, steel axleboxes, end plates and a central steel casting, which supported the ball bearings of the transverse shafts of the reduction gear. Each bogie was equipped with two 6" x 6" cylinders, which operated crank-shafts, running in ball bearings. The big ends were also fitted with ball bearings.

A steel spur gear on the transverse shaft provided the first reduction, the second being through the following chain and sprocket drive to the axles, the total providing a 4to1 ratio. All moving parts, except the Stephenson's link motion, were enclosed and

ran in oil. Springing was obtained by slinging the bogies to an underslung equalising bar by helical springs. The central pivot mast was hollow to allow entrance of the steam pipes, motion and drain cock control rods. Either bogie could be put in or out of steam as dictated by the size of the load and breaking provided by both steam and hand application.

Wheel diameter was 28.5". The bogies had a rigid wheelbase of 3' 6", the total wheelbase being 20'. Rail clearance was 4" and the buffer beams were designed to protect the cylinders. The overall length of the locomotive was 26', width 5' 4" and height 10'. The actual weight rose to 26 tons.

The tractive effort was 9374 lbs., less 10% due to gear losses, giving 8887 lbs. Water was originally carried in two tanks, one of 270 gallons centred under the main frame and one of 200 gallons in the tender.

A Cheney spark nullifier, by Cheney of Bayswater, Western Australia, was fitted to the stack to minimise the fire risk. The usual smokebox conditions did not exist, as exhaust steam, instead of entering a blast-pipe, was taken to the top of the smokestack and expelled through a slotted ring, to form a cone of saturated steam. This was an added fire prevention measure, as all products of combustion passed through this steam.

The draught required was provided by the turbine furnace, with which the locomotive was fitted, an arrangement which brought the rate of combustion directly under the driver's control.

### Gerry Hopkins MMR

Photos of this loco can be found behind my web page at:

<http://www.ozemail.com.au/~gerrymmr/Harman/harman.htm>

## Add a Little Country to your Track.

By Gerry Hopkins MMR

There are many modellers who have laid numerous miles of track on which they run plenty of well-tuned locos and rolling stock. .... but have never had the confidence to add the scenery.

Hopefully now is the time to change that.

You will need a solid Stanley knife with a new SHARP blade, some old corrugated cardboard boxes, and a small hot melt glue gun. This last item needs only be a small unit as sold for \$10 in Woolies or Clints Crazy Bargains.

Cut the cardboard into strips about 2.54cm (1 inch) wide with the corrugations across the strip. At this point I normally stick some masking tape over the track, just enough to cover the ties (sleepers). Place a spot of glue about 2.54cm (1 inch) from the track and glue the end of one of the strips to it and point away from the track. The glue will cool and set in about 30 secs. Do this at 5.08cm (2 inch) intervals on either side of the track for about 55.96 cm (2 feet).

Bend the strips to form a low hill on the near side of the track and a slightly steeper hill on the far side. Glue the ends of the strips to the edge or back of the layout. The strips can be made to any length by cutting or join the cardboard. "Tease" the strips into a desired terrain shape. Now glue some cross strips to help support the formation. After a while you will see the countryside taking shape. The hills or valleys can be made as steep or as flat as you like. If there is an area you are not happy with, then use the knife to cut it out or you can add more strips as required.

With this method of building up the scenery you can see things take shape very quickly and can change things very easily as you go. Styrene can be time consuming and messy, chicken wire can leave plenty of small holes in your fingers and is not as flexible. A large section of layout can be covered in a short space of time. When you have covered about 2 sqm (10sq ft) take a short break (coffee, tea, Kit Kat) then come back and take a second look..... if you are

happy with the result do another 2 sq m (10 sq ft).

You have now done the hardest part of the scenery, from here it is all down hill. The lattice should be quite firm with no spaces big enough to put your hand through. If there are some wider spaces use masking tape across the gaps. Remember this is only a support for the scenery.

### The Fun Bit

Next is the FUN bit. Collect four or five empty 2lit ice cream containers, (the flavour is not important). A 4kg bag of FRESH casting plaster, a bucket of water and a few disposable cups. A roll of paper towel, use a good quality paper NOT a "No Frills" variety (Handee is good for this). Tear the paper into sheets and then vertically into strips about 100mm (4 in) wide and place them near the layout. Mix the plaster as per the instructions on the packet until you have a liquid about the same consistency as custard. Make only half a container full at a time and add a table spoon of white wood glue to this mix - it stops the plaster from being brittle - good for portable layouts or modules.

At this point you can add some colour, just enough to take the white away. I use the Student type paints bought at the newsagents in tubes. A few inches of black if you want light grey rocks or yellow / pink for other rocks. The amount you use is NOT critical, if you add a different amount of paint each mix then the base will have more variation.

Dip a piece of paper towel into the mix and make sure it is ALL covered in plaster. Run your fingers down the paper to remove excess plaster. Place this piece on top of the webbing starting close to the track. Add the next piece so that 50% of the first is covered. Keep doing this for about 2 ft and then start the next row. After about 3 rows like this you will need to mix your next batch of plaster. Do not use the same container, put the used one to one side for later. Keep

adding the paper until the whole section is covered. Do not worry if there are a few thin sections at this time.

Take a break, have lunch or similar, then put another layer over the first. This time squeeze up the odd piece of paper to form rocky outcrops or add a bit of thickness to the base. When the plaster in the container gets a bit thicker, just pour or slop onto the base and smear across the countryside. Leave the layout over night while this section of plaster hardens.

Next day we can start to add the visual texture (sounds good?) At any art shop you can buy a very cheap artist's pallet (\$4), on this put a few dabs of paint. If you are using grey rocks then add: white, black, a hint of blue, brown. Have a container of water along side you and a cheap, stiff 1/2 inch brush. In the middle of the pallet mix a spot of black, white, and hint of blue together with plenty of water. This will be your first colour wash. Put a few splashes on areas you would consider rock faces i.e. vertical areas. Add plenty of water to the brush each time to make the paint wash into the rocks. This should not take you too long unless you are modelling the Grand Canyon.

### Now Grow the Grasses

Using a 50/50 mix of white glue and water, paint a section of plaster about 2sq ft in size. While still wet use a fine strainer to sift on your choice of ground cover. For this first pass I use Woodland Scenics Grass Blend and Earth Blend to make a random blotchy cover. Keep doing this until the whole area is covered. Do not however, put glue on the areas you painted for rocks. Allow this mixture to dry over night.

Using assorted grasses in fine medium and coarse grades sprinkle randomly over the area putting darker / richer colours in depressions or where water could collect or flow. You can move these grasses around until you have the right "feel" for the terrain. When you are happy, lightly spray the whole lot with wet water (water with a few drops of detergent). This will help to keep the grasses in place while we add the holding agent.

This is where we have a choice:- Matt Medium (art shop), Acrylic matt (Anton's Trains) or Latex Adhesive (Simply Glues). I use the latter. Using a plastic bottle with a small spout or hole in the lid, I gently add this liquid to the whole surface until it looks snow covered. You can fit a spray top to the bottles and spray it on but I find I have more control with a small bottle. You can give one last spray of wet water to make the whole lot settle. Leave over night to dry.

At any future time you can add more scenery material to fill any missed areas. You can now remove the masking tape from the track. Brush up any broken bits of plaster and put them into one of the containers. Thump the bits with a bit of scrap timber to make the rubble at the bottom of rock faces. These can be fixed in place using the same methods as we did for the grass. You can also add your track ballast at this time in the same way as we did the grasses. Add some trees (the other clinic!) and then watch your trains run through the countryside.

I hope this little guide will help you get started on some scenery. For further embellishments refer to the Frary & Hayden book "Realistic Model Railroad Scenery" The hot melt glue gun has made the job of building the frame very quick and easy. It is also very cheap and easy to modify. Just remember hot melt glue is HOT for at least a minute, I have the scars to prove it.

Have FUN!!!





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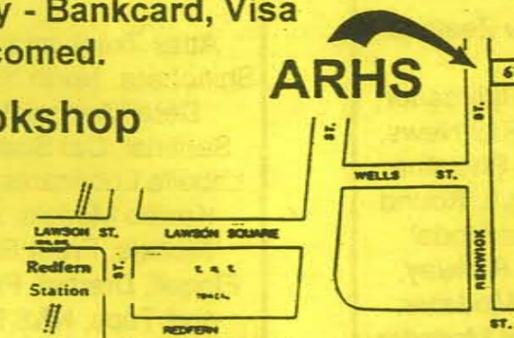
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