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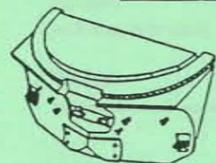
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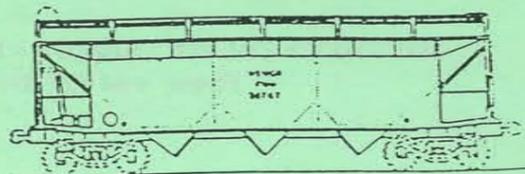
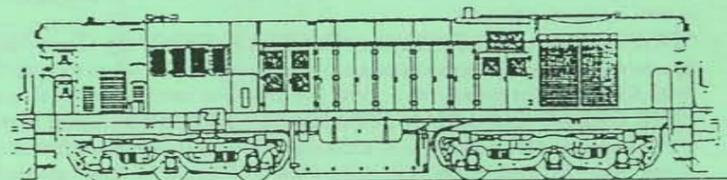
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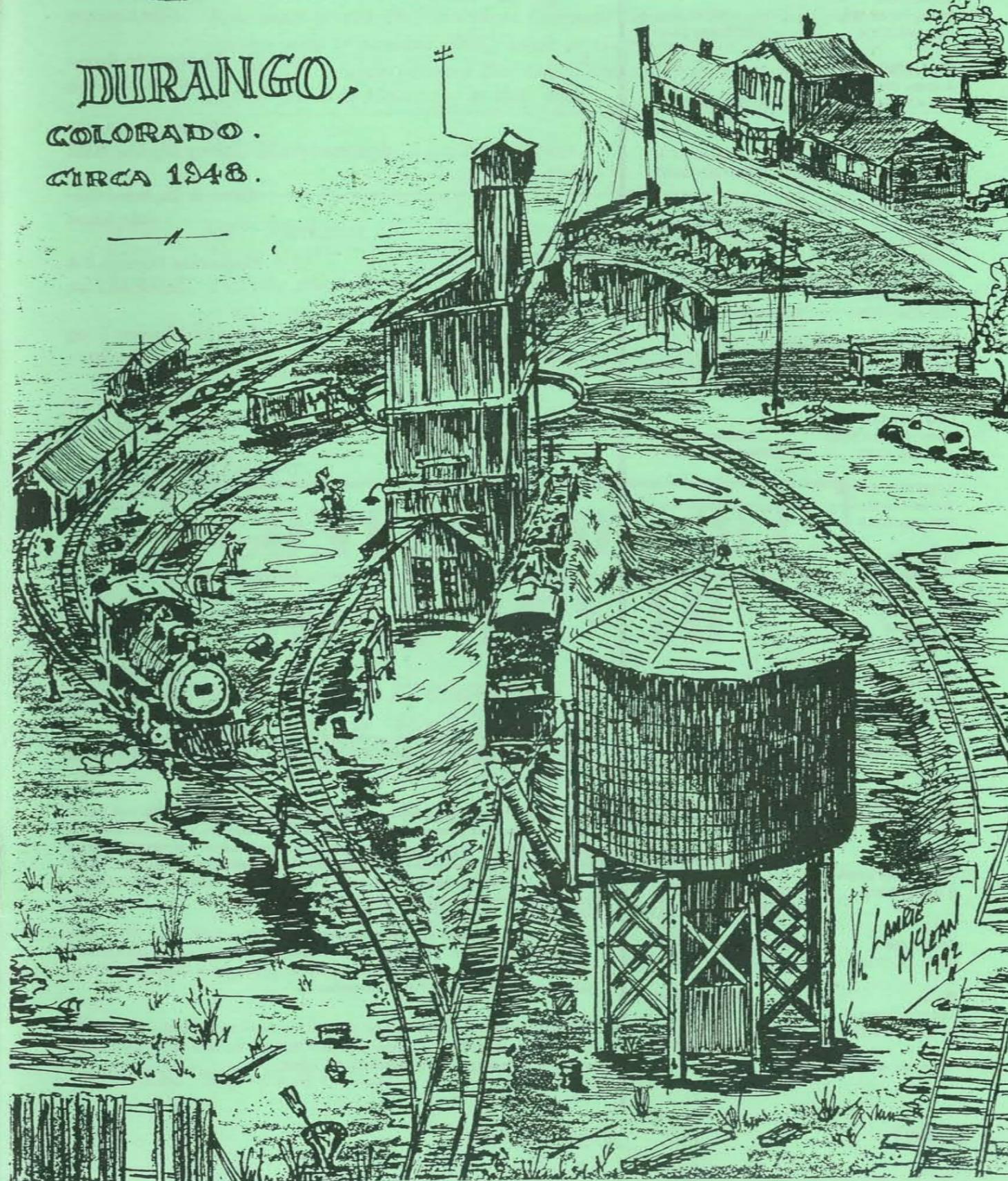


# MAIN LINE

National Model Railroad Association  
Volume 9 Number 3  
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## DURANGO, COLORADO. CIRCA 1948.



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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, members 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 (IBM) 3.5" or 5.25". Most WP packages can be read at this time. This magazine is prepared on a 386SX(25) computer (105M & 40M HD's) and printed on a BJ10EX Bubble Jet printer and a QumeSprinTEN laser printer using Wordperfect 5.1 and Drawperfect 1.1.

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 enquiries regarding advertising should be directed to the Editor.

## REGIONAL MEETING SCHEDULE

12th Sep Sat	NSW Chatswood	Sowerby Smith (02) 411 5726	174 Fullers Rd from 2.00 pm
10th Oct Sat	NSW Epping	Michael Flack (02) 868 1723	14 Dawson Street from 2.00 pm
7th Nov Sat	NSW Blue Mountains	Gerry Hopkins	ZIG ZAG Railway <i>First train leaves 10.30am from Clarence Station, Organising a tour of the storage area if possible. BBQ lunch at Gerry Hopkins "country estate" look for the Red Dragon between Bell and Clarence. Bring your own folding chair. Savour the Blue Mountains at their best.</i>
21st Nov	VIC Maryborough	Peter Myers (054) 61 2323	19 Marjorca Road 11.30am BYO, BBQ.
12th Dec X'MAS MEETING	NSW Thirlmere "Toad Hall"	Train Museum & Ian Hopkins 18 Mason Street	Thirlmere <i>Visit the train museum until 2.00pm then walk 50 metres to Ian's weekend retreat and partake of a "gourmet sausage sizzzzle".</i>

# CONVENTION '93

## MAY 15 - 16

*Special Guest Presenter - - - - Tony Koester  
Former Editor, Railroad Model Craftsman and  
Trains of Thought columnist, Model Railroader*

**Clinics - Layouts - Commercial Stands - Layout Tours**

**Model Contest - Display Layouts**

**2 Complete days of model railroading.**

**COVER:** Impressions of Durango by Laurie McLean.

## Presidents Report

I would like to open my report this month with a thank you to all the members who worked so hard to make our '92 Convention such a successful day. My special thanks to Glen for chairing the committee that organised the day. All the members I have spoken to seemed to enjoy the day and the modification to the format with concurrent clinics will feature in our next Convention. The first publicity appears in this issue and I would urge you all to reserve the 15th and 16th of May 1993. It will be a "full on" 2 day affair with lots of clinics and things to do for both days. With the special guest and very full program that is taking shape I urge you not to miss this one. We are planning for it to be the best yet!

By the time you receive this magazine you should have had the notification regarding the Special General meeting we are holding in conjunction with the visit to my place. Don't be put off from coming, the formalities will only take a few minutes and are essential for us to proceed with the Incorporation of the Association. I would strongly recommend you vote yes to all the proposals as they are necessary for Incorporation. Incorporation is essential for the protection of members as at present all members are personally liable for any debts or other liabilities.

Our membership officer Jack MacMicking has recently conducted a review of our membership status and we currently have 248 members of the Region plus 63 others of the National only. We always need more and we will again have a stand at Newcastle and Liverpool shows with some new photographs and at Newcastle we will be adjacent to the Durango module of Laurie McLean. The committee is starting a review of our recruitment publicity and after the Liverpool show I envisage that an updated policy will start to be implemented. On the subject of recruiting new members don't just sit back and let someone else do all the work, Lauris and Gerry Hopkins have recruited 8 new members in the last three months though their enthusiasm and tireless exhibiting. If every member just interested one person into joining us, we would have about 500 members by this time next year. Don't be shy, help keep our association healthy, join up a new member this month!

Sowerby Smith

## Meeting Reports

### APRIL

Glen Coventry

It has been two years since our last visit to the South Cascade Railroad that resides at my home in Beacon Hill. Progress on the layout has been somewhat slow since our last visit and the improvements and extensions are still at the planning stage, no new hidden storage tracks or logging branches just yet. Just a new coat of paint on the fascia that was dry enough not to come off on your cloths.

The South Cascade Railroad represents a freelance bridge route across the Cascades in Oregon set in the 1950's. The main town has an engine service facility with a five road roundhouse and two outdoor storage tracks. There is also a small yard and passenger station. The line winds it's way round in a folded dog-bone with 2 1/2% grades to give the locos a workout. Mountains and trees are in abundance and after passing through a small whistle stop the line runs over a long curved steel trestle and dives into a tunnel.

Fortunately the rain held off, for the social part of the day and the forty members who dropped in were most patient as we had just a few more announcements than usual. Afternoon tea was served and this seemed to placate the members. Thank you for such a good roll up and it was great to see several new members attending their first meeting.

### JUNE

John Baker

This report is guaranteed not to contain any mushroom jokes. John has a mushroom farm, and for those who, like me, imagined mushrooms being grown in abandoned railway tunnels. it was quite an eye opener.

This was also the day of our Annual General meeting. John made available a whole growing shed for us. The main matters covered were the election of office bearers for the next two year period, and the matter of Incorporation of the Region, and both of these are covered elsewhere in the **Main Line**.

A long table was set up with a range of items belonging to John Gordon, who died recently. I

would like to acknowledge Bruce Lovett's efforts in helping John's family find good homes for John's equipment.

A sausage sizzle after the formal meeting with some of John's beaut mushrooms, naturally. Then for those who wished, which was most of us, a tour of the mushroom farm/factory. I had no idea of the skill and precision control required to grow such a familiar item as a mushroom. Speaking of mushrooms, John had a present for all the attendees, a large bag of his excellent mushrooms to take home.

And in case you are wondering, yes John does have a railroad. Filling a 23'x13' room attached to the back of his house. The layout is a twice around double track mainline. A feature of layout is the large number of fine structures set into very realistic groups and all very well weathered. A stand out item was the coal loading area with a very well modelled mine scene.

The main line has gentle grades so long trains with lots of power on the point are the order of the day. Southern Pacific, Santa Fe, and Union Pacific locos and rolling stock predominate. Several brass GS4's with long passenger trains behind made a fine sight. A mix of late steam and early diesel units abound. The layout has recently been rewired with the help of Kevin Brown and it worked very well all the time I was watching. I believe a lot of midnight oil had been burned just prior to our visit and it was all worth it. The layout is a credit to John and his small group of helpers.

Thanks to John and his family for such an interesting afternoon. Fifty nine members and visitors made it one of our best attended meetings and I believe it was after seven thirty before the last of the members finally left.

### JULY

Galston Live Steam

This was a meeting with a difference. The Galston Live Steamers have established an interesting setup in the bush at Galston. A long dual gauge track (5" & 7") twists and loops through the bush, taking about twelve minutes for a complete journey. Passengers embark from an island platform, and there always seemed to be at least three trains loading or unloading on the two station tracks. Most were live steam models of NSW prototype. but there was also a magnificent narrow gauge three truck shay that had an incredible turn of speed on the track with six fully

loaded cars behind. The shay was constructed from photographs and the builder made all the parts except the gears, which came out of an Eaton truck differential. A couple of infernal combustibles and a battery driven electric loco on its first outing made up the balance of the motive power.

The rides were so popular that the at one stage the queue for the rides must have stretched forty metres. I also enjoyed the display of miniature stationary steam engines, especially the two working beam engines. These models were running on compressed air, but it was still so interesting to see them in motion. We did not hold a formal meeting or make any announcements this month.

## Membership Report

Please welcome the following members to the NMRA.

Michael Chellew  
20 Marshall Road  
KIRRAWEE NSW 2232

John Gaffey  
30 Hilltop Road  
MERRYLANDS NSW 2160

John Sneller  
19 Francis Street  
CAMBRIDGE PARK NSW 2747

Wayne McKenzie  
12 Benjee Place  
ISABELLA PLAINS ACT 2905

Bruce Freeman  
24 Leith Street  
PENNANT HILLS NSW 2120

Jim Underwood  
6 Nassua Place  
KALEEN ACT 2617

Mrs Kay Upton  
41 Thompson Ave  
ST MARYS NSW 2760

Mrs Vivien Wells  
P.O. Box 528  
CROWS NEST NSW 2065

Rowan Lee  
6 Chadwick Street  
PUTNEY NSW 2112

Andrew Davenport  
44 Foster Street  
HEIDLBERG VIC 3081

Garvin Hince  
16 The Glades, Johnson Ave  
HOPPERS CROSSING VIC 3030

Paul Van-Ostyen  
21 Alto Street  
STH WENTWORTHVILLE NSW 2145

Andrew Brisbane  
17 Forwood Street  
MONASH ACT 2904

Alec Maricic  
2b/294 Liverpool Road  
ENFIELD NSW 2136

Richard Ash  
1 Woodstock Cres  
PARA HILLS WEST SA 5096

Our current membership stands at 311. Don't let your membership lapse...send in your renewal

**NOW!**

## 1992 Convention Report

It has become our practice to run a 2 day Convention every second year, with a one day Convention in the intervening years. So this year's was a one day affair, held at a new location, the church hall at St. Andrews, Sans Souci. It proved to be a most satisfactory and successful venue with 115 attendees enjoying the day's activities.

Over the years a number of activities have become a continuing part of our convention program. The model and photo contests, the silent auction, trade stands, videos, and raffle and lucky door prizes. This year several new features were introduced.

By holding clinics simultaneously in two rooms we were able to present a wider range of topics.

Also a number of the clinics were of shorter duration. We hoped this format would encourage new presenters who may have been deterred by the prospect of giving a full-length clinic, and allow for the presentation of material that on its own did not warrant a full-length clinic.

Quite separately from the Modelling Contest, we invited attendees to bring models for display, this way we all got to see and admire many more models than just those entered in the contest.

A symposium on Command Control allowed a panel of speakers to tell of their individual experiences with installing a command control system, followed by a question and answer session.

At the end of the days activities most attendees stayed for a sausage sizzle and a chance to relax and talk. After this Keith McCarron presented his audio visual show of Geoff Nott's layout. Those of us who had seen it at the 1991 convention were in for a surprise as it was virtually a new presentation, and our audience gave him a much deserved standing ovation.

A strong contingent from Victoria walked off with a lion's share of the contest prizes but I don't imagine the local modellers will let that happen again without a fight.

Thanks to all those who contributed in what ever way to make this years Convention such a success, particularly the ladies who slogged away in the kitchen all day providing us all with coffee and nibbles.

Don't miss the 1993 two day Convention. see early details elsewhere in this issue and mark 15th & 16th May in your diary now ...See you there.

Glen Coventry.

### CONVENTION '93

**MAY 15 - 16**

*Special Guest Presenter - - - Tony Koester  
Former Editor, Railroad Model Craftsman and  
Trains of Thought columnist, Model Railroader  
Clinics - Layouts - Commercial Stands - Layout Tours  
Model Contest - Display Layouts  
2 Complete days of model railroading.*

## Contest Results - Convention 1992

<b>Steam</b>			<b>- Masters</b>
1st	Gavin Hince	VR A2 Loco	
<b>Diesel</b>			<b>- Modellers</b>
1st	Geoff Hoad	SF RSD5	
2nd	Per Hassel	F7 Loco	
<b>Freight Cars</b>			<b>- Masters</b>
1st	George Paxon	Composite Gon	
2nd	Laurie Green	Stock Car	
3rd	Gavin Hince	Reefer Car	
			<b>- Modellers</b>
1st	Per Hassel	NYNH Box Car	
2nd	Per Hassel	Lackawanna Box Car	
3rd	Gavin Hince	VR Billboard Van	
<b>Non-Revenue</b>			<b>- Masters</b>
1st	Gavin Hince	Tie Car	
			<b>- Modellers</b>
1st	Laurie Green	Pile Driver	
<b>Structures-On Line</b>			<b>- Masters</b>
1st	Laurie Green	Vance Junction	
2nd	Jack MacMicking	Water tank	
			<b>- Modellers</b>
1st	Jack MacMicking	Tresle bridge	
1st	Hal Saxon	Dolores Station	
2nd	Hal Saxon	Creddie Station	
<b>Structures-Off line</b>			<b>- Masters</b>
1st	Laurie Green	Silver mine	
2nd	Gavin Hince	Sassen Vinegar	
			<b>- Modellers</b>
1st	Shirley MacMicking	Dry Goods Store	
2nd	Hal Saxon	Gold Mine	
<b>Displays</b>			<b>- Masters</b>
1st	Gary Norwood	Wild Horse Mill	
<b>Modules</b>			<b>- Masters</b>
1st	Laurie McLean	Durango Yard	
<b>Photography</b>			
	1st, 2nd, 3rd	Andrew Wells	
<b>BEST IN SHOW</b>	Laurie McLean	Durango Yard	

Congratulations to all those who took part in the Contest, the standard was very high again this year.

**SCENIC MATERIALS**

<b>BALLAST</b>	A crushed & graded rock, not coloured powder or sand, which offers the ultimate in realism to the modeler. Available in 10 colours and up to 5 sizes. Suitable for all scales from Z to G.	\$ 7.50/Bag
<b>GROUND FOAMS</b>	Available in fine & coarse and a rainbow of colours - 20 off! The greens are graded (all 14 off them) to allow for almost unlimited blending	\$ 5.50/Bag
<b>WILD WEEDS</b>	As the name suggests it's used in the construction of weeds, vines & foliage - a unique material in 24 realistic colours.	\$ 6.00/Bag
<b>ROAD ASPHALT</b>	The ultimate material to model asphalt - true asphalt 1.5mm thick with fine crushed rock rolled into the surface. Available in two styles - Old & New	\$ 9.50/Bag

<u>GUTS GRAVEL &amp; GLORY</u> <i>A range of quality kits requiring only a few hours of assembly and painting.</i>	<u>VINTAGE REPRODUCTIONS</u>	<u>MORSE REPRODUCTIONS</u> <i>These kits feature one piece cast plaster requiring only painting before installation</i>
Edwards Place \$ 11.90	 Puff'n Pack Granite Duster \$ 5.50	Ass'd Crates & Barrels \$ 6.95
Hansard's Docks (4 of) \$ 11.96	Puff'n Packs Spring/Summer Grasses \$ 14.90	Tent \$ 3.60
Paynes Clockworks \$ 13.90	Puff'n Packs Fall & Winter Grasses \$ 14.90	Assorted Crates \$ 6.95
Ashpit (HO/N3) \$ 9.70	Puff'n Packs Evergreen Needles/Bark \$ 14.90	Tent Cabin \$ 7.90
Migrant Workers Rooms \$ 13.90	Fluffy Wet Snow with micro Sparkle \$ 10.50	Hobo Camp Site \$ 6.50
Ashpit (HO) \$ 9.70	Cold-Dry Snow with micro Sparkle \$ 10.50	Bee Hive Charcoal Kiln \$ 12.90
J.Lott Blacksmith \$ 17.90	Slushy Blend Snow with Sparkle \$ 10.50	Tent Camp Site \$ 8.20
Enginehouse Insp. Pit (HO/HO/N3) \$ 18.50	Scale Cable 0.016"/0.012" \$ 2.75	Bee Hive Kiln Collapsed \$ 12.00
Riedigers Store \$ 17.90	0.009" / 0.006" \$ 2.75	Log Cribbing \$ 9.70
Small Bridge Piers (3 of) \$ 9.96	Scale Chain (28 links/inch) \$ 4.50	High Lonesome Mine Set \$ 49.00
Three Outhouses \$ 15.90	Tarred Rope \$ 2.75	Timber Croc (S-Tail) \$ 2.50
Cut Stone Retaining Wall \$ 13.96	Railroad Crossing Sign Round \$ 4.60	High Lonesome Ruins \$ 49.00
Cromwells Cabin \$ 17.90	Railroad Crossing Crossbucks \$ 4.60	Stone Culverts \$ 5.40
Stacked Stone Retaining Wall \$ 11.96	Western Union - Old Style \$ 4.60	Log Cabin with Fireplace \$ 8.95
Pritchett M'tain Tattler \$ 17.90	Western Union - New Style \$ 4.60	Tunnel Portal \$ 9.75
Maples Branch Tank (HO/HO/N3) \$ 17.50	Railway Express - Rectangular \$ 4.60	Detailers Bulk Pack \$ 14.90
Wisby's Grocery \$ 17.90	Street Stop Sign - red & white \$ 4.60	Hand Car Shed \$ 11.50
Tunnel Portal (Rough Cut) \$ 9.70	Street Stop Sign - yellow & black \$ 4.60	Trails End (painted) \$ 8.50
Martins Pole Barn \$ 13.90	 <u>MORSE REPRODUCTIONS</u>	Privy (Lean-to Roof) \$ 4.25
Small Bridge (Rough Cut, 2 of) \$ 9.70	Angle Mine Portal & Tunnel \$ 9.20	Water Tank \$ 8.50
Durlans's Repair Shed \$ 11.90	Explosives Storage Building \$ 7.20	Hay Bales (Rectangular 25 of) \$ 6.50
Retaining Wall (Rough Cut) \$ 13.50	Angled Mine Track \$ 8.50	The "Old House" \$ 3.90
McCarthy's Engine House \$ 39.90		Powder cache \$ 7.20
Bridge Support (Rough Cut) \$ 7.75		Covered Top Tank \$ 4.80
Burkholz's Stamp Mill \$ 48.50		Mine Portal & Tunnel \$ 8.20
Small Culvert (Rough Cut) \$ 7.75		Cliff Side Powder Cache \$ 9.00
Simmons Power Plant \$ 68.00		Mine Track (use with portal) \$ 8.50
Bridge Abutment (Rough Cut) \$ 11.60		Small Grain Bin \$ 9.90
Square Tank Base (4 of) \$ 1.70		Yard Office \$ 7.80
Concrete Tank Support (4 of) \$ 1.70		
Water Tank Base (4 off) \$ 1.70		

<u>TOOLS - To Make the Job Quicker and Easier</u>		
	<b>SPRAY RACK</b> Designed to reduce air turbulence by 97% and improve spray pattern	\$ 17.50
	<b>TEST PAD &amp; HOLDER</b> To test spray pattern before use	\$ 8.75
	<b>BENCH ORGANIZER</b> Poly foam block to hold jars etc	\$ 12.50
	<b>KADEE TRIP-PIN ADJUSTER</b> - This tool provides easier and more precise control when bending the trip pin on Kadee Couplers. Can also be used to shape wire parts.	\$ 35.00

*Products for the Discriminating Model Railroader*  
**VIEWING IS BY APPOINTMENT ONLY**

Phone Fax or Write for further details.

**STOP PRESS..STOP PRESS**

Last day for ordering one or two Gorre & Daphetid box cars as advertised since May in the Bulletin is 31 October, just barely two months away. There will be no extension and no repeats as the next car from Linn Westcott's Sunshine & Navigation Railway Company will then become available.

I have seen the cars and they are exquisite with both the O and HO cars made by the state-of-the-art company InterMountain Railway Company. The N scale car is manufactured by K Dee and is up to their usual quality.

They are not cheap at \$US12 for HO or N and \$US28 for O plus postage of \$US7 per order but the prices compare favourably with retail prices of other models made by InterMountain of \$US13.98 and \$US29.95

for decorated 40 foot box cars. Remember, these are state-of-the-art and cannot be compared with the usual freight cars we have been used to seeing.

I will have examples of InterMountain's HO and O cars at Sowerby Smith's meeting on 12 September (but not G & D as none were available in Columbus). If you wish to order any cars, Shirley MacMicking will be pleased to take your order for despatch to Chatanooga charging your individual Mastercard or Visa cards. The cars will be sent directly to you by Chatanooga and NOT in bulk to Shirley to avoid any duty or sales tax problems to the Region.

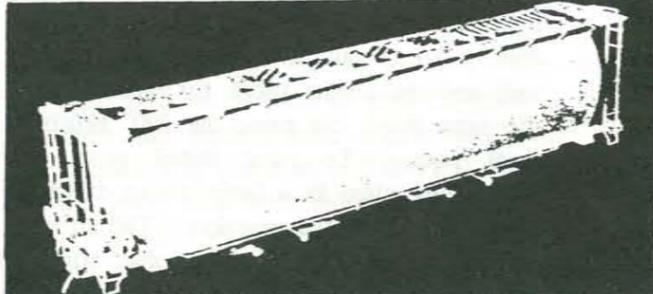
This is a free service to our local membership. We are making nothing out of it at all but I was just so enthused on seeing the cars at Columbus that I thought everybody should benefit. If you can't make the 12 September meeting, Shirley will accept orders up to 16 October at her home address or telephone.

from John Saxon

## THE MODEL RAILROAD GENERAL STORE

SPECIALISTS IN HO & N SCALE EQUIPMENT

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**UNDEC. \$ \$15.50 A**

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**PROTO 2000, SD 7 & SD 9**

**FROM THE MODEL RAIL ROAD SPECIALISTS**



The history of Durango is fascinating when reading about how the town started. The Denver and Rio Grande RR bought the land south of Animas City, a small community to the north, and paid much less for it than the land on offer in Animas City. Therefore the RR sold blocks just before the tracks reached the new settlement and made a tidy profit. With mineral wealth in the mountains around Durango and particularly to the north, it was only a short time before rails ran to Silverton and Otto Mears began construction of the famous "Rio Grande Southern." The "Southern" as it was to become known, ran from Durango in the south, to Ridgway in the north and travelled west from Durango to Dolores and then north and travelled west from Durango to Dolores and then north to Rico, Telluride and other historic towns. Otto Mears could not build his RR from Silverton to Ridgway only a few miles because of steep mountain slopes with impossible grades, so developed the R.G.S. The rails from Durango to Silverton are still very much in place today and the original 3 foot narrow gauge locomotives and cars still run with 3-4 trains a day for tourists and rail fans. One story from the past about Durango goes something like this. An infamous law breaker who caught the train into town, got off and walked over to the saloon and ordered whiskey probably to wash down the cinders. He then went to the First National Bank and proceeded to rob it. Frontier justice was mighty quick in "them days" as he was caught, tried, sentenced and hanged by the neck all within 2 hours of leaving the train!

Enough history for now, let's get on with the modelling. This issue has a sketch on the front cover showing the yard as modelled and looks like the prototype. In this issue the remaining structures will be discussed, namely the coachshed and coal tower.

The coachshed was exactly that, a shed for repairing passenger cars and similar equipment. As it sits on the very front edge of the module it stands to reason that it should be super detailed,

to reflect and influence the remaining buildings. The prototype could hold 3 coaches inside but the model was made proportionate (visually) to its big brother the roundhouse and therefore was made only 80 feet long.

Construction was to be all styrene to avoid warping and twisting and Evergreen Styrene board and batten was distressed on both sides. The flat side was distressed by running a razor saw across it to represent the internal boards rather than glue boards on and thicken the wall.

The 2 side and 2 end walls were made on the workbench and to the inside wall were glued many and various detail parts. Shelves, workbenches, clocks, tools, spare parts, radio, lights and lamps, pipes,

tins and boxes plus other parts were all added. Then all the walls were joined onto a 0.040" styrene base with code 40 rail laid and the lot spray painted. The roof frame was cut and using a timber jig, the styrene didn't adhere to the timber, when using Testors cement. Scale metal corrugated material was cut to 6' x 4' sheets. They were immersed in a weak metal solution of hydrochloric acid for 24 hours to thin the sheet and let it rust naturally. This method works very well and the results speak for themselves. After the paint dried, out came the "00" brush and the paint pots. To paint detail parts I use a magnifying glass in a lamp on an extension arm so that I don't make mistakes. The structure was painted and stained (washes) and after, further detail parts were stacked and spread around the floor and walls to represent materials used to make repairs. The model was then fitted into place.

### The Coal Tower:

Towering high over the yard this structure sits right about in the middle and complements the other buildings. Again built of styrene by choice, the construction was based on the excellent drawings of a prototype bucket loading coal tower on page 54 of R.L Dorman's book "Durango - always a railroad town" - still available. Photos provided the unique features that were applicable

**..caught, tried, sentenced and hanged within 2hrs..**

**...Sub-Assembly is the key to complex building....**

to it.

Sub-Assembly is the key to constructing complex items so the machinery house was built first, then the coal holder with all external timbers and finally the bucket guide beams. The track at the rear was 6 feet higher than the loco/chute track but I chose to increase the height to 10 feet to add the "feel" to the overall effect. The coal cars dropped the coal over a grid that sloped down to a pit where the buckets lifted the coal up and spilt it into the large coal bin. This bin was built of 0.020" styrene and 0.020" brass wire used under the rails at right angles to represent the grate where the coal fell through. Strip 1/8" x 1/8" styrene was used for most beams rather than actual scale size, this way it condensed the model in line with the other buildings. Nut, bolt and washer Grandt Line castings were glued onto the timbers. A sharp craft knife cutting the bolt shaft directly under the washer saved drilling all those tiny holes. Scale rusty wire was run over Grandt Line HO and N scale cable wheels for the bucket system and buckets made from 0.005" thick styrene. The coal chute gate is curved and a piece of Dymo tape did the trick. The gate assembly used N scale brakewheel and brass wire through pillow blocks and 36 link chain dropped to the lower linkage shaft - all fabricated.

All the assemblies were glued and sprayed with several very light coats of paint to give the grimy look. Lamps and ladders were added last and again the model was glued to a 0.040" styrene base. It's a good idea when building a lineside model to check clearances - it's very embarrassing to have a tender's doghouse knock a coal chute off! besides the 'Floquil' paints that are applied by a double action air brush at 20 PSI, I also used pastel pencils. Scraping a craft blade or file over the pencil and doing this over the model allows fragments of the 'chalk' to fall, landing on areas as directed. A cotton bud rubbed on these areas spread the chalk and gives a soft weathering touch - if it's too much then wet the other end and touch up. Mixing the colours before rubbing also gives excellent results.

### TRACKS

The trackwork for the 6 x 3 module was the

trickiest part. A ladder of tracks spreading out from the water tank end had to spread quickly and be compact whilst allowing enough radius for large locomotives.

This was accomplished by manufacturing a 22 inch radius tracksetter and drawing onto the base board roadbed. Aluminium plate 1/16 inch thick was used. To get the arc I put a sharp nail in a length of wood and another 22 inches away from it. Then a scribed line was cut across the plate and then the jig saw cut the curve. Callipers set at the inside rail measurements (refer to N.M.R.A standards) were used to run along the arc to produce the second arc line. This again was cut and filed and regular checks with a dial vernier made to be sure of size. This seems a bit rough but I have made 2 such gauges being 12" long and they work fine.

Double sided sticky tape being 3/32" thick, is laid over the pencil lines on the roadbed. Again the tracksetters are used to obtain the final track lines. Onto the tracklines go the printed circuit board ties where upon the turnouts are

built by hand. This enabled the turnouts to be very close to each other in forming the ladder and saved valuable space. The rail used is code 55 and code 40 flextrack is also used because of it's appearance.

To Be Continued.

## A SIMPLIFIED REVERSING LOOP

By John Saxon.

As built, the main line of the Cedar Valley Short Lines represented a bridge route between the stub terminus at East Haven and the two track reversing loop at West Brook. Southern Pacific centres of Reno and Sacramento are represented by the ends of the continuous run that join Cedar Valley and the outskirts of East Haven. (Refer to the recent track plan schematic in **Main Line** for more detail). Whilst fine in theory, operation tended to avoid the East Haven terminus because of the difficulty in turning arriving trains.

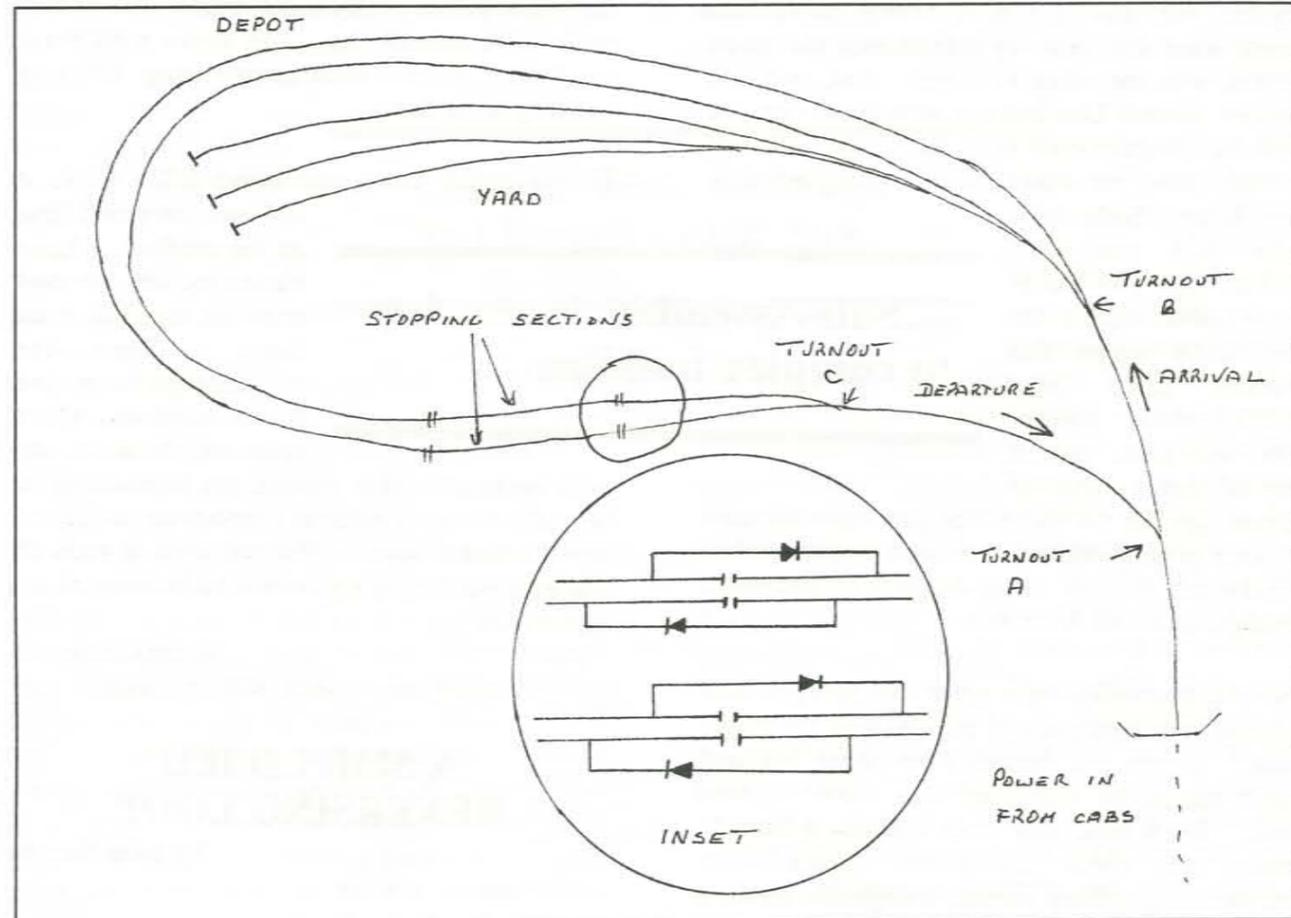
Another problem was that as both termini are

situated in an adjoining room the manual turnouts at East Haven were ignored although the remotely operated (from the main room) turnouts at West Brook enabled trains to be easily turned after arrival there. What to Do? What to do?

I examined the room again and remeasured the width. I found that I could extend the two rearmost arrival/departure tracks in a minimum 25 inch radius double loop to rejoin the main line from Cedar Valley, leave a reasonable aisle and still reach the yard turnout throws without ducking under. Wow! I now had a double

someone there. However, when running trains with only one or two it was still a nuisance as we had to run to the room to manually change these turnouts at inconvenient times. I did consider also electrifying these turnouts but it meant another control panel in the main room plus attendant lengthy wiring.

I finally came up with the circuit with this article. Provided we were prepared to accept that trains would always enter East Haven in an anti-clockwise direction and that they should stop before exiting on their way back to Cedar Valley



reversing loop at both ends of the layout with the continuous run retained (Allowing both Reno and Sacramento to be represented still at each end of the continuous run). Operation now became a lot simpler and we could operate up to nine separate trains by utilising the reversing loops, both ends of the continuous run plus some of the passing sidings. The mind boggled!

However, there was a problem, wasn't there! There was still the manual arrival/departure turnouts in the adjoining room which were not a problem if we had enough operators to station

we had a simple reversing loop without the usual extra direction switch normally required with a reversing loop plus the benefit that once trains were directed towards East Haven we could forget them until we were ready to change the entrance/exit turnout in that room plus reverse the main direction switch. Trains stalled in the stopping section would now depart when we were ready and there was no pressure to be in the adjoining room to receive arriving trains provided we had reset the departure turnout to arrival when prior trains had exited. Also, trains could now enter/exit the stub yard under supervision when

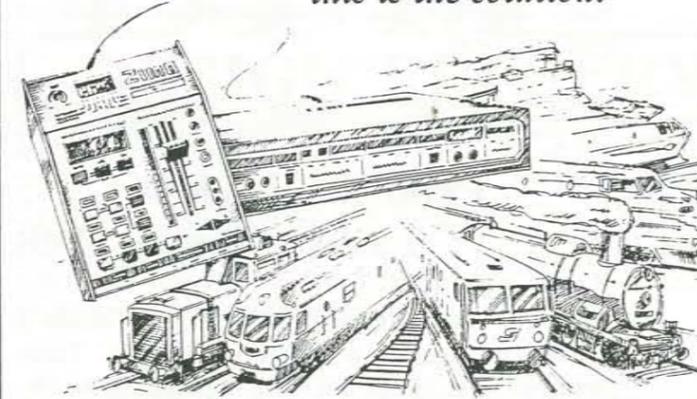
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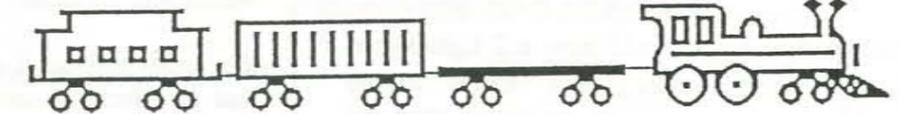
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required. Eureka!

### CONTROL DIAGRAM:

All arriving trains must travel through the loop in an anti-clockwise direction as the diodes associated with the stopping section will not pass current in the opposite direction. Of course, we could bypass the diodes with push button switches but we would then need gaps in the rails before turnout B at the other end of the loop or perhaps more diodes could join such gaps. This however would be an unnecessary complication to an otherwise simple reversing loop control.

Trains entering the stopping sections on either track are brought to a halt automatically. When we are ready to exit the loop it is only necessary to reverse turnout A and reverse the direction switch on the Cab to the Exit position. The train will then exit and we should return turnout A to the normal arrival position ready for the next train to enter the loop or to terminate in the yard. Note that all turnout frogs must be electrically live for current to continue to flow to the left hand rail when turnout A is set for departure otherwise steam locomotives will not start. Also, make sure the diodes are hefty enough to handle the current.

### SIGNALLING:

Signals have not as yet been installed and are not really needed but it struck me that a simple arrangement with LED's driven by track power could be installed with a minimum of expense and complication.

Each departure track would have a 2 light signal with the lower utilising red LEDs driven independently of track power to ensure they are ALWAYS lighted no matter what the condition of turnout A or track polarity. Both upper LEDs could be bi-polar, green or amber BUT would only operate when the cab direction switch and turnout A are set for departure with power applied. This seems the only flaw in an otherwise simple system as those top LEDs will not otherwise be lit.

Using a bi-polar LED we would have a red aspect when turnout A was set to departure but with the direction switch set in the arrival direction. The green or amber LEDs would be

dark however as they should be but of course we would not have red over red. Now I don't think this is too big a problem provided the operating rules say that a train must not pass a single (or double) red unless there is a green or amber over it. I think this probably complies with prototype practice, maybe though in Transylvania. They say there is a prototype for everything!

On setting the turnout and controller to departure positions and applying power the top signals will light, either green or amber depending on what LEDs are used. Well, there it is, try it, you might like it and if you can improve on it without too many complications, please drop me a line or give me a call.

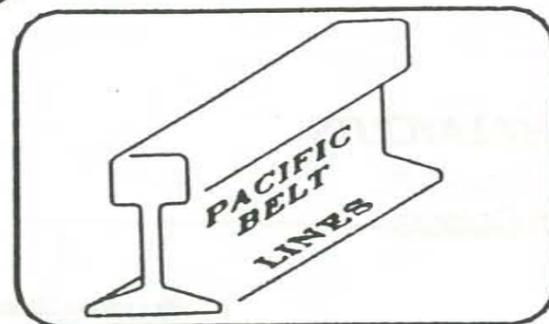
## Product Review

Gerry Hopkins MMR

Since the Convention in May I have made a number of changes to Kennebec County. These changes have given me the opportunity to try some new scenic materials, namely "Timber Products" range of ground covers which are available from S.S.E Pty Ltd. (see advert elsewhere in this issue). There are 20 colours to choose from, including 14 shades of green. The textures are similar to Woodland Scenics but the grades actually fall in between those of Woodland Scenics. The ground form is easy to use ....you don't have to use different methods for different products. I found the different shades very useful, I blended the grasses to show variation in growth of weeds around the water tank...the ones in wetter soil are darker.

The other product I used is also from S.S.E. P/L and is a form of untreated, coloured wool called "Wild Weeds". It is ideal for use as long grass tufts. The colours can be drawn together and blended. Gary Spencer Salt will do a mini clinic one meeting day to show its versatility. There are 24 different colours available in this product.

I also bought some bags of their ballast, there are 5 colours available, the smallest size is suitable for N scale and the largest for garden railroads. The product is natural rock that has been crushed, the colours are natural and permanent. I have not yet been able to try the ballast but it won't be long before I do.



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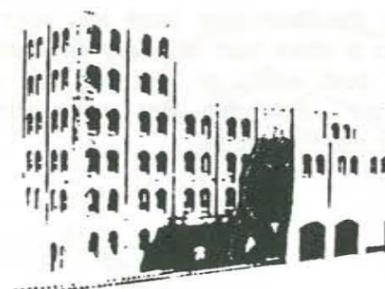
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# TOWARDS LIGHTWEIGHT LAYOUTS

## Part 4 - "Hot Wire" Cutters

By Lyndon Spence

### Sources of Styrene Foam

As mentioned in my last article, the most economical way of obtaining expanded polystyrene foam is to scrounge used foam packing pieces. With a little bit of scouting around, your'e sure to find a scrap bin full of it somewhere. Don't forget to seek permission first before you remove it though. Manufacturers, suppliers, wholesalers and shippers use it to pack all kinds of objects these days. Most of my material came from a local construction group who used it for formwork for concrete pours. In actual fact, the large amount of scrap thrown out was so embarrassing that it's better off no names be mentioned, but it does illustrate that the sources are out there and may be where you least expect it.

### Odd Shapes and Sizes

Now you've obtained all that scrap, probably the most common thing they share is how dissimilar in size and shape they are. They usually don't lend themselves to easy layout and scenery construction. "Hot wire" cutters and shapers can turn them into squared-off symmetrical building blocks and shapes. By passing a heavy electrical current through a resistance wire, enough heat is generated in the wire to easily cut through styrene foam. Using this method cut surfaces end up smooth, sawdust-free and uniform, ready to stack, glue together and further shape into your required scenery contours (as per part 2 in this series).

### Two Types

I've built several different cutters for both myself and the local model railway club, and two designs have proved the most useful and easy to use. I've nicknamed them the "SLICER" and the "JIGSAW", as shown in the accompanying drawings.

### Construction and Material

See the drawings for general assembly and construction. Materials and dimensions are not that critical, but for best results, make sure the base is smooth and sturdy.

Also make sure the wire is strung parallel with the base in the case of the "SLICER" and 90° square to the base in the case of the "JIGSAW".

### Hot wire

The "hot wire" should be between 0.25mm and 0.5mm in diameter, Nichrome wire works fine. I, in fact, have been using 0.45 mm - diameter stainless steel which has an added advantage of being self-cleaning. Use heavy flexible insulated wire to connect to the power source such as 41/0.32mm PVC covered (from Dick Smith, cat no W2288) and keep the leads as short as possible. Remember you want to have most of your heat generated in the "Hot" wire and not in the leads.

### Power Source

Use a low voltage, high current transformer. Ideal is a "SCOPE" - brand Soldering Iron Transformer which has an output of 3.3 volts and 30 Amps.

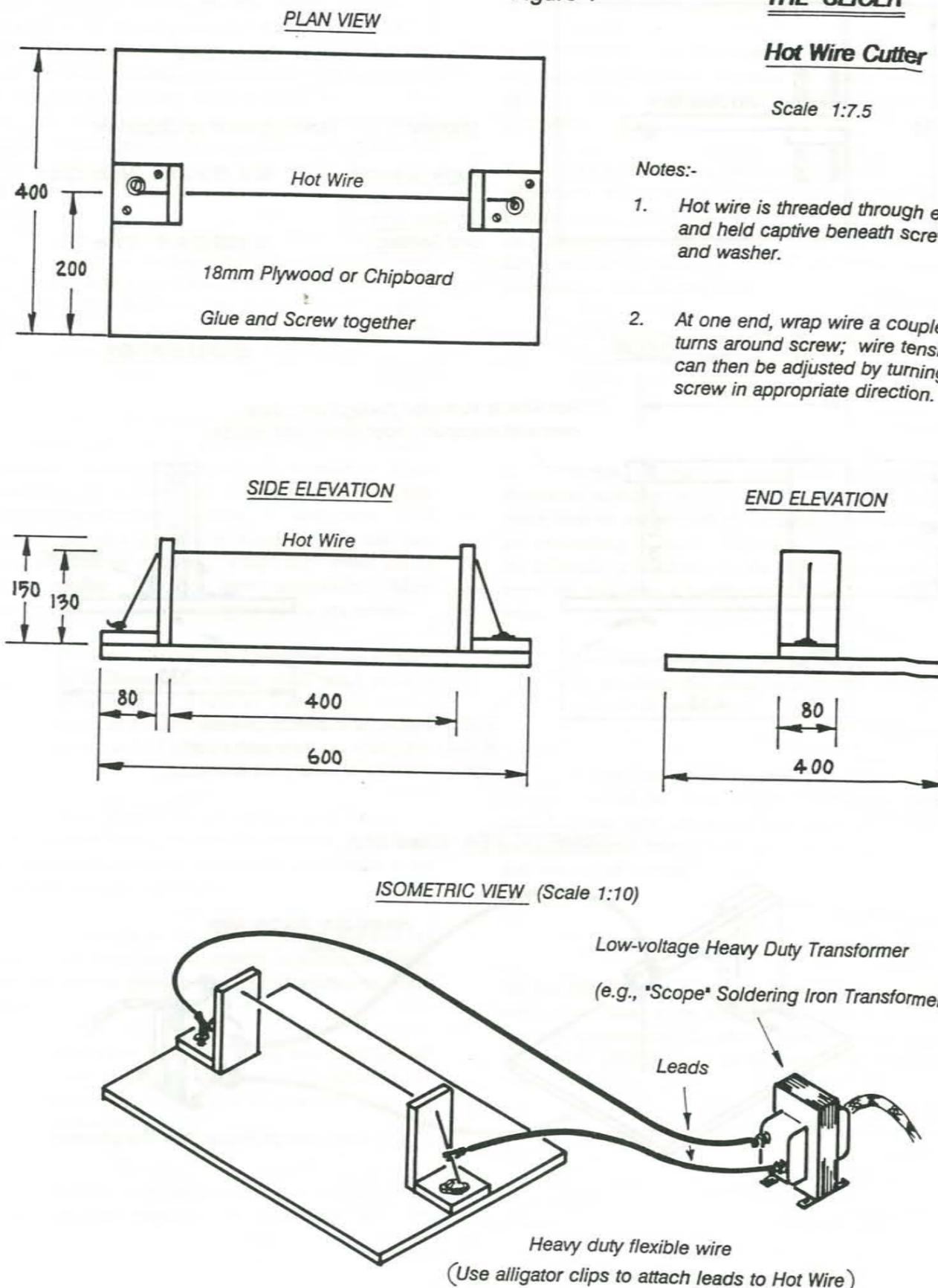
### Experimenting

Experimenting is the key to obtaining good results. With a little bit of practise, you can feed the material through the cutter at a steady, consistent speed to obtain a smooth, even cut. Too slow and excess fumes are created, too fast and the material will rip apart, rather than be cut. Don't forget to provide plenty of ventilation (outside is better) because of the fumes given off. Vary your required finished thicknesses simply by packing between the "hot" wire base and your material. Make up a short lead of heavy flex with alligator clips at both ends, so that you can affectively "short out" unneeded hot wire when using narrower material stock.

### Wire

Anybody finding difficulty obtaining the HOT WIRE either see me at one of the Sydney meetings or send me a large S.A.E. and I'll gladly supply you with a couple of meters of it.

Figure 1



### THE "SLICER"

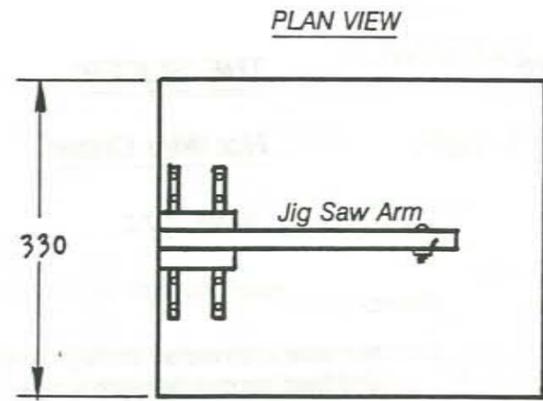
### Hot Wire Cutter

Scale 1:7.5

### Notes:-

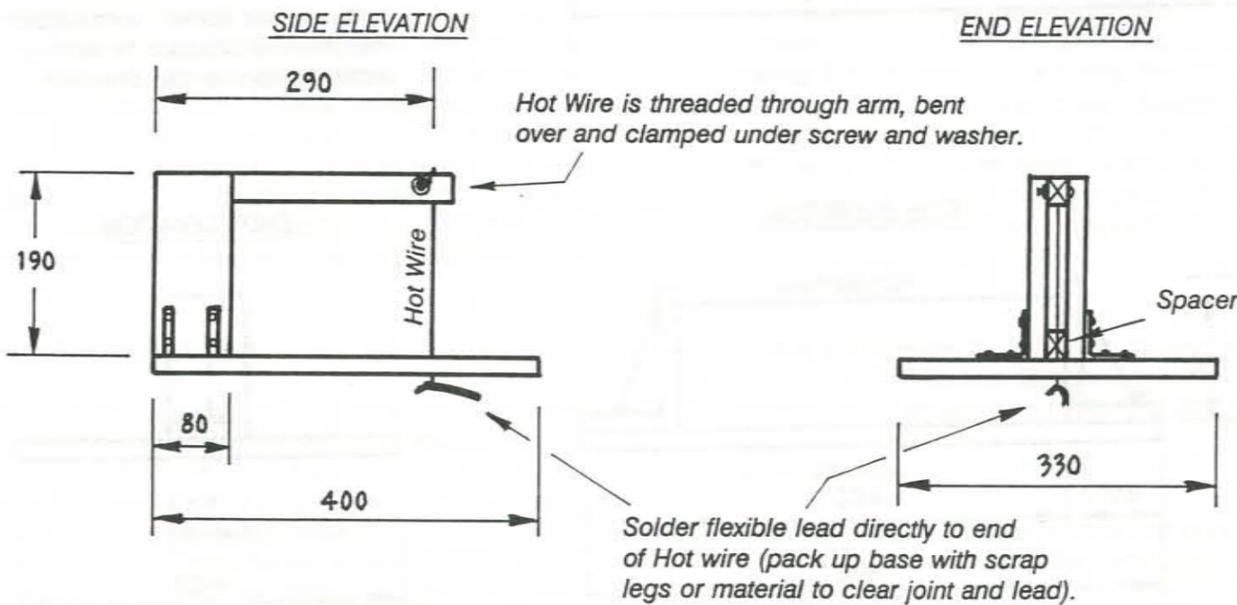
1. Hot wire is threaded through ends and held captive beneath screw and washer.
2. At one end, wrap wire a couple of turns around screw; wire tension can then be adjusted by turning screw in appropriate direction.

Figure 2 **THE 'JIG-SAW'**  
**Hot Wire Cutter**

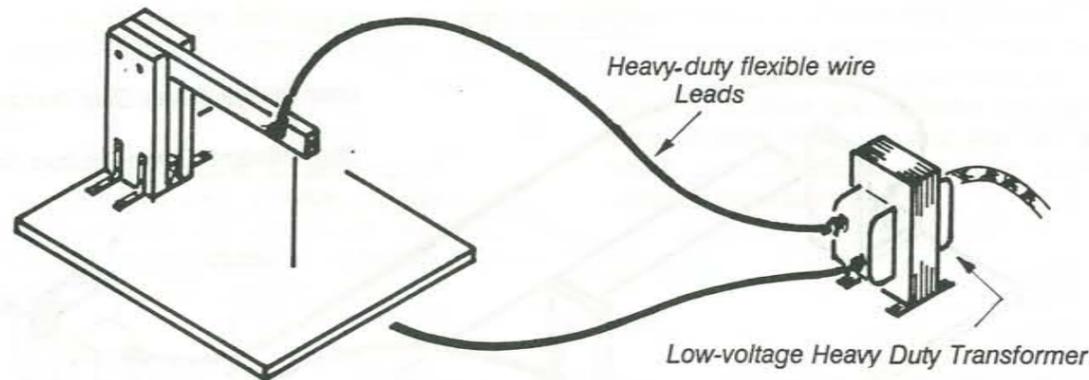


Scale 1:7.5

- Material:-** 18mm Plywood or Chipboard  
**Angle Brackets:-** 50 x 12 x 2mm Metal Strap  
**Jig Saw Arm and Spacer:-** 30 x 20 D.A.R. Pine



ISOMETRIC VIEW (Scale 1:10)



1. Is there any way we can do white photostats? If so, then we can make a range of decals ourselves. There is really a large range of decals unavailable from the well known makers. Many construction articles in the model press deal with rolling stock for which there are no decals. More accurate lettering can be accomplished, especially now that accurate rolling stock modelling is the present fad. The effort and cost of home made decals is very reasonable. If we do it well collectively may be able to sell a few to US modellers for our own gain or the **Australian Region, N.M.R.A.**

*The Copier Training Officer at Canon Australia, Brisbane should be able to help here. He is a narrow gauge modeller and belongs to AMRA, Brisbane. One of the Canon PC copiers can use a white toner cartridge and there are decal sheets available for these copiers.*

---Editor

2. One of the poorest model aspects and one of the most expensive is automobiles on the layout. American models are particularly expensive. Many modellers, both here and overseas make do with utterly inappropriate vehicles. I can carve 1/87 wooden patterns if there is someone who can cast them in whatever medium. Perhaps they would not be great models but at least acceptable. More importantly we can do prototypes of the era needed.

*Customer Casters (F&G - Puffing Billy Models) of Melbourne make some white metal castings of quite a few US vehicles, I don't know the full range as I only use models prior to 1945 which covers a third of their range.*

---Editor

3. How about a list of products and sources of RTV silicone casting rubbers in Australia. A.M.R.A. in Queensland use them extensively and I believe we could do wonders with them.

4. As we are so far away from America and yet some of our members are experts in particular fields, why not have a question and answer section in **Main Line**?

*Both Peter Webb and myself have tried several times to start this but members are afraid to ask questions. I would love to print any questions and answers.*

---Editor

5. Publish in **Main Line** a list of members who have particular expertise or knowledge and are

willing to help fellow members with queries. We may have someone who is an expert on Railroad Software or someone who belongs to a R.R. Historical Society in America and can answer questions on his railroad.

6. Publish a list of proprietary products and the nearest similar product available in Australia. For example, what is the nearest available product to Homasote?

7. We badly need a list in this hobby of all the proprietary rolling stock available and where it was derived from. For example, Athearn 40ft steel box car, catalogue no. xxxx, derived from ARA standard 1937, nearest typical car = C.N.W. no. 45628, plans published in MR, March 1963.

*NTRAK have done something like this in N scale. Perhaps someone could organise an SIG to do this....maybe as a computerised data base.*

---Editor

8. A list of ongoing research being done by Australian modellers would be useful so that we don't waste time or are pointed in the right direction if we are researching a similar subject. I am interested in the railroads in Kentucky in the forties and for all I know we may have a member who lived there at one stage.

*Our membership listing shows the 'interests' of the members, this could be a starting point for someone to make a list.*

---Editor

9. A historical chronological list of rolling stock "events" would be very useful. Lists have been published but they are never very extensive. Some modellers would hate to have an item on their layout that was out of context.

Ian Venebles

Ian has raised a number of good points, each of the items above need to be followed through. If anyone has any comments on the above items I would look forward to printing them in the next issue of **Main Line**.

Gerry Hopkins.

# MODEL CONTEST JUDGING

At this year's convention, the Best-In-Show trophy was awarded to Laurie McLean's grandiose Durango module with Garry Norwood's small but exquisite Colorado mill a scant 0.75 points behind and with such a close result there was naturally much interest in how the contest judging rules could generate such a small difference out of 125 possible points. As Trustee and a Vice Chairman of the NMRA Achievement Program I felt I should re-acquaint myself with the regulations and write an article to guide future entrants in our competitions.

Firstly, some general comments:

1. The model contest rules are defined under the Convention Department section of the NMRA Executive Handbook which contains all the rules under which the NMRA operates. As Trustee, I have a copy of the handbook and will be pleased to supply any one interested with a copy of any relevant sections.

2. Our judges, like the rest of us, are volunteers and donate their time (and miss some of our convention fun) in the interest of the Hobby and the NMRA. They do their best under the guidance of our contest chairman and like all judges anywhere, their decisions must be regarded as final.

3. Currently, at least two judges score every entry, independent of each other so that neither is influenced by the points awarded by the other. For that reason the judges score sheets returned to entrants may not have individual points shown but only the total for each factor.

4. Where there are differences of 10 per cent or more in the points awarded by the two judges in any of the five factors being assessed for each entry (Construction, Detail, Conformity, Finish/Lettering and Scratch-Building) the marks are reviewed by the contest chairman. Only then will the points be varied up or down in accordance with the contest chairman's assessment and then only with the concurrence of the two original judges.

5. The Scoring Aid used by the judges as set out on the back of the Judges' Score Sheet (the main entry form) is a guide only as cautioned under note 3 of the form.

6. If a model has previously won first place in a contest, it is precluded from being entered in the same category in a subsequent contest unless there have been sufficient improvements, alterations or additions to it which in the opinion of the contest chairman

warrants its acceptance again.

7. Even if a model has won first place in a particular category but has not won a special contest, it can be entered again so that it can be scored in that special contest, such as our Best-In-Show.

8. Structures can be entered as Off Line (i.e. not owned by the railroad), On Line (i.e. owned by the railroad and permanently fixed along the right-of-way) and as Display Dioramas (i.e. being a model or group of models which include supplemental scenery not pertinent to the function of the model or the primary structure). When there is any doubt as to the correct category, the contest chairman has the final say.

9. Models are scored individually; they are not ranked against each other in awarding points. Once the judges have scored a particular entry, they do not move back to it to re-assess it (Refer 4 above for the exception).

10. Although the scoring rules are similar, the aims of the Achievement Program (AP) and the Model Contest are not exactly the same. The AP is designed to

reward good modelling on the home layout and merit awards given as a result of success in the Convention model contest may be used towards qualifying for AP awards. The AP can be more generous in awarding marks than in

the model contest where appearance and prototype fidelity are paramount. There is no provision in the model contest for bonus points whereas the AP encourages the modeller by awarding bonus points for extra effort. An exception is that in the model contest, fabrication of any normally excepted item such as a casting or shape can be rewarded with extra points.

Now to the Rules themselves and by way of illustration and with the approval of both Laurie and Garry, I will illustrate the application of the rules by referring to their specific results.

To quote the Handbook;

**NMRA EXECUTIVE HANDBOOK  
CONVENTION DEPARTMENT  
ISS: 6/73 PAGE  
REV: 3/1985 17.3**

## JUDGING

1. Senior Judge - (Usually the Contest Chairman) shall serve to clarify points of question for technical judges and to verify tallies.
2. Technical Judges - the technical judges shall

determine and score points.

3. Factors - these factors shall be the governing system for judging:

3.1 Construction - This factor deals with the apparent **quality of workmanship** of builder (entrant). Proper handling of materials, applied labor, skill and craftsmanship as demonstrated by the construction, is considered.

(Out of a maximum of 40 points, Garry scored 33.5 and Laurie 33.0.)

3.2 Detail - This factor deals with the **REFINEMENT** of the model. The amount of subordinate parts added, as well as the complexity of the model is considered. Quality of detail is not a factor - only **QUANTITY**.

(Out of a maximum of 25 points, Laurie scored 24 and Garry 20.75, reflecting the multitude of exterior and interior detail displayed by the Durango module.)

3.3 Conformity - This factor deals with what is commonly called Prototype Practice. Logical construction and application of parts is considered to be conforming to prototype.

(Out of 10 points, Garry scored 8.75 and Laurie 8.5.)

3.4 Finish - This factor deals with the general appearance and proper application of finish and lettering (when lettering is a necessary part of the model) as reflected by surface treatment to achieve a specific effect through proper use of materials. Painting, weathering and special effect are considered finishes. Lettering either by decal or hand, is considered for the job done. The quality of commercial decals or pre-lettered parts are not the responsibility of the builder.

(Laurie 20.5 and Garry 20.0 out of a maximum 25.)

3.5 Scratch-Building - This factor deals with all parts of the model which have been **FABRICATED BY THE BUILDER**. Preformed wood and metal are considered basic material for Scratch-building.

(Garry 21.25 and Laurie 19.0 out of a maximum 25.)

The scratch-building area seems to be least understood by entrants generally although the rules attempt to be as specific as possible to guide us. To quote more from the Executive Handbook:

4.51 Scratch-Building sub-schedule. This sub-schedule serves only as guide lines for judging for this Factor. It is not a definition or description of a type or model. Fabrication of any excepted item by the builder may warrant

the awarding of points above the group norm.

The sub schedule then goes on to describe those manufactured items such as motors, gears, trucks, sheet and shapes making up a particular model which are acceptable under the Scratch Building factor to allow award of maximum points. The important point to note is that 4.51 specifically refers to this section of the rules being "guide lines for judging" ie the judges are allowed flexibility in applying the rules to the entries.

Although not strictly within the rules, the judges were so impressed with both models that they awarded each of them 5 bonus points so that Laurie ended up with 110.0 and Garry 109.25 out of 125, a fantastic result which can only be envied by we lesser mortals. In fact the results were so close that our contest chairman Gerry Hopkins MMR and our visiting head of the Achievement Program Wil Seaver (a National judge himself) both independently reviewed the scores but could not fault them.

Before I forget, Wil Seaver's visit was the first by one of the NMRA Executive Committee, he is also the Western Area Vice President with responsibility for our Region as well as those on the West Coast of the USA and Canada.

Wil timed his visit to coincide with our Convention and as a result of his suggestions and apparently in line with other Regional model contests we do intend to introduce a different judging procedure at least on a trial basis for our next Convention. Rather than each pair of judges being allocated a particular category such as locomotives or cars, etc., the same pair of judges will assess all categories for a particular factor such as construction, conformity and so on. In this way entrants will have ten judges assess their models rather than just two as in the past plus there will be less chance of inconsistent marking between model categories.

I hope this article will be some help in understanding our model contest rules and their application by the judges. Both Gerry Hopkins and myself will be pleased to expand on any of the rules on request.

Remember, the idea of the model contest is to improve our modelling skills. Only by having independent skilled modellers review our work will we improve. Whilst sometimes we might be disappointed that we don't receive the marks we believe our model might be worth, sometimes we can be pleasantly surprised and in any event we will be spurred on to better efforts. So be in it, get that model out of the cupboard and have a go at the next model contest. I can promise you will be stimulated and you just might encourage others with your work.

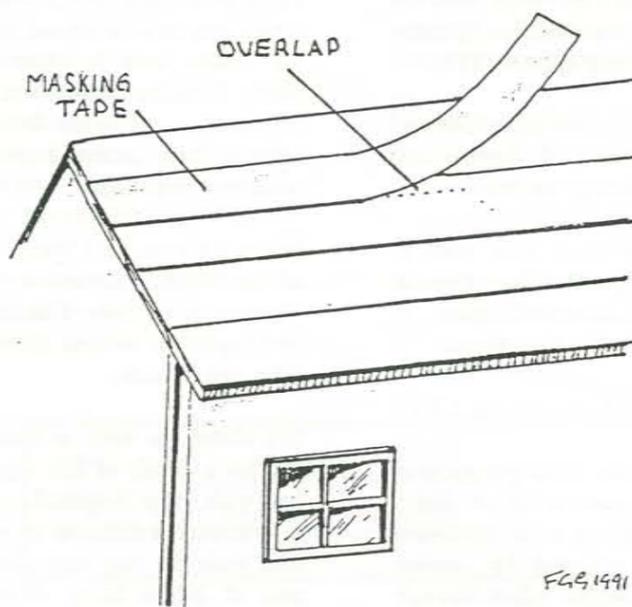
**John Saxon**

## MINI TIPS

by Fred Gill MMR

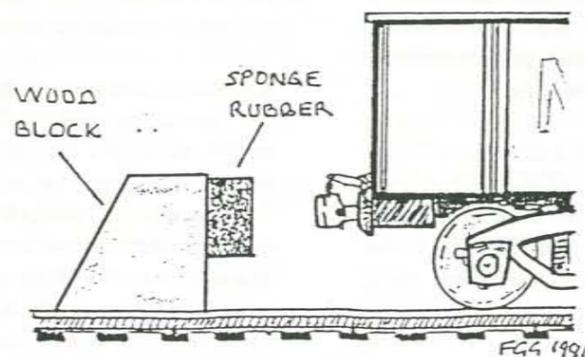
### Tar Paper Roofs

To obtain a trapaper roof on your buildings, you can use masking tape. Start at the eaves and work upwards, by applying each length to overlap the preceding layer. Paint the completed roff black and then weather it.



### Shock Absorbing Bumpers

A piece of sponge rubber glued to a block of wood and nailed or screwed to the baseboard will act as a shock-absorbing bumper and save damage to rolling stock couplers.



## NORTH AMERICAN RAILROADS ON VIDEO

### STEAM POWERED VIDEO RELEASES (PAL Format)

#### American Titles

##### General Steam (Current and Archive)

- Sacramento Steam Showcase 90 mins BK \$72.00  
*(Everything - exhibits, pageant, ferry runs)*
- Runnin' That New River Train 58 mins HW \$72.00  
*(Crew fight a heavy train up grade and explain the action and problems)*
- Steamfest '90 (Stereo) 120 mins M1 \$72.00  
*(SP & S 700, SP 4449, GW 51. Scenery, pacing, on loco mini-cams)*
- The East Broad Top (Stereo) 120 mins GF \$90.00  
*(The ex coal hauling 3' gauge system in Pennsylvania, 1950s-70s)*
- UPs Last Steam Giants and Heavy Freight (3985) (Stereo) 80 mins WB \$84.00  
*(1958: Big Boys, Challengers, 800s etc Indian Summer 1990: 3985 hauls freight again. Fantastic!)*
- Rotary on the Rio Grande Narrow Gauge (Stereo) 70 mins GF \$78.00  
*(1975 & 1976 snow adventures by Cumbres & Toltec out of Chama)*
- St Louis 1990 Steam Spectacular - Official Video (Stereo) 120 mins M1 \$72.00  
*(CottonBelt 819 UP 844 Frisco 1522 N&W 1218 + on loco mini-cams)*
- Steaming to L.A. 105 mins M1 \$90.00  
*(SP4449 & UP8444 converge on LA and pace each other up Cajon Pass)*
- Railfanning the Silverton (Stereo) 110 mins M1 \$90.00  
*(Superb action & scenery. A comprehensive guide)*
- Articulated 3985 V 1218 60 mins M1 \$72.00  
*(The 2 working artics, technical comparisons & both in action)*

##### Diesel (Current and Archive)

- Union Pacific Odyssey Vol 1 (Stereo) 115 mins GF \$96.00  
*(Sparkling action - 1st gen gas turbines 8444 crack city trains)*
- The Rock Island Railroad (Stereo) 60 mins GF \$72.00  
*(Classic diesel ops 1950s-70s + Southern 4501 out of Chicago)*
- A Salute to Soldier Summit 60 mins WB \$72.00  
*(High speed & brute climbing power; Rio Grande's Utah Division)*
- Super Cabs and Steam (Stereo) 88 mins WB \$84.00  
*(Superb coverage of the latest Union Pacific diesels at work with steam cocktail)*
- Santa Fe Odyssey Vol 2 (Stereo) 108 mins GF \$90.00  
*(Incredible action from Illinois, west to California over 23 days in the late 1970s)*
- The Algoma Central Railway - The Tracks of the Black Bear 56 mins RI \$72.00  
*(Thro' beautiful scenery, complete coverage, fall colours & winter snow)*
- Santa Fe's Seligman Sub & New Mexico Main (Stereo) 120 mins WB \$90.00  
*(Red/Silver & Yellow Warbonnets, Snowcapped peaks, Desolate Beauty)*
- California Zephyr (1965) (Stereo) 70 mins GF \$78.00  
*(Beautiful vintage coverage from on board and lineside)*
- FT103 - Revolutionizing American Railroadng 115 mins M1 \$90.00  
*(Complete history of EMD 1st gen diesels + restoration of FT103)*
- Rails to Steel City (Stereo) 60 mins GF \$72.00  
*(Present day Pittsburgh area hot spots)*

### REVELATION AUDIO VISUALS (PAL Format)

#### Canadian Titles

- "CANADA'S SHOWCASE" (112 Minutes) \$68.00  
Step aboard for the trip of a lifetime, as "The Canadian" crosses a vast winter fantasyland. Ice-encrusted rocks pass beneath as we skirt the north shore of Lake Superior. Our ride, from late Dec 1989 and the first days of 1990, occurred weeks before the end of service via the Canadian Pacific. Great on-board views of the Kitchen at breakfast, and making up the uppers and lowers. Cab views through Rogers pass and Spiral Tunnels in deep snow. And a few views of earlier days to start things off. Railfan or not, this is a sure bet!
- "CANYON DAWN" (90 Minutes) \$68.00  
Ride the cab of "The Canadian", and also a caboose through the rugged Thompson and Fraser Canyons east of North Bend, B.C. Cab ride begins in darkness, as daylight begins to increase. Long-continuous sequence! The caboose ride features an extended "race" with a CN freight across the Thompson! (Like the "Canadian", C.P. cabooses vanished Jan 15 1990 from the main).
- "BLACK DIAMOND TO GASPE" (104 Minutes) \$68.00  
Experience travel on Amtrak, VIA Rail, and a Lehigh Valley private car! Chicago Union activity (with BN E-9s), ride to NY on "Broadway" - 5 and a half hours late - then "Montrealer" and "Chaleur" to Perce and Gaspé! Cliff-hugging ride along the Atlantic! Sunrises at 4.15 am. Beak-duelling gannets of Bonaventure Island. And, Perce Rock. Return trip includes "Capitol Limited" Washington Chicago. If you enjoy travel, enough said!
- "DOMINION STEAM" (60 Minutes) \$68.00  
Look and listen to the twilight of mainline steam in southern Ontario, both C.P. and C.N.C.P. action centres around Guelph Jct, with several doubleheaders (2-8-2s, 4-6-2s, Hudsons etc). On the CN, 4-6-4s and 4-8-4s predominate on fast passenger and freight, plus the Fort Erie mixed. Ends with CN Consolidation #1551 in 1990, on the New W & LE.
- "TRANS-CANADA LIMITED AND STEAM EXPO" By Good Medicine (60 Minutes) \$68.00  
Ride the restored "Limited" from Cranbrook to Vancouver, B.C. for a visit to the 1986 "Steam Expo"! 17 loco's pass in a Grande Parade. Ends with Last Run on the Kimberley Mine Branch, Feb 1, 1990. 3% grades and switchbacks, seen from caboose.
- "THE GREAT CANADIAN STEAM EXCURSION" By Good Medicine (60 Minutes) \$68.00  
C.P. Consolidation 3716 pulls freight on B.C. RAIL, then is doubleheaded with 2860 (Royal Hudson). Then CN 6060/2860 get together, some fantastic bridge scenes! Also - BC RAIL School Train, Cab ride on CN freight in the Fraser, and vintage CP Steam in the West!

Postage - please add \$8.00 to above prices and deduct 25% for Australian \$ price.

Payment - cheque or VISA/MASTERCARD.

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