

November - December 1997

Nº 42

\$4.95 U.S.

\$5.95 Canada

# STEAM

## IN THE GARDEN







**WORLD'S FINEST GAUGE 1 LIVE STEAM  
KITS & RTR**  
BEAUTY \* INVESTMENT \* A PLEASURE TO OWN  
QUICK DELIVERY ON ALL MODELS



**STIRLING SINGLE**



**NEW!**

**JNR 9600**



**6 LIVERIES**

**PANNIER**



**"G" SCALE 1:22.5 \* C&S MOGUL \* RADIO CONTROLLABLE**



**BR 96**



**COMING IN 1998 !**

**PROTOTYPE PHOTO**

**USRA LIGHT MIKADO**



**2 LIVERIES**

**T3/BR 89**

**MANY OTHER MODELS CURRENTLY AVAILABLE  
FULL LINE COLOR CATALOG \$25**

**U.S. IMPORTER & DISTRIBUTOR**

**HYDE-OUT MOUNTAIN LIVE STEAM 89060  
FOR INFORMATION**



**NEW RUMLEY ROAD JEWETT, OH 43986  
CALL US 614-946-6611**

**AVAILABLE FROM THESE DEALERS**

Sulphur Springs Steam Models  
PO Box 6165  
Chesterfield, MO 63006  
314-527-8326

West Lawn Locomotive Works  
PO Box 570  
Madison, WI 53701  
608-231-2521

North Jersey Gauge One Co.  
8 Spring Valley Road  
Park Ridge, NJ 07656  
201-391-1493

**IN CANADA**

Gauge 1 Lines  
10 Porter Street  
Stittsville, Ontario K2S 1P8  
Canada 613-836-6455

Doubleheader Productions  
3725 Pageant Place  
Dallas, TX 75244  
972-247-1208

Cross Creek Engineering  
PO Box 191  
Spencer, OH 44275  
800-664-3226

Rio Pecos Garden Railroad Co.  
27136 Edenbridge Court  
Bonita Springs, FL 33923  
941-495-0491



# STEAM IN THE GARDEN

Vol. 7, Nº 6  
Issue Nº 42  
November/December 1997

## Articles

- 18 .... Steamup Report -- *A thinking man's gauge 0 line in Pennsylvania*  
by Rob Kuhlman
- 20 .... Building the Vest Pocket Climax, Section 6 -- *Cylinder Assembly, Part 2*  
by Mel Ridley, with drawings by Harry Wade
- 25 .... The Harmonic Whistle -- Next Generation -- *Give your loco some personality*  
by Larry Bangham
- 30 .... Loco Review -- *Roundhouse 0-6-0 chassis kit*  
by Bob Nowell
- 35 .... Steamup Report -- *Model engineering, steam and camaraderie in Ottawa*  
by Ron & Marie Brown
- 41 .... Let There Be Light -- *An illuminating project for your iron steeds*  
by Kevin Strong

## Departments

- 4 ..... RPO -- *Letters - Our readers write...with enthusiasm*
- 6 ..... Calendar of Events -- *Who, What, When & Where (and sometimes Why?)*
- 6 & 56 .... Steam Scene -- *Our readers share their favorite photos (captions on pg. 54)*
- 7 ..... What's New? -- *Latest & greatest commercial offerings & industry news*
- 10 .... The Fitter's Bench -- *Time for a change*  
by Crankpin
- 11 .... Weed Wood RR -- *An offbeat look at the world of small-scale steam*  
by Joe Leccese
- 13 .... Notes From the Backyard -- *Stupid hobby tricks*  
by Rich Chiodo
- 14 .... The Artful Bodger -- *Frankie goes to Longlands...a Frank S. adventure*  
by Tag Gorton
- 53 .... Swap Shop -- *One man's surplus is another man's treasure*
- 54 .... End of the Line -- *Editor on vacation*
- 54 .... Advertiser Index -- *Wish List...buy something from these good folks!*

## ON THE COVER:

WAGTAIL, a charming tender locomotive in 16mm scale on gauge 0 track by Prescott Engineering, blows off a little steam as the safety valve lifts. Available in both tender and saddletank versions for manual or R/C operation, these locos are fitted with Hackworth valve gear. Tag Gorton says that the Prescott locos run like a fine sewing machine.

35mm transparency by Tag Gorton

## Editor/Publisher

Ron Brown

## Employee of the Month

Marie Brown

## Graphics Director

Harry Wade

CAD (and other) drawings in this issue by:  
Harry Wade • Kevin Strong • Larry Bangham

## Regular Contributors

Larry Bangham	California
Crankpin	The South
Rich Chiodo	New Hampshire
Tag Gorton	England
Marc Horovitz	Colorado
Peter Jones	Wales
Joe Leccese	Massachusetts
Kevin O'Connor	California
Mel Ridley	England

Steam in the Garden (USPS 011-885, ISSN 1078-859x) is published bimonthly for \$27.00 (\$34.00 Canadian, \$35.00 overseas) per year (6 issues) by Steamchest Publications, PO Box 335, 6629 SR 38, Newark Valley NY 13811. New subscriptions please allow 6 - 8 weeks for delivery (overseas via surface mail may take longer). Direct correspondence to PO Box 335, Newark Valley NY 13811. Periodicals postage paid at Newark Valley, NY and an additional mailing office.

POSTMASTER: send form 3579 to Steamchest Publications, PO Box 335, Newark Valley, NY 13811. Printed in USA. Copyright 1997 Steamchest Publications. All rights reserved. The contents of this publication may not be reproduced in whole or in part by any means without the express written consent of the publisher.

USA, Canadian and overseas subscriptions may be sent to Steam in the Garden magazine, PO Box 335, Newark Valley, NY 13811. Phone, fax and e-mail subscriptions gladly accepted. We accept VISA, Discover and MasterCard.

In the U.K., contact Brandbright Ltd., The Old School, Cromer Road, Bodham, Near Holt, Norfolk NR25 6QG — phone 01263 588 755 FAX 01263 588 424

In Australia, contact RCS, PO Box 1118, Bayswater, Victoria 3153 AUSTRALIA — phone/fax (03) 97 62 77 85

Items for review may be mailed to PO Box 335, Newark Valley, NY 13811—or sent via UPS or FEDEX to 6629 SR 38, Newark Valley, NY 13811.

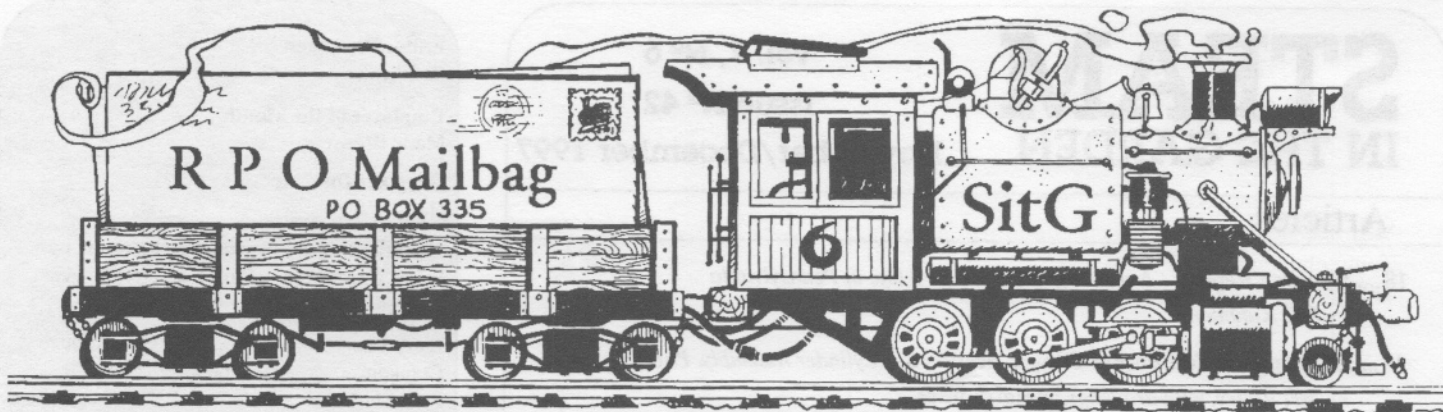
Questions or comments? Call us Mon. - Fri. at 607-642-8119 before 9:00 p.m. Eastern time, please...or FAX us any time at 607-642-8978. e-mail address: docsteam@spectra.net

Our web site, *Steam in the Garden Online*, is located at: <<http://www.steamup.com>>.

This publication is created on  
Apple Macintosh™ computers.







*Letters from readers are welcomed and encouraged. Offer advice, encouragement, suggestions or constructive criticism. Tell us about your current project (and don't forget the photos!) or just share live steam experiences. But please keep your letters to a reasonable length so everyone has a chance to use this forum. Letters may be edited for length or clarity. Send your letters & photos to: SitG, Dept. RPO, P.O. Box 335, Newark Valley, NY 13811, USA.*

\* \* \* \* \*

Hampton, New Hampshire

Dear Editor:

Mr. Jones' comments about my musings on a proper field kit brought a smile. I actually pared down what I considered to be nominally acceptable.

Peter, with many more years experience than I, obviously has arrived at the quintessential, minimalist field kit consisting of an oily rag and two bricks.

Now, if the rag has no man-made fibre content and the oil is SAE 90 - or better, steam cylinder oil - I could accept that. The bricks should be water-struck Boston pavers from the Quincy Quarry and Brick Co.

I have bowed to Peter's howl at my use of gloves and cut the fingers off of them. His comments with regard to a bale of hay set me thinking how that could be really useful.....naw, better not go there.

Yours in hot water,

Rich Chiodo

— — — — —

Tokyo, Japan

Dear Ron,

I could understand quite well what Peter Jones, Wales, U.K., mentioned about tools in the July/August SitG, since I joined the Golden Jubilee this past July in the U.K.

At the Fosse, the main place of the meet, the English engineers used no rags, gloves (except one lady engineer), aprons or engineer's caps. A man who was stoking up a boiler with coal made his loco dirty by oil, pulled out a handkerchief from his pocket and

wiped the loco with it. An English gentleman happened to leak much alcohol on the railway and also pulled out his handkerchief, so I made him use my rag.

I was much surprised that there was no workbench for locos. They put locos on the rail at the stock yard and at that place they prepared for running. Then they moved the locos to the main railways via a turn table. At the end of running, they returned the locos to the stock yard. Do they need to use gloves?

The most difficult for me was I could not see any gunge jar, so that I dumped the effluent from the lubricator to the bathroom, which was far from out of the place.

They ran the Gauge One locos as natural and simple way as the real locos did. They had much experiences and awful good skills for steaming up and running locos, but I was not able to steal any idea on tools.

So, Peter Jones is not a heathen in U.K., I guess.

As for me, I have a lot of tools, gloves made by a hide, an apron which Scott McDonald gave me and have made special tools for my locos.

Yours, a vagabond,

Kattchan Tanabe

— — — — —

Williams, Oregon

Dear Ron & Marie,

In regard to Harry Wade's letter (SitG N° 40) on the two types of steel, I may have some more info to add to it. I can start with the statement that there is nothing that can be added to pure elemental iron that improves it more than carbon. For the greatest hardness, the optimum ratio is .85% carbon, and this, when melted together, makes a mix of (for the most part) iron carbide, known in the industry as Cementite. When heat treated by bringing this mix, now known as steel, up past the magic transformation range of 1333 degrees Fahrenheit (usually past 1450 degrees), then rapidly cooled, forms an interlayered mix of Ferrite (pure iron) and the very hard Cementite. These mixes have names like Pearite, Martensite, etc.

The problem is this: the above type of steel needs a quick cooling period in order to become hard, and indeed hard - and brittle - it is. Water cooling has three demerits...cracking, warping, and failure to harden the interior of the steel. This can be solved by adding certain metals such as manganese, tungsten and vanadium.



This addition allows the steel to be cooled by oil, which is far more gentle and allows the heat to come out of the core more evenly, thus producing a part hardened throughout. There is more, but I will save it for later.

Of the two steels mentioned by Mr. Wade, the English 1407 is likely oil hardening due to its other element content, whereas US-AISI *must* be water hardened due to its almost total lack of modifying elements.

This info derived from memory and *Marks Mechanical Engineers Handbook*.

Best to all,

James C. Newton, editor  
Gauge 3 Newsletter

-----

Dallas, Texas

Dear Ron,

My twenty-one month old granddaughter Kelley went with her pregnant mom and dad this past week to the obstetrician for a tummy check of Scott-to-be. The doctor put the sonogram on Maura's tummy so Kelley could hear Scott's heartbeat. Dr. Jacobs asked Kelley what that sound was, and she, being my granddaughter, replied, "choo-choo!"

What else could she say? It seems like a right answer to me.

Ken Matticks

-----

Wick

Dear Ron,

To be lovable like Peter Jones must be wonderful and a boon to grannies and dogs everywhere. No one realises that more than old Al, who never had anybody call him lovable. So it is with a some feeling of social inadequacy I point out to PJ that the discussion to which he added his 2 P's worth was specifically about operating a boiler for maximum thermal efficiency, a fact which he apparently missed. By the way, would even the most freshairly fiendish of Brits aboard the Titanic have had his deckchair out in the iceberg season?

Sternly,

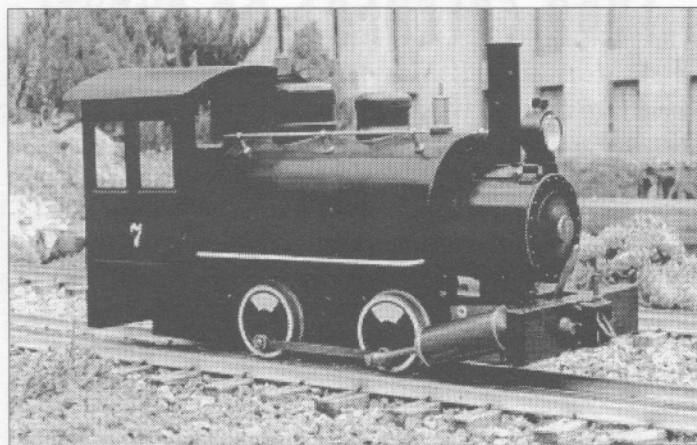
Al Cohol

-----

Mississauga, Ontario, CANADA

Dear Ron,

The July/August 1997 edition of *Steam in the Garden* came the other day. I read with considerable interest the article by Rich Chiodo on the Creekside Forge and Foundry Baldwin. It kinda makes you feel like an old-timer in the North American small scale



live steam hobby when you see a locomotive you bought new, and which is now considered "vintage live steam" !

I have Baldwin #7, which I obtained new from Carlos in 1985. It is unusual in that he built it to gauge 0 for me. It has seen a few changes over the years, namely the loss of the dome and cab side striping and the addition of Ozark Miniatures link and pin couplers. I also added a Mamod-replacement safety valve from Rafe Shirley to increase the operating pressure. After 12 years of yeoman service, it is still a reliable locomotive and it sees many runs a year on the Algonquin Light Railway. It is often used to pull the Huntsville & Lake of Bays Railway "Portage Flyer" train - one boxcar and a coach made from an old trolley.

One interesting feature of the locomotive is that the sight glass was packed onto the boiler backhead with a gasket made of cork! I decided to replace the glass one day after it had frosted over, and I replaced the cork with proper gasket material.

Happy garden railroading.....

Regards,

Jeff Young



### **THIS IS YOUR LAST ISSUE OF SITG**

if the code number on your address label is 37

**Renew now...**phone (607) 642-8119 • fax (607) 642-8978

snail mail: PO Box 335, Newark Valley NY 13811

e-mail: docsteam@spectra.net

\$27.00/year (USA Periodicals Rate)

\$39.00/year (USA 1st Class Rate)

\$34.00/year (Canada)

USD\$35.00/year (overseas via surface mail)

USD\$59.00/year (overseas via air mail)



***Sorry, we will no longer send expiration notices -  
check your label now!***



# 1998 CALENDAR OF EVENTS

January 16 thru 18, 1998 – **National Gauge One Steamup, Diamondhead, Mississippi, USA.** Don't miss this one....it's the biggest miniature steam railroad convention in North America! Three elevated tracks to accomodate gauge 1 and gauge 0 – Clinics – Round the clock steaming – Dealer room – Attendees from around the globe! Make your reservations now so you don't miss out. Contact Jerry Reshew, 5411 Diamondhead Drive East, Diamondhead MS 39525. Phone (601) 255-1747, e-mail: JReshew@aol.com.

May 29-31, 1998 – **Second Annual National Spring Steamup.** The location will be the Sunnyvale Hilton, located conveniently between the San Jose and San Francisco International Airports. This is the same location and same weekend as last year. In addition to steam tracks, dealer room, and clinics, the 1998 National Spring Steamup schedule will include an excursion to the Roaring Camp & Big Trees Narrow Gauge Railroad for a ride behind geared

locomotives through the Redwoods, and three additional days of steamups at local garden railroads. National Spring Steamup registration will be \$60 per person before April 1st, \$65 thereafter. A special rate has been secured for Steamup attendees at the Hilton of \$61 per night. Contact Richard Finlayson for more information: 2408 Grandby Dr. San Jose, CA 95130 408/871-0318. Info and registration forms are on the Web: <<http://www.steamup.com/steamup>> or Email:info@steamup.com

*Because of publication lead time, please send info for Calendar of Events well in advance. Include name of host and location of event, with address and/or phone number to contact for complete information. Some basic info about the site is also useful (i.e., ground level or elevated, minimum curve radius, ruling grade, etc.)*



## Steam Scene

A busy scene on the Elmira, Lackawanna & Western railway in Elmira, New York. Fellow steamer Gary Lantz has put more time and miles on his Pearce Colorado than the guys in Colorado put on the prototype! Well...that might be a slight exaggeration, but Gary does get in a lot of steaming time, and his garden railway packs a passel of track and scads of action into a relatively small space. The EL&W has many structures, bridges, trestles and is well detailed. It's also well lit for realism and night operation, and many of his neighbors stop by to watch the trains run, especially during the Christmas season.

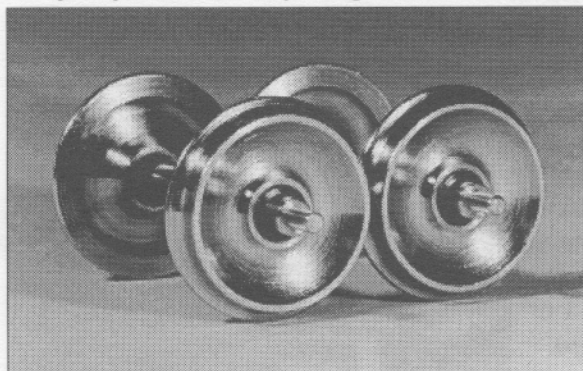
Photo by Gregg Lantz

*(more Steam Scene on back cover)*



# WHAT'S NEW?

Gary Raymond Quality Large Scale Metal Wheelsets™ introduces WHEEL LITE™, a new and improved A33RL wheelset



for Aristo-craft freight cars. The weight of the new A33RL wheelsets has been reduced by one half. This means that customers can get the benefits of cleaner metal wheels without the added weight, allowing them to pull trains typically 50% longer than with other metal wheels. The most accurate wheel diameter and width ever produced for Aristo-craft cars. These wheelsets are reliable on all brands of Large Scale track. The A22RL is for those modelers who want to achieve the most realistic appearance and maximum length for their Aristo-craft trains. The A33RL Wheelsets are available through local dealers or direct from GARY RAYMOND, PO Box 1722-S, Thousand Oaks, CA 91358

**Remote Control Systems, PO Box 1118, Bayswater, Victoria, 3153 Australia - phone/fax 800-490-6945 - e-mail: rcs@alphalink.com.au - web site: www.alphalink.com.au/~rcs/** - announces the immediate availability of a low cost, entry level, battery powered R/C system for large scale model trains. Featuring simple drop-in installation, no soldering. The complete system includes digital FM R/C equipment, super smooth DC throttle, battery harness, nicad charger, motor wiring and full instructions. Reliable glitch-free operation. Five year guarantee. Just the thing for those times when you want to run a train, but are not able to give a steamer your full attention. For more information call RCS or visit their web site, and please mention that SitG sent you.

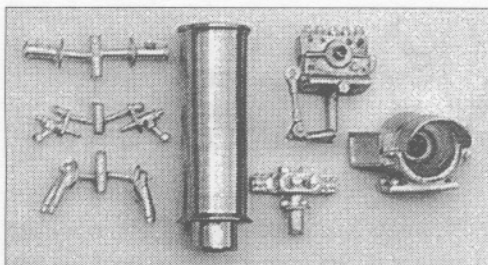
**Barrett Railways, 991 6th St., Hermosa Beach, CA 90254 - phone 310-379-4929**, has added a new boxcar to their line of rolling stock for the gauge 1, 1:32 scale modelers. Built to high quality standards, as with the other cars in their line, this CB&Q boxcar is available now. Contact Barrett Railways for more information on this car, and on the other products in their line.



**Aster Hobby Co. of Japan** has just released a new binder style catalog of currently available live steam locomotives. Separate pages of future releases can be added as they become available. Aster's technical manual is also included in the new binder, along with a dealer list. The new catalog is priced at \$15.00, and is available from Aster's USA distributor, Hyde-Out Mountain Live Steam, 89060 New Rumley Road, Jewett, Ohio 43986 - phone (614) 946-6611; or from your favorite Aster dealer.

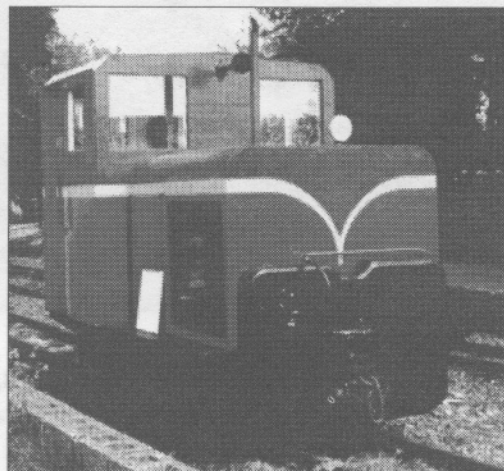
**Micro Fasteners, 110 Hillcrest Road, Flemington, NJ 08822 - phone (800) 892-6917, fax (908) 788-2607, e-mail: <micro@blast.net>, web site: <http://microfasteners.com>** has published a new catalog of fasteners, fastener assortments, compartmented plastic boxes for fastener storage, tools and other useful items for all of us. Items of particular interest to live steam enthusiasts include brass and stainless hex head machine screws, nuts and washers in sizes down to 00-90, socket head cap screws, taps and dies, hobby blades and much more. Check it out for yourself, and please mention that you saw them in *Steam in the Garden*.





**Trackside Details, 1331 Avalon Street, San Luis Obispo, CA 93405**, is continually releasing new detail parts to make life a bit more interesting for scratch-builders, kitbashers and anyone who just wants a little higher level of detail on their locomotives and rolling stock. Pictured here are some of their latest offerings in clean, sharp brass castings. Send for their illustrated catalog (\$2.00 plus SASE), which includes a useful diagram showing possible placement of their various parts on a steam locomotive.

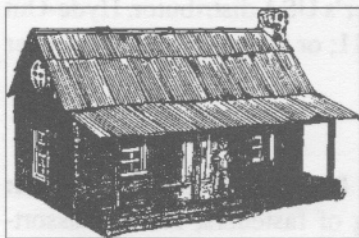
**Doubleheader Productions, 3725 Pageant Place, Dallas, TX 75244 - phone/fax (972) 247-1208**, announces a new 1:20 scale battery loco by JD Models of England. This loco is modeled after a 60 hp Simplex operating on the Leighton Buzzard Light Railway in England. It comes standard with nicad batteries, on-board recharging and electronic speed control. It can be ordered in gauge 1 or gauge 0 versions. R/C and on-board sound systems are optional at extra cost.



**Figure It Out, PO Box 1036, Framingham, MA 01701**, has over 60 figures to help bring your garden railway to life. Two-thirds of their figures are rated "G" or "PG", and one-third are rated "R" or "X". Sorry, we can't show you those latter figures in this family-oriented magazine! We turned our samples over to Howard Bullard, our professional figure painter, and his comments were enthusiastically positive. The cast plastic figures are all cleanly cast, with no flash or parting lines to make preparation a drudgery. The cast-in detail is impressive, and when painted they really come to life. A huge variety of poses and different characters, available at very reasonable prices, means you can populate a scene or a train without breaking your bud-



get. These figures are nominally 1:24 scale, but we found that the size of the various figures varied enough that many could be used in 1:22.5 or even 1:20 settings without looking out of place. Our personal favorites are the "Town Drunk" and the "Old Lady with Umbrella". Faithful Assistant likes "Santa". Send a SASE for a free brochure on all the figures available from Figure It Out, and pick your own favorites.....and please - oh, you know what to do!

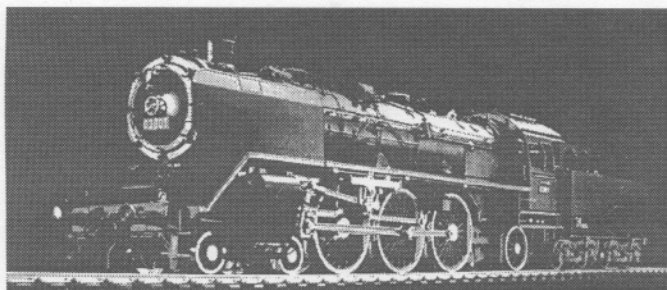


**Precision Products, 763 Cayuga St., unit #2, Lewiston NY 14092 - phone/fax (716) 754-2997**, has introduced their new line of Q.E.D (Quick and Easy Drawings) in 1/2" scale. The first two plansets in the line are #1, Granma's House, and #2, The Hill Billy Mansion. Future drawings will include more houses, a ban, churches, schools, an old gas station and more. In other words, everything you will need to build the structures for your garden railway. Precision Products makes 34 styles of PV (Plastic Ve-

neer) sheets containing doors, windows, siding and roofing with which you can build their Q.E.D.'s, or scratchbuild your own structures. Contact Precision Products for more information, or to place your order.







**Aster Hobby Co. of Japan** has just announced the release of the new German BR 03 (4-6-2 heavy Pacific with tender). It is a highly detailed model and comes with both the DR and DB type smoke deflectors, number boards and name plates, all of which are interchangeable. This locomotive is alcohol fired and has a whistle. For additional information contact Aster's USA distributor, Hyde-Out Mountain Live Steam, 89060 New Rumley Road, Jewett, Ohio 43986, phone (614) 946-6611 – or your favorite Aster dealer.

**Little Railways, 1621 Cherry St., Williamsport PA 17701**, introduces "Big John", another in their line of 1:20 scale cast plastic figures. Howard Bullard, our expert figure painter, found Big John clean, crisp and free of flash. He painted up nicely and has been renamed "Sven Knudsen". Sven and his twin brother, Ole, are gainfully employed as part of the train crew on our Catatonk Log & Lumber Co. Write for more information on Sven....er, Big John, and ask about Little Railway's line of 1:20 scale cast detail parts, rolling stock and structures.



## SitG Back Issues

### Currently Available

Prices shown include 1st Class postage and handling for North American addresses -- all others please add .75 per copy for overseas surface mail.

#### SAVE!

When you order five or more back issues, deduct \$1.00 per copy from the price shown here.

#16 ..... 5.50	#26 ..... 5.75	#34 ..... 6.75
#17 ..... 5.50	#27 ..... 5.75	#35 ..... 6.75
#20 ..... 5.50	#28 ..... 5.75	#36 ..... 6.75
#21 ..... 5.50	#29 ..... 5.75	#37 ..... 6.75
#22 ..... 5.50	#30 ..... 5.75	#38 ..... 6.75
#23 ..... 5.75	#31 ..... 6.75	#39 ..... 6.75
#24 ..... 5.75	#32 ..... 6.75	#40 ..... 6.75
#25 ..... 5.75	#33 ..... 6.75	#41 ..... \$6.75

Send a list of issues requested with your check or money order to:

**Steam in the Garden Magazine**

**PO Box 335**

**Newark Valley, NY 13811**

Credit cards are cheerfully accepted and may be phoned in to us at 607-642-8119 or faxed to 607-642-8978.

You can also contact us via e-mail at: <docsteam@spectra.net>



For reprints of sold out back issues, contact:

**Sulphur Springs Steam Models, Ltd.**

**Dept. RB**

**PO Box 6165**

**Chesterfield, MO 63006**

**Phone/FAX 314-527-8326**

An index to the first 5 volumes is available from:  
**Ricky Morningstar, 11 Kimberly St., Riverview NB,  
CANADA E1B-3P8**

**Howard Bullard, 16 Frances St., Binghamton NY 13905 - phone (607) 798-6642** offers a figure painting service for war gamers, D&D enthusiasts...and model railroaders. Howard paints all the figures for our review samples, and also those that we use on our own Catatonk Log & Lumber Co. RR. His craftsmanship is superb! We asked him to paint two of the Little Railways Big John figures for us, but make them look different. He cut and repositioned the head on one figure, and it's impossible to see the cut with the naked eye. Howard has "young eyes", and he is able to paint wonderful detail on the smallest figure without the aid of a magnifying glass. One of the Figure It Out sample figures we took to him was a "Lady of the Night", and Howard added a tattoo of a rose that looks great, even under magnification. Last, but certainly not least, his prices are very reasonable. You can populate your miniature village or train without breaking the bank! Give Howard a call or drop him a line, and let him know that we've been bragging about him.





# The Fitter's Bench

by Crankpin

## Time for a Change

With this issue we at last arrive at the conclusion of our long-running adventure with basic machine tools, and it is my hope that it has been an informative journey. I can tell you that for my own part I have learned as much from this exercise as I have taught you, which is as it should be.

Although I love this work, I do have a life beyond the pages of this magazine, and each year fewer years remain in which to live it. For this reason I informed our Good Editor some time ago that at the conclusion of this series it would be time for old Cranky to take a badly needed holiday from continuous contributions in order to begin work on a long awaited locomotive construction article to be published within these pages. A project of this nature requires a great deal of time and concentration on the part of the designer, and to continue a regular series and produce a locomotive design simultaneously might be more of a load than I am able to shoulder and still keep my usual sense of humor about it all!

There is of course much left to be explained about tools and workshop practices, so fear not, *The Fitters Bench* will continue to appear, only it will now spooned out in somewhat smaller doses than in the past and the material will be treated in a less structured way. For the moment I will leave you with the following message which I hope is of use to you. You may call this if you like, the Crankpin Manifesto, or "Yes, you CAN get there from here."

Recently I was having a chat with a newcomer to the hobby who had just completed the tooling of a first lathe when he asked the age-old question, "Now, how do I get started?"

The simplest answer to this question, and the one that I respond with most often, is to just begin! Chuck up any bit of material that comes to hand and start cutting. This might seem to be a bit on the abrupt side perhaps, but this is the way it was for many of us.

I do think, however, that a bit of genuine sympathy is called for here as this is a critical period for the Beginner. There are any number of factors lurking about that conspire to do him in, to crush his enthusiasm, and to dampen his spirit. It is a time when the excitement and anticipation of entering a new endeavor are easily spoiled. At first, the outlook can be bleak. Many of you, as you grope about in the darkness, will fail and, as did Yours Truly, will fail often. But as time goes by these failures begin to occur less often until there comes a time when, with gratifying repetition, the successes far outnumber the failures. One can usually tell when this time has come because, in addition to making great progress on your latest project and hardly ever breaking a tap, the TV weather girl calls for incessantly sunshiny weather and there is an unusually large population of bluebirds nesting in the garden.

This is a game that any of you out there can win, but to do so you must have several qualities, the most significant of which are patience and perseverance. These are the things that I want to talk to you about today.

First, you must have patience. This comes from the full understanding that good work takes time and that there are no shortcuts. There are of course a number of ways to save time, but there are no shortcuts. The lathe, for instance, is not a magical tool that when turned on will spit out little locomotive parts on its own; it is simply an extension of your hands and will only do what your hands guide it to do. Oh yes, of course I know that there are now CNC machines that when properly programmed and switched on will indeed spit out little locomotive parts, but these have no place in the true craftsman's shop. You will of course get faster at making things as you gain more workshop experience, but you must still craft each part individually and that will take you some time. You will do well to get accustomed to this and at your earliest convenience beg, borrow, or steal all of the patience you can find. You will need all you can muster, but every ounce of it will be rewarded.

Next you must, over a period of time, make an honest assessment of your own abilities and come to an understanding of your own limitations. As with other areas of your life, there will be some aspects of model building work that will come naturally to you, while others will be an ongoing challenge and constant frustration. Others will do to perfection at first try what you cannot master after years of practice, but sooner or later you will discover your personal genius and the tables will turn. Understand that few people, except purely by accident, can step up to the lathe for the first time and made a good and usable part on the first try. For most of us, myself included, there are many mangled bits and pieces between the first attempt and the first good part. This mangling is a part of the process and cannot be avoided; even the best of us old hands expect to mangle a part now and then. You must persevere through this nasty period and forgive yourself the mangled bits. If your desire is to make something and you have spoiled one of its parts, you have no choice but to chuck up another piece of stock and try again, and maybe again, until the part is made. As with all plagues and pestilence, this too shall pass, and you will soon be making "keepers" on the first try.

Thirdly, you must come to know your tools. They will be found to have their strengths, weaknesses, and idiosyncracies just as we do. As you have done for yourself, you must honestly assess their capabilities and use them to the fullest advantage while forgiving their limitations. This is a process that must also take place gradu-



ally over a period of time as your machines reveal themselves to you as you present them with various jobs to be done. They will let you know what they want to do and what they cannot do, and if you have properly matched the capacity of your machines to the size and type of work you intend to do, good things will eventually come of it. If not, you may have difficulty coaxing them to do the work that you expect of them.

Lastly, you must begin to familiarize yourself with each metal or material that you work with, as each one of the six metals commonly used in live steam work, copper, brass, aluminum, iron, steel, and 1 stainless steel, will have its own peculiarities. If you are a bit unsure of where to start, I would recommend beginning your experiments with a plastic of some sort – nylon for instance – which is quite docile and can serve to give you a feel for the cutting process. When you have got this down, take another step and have a go at some aluminum or brass, working your way up to the harder (and thus more difficult to turn) metals by increments. Soon you will handle one as well as another, and even stainless will cringe when it sees you coming, rather than the other way round.

To many of you these thoughts may seem to be a bit curious and out of place, since we have been hard at it learning about lathes and mills and such, but it seemed appropriate to address the philosophical side of our hobby and to say a few closing words which I hope will have as much usefulness to you as my descriptions of the hardware.

Although there is a world of written material available, and many a helping hand for today's beginner, you must ultimately discover, experience, and master the intricacies of metalwork yourself. As we become more familiar with the behavior of the materials we turn, the capabilities of our machines, and with our own abilities, the quality of our work will get better and better until at some point we reach the limits of our own capabilities, the limits of our desire, or the limits of our tools, at which point we will cease to improve. However, I know of no one who has ever reached that point.

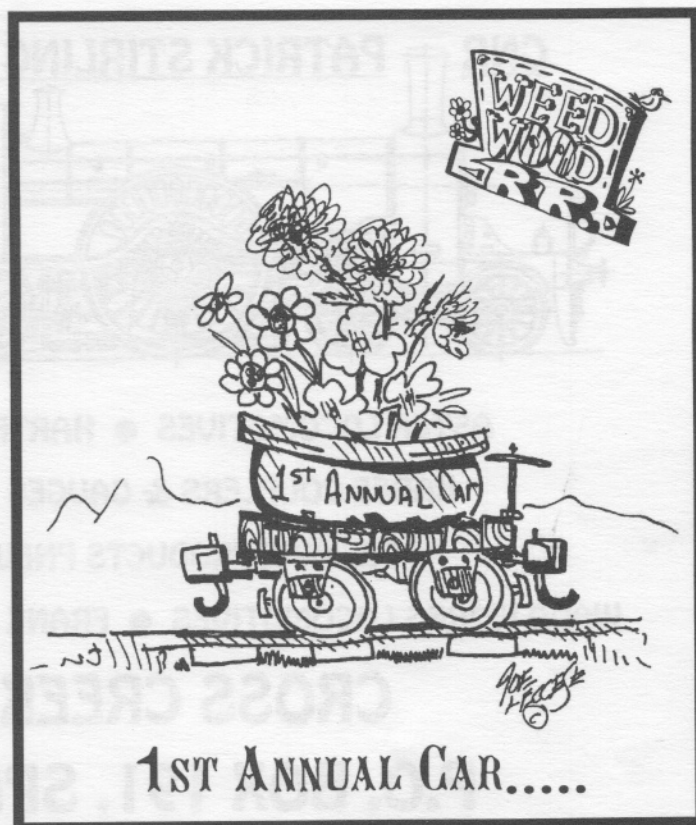
It is now time to end for this issue, and just in case any of you have missed the point, you should know that this is just what it appears to be, a pep talk pure and simple. So as many of you dive into the fray for the first time, and I know many of you are doing just that, remember, have Patience, Perseverance, and Forgiveness, but most of all, Persevere and you will be rewarded. Good-bye for now, but after a short sabbatical I will see you in these pages again.



#### WHERE'S MY MAGAZINE...????!!

Tired of slow or non-delivery of your magazines? This is getting to be a serious problem - particularly for our California readers. The editor of the *Pietenpol Newsletter* says 32 cents may be a lot for postage, but it's a heck of a deal for long term storage!

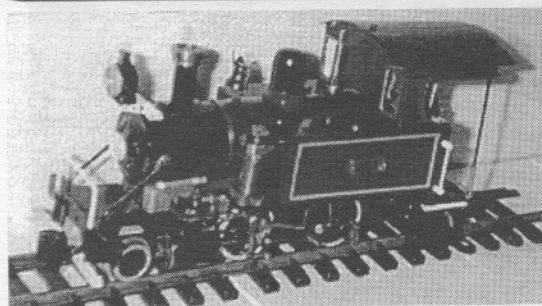
If your copy of *SitG* is slow in arriving, or if it sometimes fails to show up at all, the best solution is to file a formal complaint with your local postmaster.



1ST ANNUAL CAR.....

### C&G PRODUCTS (LIVE STEAM)

9577 RR4 HARRISTON  
ONTARIO NOG IZO  
CANADA



**2-4-0 TANK IN 'G' GAUGE  
FOR MORE DETAILS OF  
THIS AND OTHER LOCOS,  
WRITE US AT ABOVE,**

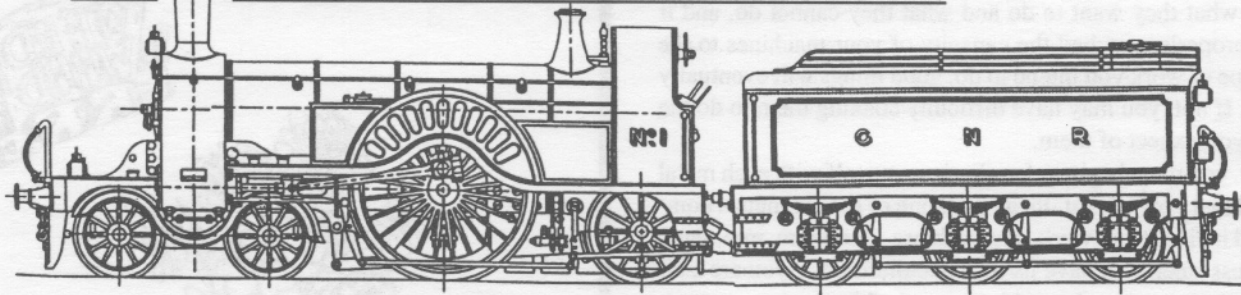


**OR**

**PHONE 519-338-2984 • FAX 338-9999**



## **GNR PATRICK STIRLING NOW IN STOCK!**



**ASTER LOCOMOTIVES • HARTFORD CAR KITS • DELTON CARS**

**KADEE COUPLERS & GAUGES • DEAN LOWE STEEL WHEELS**

**DEL-AIRE PRODUCTS PNEUMATIC SWITCH MACHINES**

**WADA WORKS LOCOMOTIVES • FRANK S. STEAM LOCOMOTIVE AVAILABLE NOW**

## **CROSS CREEK ENGINEERING**

**P.O. BOX 191, SPENCER, OH 44275**

**PHONE 1-800-664-3226**

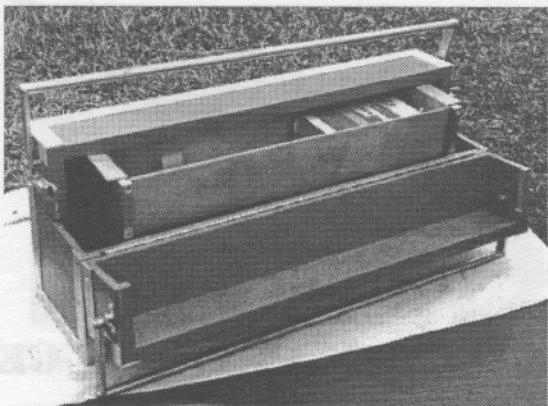
### **WE'VE GOT THE STUFF YOU NEED!**

#### **Railroad PETS**

**(Portable [or permanent] Elevated Track System)**

**Steamup carriers • Rail Couplers**

**Heavy Duty Rail Benders • Nickel Silver Rail  
Track & Wheel Gauges • Operating Station Clocks**



**Loco Box with optional tool tray will securely hold and  
protect your locomotive for travel.**

#### **ISTRA METALCRAFT**

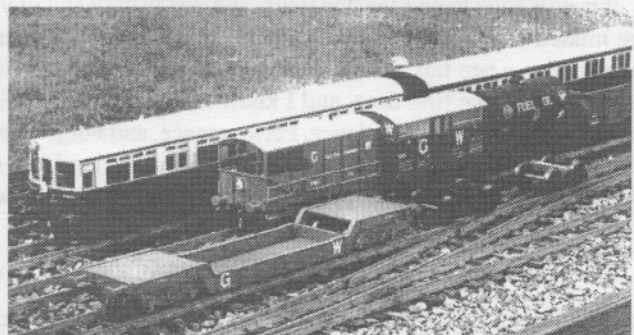
**6089 Lee Ann Lane**

**Naples FL 34109**

**941-597-6445 (7:30 AM - 4:30 PM Eastern Time)**

### **British Prototype Kits by**

**Tennille**  
*Products*



**A Selection of 10mm (3/8") Scale Gauge 1 Rolling Stock**

**Top Row:** GWR Auto Coach, GWR Main Line 1st/3rd Coach

**Middle:** GWR "Toad" Guards Van, Cattle, Tank and Mineral Wagons

**Bottom:** Low Loader, American Style Passenger Truck, Arch-Bar Truck  
8 other passenger coaches and 13 other wagons are available.

For Narrow Gauge, 16mm Scale: kits for 8 Coaches & 7 Wagons are available.

**KITS, PARTS, TRACK:** 10mm (3/8") Scale Gauge 1; 16mm Scale (NG)  
Gauge 1 or 0. PRICE LIST, with illustrated leaflet, \$2.00 postpaid. NEW  
45 page TENMILLE catalogue, \$6.00 postpaid.



**HARPER MODEL RAILWAYS**

**PO Box 24728, Lyndhurst OH 44124 TEL. (216) 464-8126**



# Notes From The Backyard

by Rich Chiodo

## Stupid Hobby Tricks

Several Months ago I was inspired to scratch build a model of a neat express/baggage car I had photographed at the nearby Seashore Trolley Museum in Kennebunk, Maine. This 4-wheel car trundled around on several of the coastal Maine trolley lines around the turn of the century as a trailer coupled to regular service trolleys on scheduled runs. The beginnings of UPS, no doubt. At a bit over 12 feet in length and 8 feet wide it would make a perfect 1:20 addition to all the compact four wheel stock currently in service on the IofSLRy&Navco.

I gathered all the supplies and tools I thought I would need, cleared off some bench space, made a few sketches and started construction. Over the next few weeks I was able to make progress on the body, which was constructed of styrene. I planned to include a lighted, detailed interior. This presented some unique challenges in that space was very limited and, since the car would operate on my non-electrified live steam line, it would require a battery and switch. All these challenges added to the fun. Projects of this sort take several months for me to complete given my family, work and other social obligations. Over the days, weeks and months they take on a life of their own...sorta like watching a child grow up. This may sound a bit smarmy, but when your progress is glacial weird things happen.

Anyway, I finally completed the body and most of the interior, enough to give the thing a coat of primer to bring out any flaws in the joints, seams, glue lines and other assembly points. For those of you unfamiliar with scratchbuilding, giving your nearly finished creation a light coat of gray primer (if you are going to paint it) is an excellent way of bringing out any construction flaws. Try it!

So, here it was 0:dark:30 on a week night, and the late hour and hectic work day had toasted what brain I had left. I was in a hurry and to speed drying of the primer so I popped my creation in the portable oven I have in my shop for just this purpose.

PEOPLE, PLEASE BE ADVISED:

- 1) NEVER WORK WHEN YOU ARE OVER TIRED
- 2) IF YOU ARE WORKING TIRED, NEVER WORK ON SOMETHING YOU CARE ABOUT
- 3) IF YOU ARE WORKING ON SOMETHING YOU CARE ABOUT, NEVER DO ANYTHING SIGNIFICANT
- 4) IF YOU ARE WORKING ON SOMETHING SIGNIFICANT, NEVER DO ANYTHING THAT CANNOT BE UNDONE
- 5) IF YOU ARE WORKING ON SOMETHING THAT CANNOT BE UNDONE...SEE 1

6) IF ALL ELSE FAILS, REVERT TO FEET STAMPING AND SHRIEKING TO THE HOBBY GODS AT HOW FOOLISH YOU ARE WHEN THE "INEVITABLE DISASTER" STRIKES

So it was as I returned to my work shop some 20 minutes later to retrieve my newest creation that the "INEVITABLE DISASTER" greeted me with that warm, all-too-familiar embrace... AARRRRGGGGHHHHH!!!!!! WHAT WAS I THINKING OF? Obviously not much.

Said creation seemed to be okay as I gingerly pulled it out of the oven, until my finger slowly made a dent in one of the sides and the roof collapsed as the plastic re hardened. It couldn't have been worse. My first urge (which has remained programmed in the species Homo Sapien since we first walked upright) was to hurl the offending object with all my might against the nearest wall, cave or otherwise. Centuries of genteel conditioning immediately modified this reaction to barely audible murmuring, whimpering, slumped shoulders and slow head shaking. Hurling would be a much more manly reaction!!

I recovered my composure and assessed the damage. It was beyond repair. Styrene, once warped, is virtually impossible to reshape. The carefully constructed door and window framing now took on the appearance of a Salvador Dali sculpture replete with finger print. It was several days before I even had the heart to return to my workshop. The aborted project now shares a prominent place on a shelf in my workbench with a brief note extolling the virtues of common sense and clear thinking.

So...why torture you with my sordid tale of fun gone bad? Reflecting back on this incident, which took place over a year ago, it seems not to have mattered all that much in the larger scheme of things. A minor setback, a project that didn't work out quite right. I learned from it, though it was a lesson I have learned several times over, and one of these years I'll be perfect. NO WAY!

Any pursuit will have its good days and bad. That November night was definitely a reference BAD DAY. Since then, many more good days have brightened the spirits and fueled the passion. You'll never find out if you can accomplish something if you don't have a go at it.

Try something new, modify that steamer, build a kit, scratch-build a piece of rolling stock, write an article... Skin your knee, it only hurts for a little while. The resulting tale will keep others entertained for years to come.

Now if I can figure out how to lace up these roller blades...





# The Artful Bodger

by Tag Gorton  
photos by the author

## Frankie Goes to Longlands

When Aker West, General manager of the Råda Railway in Sweden, asked me if I would 'see what I could do' for his recalcitrant *Frank S.* after a successful heavy refit had been undertaken on the line's Merlin Major - I have to say that I was rather wary of taking on this project. This LGB/Aster is, after all, not really my sort of steam technology. In fact, if I am honest, I have always regarded LGB's single foray into live steam as a bit of a curiosity and something of a dead end in the continuing development of garden scale narrow gauge live steam. Certainly this model is something of a rare bird in the United Kingdom, and I know no-one other than Aker who has an example. Unfortunately (according to my dear wife), I am rarely able to say no when a defective steam locomotive heaves into sight and so *Frank S.* was temporarily taken into stock on the Longlands & Western Railway, for collection hopefully the next time his business brought Aker to the UK.

I should first of all mention that for the period covering the modification of this locomotive, I have not had reference to the

comprehensive series in SitG written by Kevin O'Connor. Distressingly, I have an irritating (to myself) habit of lending out back copies of my favourite magazines and forgetting who I lent them to until they are returned! I was, therefore, without background information or even a

set of manufacturers instructions, dependent largely on my own resources and a few half remembered snippets of information.

### Inherent Problem

The reported fault with this locomotive was that it would not continuously make enough steam to run trains properly, and as well as resolving this problem I undertook to fit R/C and change the livery to a sober Råda Railway black. A request for a working whistle was met with a sharp intake of breath as I could see no straightforward way of achieving this!

As is my usual routine, I first of all placed the locomotive on my workbench and subjected it to a hard stare. There was no denying that this beast was very nicely built. The running gear, detailed castings and body shell were obviously of quality construction, and Frank has a high level of detail.....but the oversize Fisher-Price style plastic control knobs, with their rather insulting ON/OFF back-

plates, certainly jarred.

Now, while I like to see a small, neat pressure gauge in its correct position on the boiler back-head, I can appreciate that newcomers to steam locomotion would like it very much to hand, and the cab roof hatch location is therefore a neat idea.

It is always nice to have a level glass in a lo-



The modified *Frank S.* Note the gas control valve in the rear window of the cab. The new tank is just visible through the cab doorway, and you should see the filler on the front of the side tank. Currently awaiting new nameplates, this engine will be named *Wermland*. Note also that the tender now boasts a coal load.



comotive but I do question the necessity on an engine working on a single fill principle. The type of water level glass provided with Frank S. appears to be based on the old Beck design, which takes up a lot of cab space but does give a clear level indication. The lubricator on the running plate is quite a good idea, but has to be sucked out rather than drained at the end of a run.

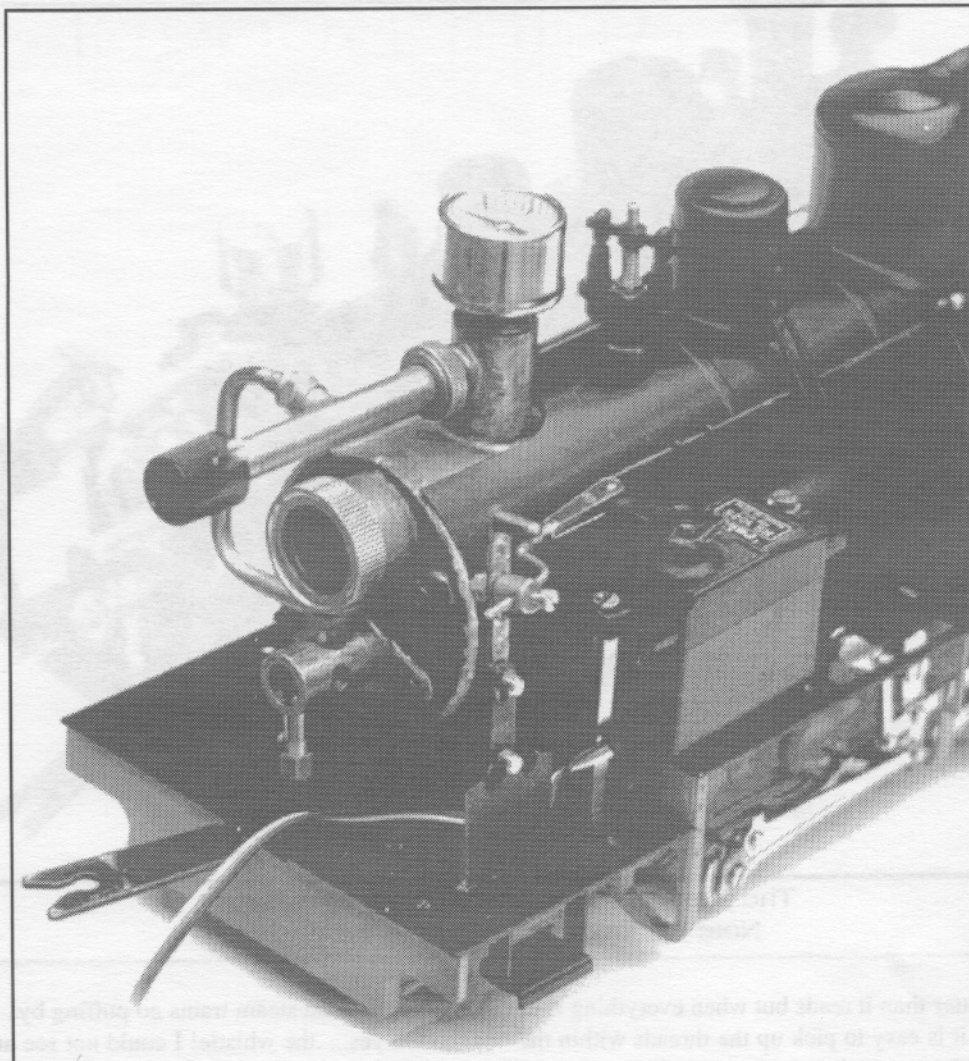
The oil trap in the smoke box is interesting, but overly complicated when the same thing can be accomplished by sealing the top of the exhaust tube(s) and filing an 'organ pipe' slot in the side of the pipe. On British-type small scale steam locomotives this allows the oil to drain between the frames and onto the track.

What appears to be a major design problem, which was certainly the subject of much comment when Frank S. tentatively poked its smokebox over the parapet some years ago, was the gas firing system. This arrangement, with a gas tank in the tender, seems to have been developed in isolation, without reference to the many different types of narrow gauge live steam models running successfully on butane gas. Perhaps it is based on Gauge One practice, where many locomotives, certainly at the collector's end of the market, only see use a couple of times – and then only in ideal conditions.

It certainly seems contrary to go to all the trouble of providing a bath of hot water to enable the firing system to work properly, when of course there is already an 'on board' source of heat in the form of the locomotive boiler.

### **Firing System Solutions**

An indoor steam test proved the locomotive was actually a powerful and controllable machine, and *Frankie* began, gradually, to grow on me. My suspicions regarding the siting of the gas tank were sustained by this test and a chat with the legendary Tony Sant



Single channel radio control for regulator/reversing valve. Check your clearances for the servo arm!

of Finescale Engineering, who confirmed my opinion that the gas firing system would not work reliably in a range of weather conditions with the fuel stored in the tender. As it stands, this probably works very well in laboratory conditions or in a Florida garden, but I can understand that in the more extreme conditions obtained in Scandinavia or Alaska, problems would certainly be experienced.

An order was therefore placed with Finescale Engineering for a new gas tank, of Tony's design, using the original *Frank S.* gas regulator valve, hose and gas jet. If you want one of these new tanks you will have to send Finescale your old assembly to utilise these parts!

This well thought out modification is designed to run the full length of the body shell on the left hand side of the locomotive. Minimum alteration of the locomotive is required to fit; however, because the tank only just dovetails within the body shell, all alterations and additions need to be completed before final assembly. A drawing is supplied by Finescale Engineering with the purchase of the new gas tank, showing location of both the new fitting holes in the chassis and the tank top access hole for the new filler valve.

### **Tank Fitting**

The body shell on your Frank S. is secured to the running chassis with four small screws and is easily removed. You will need to drill two 3.4mm diameter holes in the chassis for the gas tank pillars, and the location dimensions are on the drawing supplied. A 6mm hole is also required in the top of the side tank for filler valve access. Again, the dimensions are supplied on the drawing, but I would suggest drilling a smaller pilot hole before offering up the gas reservoir to the side tank housing, just to confirm the exact positioning. It may be that alteration with a needle file is required for the valve to fit snugly and unobtrusively into the hole.



Another requirement is to remove some of the 'meat' from the body shell fixing lugs to clear the feet of the gas tank. Again the supplied drawing makes this clear and it is a matter of conducting a couple of dry runs before final assembly. The gas tank has to be positioned in the sidetank with the regulator valve poking through the left hand window on the cab back plate before fitting the complete assembly to the chassis.

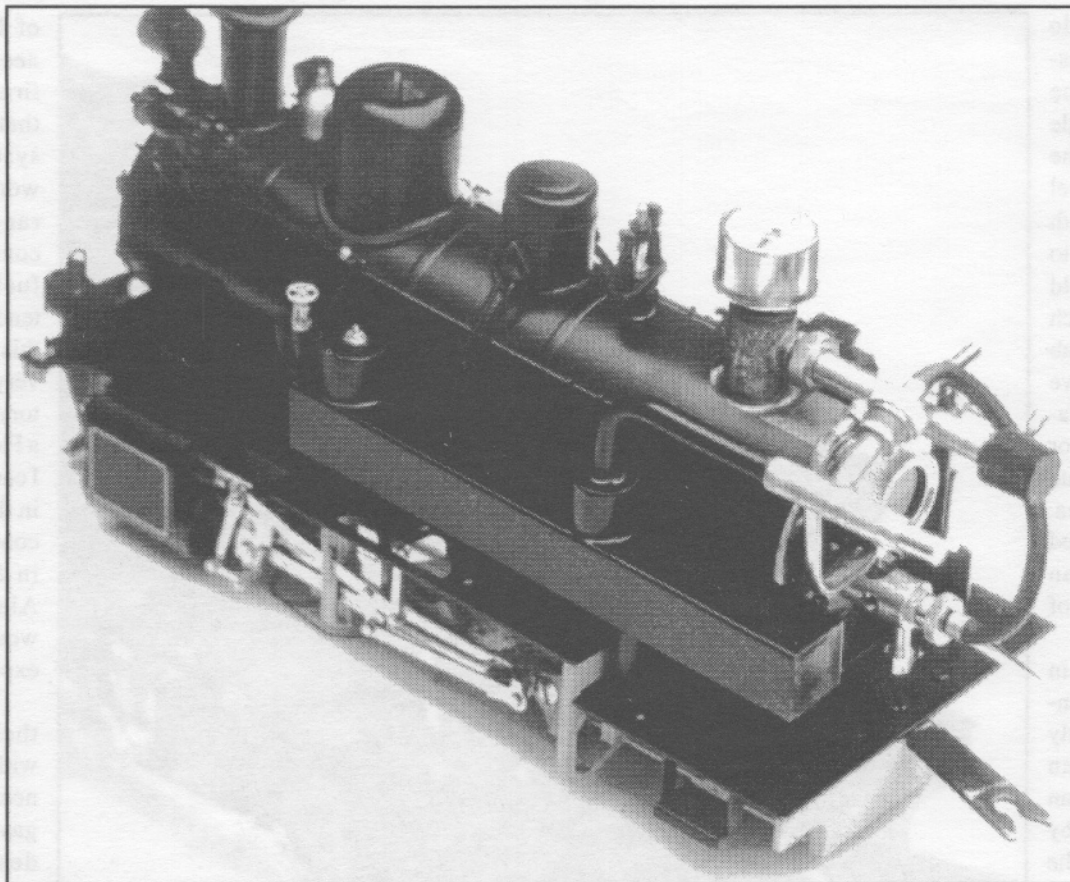
It actually goes together rather better than it reads but when everything is in position on the engine it is easy to pick up the threads within the tank feet and secure, before replacing the four cab fixing screws.

You will remember that the new tank uses the original regulator valve, flexible gas hose and jet. This is easily curved around under the cab roof to 'plug in' to the gas jet holder; and finally, a personal peccadillo was to remove the ON/OFF backplates from the control knobs. A steam test in the cooling autumnal air proved the new firing system worked very well, providing new operational flexibility and removing the need to fiddle around with hot water.

### Thoughts on R/C

Should you wish to fit radio control to your locomotive, I suspect that there are already several well documented ways to do this. Certainly there is plenty of room on the right hand side of the boiler to fit a standard size servo on a couple of servo pillars. The only matter of concern is that the servo arm is able to work without fouling the side of the boiler and again, this is a matter for some experimentation. I don't wish to tell grandmother how to suck eggs!!

There is of course more than enough room in the tender for the radio receiver and the battery box, but a point I should like to make is that if you have already fitted radio control to your locomotive and are suffering from the dreaded glitch – there is now a solution in the form of IP Engineering's new servo smoother. This small electronic gubbins easily plugs between the radio receiver



The Finescale tank offered up to the chassis.  
Note the route of the feed to the gas jet.

and your servo. What it actually does, in simple terms, is to interrogate the incoming signal half a dozen times a nanosecond (or whatever) and rejects any corrupted signals. This means you will get very smooth control of your *Frank S.* – with the added advantage of being able to switch off the radio whilst running on a continuous circuit.

Settle down in your recliner with a cool drink, or in my case a cup of tea, and

just watch them steam trains go puffing by!

Oh yes.....the whistle! I could not see any way of fitting this particular accessory to Frankie without very major modification and so this option was set aside. It is, however, worth investigating the possibility of incorporating an electronic whistle using the spare servo and the (now empty) space in the tender.

I did consider options for further radio control using a miniature servo sited under the new gas tank. Certainly it is possible to fit this and it could be used for controlling the gas regulator valve. Again, however, fitting is a bit of a fiddle, requiring the help of a third hand to juggle gas tank, body shell and servo. I did actually get this to work quite well, but in the last analysis, I don't consider it worth the extra hassle and expense.

### Final Reflections on Frankie

One final point. My opinions on this locomotive are my own, and the solutions described above are based on my perception of what a garden scale narrow gauge locomotive should do for me. I obviously have no wish to offend any *Frank S.* devotees, but you see I think that LGB, while producing a basically sound locomotive, rather spoilt the ship for a ha'p'orth of research and concluded, from their experience with this engine, that there is comparatively little call for live steam. The ethos behind this lone live steamer seems to be that this is something different, and just for running on high days and holidays on an otherwise track powered railway. Now this is a shame, because their next engine could so easily have been very good indeed.

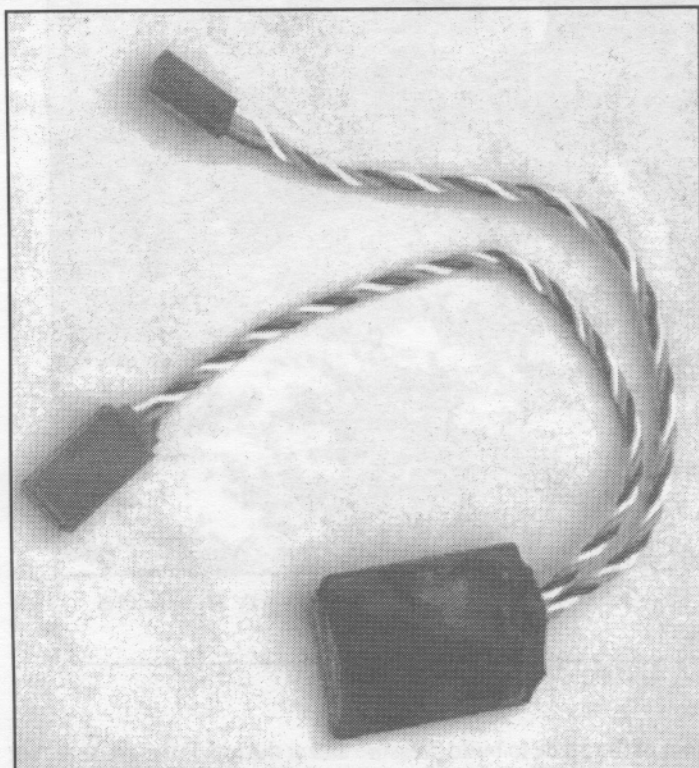


## Sources

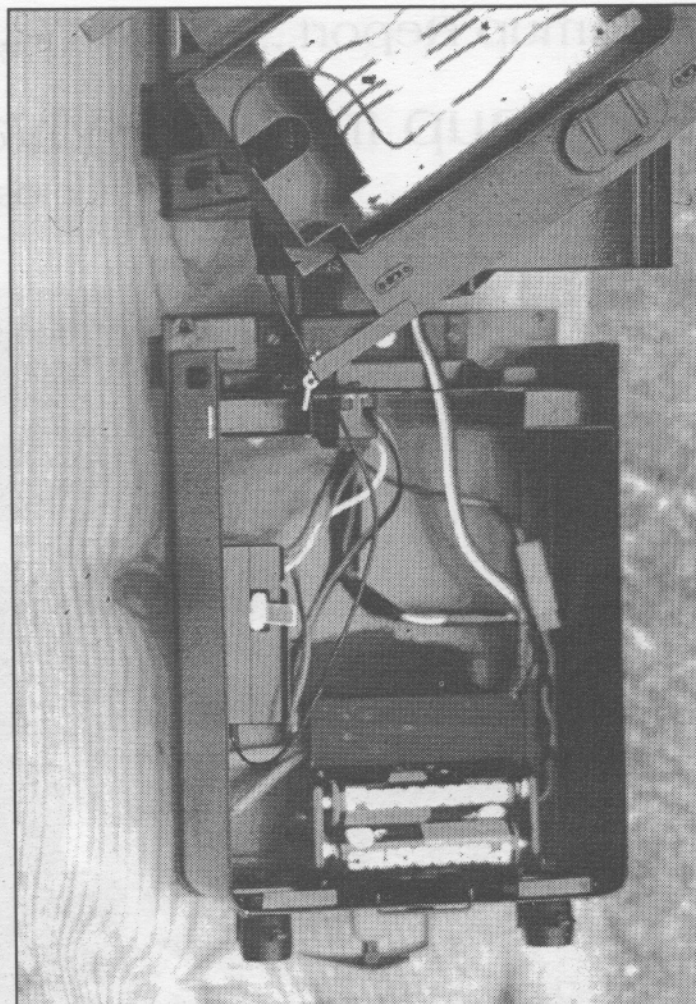
IP Engineering Servo Smoothers are available from Brand-bright Ltd. or their US agents.

For details of the *Frank S.* gas tank, contact Finescale Engineering Co at:

Unit 10  
Victoria Business Centre  
Neilston St.  
LEAMINGTON SPA  
Warks CV31 2AX  
UNITED KINGDOM  
Tel: 01926 334123



The IP Engineering Servo Smoother. One of these is locally in use on a 27mhz, R/C fitted Merlin Mayflower, and it has completely solved previous glitching problems. Fitting takes two minutes!



The layout in the tender. The R/C On/Off switch will fit nicely into the front access of the tender without modification. The front switch plate will screw into the switch body, holding the tender plating on three sides. Note the radio aerial looped round a card former and placed in the tender top. The dummy coal load can be fitted into a card holder, and shaped to fit over the aerial board and in the tender top.



## Steam Models

Ph: (613) 475-1771

Kits or Assembled

"Fascinating Working Steam Models!"

Stunning 34 page Colored Catalog \$6.95

Refundable with order. A Great Hobby! Over 100 different models. Tractors, Trains, Cars, Trucks, Rollers, Fire Engines, Marine, Model Boat Kits, Stationary Engines, Accessories & Parts.



1-800-481-1353

For exciting detailed information, visit us on the Internet:

<http://www.yesteryear toys.com>

Yesteryear Toys & Books, Inc.

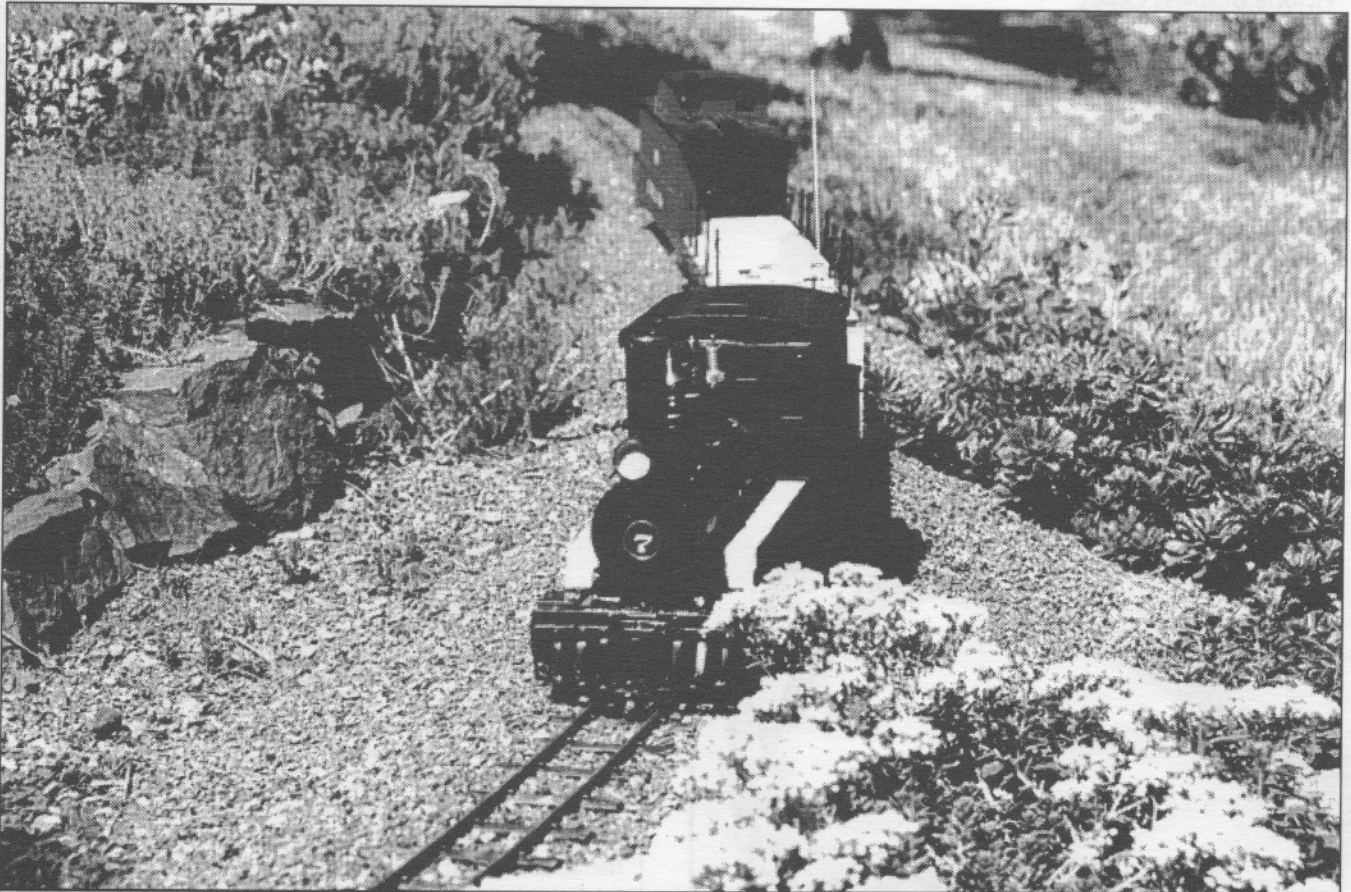
Dept. SG Box 537, Alexandria Bay, NY 13607



Steamup Report.....

## Steamup in Pennsylvania's Mountain Region

report & photos by Rob Kuhlman



Dan Long's Geoffbilt Forney eases down the grade on a beautiful sunny day in 1920's Pennsylvania. Can you smell the brake smoke?

On Saturday, July 5, eight steamers gathered at George and Marjorie Lyon's home to inaugurate operation on George's new 32mm/Gauge 0 line — almost one year to the day from the last service on George's former 45mm/Gauge 1 railroad. At the conclusion of last year's steamup, the 45mm track was lifted and given to friends, and construction commenced on the new line, which uses Peco 32mm track and switches.

George envisions his two foot gauge prototype serving blue-stone quarries, a resort hotel, and supplying the oil and gas development in the mountainous northern counties of 1920's Pennsylvania. This sense of purpose has given him a clear direction for equipment selection and landscape development.

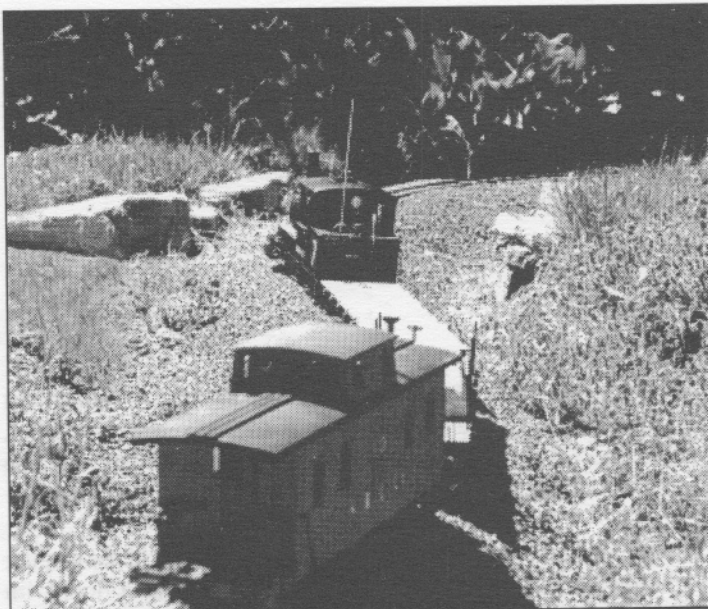
Faced with a difficult sloping back yard, George's alignment conquers the grade with a series of sweeping loops — reminiscent of the D&RGW's Big Ten Loops west of Denver. The ruling grade of 3.1% and 4 foot minimum radius present an enjoyable challenge of real mountain railroading. Operators can stop at the bot-

tom of the grade to build pressure and at the top of the grade to "set retainers"; doubling the hill may be a necessity with extra heavy trains.

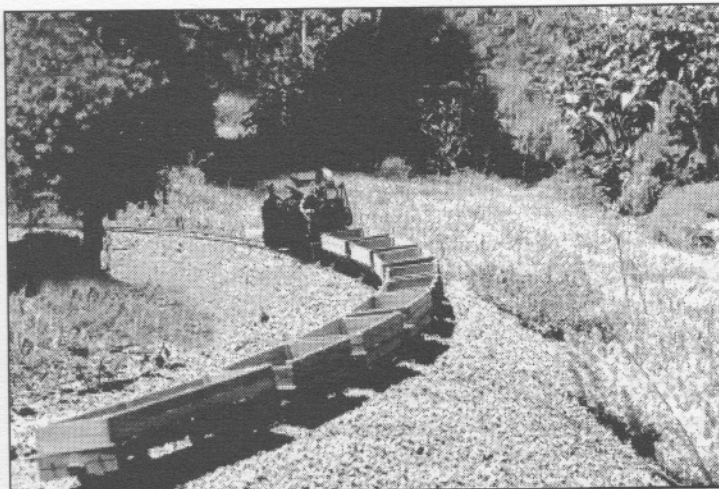
Visiting equipment at this inaugural steamup included a Geoffbilt Forney and several geared homebrews, but the real star of the show was George's new Wrightscale War Department 4-6-0 Baldwin. This locomotive, perhaps the most gorgeous locomotive I've ever seen, saw First Steam this day. All in attendance crowded the track as the Baldwin took its first tentative turns on the line.

In addition to all the operating there was much discussion about the exciting growth currently occurring in 32mm in the USA. Another quality 0 gauge line has been constructed, and I look forward to being a guest engineer on it for many years to come.





Dan's Forney swings through the grade-conquering loops. George has worked hard to achieve the right effect on his 2-foot narrow gauge line, and his efforts have paid off.



Rob Kuhlman's "Lathe-Free" locomotive (SitG № 26 thru 30) backs up the grade with a string of empty gons for the bluestone quarry.



## JOIN US!

C'mon down to the SitG Online Chat Session on Thursday nights (9:00 p.m. to 11:00 p.m. pst) and join in the discussion. Every other week (or thereabouts) there will be a hosted session on a specific topic. The other weeks are wide open to discuss anything that might be on your mind. Got a problem? Toss it out for discussion. Or perhaps you'll be able to help someone else with their problem. We share photos, stories and have a good time, and we sure would like to have you join in with us. Go to the SitG Online site and click on 'CHAT'.

<http://www.steamup.com>

### Shop Specials

**Shop Theory 1942** Reprint  
By Henry Ford Trade School. "Every step of machine shop work is pictured clearly in text & illustration."  
8-1/2" x 11" 267 pages softcover \$16.95

**Advanced Machine Work 1925** Reprint  
"for students, apprentices, & machinists." Easy-to-read, step-by-step instructions with lots of clear illustrations. Learn how to enjoy your home shop!  
6" x 9" 800 pages Hardcover \$29.95

**Metalworking 1907** Reprint  
Over 2,200 illustrations covering just about anything you'd want to do with a chunk of metal.  
6" x 9" 760 pages Hardcover \$29.95

**Laying Out for Boiler Makers 1918** Reprint. Shows you how to make complex shapes & different boilers from plate stock. 800 illustrations.  
8-1/2" x 11" 416 pages Hardcover \$39.95

**Ornamental Metal Casting** by R. Whitmoyer  
Build a furnace to melt metal using charcoal briquettes as fuel. Casting methods & molds explained too.  
5-1/2" x 8-1/2" 92 pages softcover \$9.95

Order Now!



FREE catalog  
FREE shipping in US  
VISA & Mastercard accepted

1-800-979-9840

**WOODLAND BOOKS**  
BOX 1268, DEPT. 6  
HILLSBORO, OR 97123

### MP-7 RUST REMOVER

\$30.00 Gal. Plus S&H

T.Q.M. Company



Covers up to 500 sq. ft. per Gal.  
Dissolves rust and oxides from metal surfaces.  
Cleans corroded tanks, clogged radiators,  
weld and solder joints, plumbing etc.

**NO MURIATIC ACID**

Safe to use, since 1968  
800-861-3770

T.Q.M. Company  
[www.grrtech.com/asops/](http://www.grrtech.com/asops/)

REM VIDEO  
PRESENTS

**NSS '97**

**National  
Spring  
Steamup**



The Official Video  
of the  
National

Spring Steamup  
Approx. 40 min.

**\$29.50**

(US funds only)  
Includes shipping  
and handling  
in the continental US

Send check or Money Order to:

REM Video Productions  
1461 Sierra Street  
Redwood City, CA 94061

Sorry, no credit cards  
Please allow 4-6 weeks for delivery



# BUILDING THE VEST POCKET CLIMAX

text and photos by Mel Ridley

drawings from the author's sketches by Harry Wade

## Section 6 – The Cylinder Assembly (part 2)

**6:6. CYLINDER PIPEWORK & SMOKEBOX:** This may seem an odd combination, but we will require the smokebox for alignment purposes whilst assembling the pipework prior to soldering and might as well get that out of the way first.

**MATERIALS REQUIRED:** Smokebox and Stack Castings.

**6:6:1. SMOKEBOX:** The three castings comprise a stack, combined smokebox and saddle and front number plate. Fettle the castings and remove any spelter, ensuring the inner flange that attaches to the boiler is clean. Drill 3/8" down through the chimney, clean up the base of the stack and insert. It should be a push fit, but if not, a drop of epoxy adhesive (not superglue or soft solder) will keep it in place. Drill N° 34 and tap 4BA through the smokebox door to fit the number plate.

The saddle is mounted to the front truck stretcher by two 8BA x 1/2" bolts and nuts. Try for fit, and if necessary clean up the base so it sits astride the stretcher to its full depth of 5/16". Mark off two holes 1/2" apart on centreline and 5/32" from the base. Centre-pop and drill 3/32" clear for the fixing bolts. If you want to add works plates, mark off 1/8" below the row of rivets and on centreline of the stack and saddle. The author drills and taps this using 8BA countersunk steel screws epoxied to the plates, screwed home and when aligned, secured with nuts from inside the box.

**6:6:2. PIPEWORK:** Leaving the cylinder blocks untouched, strip down the trial assembly from section 6:5. It is important that they are left undisturbed because they are now correctly aligned and when the pipework has been fitted, they are all going to be soldered up in one operation. We will need a pair of stout tapered round nosed pliers for the next task, and as the geometry is easier, start with the...

**LIVE STEAM PIPES:** Refer Drg: All that is required here are a couple of opposed 90° bends spaced 1" apart. Practice on a piece first to work out the development, which will be dependent on the diameter of the plier noses. Trim the cylinder end to 1/2" and the admission end 5/16" long.

We now have to make a 'T' piece to connect to the superheater. Chuck some 1/4" hex brass and mark N° 1 jaw. Face, centre and drill 3/32" x 1/2" deep. Turn down to .190" for 3/32" and thread ME 3/16" x 40t. Countersink for the nipple. Part the piece off 7/16" long. Turn around using N° 1 jaw and repeat for – the other end.

Centre-pop one of the faces on centre line and drill 1/8" into the

bore. Cut a piece of 1/8" tube to size so we have a 3/4" dimension from the hex flat to the tip of the nipple. Clean up with wire wool, slip on the 1/8" nut and silver solder. Locate the two pipes into the cylinders, slip a 3/32" nipple with nut on each end and try for fit.

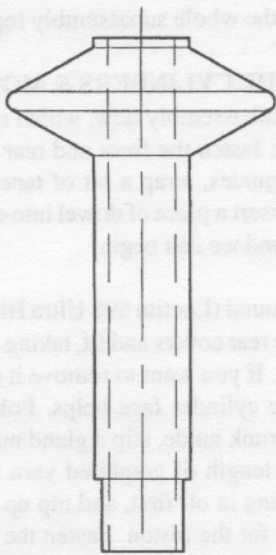
The steampipes more or less follow the vertical axis of the sloping cylinders, protruding through the cutout in the saddle floor with the superheater coupling angled forwards in a line with the vertical axis of the saddle walls. Study the drawing carefully because the front end of the boiler barrel will rest partway between the two upright steam lines. Remove the pipework so we can go onto the next task.

**EXHAUST PIPES:** The geometry for these is a little more complex but as we have cut our teeth on the previous job, it will be easier to understand and accomplish. Unlike the live steam pipes, there are no nuts and nipples to bother us. There are three elevations given in the drgs. as a guide so again, study them carefully. We will also have the smokebox to hand as a gauge tool when we come to try and fit. Take note that when bending, these pipes are left and right handed.

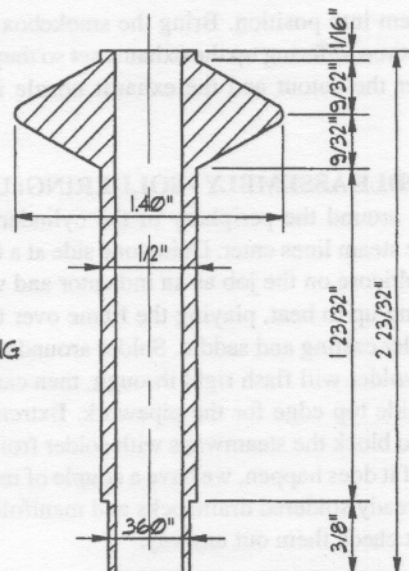
Make the first bend 5/16" from one end to roughly 30°. Allowing for development, make another bend of 90° but at right angles to the first. Depending on which direction you bend it will determine if it is for the left or right hand cylinder, so take note for the second one which needs to be the other way round. 1" from the second bend, make another 90° bringing the pipe back into the centre of the saddle but angled in a plane parallel to the first section - see front elevation. Before trimming it to size, try a dummy run. Sit the saddle on the chassis, insert into the cylinder and check that it is positioned midway over the saddle stretcher. Do the same for the other side checking they will meet as a pair and once soldered up, will fit into the cutout under the smokebox. Cut down the ends to 5/16".

The 'T' piece joining these is very simple. Chuck a 5/16" length of 3/16" hex brass, face, centre and drill through 3/32". Pop for the blast nozzle on centreline and drill 3/32" into the bore. Cut some 3/32" Cu. pipe 1/2" long for the 'nozzle'. This will be silver soldered AFTER we have sweated the whole assembly together. We can now make another trial fit prior to that operation this time incorporating the live steam lines.

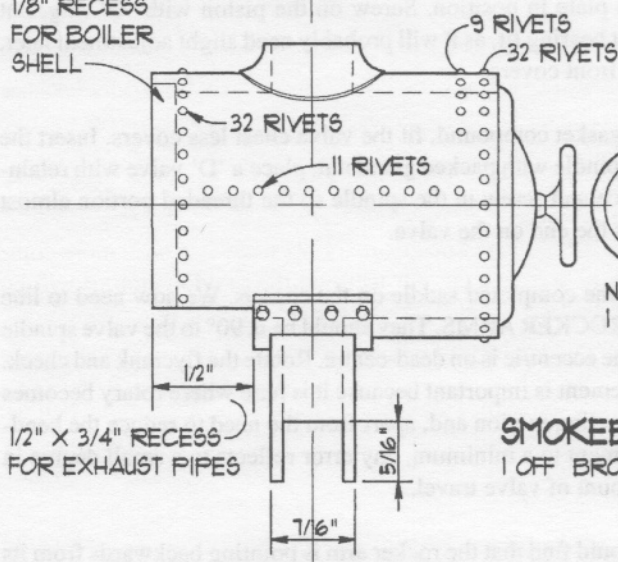
Gently slacken off the 4BA smokebox stretcher screws so the mounted smokebox can only just rock fore and aft. Fit the live steam lines followed by the exhaust. You will, as before have to



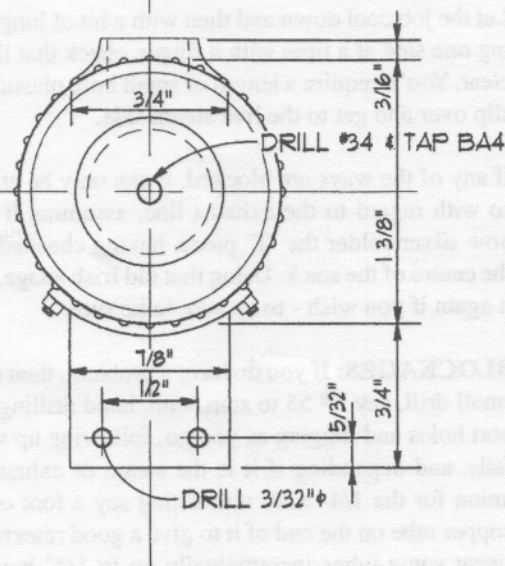
**SMOKESTACK**  
1 OFF BRONZE CASTING



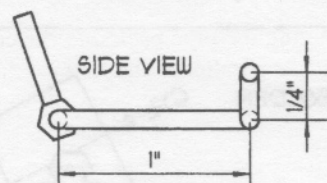
1/8" RECESS  
FOR BOILER  
SHELL



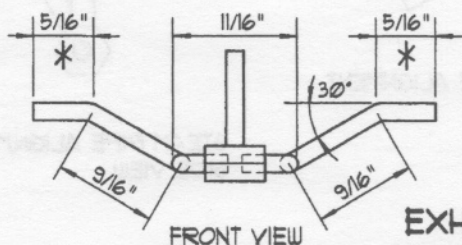
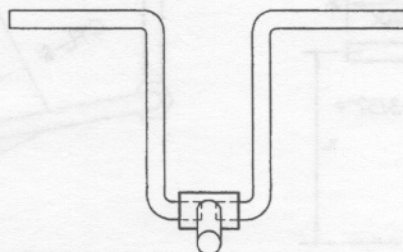
**NUMBER BOARD**  
1 OFF BRASS CASTING



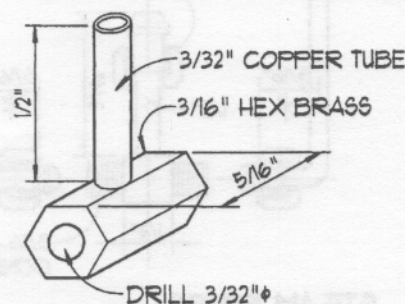
**SMOKEBOX**  
1 OFF BRONZE CASTING



**PLAN VIEW**



**EXHAUST PIPE**  
1 OFF BRASS & COPPER  
\* CHECK THESE DIMENSIONS ON THE JOB



**EXHAUST NOZZLE**  
1 OFF BRASS & COPPER  
NOT TO SCALE



spring them into position. Bring the smokebox slowly upright at the same time, offering up the exhaust set so they enter the smokebox under the cutout and the exhaust nozzle is pointing up the stack.

**6:7. SADDLE ASSEMBLY - SOLDERING:** Use a liquid flux to percolate around the periphery of the cylinders and just a little where the steam lines enter. Doing one side at a time, place a snippet of multicore on the job as an indicator and with a 1/2" nozzle or so, bring up to heat, playing the flame over the inner edges of the cylinder casting and saddle. Solder around the outer rear edge first, the solder will flash right through, then carefully add a little to the inside top edge for the pipework. Extreme care is needed here not to block the steamways with solder from capillary attraction, but if it does happen, we have a couple of remedies to remove it. The already soldered draincocks and manifold shouldn't be affected but check them out anyway.

Let the job cool down and then with a bit of lung power and bunging one side at a time with a finger, check that the steamways are clear. You'll require a length of small bore plastic or rubber tube to slip over and get to the live steam side.

If any of the ways are blocked, it can only be at the cylinder end, so with regard to the exhaust line, assuming it is clear, you can now silver solder the 'T' piece, having checked its alignment up the centre of the stack. Using that old Irish adage, you can now test it again if you wish - to be sure to be sure.

**BLOCKAGES:** If you do have a problem, then use a pin vise and small drill, say N° 55 to start with, hand drilling gently down the port holes and tugging as you go, following up with 1/16". If that fails, and depending if it is the steam or exhaust line, turn up a union for the 1/4" x 40 nut, fitting say a foot or so of 1/4" bore copper tube on the end of it to give a good reservoir. For the other, sweat some tubes incrementally up to 1/4" bore, and a push fit over the nozzle. Gently heat up the localised affected area until the solder just starts to melt and blow down the tube. We are now

ready to begin putting the whole subassembly together.

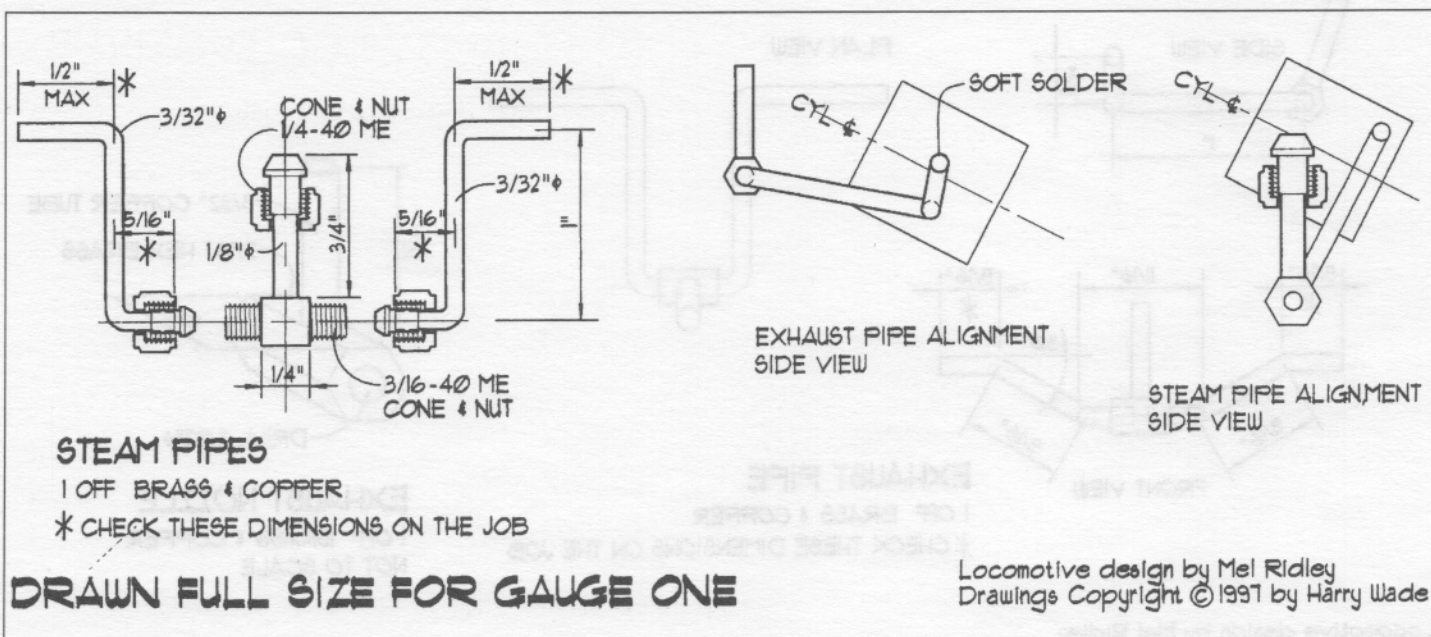
**6:8. ASSEMBLING THE CYLINDERS & MOTION:** For those who want to paint the subassembly now, which is going to save a lot of masking later on, fasten the front and rear cylinder covers, valve chest and trunk guides, wrap a bit of tape around the live steam connection and insert a piece of dowel into each trunk guide. When dry, strip down and we can begin.

Dab some gasket compound (Loctite 598 Ultra Black HI-TEMP is recommended) onto the rear covers and fit, taking care not to block the steam passageways. If you want to remove it easily later on, a drop of light oil on the cylinder face helps. Poke an assembled crosshead through the trunk guide, slip a gland nut on the end and offer up. Tease a short length of graphited yarn into the stuffing box, best done by soaking in oil first, and nip up the gland so we have an easy sliding fit for the piston. Fasten the trunk guide and motion plate in position. Screw on the piston with 'O' ring, but without bearing fit, as it will probably need slight adjustment later, and fit front covers.

Using gasket compound, fit the valve chest less covers. Insert the valve spindle with packed gland nut, place a 'D' valve with retaining piece and screw in the spindle so the threaded portion almost reaches the end on the valve.

Mount the completed saddle on the chassis. We now need to line up the **ROCKER ARMS**. They should be at 90° to the valve spindle when the eccentric is on dead-centre. Rotate the flycrank and check. This element is important because it is here where rotary becomes reciprocating motion and, apart from the need to reduce the bending moment to a minimum, any error reflects to a small degree in the amount of valve travel.

You should find that the rocker arm is pointing backwards from its intended position. The eccentric spindles were deliberately left 1/16" overlong to accommodate any errors in assembly, so calculate the mean position and cut the spindles down to size.



Slip on the connecting rods and follow the procedure outlined in section 4:5 on Gearbox Assembly. Taking each side in turn, rotate the flycrank forwards to Top Dead Centre ( Along with Bottom Dead Centre these will from now on be referred to as TDC and BDC ). In this position, the valve will have moved forwards exposing the rear port to its maximum opening. Rotate the crank again to BDC and the front port will be open. Undo the valve spindle pins and match the spindle bush against the rocker arm at all positions, setting the valve on the spindle so there is an equal distribution on either side.

We now have to check the cutoff positions. At the end of each stroke, the port must be closed to prevent pre-admission of steam. Turning the chassis assembly upside down, undo the stop collars and bring them back about 1/16" - the diameter of the pin. In this position, the front edge of the grub screw will be in line with the rear edge of the flycrank screw. Nip up and try again, rotating the flycrank to all quarters and checking the valve position.

Fit the valve chest covers using sealant and try an air test, for which an airbrush compressor or air bottle with valve is quite adequate, lightly oiling around including a few drops in the steam line beforehand. Hopefully, you are now in business and we can go on to the boiler.

**BOX SPANNER FOR VALVE CHEST BOLTS:** If you want to fit neat, small hexheaded 10BA screws (11BA head) instead of unsightly slothead screws here, we can make a simple nut spinner. Chuck a 2.3/8" length of 1/4" hex brass, round off the end, turn about, face, centre and drill and tap 4BA x 1/2" deep. Insert a 4BA caphead screw with bearing fit, turning down a 1/2" length, including the cap, to 11/64" and finish as for the piston tool.

#### NOTE FROM THE AUTHOR:

I noted that a gremlin struck in issue N<sup>o</sup> 41, but hopefully of no consequence. On the drg. pages 22/23, top r/h side, the cylinder

cover holes are marked "drill #50 for 4BA". This should be 10BA. The top l/h side is correct, but unclear as the '1' in '10' BA is intersected by the vertical c/l in the drawing. However, the text is quite clear on this issue, and I offer a free gallon of warm English beer to the first smart aleck with glee and merriment in their heart to point it out to the editor (caller must collect their prize in person).

#### SOURCING

In order to assist our readers in the acquisition of all the bits & pieces they need for the Vest Pocket Climax project, we will publish this list of sources at the end of each article in the Climax series. We will continue to add sources to this list as they come to our attention, so if you know of a reliable source that isn't listed here, please let us know.

**Castings & boiler** ..... In North America -  
Llagas Creek, Dept. SG  
2200 Llagas Road  
Morgan Hill, CA 95037-9429  
Phone/Fax (408) 779-4391

Outside North America -  
Mel Ridley,  
Cornwall Southern RR Enterprises  
High Noon, Gorway,  
Teignmouth,  
Devon TQ14 8PX  
England  
Phone/Fax 01626 779908

**Fasteners (BA & ME)** ..... Sulphur Springs Steam Models  
(including taps & dies) Dept. RB  
**Machine Work** PO Box 6165  
**Raw Materials** Chesterfield, MO 63006  
Phone/Fax (314) 527-8326

*When you contact any of these suppliers, please tell them that you found them in Steam in the Garden magazine.*

**Cherry Scale Models**  
CSM



## G1 QUALITY LOCOMOTIVES

For the serious collector

During 1997/8 we are manufacturing in small batches in G1

- \* LNER A1/2/3/4 \*
- \* Claud Hamilton + P2's + Peppercorn A1/A2's \*
- \* LMS Coronation - Duchess - Black 5/Jubilee \*
- \* SR Merchant Navy \* GWR railcar \*

#### LIVE STEAM LNER A3 - LMS BLACK 5

For details and specifications of these exciting models send SAE

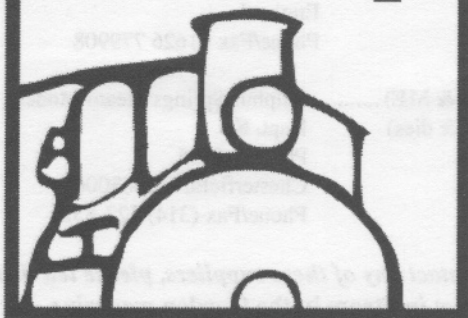
#### CHERRY SCALE MODELS

The Stables, 25, Church St, Langham,  
Oakham, Rutland LE15 7JE England  
Tel: 01572 757392 Fax: 01572 742053



# 2nd Annual

## National Spring Steamup



**May 29-31  
1998**

**Sunnyvale, California**

Enjoy three days of live steam action as live steamers from around the world converge on Silicon Valley. 45mm (Gauge One) and 32mm (Gauge O) tracks in abundance amid the unbeatable climate and surroundings of Northern California. The Bay Area is unequalled for easy access, exciting atmosphere, and predictably great weather.

Tracks available 24 hours a day:

Friday 8:00 AM through Sunday 7:00 PM

10 minutes from San Jose, 20 minutes from San Francisco

International Airports.

**Sunnyvale Hilton, Sunnyvale California**

**(408) 738-4888 or 1-800-HILTONS**

**(BOOK EARLY, ROOMS ARE LIMITED)**

Conference rate of \$61.00 per room.

Dealer and seminar rooms will be open during the three day event.

### New This Year!

- An excursion to the Roaring Camp & Big Trees Narrow Gauge Railroad will be organized. Ride through the California Redwoods behind geared locomotives. (Fare not included in registration fees; this will be organized ad hoc for those who are interested.)
- Enjoy three additional days of steamups at local garden railways after the event.

### Regular Programs and Events

Schedule Boards for portions of each day on all tracks.  
Dealer Rooms open during specified hours all three days.  
Seminar Schedule will be Announced.

### Registration

*Registration forms will be mailed to all who attended the National Spring Steamup last year.*

A registration form will also be included in the next issue of *Steam In The Garden*.

Registration Fee:

\$60.00 before April 1st. \$65.00 after April 1st.

Information:

Richard Finlayson 2408 Grandby Dr. San Jose, CA 95130  
(408) 871-0318

Email: [info@steamup.com](mailto:info@steamup.com) Web: <http://www.steamup.com/steamup>

# The Harmonic Whistle – The Next Generation

article and drawings by Larry Bangham

In my last article, *The Harmonic Whistle Revisited* (SitG N<sup>o</sup> 39), I said I would write a construction article on the steam dome whistle when I made some more definitive drawings. Well, I am still making changes to this project and am working on the drawings. Also, the drawing of the Hemmens Porter whistle shown in that article was created before I became a proud owner of this good little runner.

My recent purchase of this engine, however, has pointed out the need for a modification to the whistle valve for proper operation of the Harmonic whistle (and the stock one too, for that matter). So if you have been disappointed in the performance of your Porter whistle, take heart. The fix is not all that difficult and can be accomplished with hand tools in an evening. Those interested in making the modification before it is published can call or write me at (714) 521-6254, 15058 Tricia Lane, La Mirada, CA 90638. Send a SASE and I will send you a sketch and description of the modification.

I recently installed a smaller, dome-type Harmonic whistle on my M.H. Porter and have it protruding through the cab roof with the resonator hidden below (see photo). This whistle is built around what I refer to as my micro aperture and uses about 30% less steam than the mini aperture which was originally designed for this engine (see above). The steam dome whistle is kind of a unique item; I think it is my favorite development.

For the C&S Mogul, I am at present designing a twin safety/whistle valve that will fit into the steam dome along with the resonator. For whistle loving owners of this engine it means that they could have a bolt-on package giving them everything they need for a realistic looking and sounding steam dome and whistle.

As you can see, I am not quite ready to divulge everything yet, but let me whet your appetite a little by telling you some of its advantages. There is no problem with condensation; once it warms up it stays hot. The sound is actually louder than the big two-chime whistle, partly because of its location; and, because it uses 30% less steam you don't lose much pressure blowing it. And last but not least, it looks good, sounds good, and the steam comes from the right place. This is beginning to sound like a sales pitch! More on that later.

The two-chime whistle is the culmination of several false starts

with failed tests, rethinking, and then all of a sudden the light comes on and it then becomes obvious what has to be done. So let me share the following information with you; it is about as close as I can come to a detailed construction article.

## The two-tone Harmonic chime whistle (figs. 1 and 2)

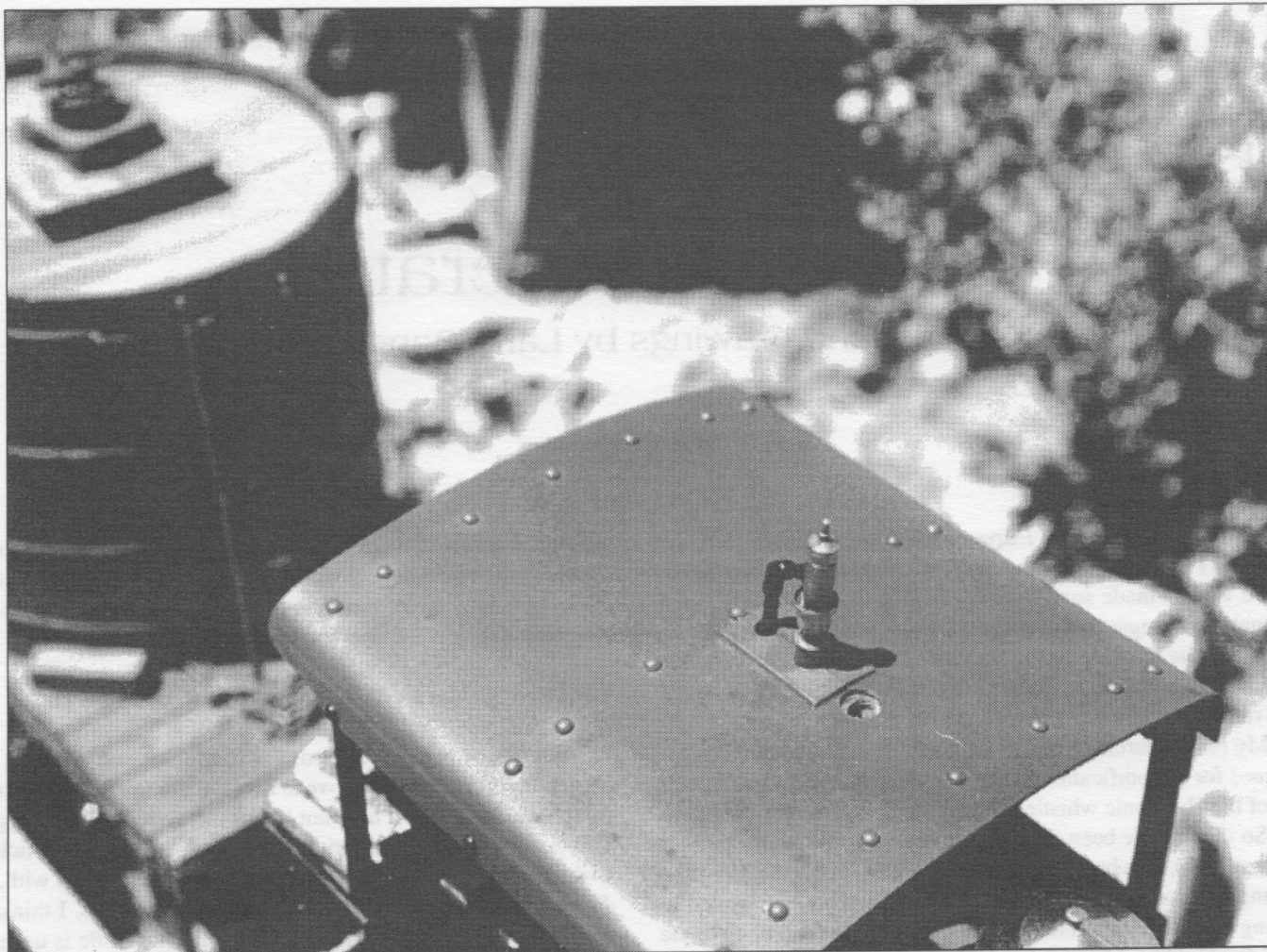
For the more adventurous whistle lovers, making the two-chime whistle might prove to be a satisfying challenge. But to paraphrase "LBSC", it may not be for the veriest Billy Muggins. This is my first attempt at writing a detailed construction article on a whistle. My previous articles showed what I ended up with, but did not spend much time explaining how I got there. I think the only thing harder than building a good steam whistle is trying to tell someone else how to do it. So...please bear with me.

## Background information

The advantage of a multiple chime whistle lies in its ability to produce more than one tone with a single aperture (slot). Early multiple tone whistles had a separate aperture and tube for each tone. At some point it was discovered that a single whistle divided into sections of differing lengths could produce several tones simultaneously. This of course requires less machining to produce and less steam to blow. The secret of producing a successful multiple chime whistle is keeping the different sections completely isolated from each other through the full length of the whistle.

The C&S Mogul would be about the smallest size boiler you would want to run this particular whistle with. This engine will give you two or three good blasts before you drop about a kg of steam. You can see that all of the whistle volume is utilized by having the low pitch resonator occupy the space not used by the high resonator. Taking advantage of this space dropped the pitch by about four notes. If you want to try a still lower pitch, the aperture tubes can be made much longer. The longest I have made is 1.28" for the low side, with .90" on the short side. This dropped the pitch one whole tone from the one shown. I chose the length shown on the drawing to simplify the construction, as it is rather difficult to cut long, straight slots without the proper tooling. When dealing with odd shaped resonators I have not noticed the need for





Harmonic steam whistle installed on the author's Maxwell Hemmens Porter. Looks good, sounds good. A big improvement over the original factory installed whistle.

Photo by Larry Bangham

keeping the aperture tube length any particular multiple of the resonator length. This phenomenon may only apply to long circular cross sections. The aperture assembly and tube sizes are the same as those in the smaller version previously published (*see SitG N<sup>o</sup> 35 - The Harmonic Steam Whistle*). The slot and baffle dimensions in fig. 1 are set up nominally to locate the .110" aperture gap so that it appears in the center of the collet tube holes (see fig. 2). But with all of the tolerances involved, this could vary considerably. With the .110" gap the whistle on steam will start sounding at about 25 psi (1.76 kg/cm sq) and will increase in volume with higher pressure. On air the whistle will start sounding good with a gap of about .135", but this gap on steam will require about 55 psi (3.87 kg/cm sq) to start sounding. So if you are running a big boiler at higher pressure, set the gap wide for a bigger sound.

Drain tubes are required to direct the exhaust water and improve the sound at low pressures. If you are running higher pressure (55 to 100 psi) and don't mind the spray, leave the tubes off and just put in .059" diameter drain holes. With a wider aperture gap and the lower back pressure you will get more volume. If you run drain tubes use 1/16 ID tubing with a minimum length of about 1.25". You will have to tune the tubes to equalize the back pressure

on each side in order to get equal volume from each side. On my Aster C&S Mogul the big chamber drain tube had to have two bends in it to get around the crosshead. But the small side could come straight down, so I had to put a .038" diameter restrictor in the straight drain tube to equalize the sound. The drain hole in each chamber can be located wherever it is convenient. If you run your whistle with the baffle vertical, the drain tubes could be run side by side. I run my whistle with the baffle horizontal and the drain tubes on the center line about an inch apart. It will pay to do a little planning here to avoid changes later on.

#### Fabrication

The baffle slots can be cut with a razor saw (Zona or equivalent). In order to assure that everything goes together, the inlet cap can be used as a locating fixture for the resonator tube baffle and a cutting fixture for the aperture and collet tubes. Complete the inlet cap and slot it up to the shoulder so the resonator baffle can be flush with the tube end. The slot does not have to be exactly in the middle, but should be straight and square. The collet and aperture tubes can be pushed together and slid into the inlet cap for a 1/16"

deep location cut. Complete the slot by separating the tubes and cutting one side at a time. I keep a supply of old wooden chop sticks and artist paint brush handles for sliding into tubes and then securing the stick in the vice for this type of operation. After the slots are cut, mark the parts with a spot of Dykem™ layout fluid to keep them properly indexed.

Notice that two of the collet holes are bisected by the aperture baffle. This is the way mine turned out accidentally and I figure my guardian angel was looking out for me, because it worked. I have not tried it the other way. The end of the aperture tube should be visible through the collet holes, extending into the holes by .010" to .020". You may have to adjust the length of the aperture tube or collet tube slots to achieve this. Also, add about .015" extra length to the aperture baffle to allow for tolerance variations. This will be adjusted during the tune-up procedure.

### Soldering

This whistle requires some creative soldering in order to properly install the baffles. A small leak from the inside to the outside world will be tolerated, but a leak from one side to the other will not. I used a good acid flux and 1/32 diameter lead/tin solder. A propane torch is excellent for the longer joints and a 50 watt iron works fine for more controlled temperatures in smaller areas. Size the baffles for a good mechanical fit, so they will support themselves when heat is applied.

When you are ready to solder the resonator baffle, push it in place and then install the inlet cap. With the cap end down against the bench, tap the baffle to fully seat it. I used a chopstick jammed into the end to hold the radial portion against the wall, and soldered this portion first by laying a short piece of solder into the radius, applying flux, and holding the assembly by the chopstick while applying heat to the outside with the torch (low flame). After the solder wets and fills the joint, use the same procedure to solder the edges of the baffle about halfway. Be careful not to solder the inlet cap.

Remove the inlet cap and solder the remaining edges, applying heat locally to avoid remelting the first joint. A little creative file work on the solder fillets and cap slot will assure that the cap will seat fully. The aperture tube baffle should be a tight fit so it will hold its place. Locate the baffle so its end is coincidental with the slots. To solder, I placed a piece of .015" aluminum sheet in the slot and ran the baffle up against it and held it in place with a half section of chopstick. I held the unit by the chopstick and hit it with the torch (very low flame) after placing a short piece of solder and fluxing. It won't take much to secure the aperture baffle. Remove most of the solder fillets with a half round file. Before you drill the drain holes fill the small resonator chamber with water and check for leaks. Rinse your soldered parts with water and remove any residue before proceeding to the next step.

### Tune-up

When you are satisfied that everything fits properly and the drain tubes and/or holes are in place, assemble all the parts. The end cap should fit snugly. If not, you can run some tape around it for the test. The collet tube is located so that the short end is flush with the inside of the inlet cap. I haven't soldered it in place, it is

just a nice snug fit. You will need air pressure of 25 to 60 psi. I have found that a whistle that blows well on steam will always sound good on air, but not the other way around. So there is a chance that if you can get your whistle to sound good on air, it *might* sound pretty good on steam. The following tests are based upon the assumption that you have a good aperture assembly, with the correct annular gap of .0062" to .0065".

If the whistle blows on the first try it will probably have a breathy, weak tone. This is an indication that the gap is too wide. If you don't get any tone, or if only one side sounds, remove the aperture assembly from the collet tube, rotate it a little and reinsert it. Since nothing that man makes is perfect, there will be a little more gap and a different alignment in one spot than another. On mine I would get nothing, then one side, then both, then the other side, just by rotating the aperture. To improve the tone, remove about .010" by filing the aperture baffle, keeping it straight and square. Test again and if you hear progress but are still not satisfied, take heart, file and/or rotate some more. Trying to judge the quality of a sound can be a very subjective thing. Your ears can play tricks on you. Try restricting the drain tubes alternately on each side to see how the sound is affected. When you have reached the .110" aperture gap distance the sound on air should have reached its peak and started diminishing. If you have already reached the point where the tone starts to sound muffled, with a high pitched overtone, you have gone too far.

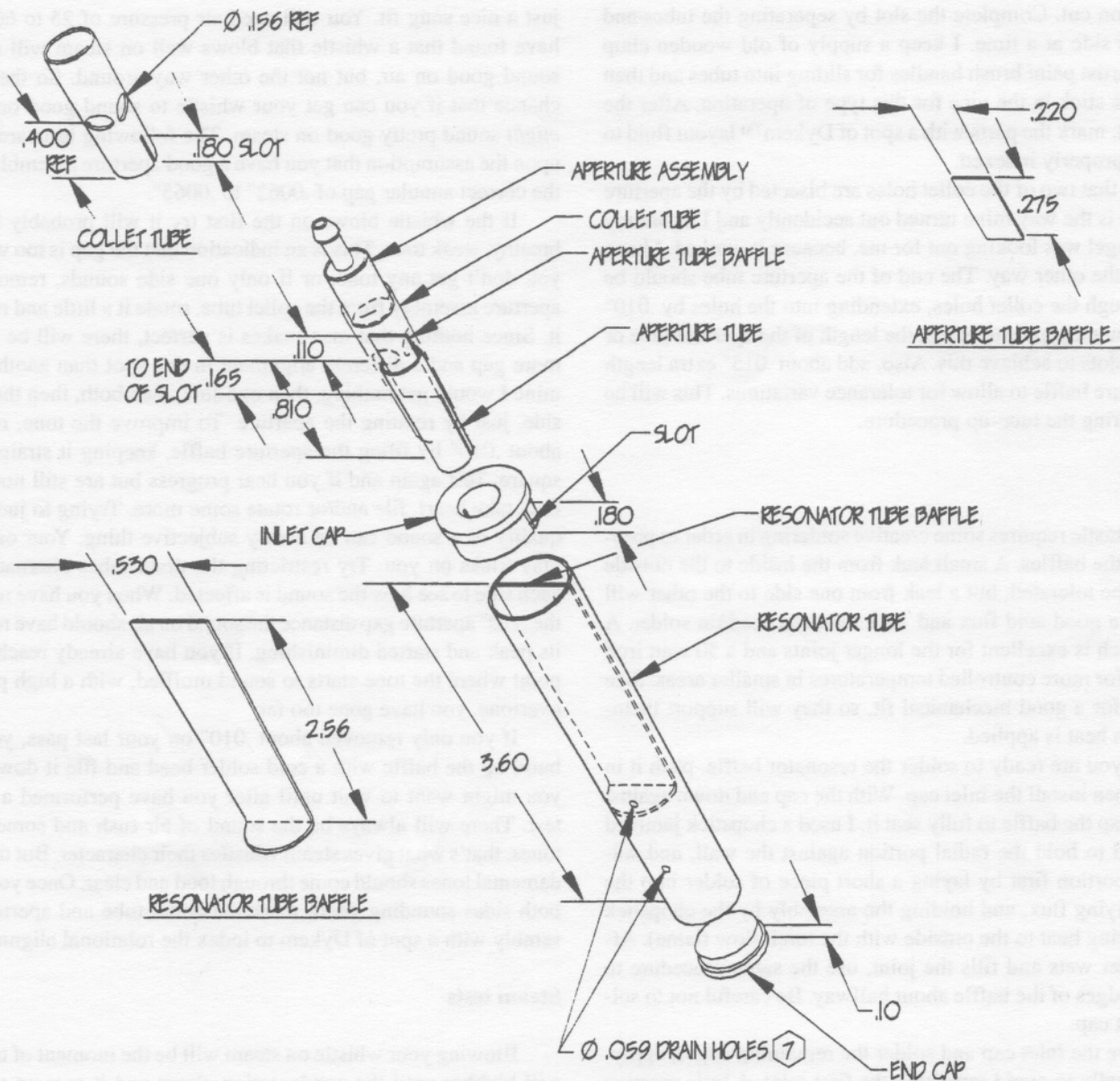
If you only removed about .010" on your last pass, you can build up the baffle with a cold solder bead and file it down. But you might want to wait until after you have performed a steam test. There will always be the sound of air rush and some overtones, that's what gives steam whistles their character. But the fundamental tones should come through loud and clear. Once you have both sides sounding good, mark the collet tube and aperture assembly with a spot of Dykem to index the rotational alignment.

### Steam tests

Blowing your whistle on steam will be the moment of truth. It will blubber until the condensation clears and it gets up to temperature. If one side sounds predominant, try rotating the aperture again. Also, you can adjust the sound by restricting the drain with a tooth pick temporarily to equalize the back pressure. If the sound doesn't come in until 40 or 50 PSI, then you can take a little more off the aperture tube baffle. If the tone sounds weak and muffled with a high pitched overtone, try building the aperture baffle up with a little solder.

A piece of foreign matter caught in the aperture body can really screw up testing. I made a fixture to make it easy to drive out the aperture body without damaging it so it can be cleaned. When you are satisfied with the sound, mark the aperture rotation by filing a groove in the ends of the collet tube and aperture assembly. If your end cap is a sloppy fit you can solder it in place. If everything is a snug fit, that is good enough. I like to take my whistles apart so I very rarely solder them together and I have never had one come apart inadvertently. After painting, upon final assembly apply silicone rubber adhesive sparingly to the aperture tube grooves, the end cap flange, and the inlet cap flange and groove. If questions come up give me a call at (714) 521-6254.





NOTE:

1. APERTURE AND TUBE SIZES ARE THE SAME AS THE HARMONIC WHISTLE PUBLISHED IN SHG VOL. NO. 35
2. INTERNAL BAFFLES ARE .015 BRASS SHEET
3. BAFFLE BUTT JOINTS AT APERTURE FACE AND RESONATOR TUBE MUST BE FLUSH WITH MIN LEAKAGE  
DIVIDED SECTIONS MUST BE SEALED FROM EACH OTHER WITH A CONTINUOUS SOLDER BEAD
4. USE SILICONE ADHESIVE TO SEAL INLET CAP AND APERTURE TUBE AT FINAL ASSEMBLY
5. WHISTLE PITCH ON STEAM IS 'B' (494 HZ) AND 'F' (698 HZ)
6. SLOTS ARE .016 WIDE
- 7 DRAIN LOCATION OPTIONAL. USE 1/16 ID X 1.25 MIN LENGTH IF DRAIN TUBES ARE USED.
8. DIMENSIONS ARE IN INCHES

Fig. 1

## TWO CHIME HARMONIC STEAM WHISTLE

L. BANGHAM 4-15-97

NOT TO SCALE

## Epilogue

Sometimes I feel bad about coming up with these ideas and not being able to produce the parts and supply them to those of you who want them. However, these devices are rather labor intensive to fabricate and since, at this point in my life, time is a very precious commodity, I doubt that my price would be acceptable. The activity that I enjoy in this hobby is solving problems, coming up with new ideas, and proving their concept in the shop. That was my job before I retired and that is what still gives me a sense of fulfillment. If I were to focus my attention upon developing and manufacturing products, I would be missing the opportunity and pleasure of discovering new ones. However, the sad truth is that no matter how many useful ideas are discovered, if the hobby at large cannot benefit from their use, they will eventually be relegated to the realm of unique oddities.

Not too many gauge 1 enthusiasts have the time, inclination, or equipment to get involved in these kinds of machining operations. What whistle lovers need is a patron saint willing to invest some time and money in tooling. The C&S Mogul steam dome and resonator could be combined into a very nice investment casting. The aperture assembly is a fairly easy machining project. With a combined safety/whistle valve sitting right inside the dome, all the required parts could be offered as a bolt on kit. For other types of whistles, standardization could reduce costs.

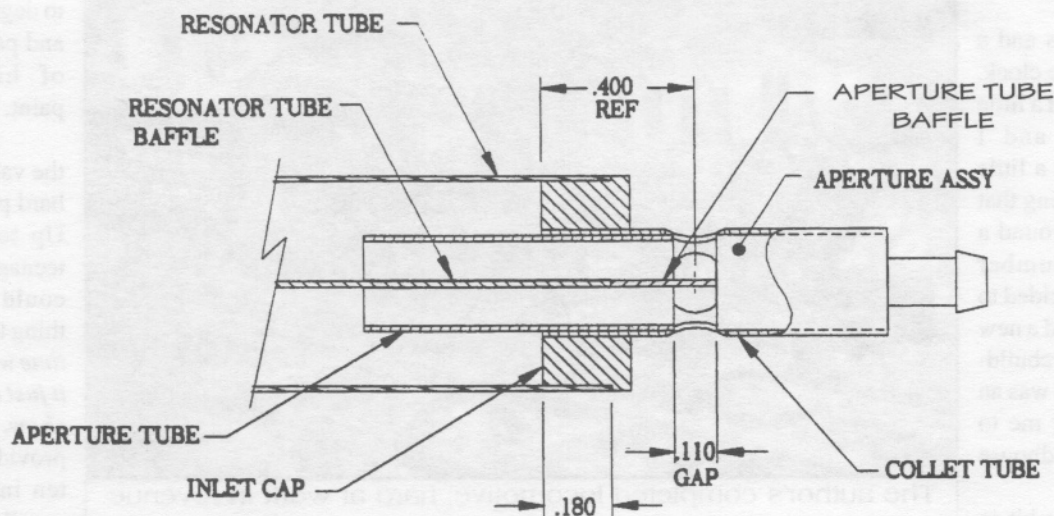
One approach might be to catalog all the locomotives (mostly American outline since we love macho whistles) that were com-

mercially produced with whistles. A study could determine maximum size, shape, mounting techniques, and hook up provisions. Two or three resonator sizes with a common aperture assembly could then be developed. The chime whistle resonator tube with integral baffles could be cast using the investment process. Different length aperture tubes would result in many different pitches.

Another approach might be to offer a kit with the machined parts completed and enough raw material included to complete one of several different types of whistle. A company could then be formed to provide a mail order service for bolt on and kit applications, with a custom service for unique applications.

The big question is, how many owners of expensive locomotives would be willing to pay \$100 or \$200 for a beautiful sounding single or multiple tone chime whistle that matches the character of their locomotive? Imagine going to a steamup where there are many individual sounding melodious whistles. Each engineer with his signature sound, using his whistle according to railway practice. No screeching peep-peeps..Fantasy island! I for one would be willing to devote more time to getting something like this started. Maybe there are others...

## Happy Quilling



**Fig. 2**

**PARTIAL SECTION  
TWO CHIME WHISTLE**

SCALE: 2/1



# Locomotive Review – Roundhouse 0-6-0 Chassis Kit

by Bob Nowell

## Technical Specifications

<b>Scale:</b>	Can be used for models in 1:24, 1:22.5, 1:20, 16mm - or even 7/8" scale
<b>Gauge:</b>	1 (45mm) or 0 (32mm)
<b>Cylinders:</b>	2 – 9/16" bore x 5/8" stroke
<b>Valves:</b>	Slide Valves
<b>Valve Gear:</b>	Walschaerts
<b>Available from:</b>	Order #HBK2 from your favorite Roundhouse dealer, or direct from Roundhouse Engineering Co. in England (see ads in this issue for info)
<b>Price:</b>	\$410.00 plus shipping (can vary with exchange rate)

The day that the live steam bug bit me I was watching a couple of Roundhouse locos running over George Brown's garden railroad line in NE Pennsylvania and doing what they do best – operate flawlessly. I was so impressed that when I built my own 0-4-0 steam loco it was built around Roundhouse cylinders, wheels, etc. (see SitG issue #6).

After 6 years and a lot of hours on the clock, I decided I wanted a little larger engine, and I wanted it to look a little more like something that would be seen around a coal mine or lumber camp. Having decided to go ahead and build a new engine instead of rebuilding Miss Randi, it was an easy decision for me to start with a Roundhouse chassis kit.

The chassis kit as shipped is *not* a shake-the-box-and-it-will-fall-together kit, but it *can* be built by anyone with a few tools and average mechanical ability. There are only a few holes to drill and, though you could use a hand drill, you should have access to a drill press. The instructions shipped are very clear and easy to understand. All the parts are separated in their own plastic packs. All parts are very well made and fit together with no problems, though a little filing may be required. I do recommend that you read the instructions twice before you start, as it will make the job easier.

It took me about 8 hours to completely build the frame, mount the wheels and cylinders, assemble the valve gear and install it, set the timing and test run with air (40 psi). But since Roundhouse recommends, and I agree, that the frame should be painted after it

is built and before anything else is added, it took a few extra days to degrease, wash, prime, and paint with two coats of high temperature paint.

The installation of the valve gear is the only hard part of the total job. Up to this point your teenage son or daughter could have put everything together. *Take your time with this step and do it just as the instructions show.* Roundhouse has provided very good written instructions and an excellent drawing of how all the parts go together. If you make a mistake at this point you will never



The author's completed locomotive, hard at work in revenue service on the Coalport Railroad, deep in the heart of Pennsylvania's beautiful mountain country.

*photo by Ron Brown*

get the timing correct. If you do make a mistake, as I did when I added the same Walschaerts valve gear to my other loco, just contact Roundhouse Engineering Co., and for a few dollars they will airmail the part that you broke or drilled wrong.....but you should have no problems.

Once the valve gear was installed and the timing set, everything ran like a Swiss wristwatch the first time I applied pressure to the cylinders.



Miss Randi, lettered for the author's Lehigh River Lumber Co., crosses one of the Coalport's scenic trestles on the way to pick up a load of freight and empty log cars bound for a Pennsylvania mountain logging camp.  
*photo by Ron Brown*

The completed 0-6-0 wheel arrangement (outside frame) chassis will give you a solid, very powerful, well built platform, that is 11 inches long. You can then add your own boiler, burner, and all the wood and metal work. There are plenty of detail parts available for dressing up your engine so that it will be "One of a kind".

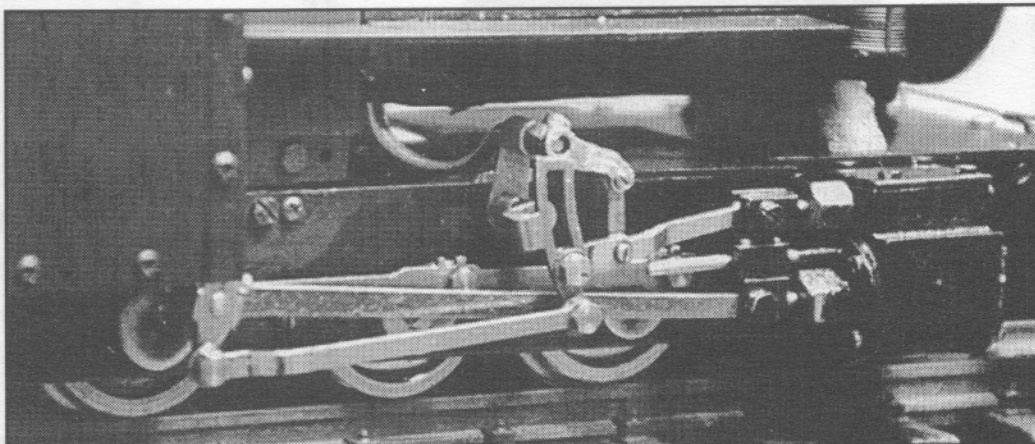
**Special Note:** If you are supplying your own boiler you will need to purchase a 1/8" compression tee to connect the cylinder steam lines together before you can mount the cylinders. If you are using the Roundhouse boiler (see information below), the fitting is supplied.

To see what can be done if you have the ability (and intestinal fortitude) to make major changes to the chassis, read the wonderful article by Steve King in SitG issue #37, page 23.

In conclusion, I highly recommend this kit from Roundhouse as the starting point for a gauge 0 or gauge 1 live steam engine.

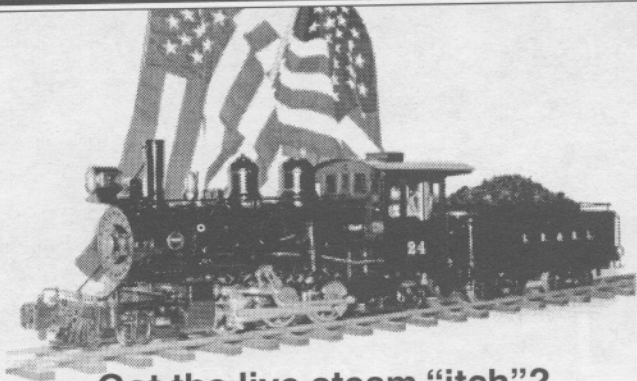
**Boiler information:** If you do not have the ability and/or the equipment to silver solder a boiler properly, then I recommend you also purchase the Roundhouse boiler kit #HBK4. This kit includes the boiler, steam valve, gas burner, and fuel

tank. It sells for about \$260.00. Additional information on the boiler kit can be had from your favorite Roundhouse dealer, or direct from Roundhouse Engineering Co. in England, or on the Roundhouse web site at: [www.livsteam.demon.co.uk/](http://www.livsteam.demon.co.uk/) (link to this site also available from [www.steamup.com](http://www.steamup.com)).



A closeup look at the modified Walschaerts valve gear used on the locomotives in the Roundhouse line.  
*photo by Ron Brown*





**Got the live steam "itch"?  
I have the cure!**

Live steam engines by  
time proven Roundhouse, in stock

Ask about our custom  
building and design service

Send \$3.00 for complete listing



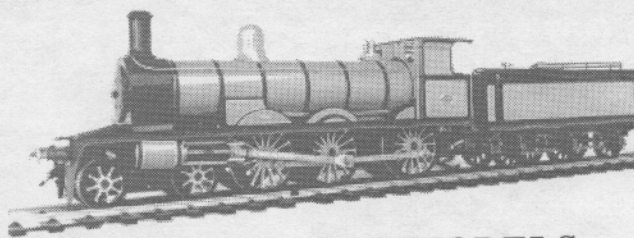
**Bayou Ltd. Garden Railways**

107 Easy Street

P.O. Box 4394

Houma, LA 70361

PH/FAX (504) 857-9464



## CHERRY SCALE MODELS

Gauge One

British Prototypes  
SR-GWR-LNER-LMS-BR

Live Steam or Two-Rail Electric

Superb Quality

## DOUBLEHEADER

3725 Pageant Place

Dallas, Texas 75244

972.247.1208

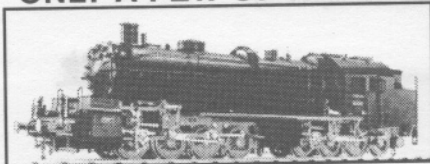
dblhdr@iadfw.net



## WORLD'S FINEST GAUGE 1 LIVE STEAM

KITS - RTR

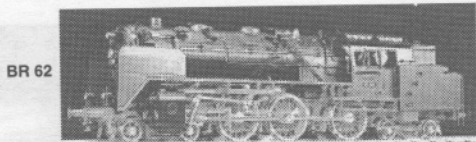
**ONLY A FEW OF THESE MODELS LEFT !**



BR 96 MALLET



GLASKASTEN



BR 62

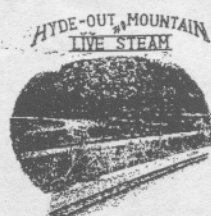
MANY OTHER MODELS CURRENTLY AVAILABLE

U.S. IMPORTER & DISTRIBUTOR

**CALL**

FOR  
INFORMATION

DEALER LIST  
ON INSIDE  
FRONT COVER



NEW!  
ASTER BINDER  
CATALOG & MANUAL \$15

DIAMONDHEAD  
2-HOUR  
STEAMUP  
VIDEO \$29

LOCOMOTIVE  
TEST STANDS  
FROM \$375

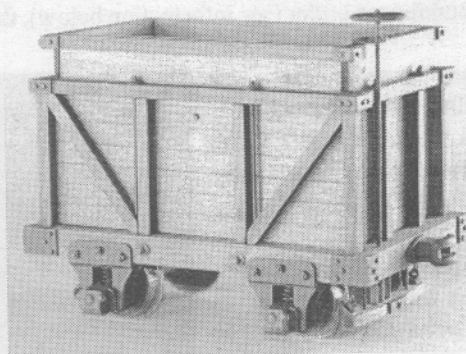
89060 NEW RUMLEY ROAD JEWETT, OHIO 43986

614-946-6611

<http://www.steamup.com/aster>

## SIERRA VALLEY ENTERPRISES

SUPPLIERS OF ACCURATE, CUSTOM BUILT,  
READY-TO-RUN 1:20.3 SCALE ROLLING STOCK  
AND METAL WHEEL SETS FOR GAUGE 1 & GAUGE 0



SEND \$2.00 FOR  
PRODUCT SPECIFICATION SHEETS  
WITH PRICING TO:

**SIERRA VALLEY ENTERPRISES**

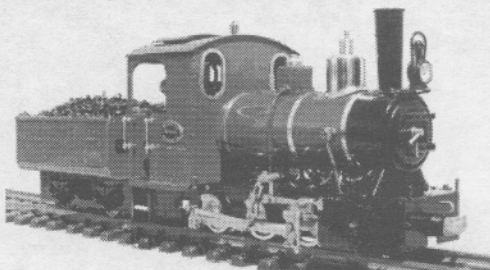
2755 SARATOGA AVENUE, MERCED CA 95340



They say that one picture is worth a thousand words, so here are a couple of thousand to whet your appetite.

ROUNDHOUSE however, believe that a steam locomotive should be more than just a picture, it should actually do a job of work.

Since 1982 we have been manufacturing model steam locomotives that do just that and keep on doing it.



Available from the following dealers or direct from the factory

Rio Pecos Garden RR Co. Phone: 941-495-0491 • Fax: 941-495-7264

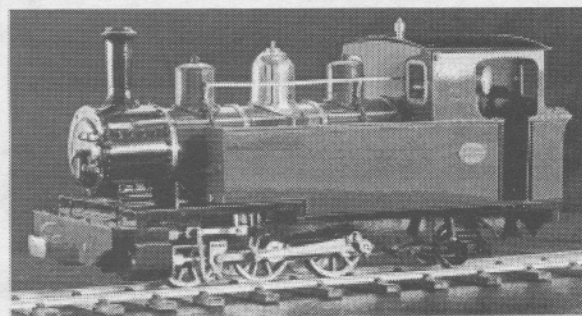
Doubleheader Productions Phone/Fax: 214-247-1208

Sulphur Springs Steam Models Ltd. Phone/Fax: 314-527-8326

Potomac Steam Industries Phone: 703-680-1955 • Fax: 703-590-9399

## Living Steam Railways

for SM32/SM45 & 'G' scale



ROUNDHOUSE set the standards for performance and reliability which others try to follow.

Check out the full range of American, English and European outline locomotives and home builder parts in the latest ROUNDHOUSE colour catalogue.

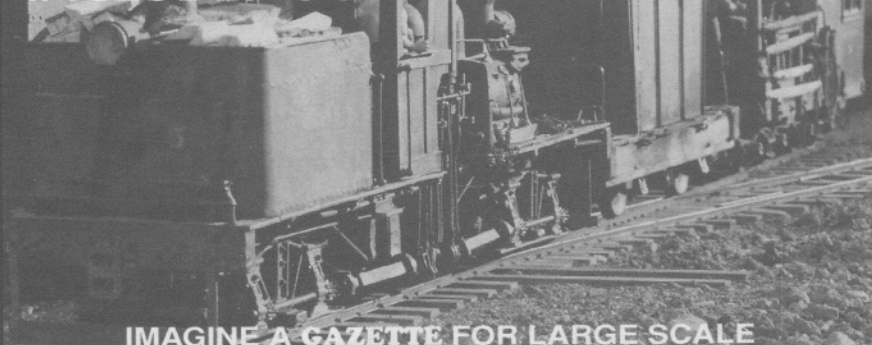
Roundhouse Engineering Co., Unit 6, Churchill Business Park, Churchill Road, Wheatley, Doncaster DN1 2TF  
Tel: (01302) 328035 – Fax: (01302) 761312 – e-mail: roundhse@livsteam.demon.co.uk

Find us on the Internet at <http://www.livsteam.demon.co.uk>



# FINESCALE RAILROADER

INCLUDES OUTDOOR RAILROADER



IMAGINE A GAZETTE FOR LARGE SCALE

A ONE YEAR SUBSCRIPTION (6 ISSUES) IS  
\$24.00 U.S., \$34.00 FOREIGN AND  
CANADA.

WESTLAKE PUBLISHING COMPANY  
1574 KERRYGLEN STREET  
WESTLAKE VILLAGE, CA 91361  
(805) 379-0904

CUSTOM BUILT

**PASSENGER  
&  
FREIGHT CARS**

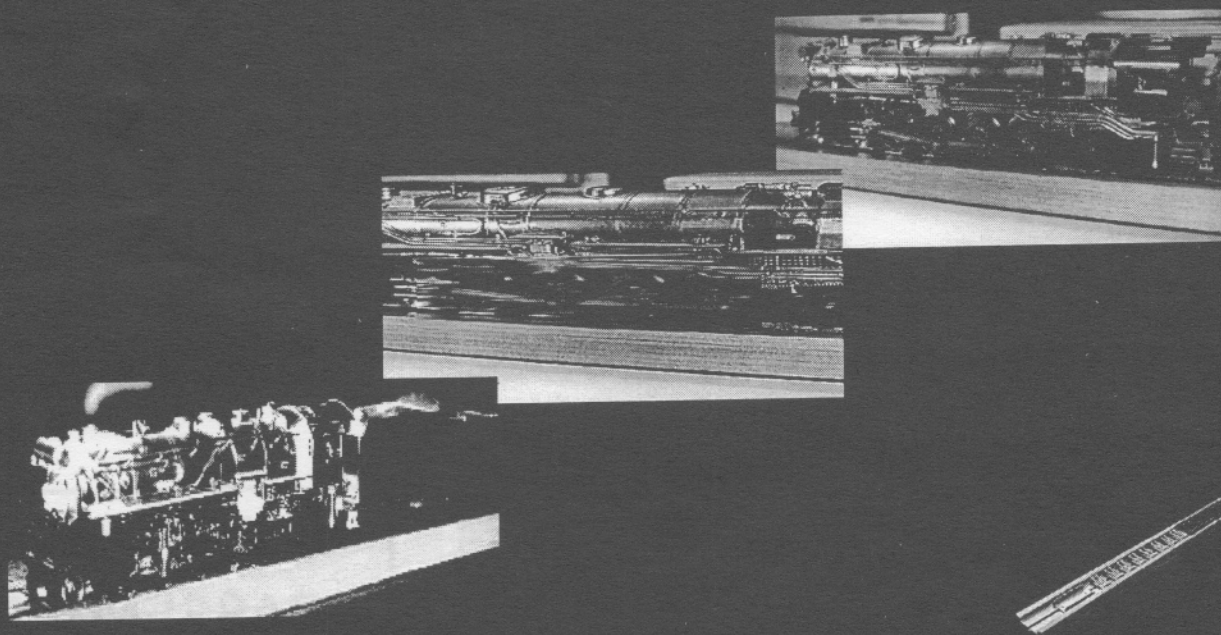
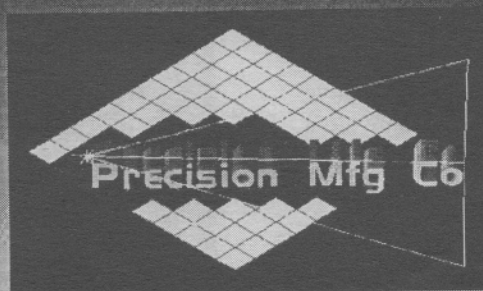
FOR SR&RL #24

PLEASE FOR COLOR PHOTOS  
AND PRICES

**C. M. MODELS**

10 CROMMESSETT ROAD  
WAREHAM, MA 02571





**With PMC's G-scale & No.1 Steam locomotive stationary display tracks, you'll discover new ways to test and run your steam or electric locomotives—indoors or out. For over 20-years, available in HO, O-27, O-72 & O-scale configurations.**

***We appreciate the growing family of G-scale and No. 1 steam customers!***

**Order direct from PMC or our authorized dealer.**

## **Hyde-Out Mountain**

89060 New Rumley Road  
Jewett, OH 43986  
(614)946-6611

## **PRECISION MFG CO**

4546 Sinclair Rd.  
San Antonio, TX 78222  
(210)648-3170  
FAX (210)648-7401

## Steam on the Carp River Valley Rwy.

report & photos by Ron & Marie Brown

The invitation to attend a steamup in the Canadian capital city of Ottawa was most welcome. It came as winter was reluctantly releasing its icy grip on us here in Paradise East, and we were anxious to get out of the house and boil some water with fellow steamers. We didn't really know any of the Canadian steamers, but from previous experience we knew that it wouldn't matter. Live steamers will always make visitors welcome, no matter where you go in the world.

Our host, David Morgan-Kirby, sent out excellent instructions for getting from here to there, and included a list of motels and B&B's for lodging. We made reservations at a B&B, and we were delighted. We can't speak for every B&B, of course, but ours was exceptional and we will not hesitate a moment the next time we are faced with a choice of national franchise motel or local B&B.

David's directions were perfect, taking us right to his driveway after a beautiful trip through northern New York and southern Ontario.

We had the time of our life with our newfound Canadian friends, and we were astonished at the quantity and quality of model engineering skill that was on display throughout the weekend. The photos on these pages don't even begin to do justice to the craftsmanship we saw at this steamup, but trust me when I tell you that I've never seen better anywhere.

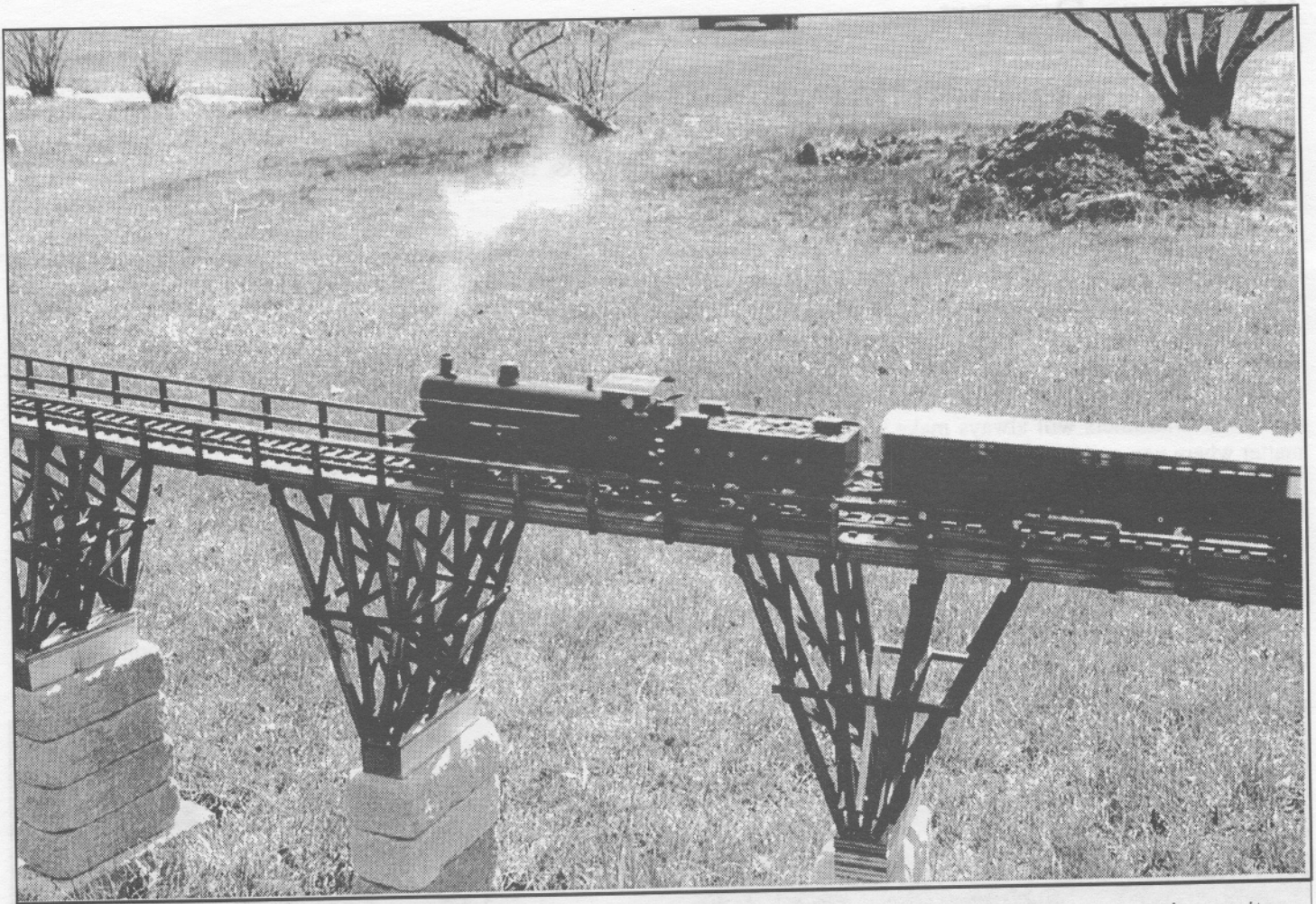
Probably 90% of the engines and rolling stock I saw were scratchbuilt (to 1:32 or 10mm scale), and in addition to those actually running there were several in various stages of completion that were brought by their owners for a bit of show & tell.

The weather didn't cooperate, and we had cool, windy and drizzly weather all weekend, but no one seemed to notice and a



One of the many beautiful trains we enjoyed watching in operation on the Carp River Valley Rwy. This particular loco is a LNWR 19" goods, belonging to Peter Cunningham. The train was built by our host, David Morgan-Kirby.





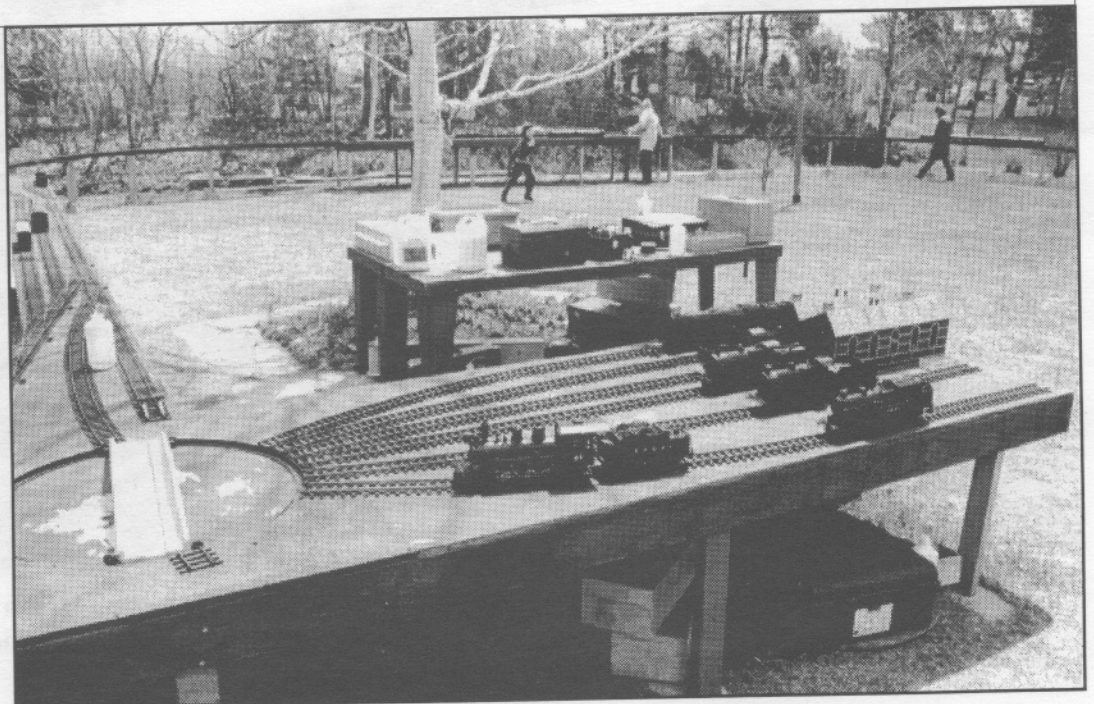
Top: The morning express, filled to near capacity, thunders over a spectacular trestle on its way to Carp Valley.

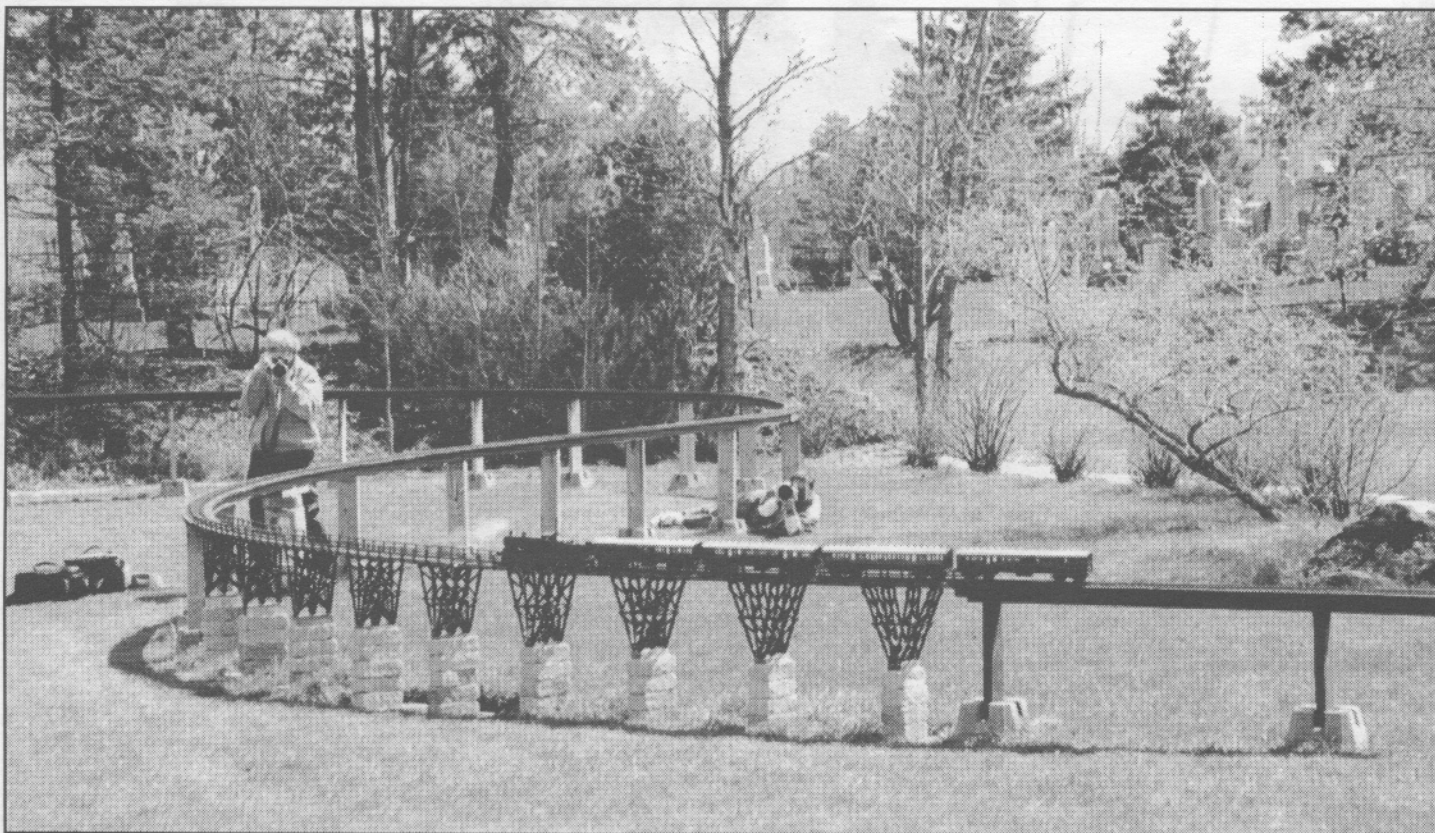
Below: A fine locomotive steaming and storage facility, complete with enginehouse, turntable and leads to the yard.

great time was had by all.

On Sunday afternoon, when most of the guests had departed for their homes, our host loaded Marie and I in his car and took us for a personally guided tour of Ottawa and the surrounding area. We were impressed with the cleanliness and beauty of this Canadian capital city, and the absence of litter and graffiti was gratifying to see. We couldn't help but compare it to Washington D.C., our own nation's capitol, which comes off poorly by comparison.

David told us that it was safe to stroll the streets of Ottawa anytime of the night or day, and we could see that for our-





Top: A good view of the sweeping curves and trestle on our host's elevated railway. David has combined the best features of elevated tracks with some of those things we like most about ground level tracks.

Lower left: A working turntable, used to move the locomotives from the steaming area to the yard tracks, where they can pick up a train before heading out onto the mainline tracks. The locomotive in this photo was scratchbuilt by Harry Hawkins of Toronto. It's still in brass, and this was its first time out to a steamup. After a bit of tuning, it put in several outstanding performances through the weekend.

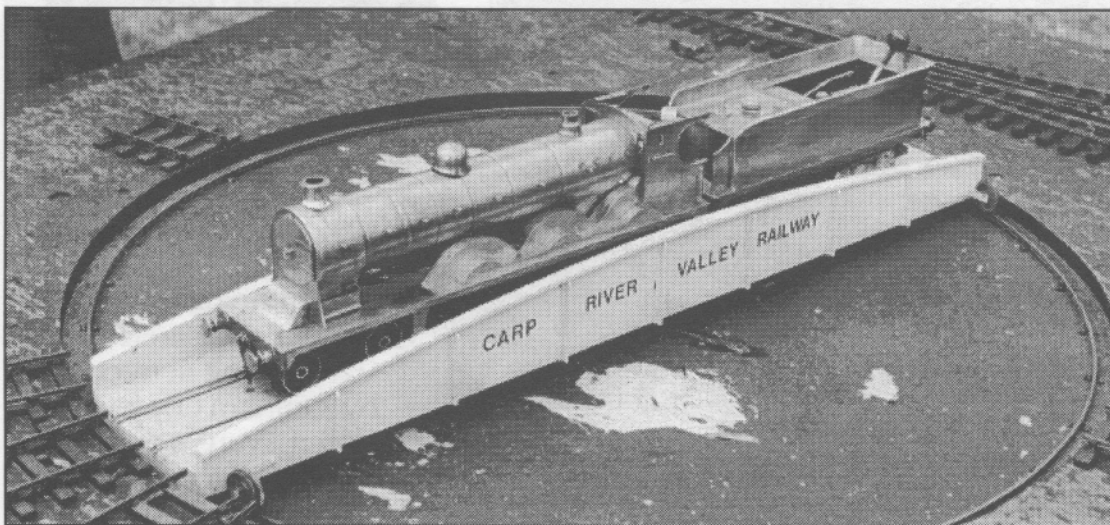
selves as the sidewalks were busy with families out enjoying the fresh air and sunshine (yes, the weather improved considerably by Sunday afternoon).

One of the difficulties of building an elevated track in cold

country is that of frost heave and the effect it can have on your track supports. David came up with a simple, but highly effective method that we are going to use on our own elevated track.

You can see in the photos that the CRVRwy is supported on concrete deck blocks and 2 x 6's. No holes to dig! Thanks for the clever idea, David.

We'll let the photos and captions tell the rest of the story of our trip north of the border, but we can't close the story without adding that we won't miss an opportunity to repeat the experience.

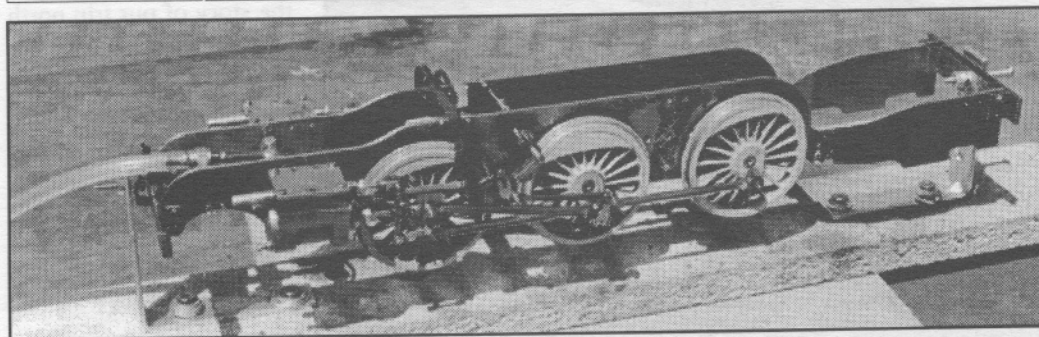
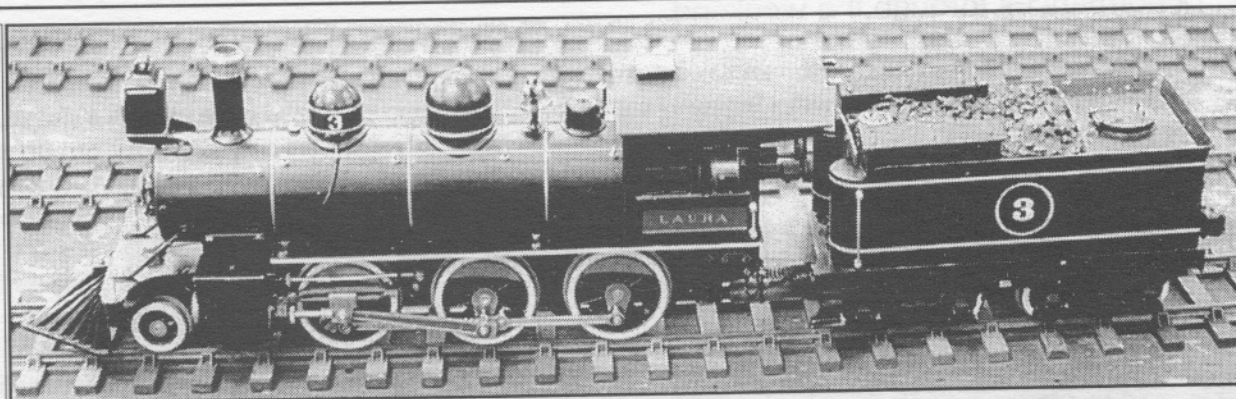






Above: Marie Brown shows off an outstanding 7/8" scale SR&RL boxcar, scratchbuilt by Mike Mueller. He is an avid SR&RL buff with lots of great ideas, and I can't wait to see what he'll bring next year! David's spacious back yard and smooth running track can be seen to the rear.

Right: An Aster Mogul, beautifully kitbashed by Bill Bryant, includes a tender and pump.

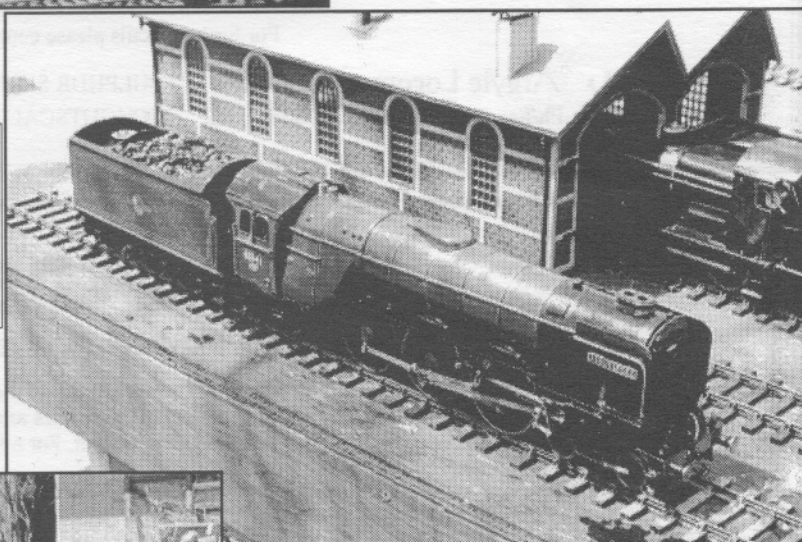


Left: One of the chassis on display at the steamup, running on air. This loco, a coal fired LNER V2, is being scratchbuilt by Graham Copley from Martin Evans's articles in Model Engineer.



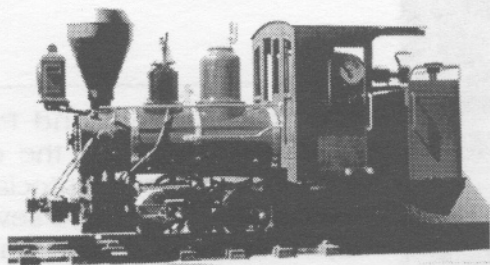
Left: Mike Sudlow and Peter Cunningham discuss the construction of Peter's GI Association Project loco. There were several Project locos at this steamup, each with a different look, and they all ran quite nicely.

Right: Dick Abbott's absolutely gorgeous scratchbuilt Peppercorn A1, which is happiest with a train of at least 14 coaches. Dick is a master craftsman, and this locomotive runs as perfect as it looks.



Left: Robert Stanley drains the tender water supply on his Aster Beyer Garratt at the conclusion of another successful run. This was the first of these impressive locos I had seen, and it was a smooth, powerful runner.





## "BALDWIN" 0-4-2T

1-20 SCALE. LIVE STEAM. 45/32mm GAUGE.  
MACHINISTS KITS AND READY-TO-RUN.  
GAS FIRED, PAINT CHOICES.

Drawing set (8 sheets) US\$ 33, UK £ 15 (Plus V.A.T.)  
Main components *pack*. US\$ 280, UK £160 (Plus V.A.T.)  
(Laser cut motion, frames, wood cab, lostwax castings, wheels etches, boiler tubes, cylinder blocks.)  
Also available - bar stock/sections. *pack* & nut, bolt screw *pack*.

★★★★★

**READY-TO-RUN** US\$ 1150, UK £ 715 (Plus V.A.T.)

For further details please contact:



Argyle Locomotive Works  
Ph/Fax (03) 5968 6573 AUSTRALIA.

"SULPHUR SPRINGS STEAM MODELS" Ph/Fax 314-527-8326 U.S.A.  
"WRIGHTSCALE" (M.D. Wright) Ph/Fax 13398-86494 U.K.



## Meet the Flintstones.

[Jimmy Flintstone g-scale figures, that is!]

Bring your garden railroad out of the stone-age with genuine Jimmy Flintstone g-scale figures. With a wide variety of characters and poses available, your Garden Railroad will come to life without rocking your budget. For a free brochure, send us a self-addressed stamped envelope.

**Now over 60 figures to choose from!**

2/3 are "G" or "PG" rated • 1/3 are "R" or "X" rated

**New! Santa, Santa's Helper, Little Old Lady and more!**

**Figure It Out • P.O. Box 1036 • Framingham, MA 01701**

# AIR!

Air  
Toggle



Air  
Motor

## THAT'S RIGHT - *AIR* IS ALL YOU NEED TO POWER YOUR TURNOUTS!

A simple Air Motor, an Air Toggle, some tubing and an air supply  
are all you need. There's NO wiring, NO soldering, NO electricity!  
Easy to install with proven reliability. Guaranteed for life!

WRITE, PHONE OR FAX TODAY FOR INFO

*Del-Aire Products*

321 N. 40th St., Dept. SG, Allentown, PA 18104  
Phone/Fax (610) 391-0412, 24 hours/7 days  
DEALER INQUIRIES INVITED

Del-Aire Products  
work with any  
gauge turnout!



## Workshop Project Series

# Let There Be Light

By Kevin Strong

Drawings by the Author

## Operating headlights for live steamers

Let's face it. There's nothing neater than looking into a tunnel and seeing a locomotive headlight coming towards you (unless you're somehow stuck in the tunnel). That sight led me to want to put operating headlights on my steamers. Electric lights on those *other* kinds of locomotives are easy, but putting one on a live steam engine requires a bit more effort. The reason? Simply put, heat. Most wires will melt when exposed to high temperatures. But as mom told us, "We can do anything as long as we put our minds to it." So, how do you put an operating headlight on a steamer?

The answer is teflon® wire. This is normal wire with teflon insulation around it. The teflon is very heat resistant, thus perfectly suited for live steam applications. NOTE: Although teflon is *heat* resistant, it is not *flame* resistant. In fact, it burns quite nicely. Care must be taken to keep the wire out of the way of open flame - a special consideration on pot boilers. The easiest way of running the wire where you need it is to thread it through some brass tubing. The brass will protect it from the flame, so hopefully it will not ignite.

The trick is to ground the chassis of the locomotive (similar to a car.) The negative terminal of the battery is connected to the frame, so you only have to run one wire to the headlight. Note that there is a fuse in line with the line going to the headlight, so in the event that something should short out, you don't have a small meltdown.

All of my locomotives are radio controlled, so there is already a power supply available. If you operate in manual mode, consult a psychiatrist.....no, find a place put a battery or two, enough to power the bulb. You will want to use a plug-in type bulb. That is, a bulb with two pins coming out of the base. (LGB uses these bulbs, or you can use a Mag-Lite® type bulb (make sure the voltage matches your supply.)

The key to this whole operation is the light socket. Think of the socket as a target. The bulb's eye is a pin from a

DIP socket. (available from Radio Shack®) This is connected to the positive terminal of the battery through the teflon wire. The next ring is plastic tubing, which acts as an insulator. This has a groove filed on the outside of the ring. The plastic tube is inserted into a brass tube. The groove now forms the second receptacle for the other pin from the bulb. The copper tube has a brass tab soldered onto the outside of it. This gets screwed into the locomotive, completing the circuit.

If you run R/C, connect the headlight to the switch that turns the receiver on and off. That way, the headlight becomes an indicator to show you if the receiver is on or off, saving you the embarrassment of showing up at a steamup only to find that you accidentally left the power on, and you can't run because the batteries are dead. (This phenomenon is especially common in locations where there isn't a AA battery to be had for miles.)

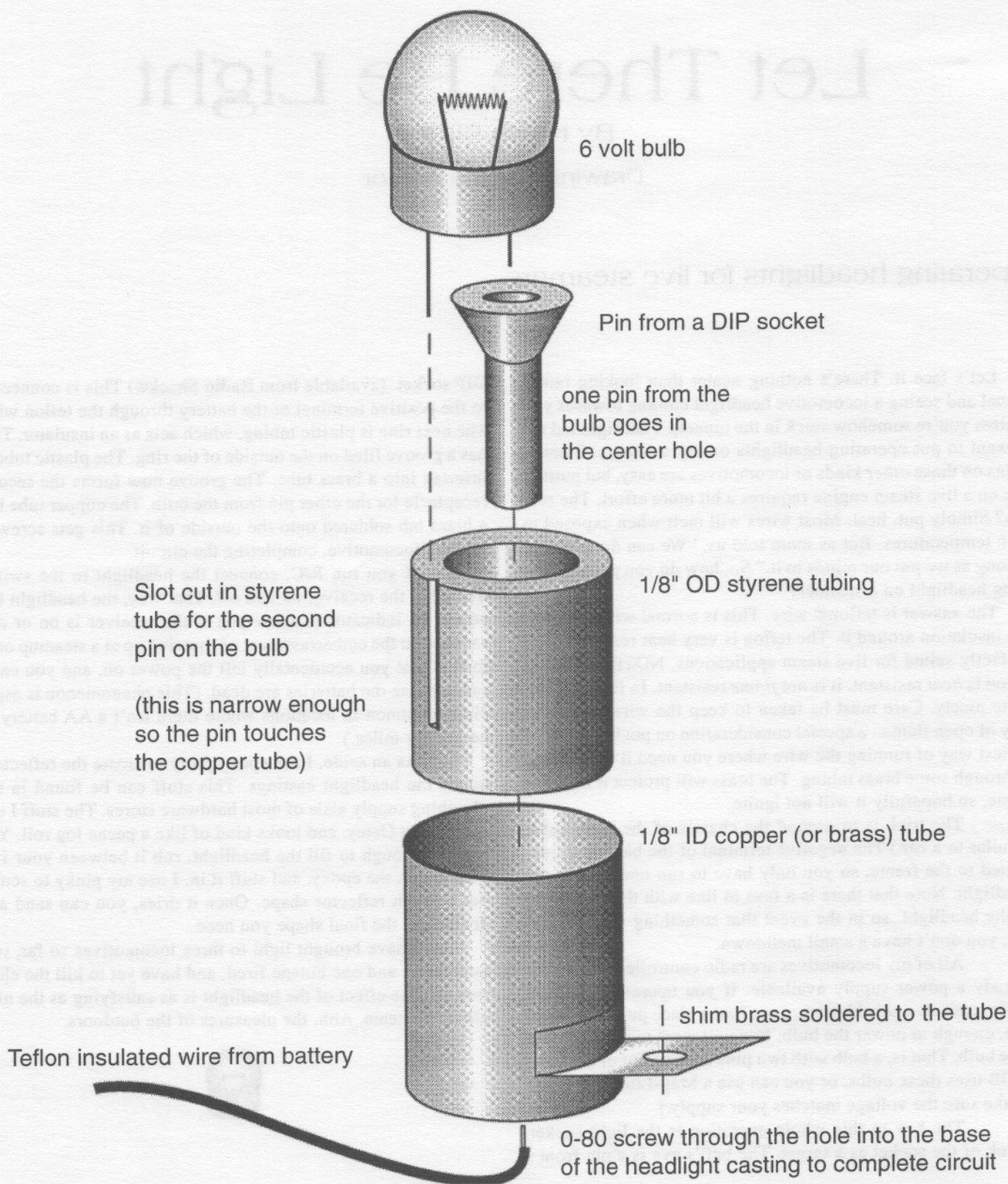
As an aside, I use epoxy putty to create the reflectors inside the headlight castings. This stuff can be found in the plumbing supply aisle of most hardware stores. The stuff I use is made by Oatey, and looks kind of like a pecan log roll. You tear off enough to fill the headlight, rub it between your fingers to mix the epoxy, and stuff it in. I use my pinky to sculpt out a rough reflector shape. Once it dries, you can sand and drill to get the final shape you need.

I have brought light to three locomotives so far, two pot boilers and one butane fired, and have yet to kill the electronics. The effect of the headlight is as satisfying as the nice plume of steam. Ahh, the pleasures of the outdoors.

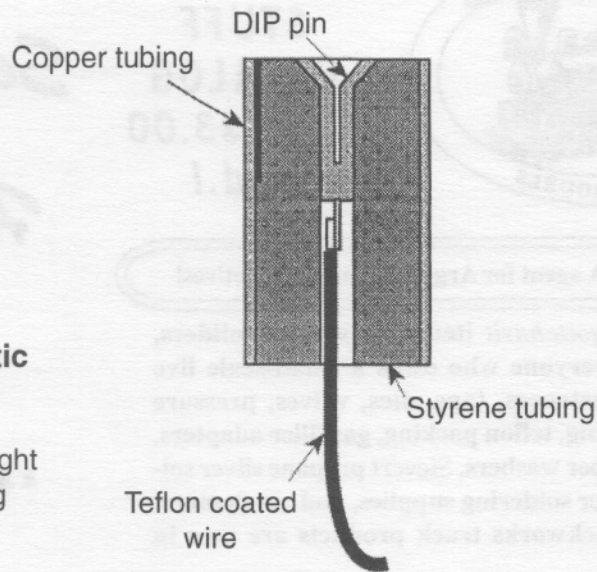




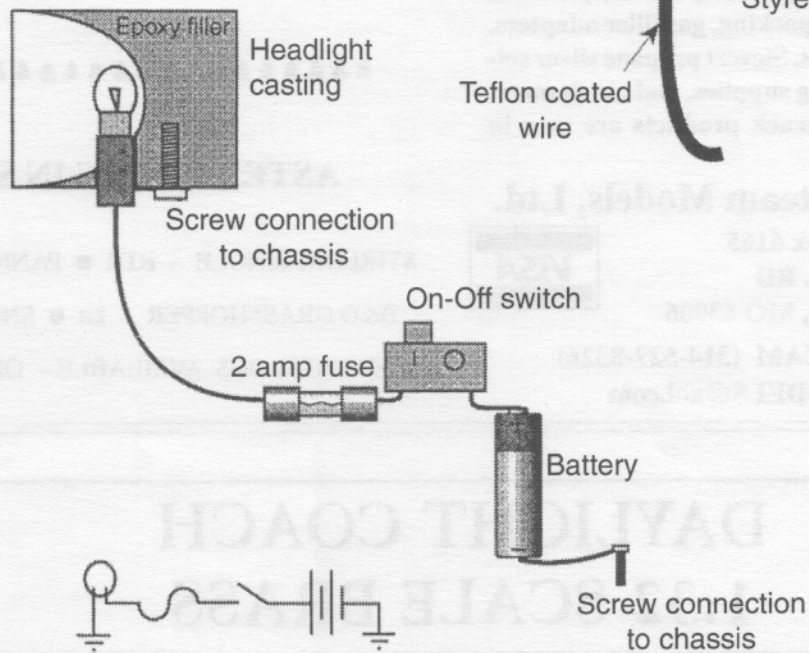
# Light Socket for Live Steam Locomotives



Cross section of light socket



Headlight wiring schematic



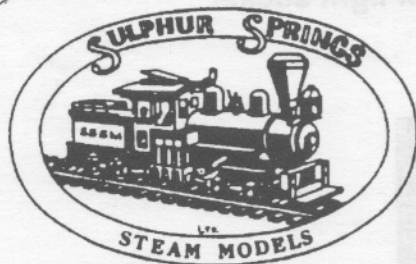
*Happy Holidays & Season's Greetings*

*from your friends at*

*Steam in the Garden*







**STEAM  
STUFF  
CATALOG  
JUST \$3.00  
ppd.!**

*Season's Greetings  
and  
Happy Holidays!  
from  
Bob & Carol Paule*

**We are the USA agent for Argyle Steam Locomotives!**

We've got those *gottahavits* items for scratchbuilders, kitbashers and everyone who owns a small-scale live steam loco. BA fasteners, taps, dies, valves, pressure gauges, wick packing, teflon packing, gas filler adapters, fibre washers, copper washers, Sievert propane silver soldering outfits, silver soldering supplies, and much more. Sunset Valley Trackworks track products are now in stock!

**Sulphur Springs Steam Models, Ltd.**



P.O. Box 6165

Dept. RB

Chesterfield, MO 63006



Tel/FAX 314-52STEAM (314-527-8326)

e-mail: SSSMODELS@aol.com



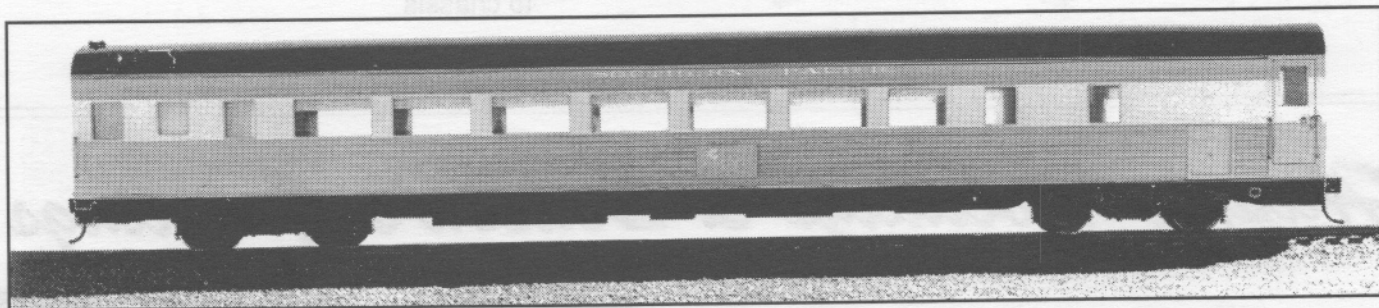
**ASTER LOCOS IN STOCK!**

STIRLING SINGLE – RTR • PANNIER – kit or RTR

B&O GRASSHOPPER – kit • SNCF 232 U1 – kit

ASTER CATALOGS AVAILABLE – OLD & NEW STYLES

## DAYLIGHT COACH 1:32 SCALE BRASS



44 seat Daylight Coach with corrugated sides. The prototype was built in 1941 and used in all of the Daylight Trains. It was also used in the City of San Francisco and the City of Los Angeles Train. They appeared in Union Pacific Yellow.

Price: \$75.00

Extra wood carrying box: \$30.00

**ANNOUNCING THE APPOINTMENT of BARRETT RAILWAYS as**  
Western States importer and distributor for the USRA Light Mikado by Aster

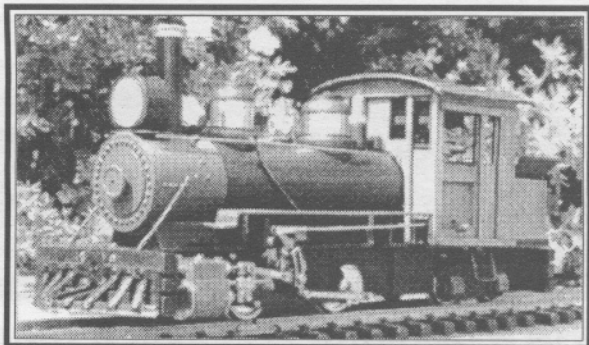
# BARRETT RAILWAYS

991 6TH STREET

HERMOSA BEACH, CA 90254

310-379-4929

# Geoffbuilt



## FORNEY 0-4-4

Live Steam • Butane Fired • Walschaerts Valve Gear  
Easy to Fire, Operate & Maintain  
Realistic Running Speeds  
Nº 1 Gauge

Direct All Inquiries to:

**Geoff Coldrick**

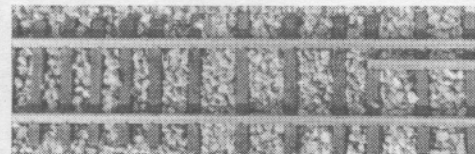
Box 277 • Salisbury N.B. E0A 3E0

CANADA

Phone: 506-372-4364

# SUNSET VALLEY RAILROAD

**ASTER**  
We Are Proud  
to Announce That  
We Are Now an  
ASTER Dealer



Experience design **FREEDOM** with a  
Complete Code 250 Rail System

- Flex Track: Available in 6' Lengths
- Rail Choices: Aluminum, Brass, Weathered Nickel-Silver
- Tie Style Choices: Mainline, Narrow Gauge, Dual Gauge
- Turnout Choices: Numbers 3, 4, 6, 8, 10, Small Wye, Large Wye and 3-Way
- Crossovers: 14°, 19°, 22.5°, 45° and 90°

AND, as you should expect, a complete line of fasteners and accessories to complement your installation.

Available NOW, from stock OR at your Dealer

64¢ LSSAE for Information and Sample

## SUNSET VALLEY RAILROAD

13428 - 209th SE, Issaquah WA 98027

Phone/FAX: (206) 255-2453

<svrtrd@sprynet.com>



## GOT THAT NARROW GAUGE LOGGING RAILROAD FEVER?

Fortunately, there's no known cure,  
but you can treat the symptoms  
with some of our quality  
craftsman kits in 1:20.3 scale.  
Start with a string of our skeleton  
log cars and a Westside caboose...



**Saxton Car & Foundry**

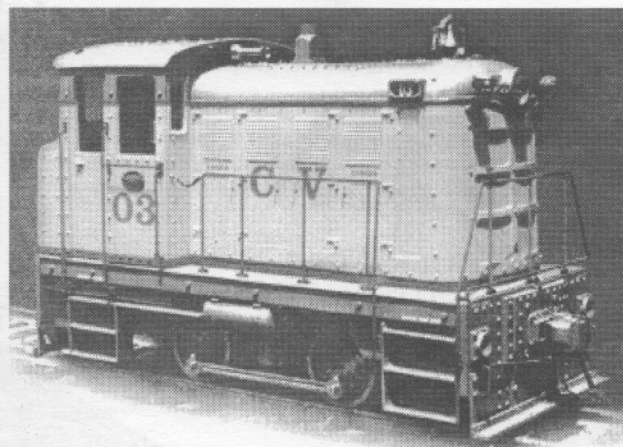
PO Box 26

St. Ann MO 63074

## MAXITRAK

available as fully machined kits or factory built  
and RTR in 4-3/4", 7-1/2" and 7-1/4" gauges

## American Yard Switcher



Send \$5.00 for catalog & price list to:

Catatonk Loco Works

PO Box 335

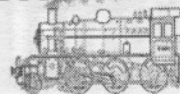
Newark Valley, NY 13811



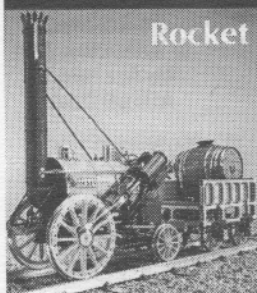


# O.S. LIVE STEAM LOCOMOTIVE

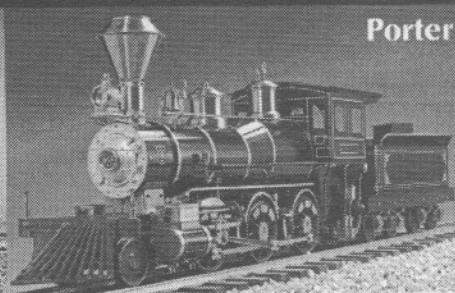
From:



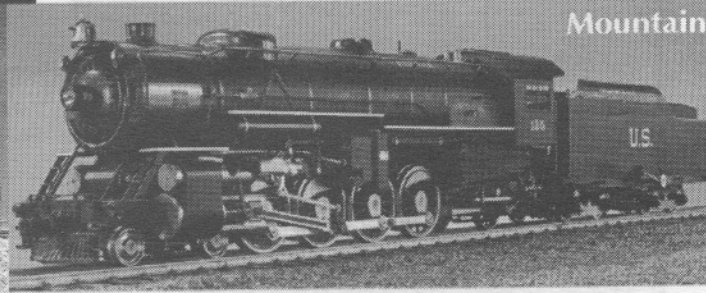
S.T.E.A.M.



Rocket



Porter



Mountain

From Stephensons "Rocket" to the USRA Mountain, O.S. has a range of large scale Live Steam Locomotives for the discerning modeler. We are pleased to announce that S.T.E.A.M. is now an authorized dealer for O.S. Locomotives. Visit our web site at [www.steam4me.com](http://www.steam4me.com) to see full details of all the O.S. Locomotives.

O.S. Live Steam Locomotive Information:  
Color catalog and price list \$5.00  
30 minute video (NTSC only) \$20.00

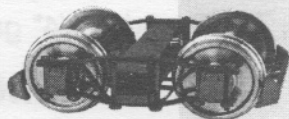
S.T.E.A.M.

Steam Trains, Engines And Models  
P.O. Box 0123  
Windsor, CA 95492-0123 USA  
Tel/Fax (707) 838-8135  
E-Mail: [STEAM4ME@aol.com](mailto:STEAM4ME@aol.com)

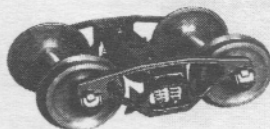


## ACCUCRAFT TRAINS

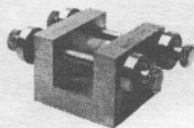
*Dedicated to Fine Craftsmanship*



Arch Bar Trucks  
1:24, 45mm Gauge, \$32.95/pr



Benttendorf Trucks  
1:32, 45mm Gauge, \$39.95/pr



Ball Bearing Treadmill Roller  
#1 Gauge, \$35.00/ea

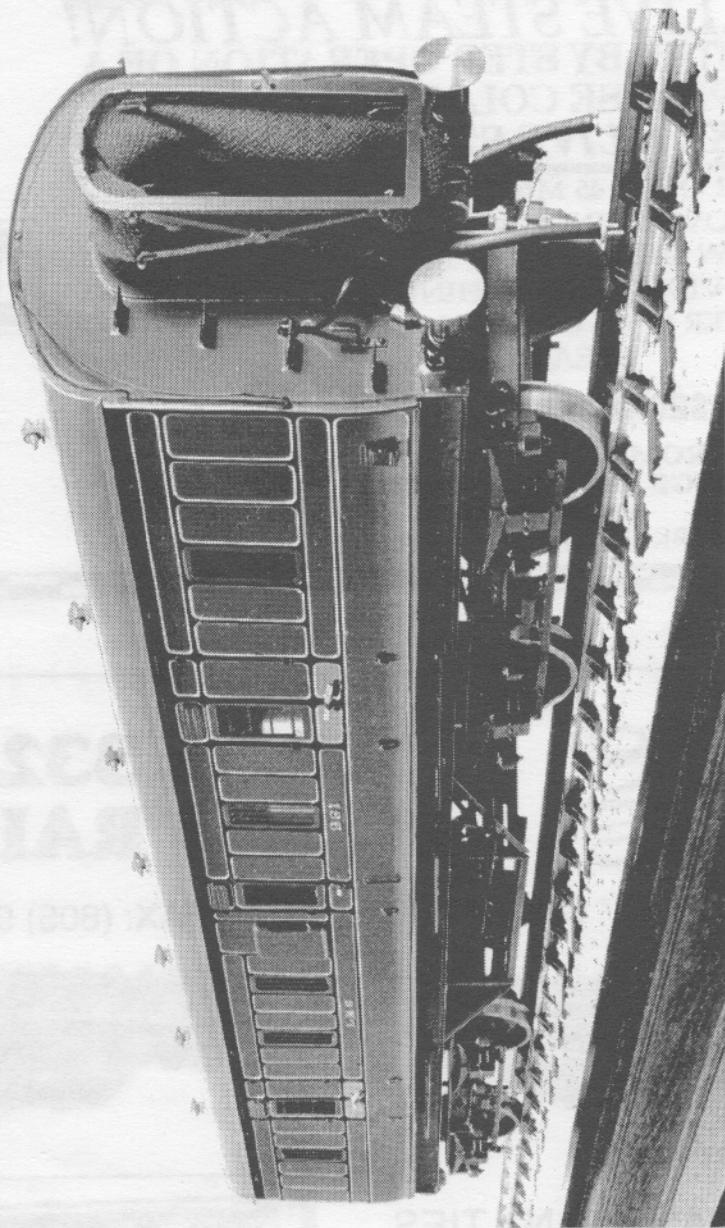
- ◆ 'American' 4-4-0 Narrow Gauge  
1:24, 45mm Gauge, Unpainted \$995.00
- ◆ N.C.O. Narrow Gauge Tank Car  
1:24, 45mm Gauge, Painted \$335.00
- ◆ N.C.O. Narrow Gauge Box Car  
1:24, 45mm Gauge, Painted \$315.00
- ◆ DR&G Narrow Gauge Flat Car  
1:24, 45mm Gauge, Painted \$195.00

*All models are brass. Dealer inquiries invited.*

2455-L Old Middlefield Way, Mtn View, CA 94043 Tel:(415) 966-1974 Fax:(415) 967-1504

## L. M. S. Period Piece...

D. 1778 Gangwayed Passenger Full Brake in Period I livery.  
Beautifully presented in 1:32 scale (GAUGE 1)



**B**uilt in the 1920's by the London Midland Scottish Ry (LMS) the Corridor Full Brake built to plan D. 1778 was almost a pure extension of Midland Railway coach design and construction practice down to the sumptuous livery of Black, Gold, and Crimson Lake. Some cars entered British Railways ownership in 1947. Our model is available in three paint schemes; LMS Period I (shown), LMS Period II (simplified lining), and B.R. maroon. If you need a parcels or luggage van of distinctive design this Full Brake is for you.

At a glance specification summary:		Finish:	hand painted and lined
Length over buffers:	510mm	Weight:	1.6 Kg
Availability:	April 1997	Material:	95% brass, including roof
Wheels:	steel insulated finescale	Price:	£ 660 plus shipping

### THE FINESCALE LOCOMOTIVE COMPANY

MARLBOROUGH, WILTSHIRE, ENGLAND

Exclusive US Representative:

**I E & W Railway Supply**

38200 Charles Town Pike

Purcellville, VA 20132-2927

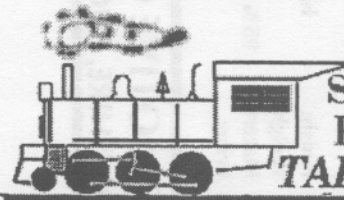
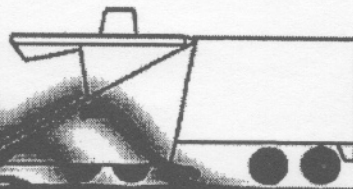
Phone: (540) 882-3886 FAX: (540) 882-9670



— NEW VIDEO TAPE OFFER —

**SNOW PLOW ACTION!**

A WORKING PLOW  
WITH CONSTRUCTION TIPS



**LIVE STEAM ACTION!**  
STEP BY STEP OPERATION OF A  
PEARSE COLORADO AND THEN  
**TAKE A LIVE STEAM VIDEO RIDE**



WATCH FOR OVER 45 MINUTES AS WE PLOW  
THROUGH OVER 4 INCHES OF SNOW WITH A  
SNOW PLOW DESIGN THAT REALLY WORKS!  
ALSO TAKE A VIDEO RIDE BEHIND THE FIREMAN  
AND ENGINEER ON A GARDEN RAILROAD LIVE  
STEAMER!



**\$20.00 includes S&H**

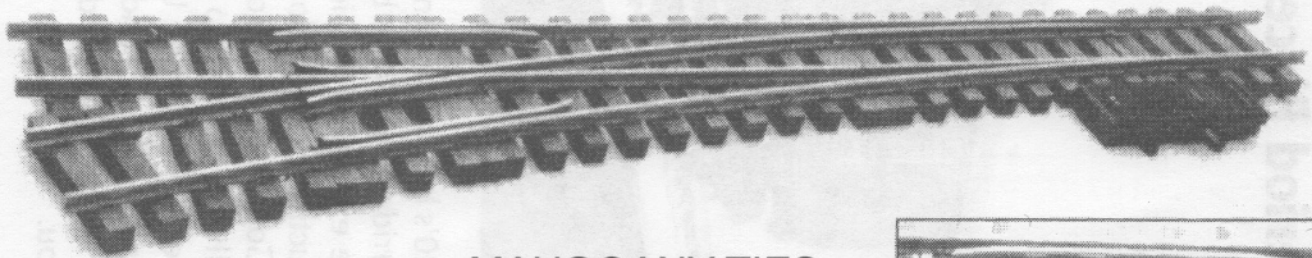
ORDER FROM : LANTZ WOODCRAFTS  
1125 COLLEGE AVENUE, ELMIRA NY, 14901  
607-737-9687  
NEW YORK RESIDENTS ADD SALES TAX

**TURNOUTS**

**CODE 332  
BRASS RAIL**

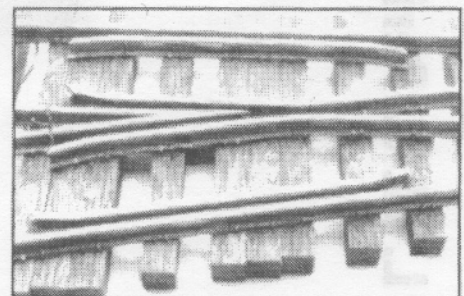
For info, send LSASE to:

the **PARKER** Co. P.O. Box 1546 \* Camarillo, CA 93011 \* FAX: (805) 987-6432



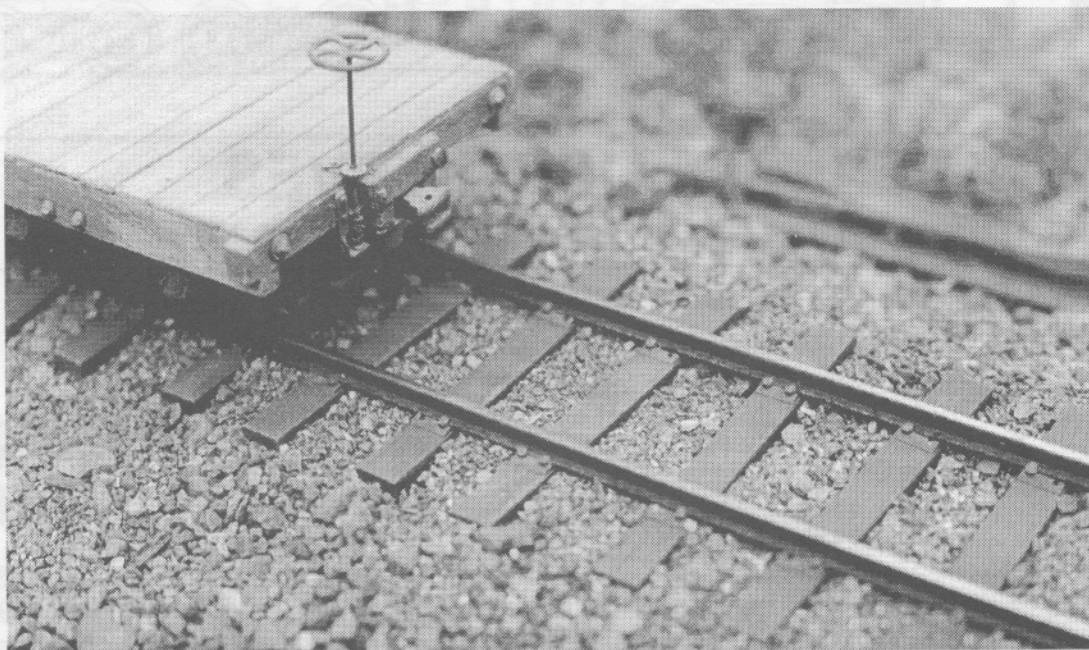
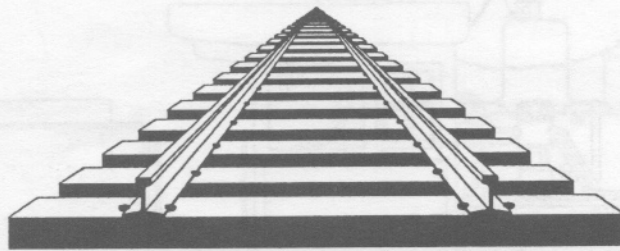
MAHOGANY TIES  
DOUBLE SPIKED STRAIGHT AND  
CURVED 8' & 10' RADIUS

We accept M/C & VISA



# LLAGAS CREEK

Your source for 1:32, 1:22.5 and 1:20 scale, gauge 1 track supplies



## Our American Prototype 1:20 Scale Narrow Gauge Flex Track for Gauge 1

Available in 6 ft. lengths, pre-assembled or kit form with your choice of Nickel-Silver or Aluminum rail in code 215 or 250! Also available from stock: Super-strong plastic tie turnouts, Aluminum or Nickel-Silver #4, 6, 8, 10, 4Y, 6Y, 3-way and curved, kit or ready built with ground throws, switch stands or our brand new motor mount for amazing Del-Aire "air motors". Also available: semaphore kits, railbenders, track gauges, spikes, tie plates, points, frogs and guard rail castings.

Please send a LSASE for our latest catalog, or compare our quality with a sample of Narrow Gauge track and a catalog for only \$2.00. Specify 1:32, 1:22.5 or 1:20 Track Sample.



## DoodleBug Hobbies Ltd.



106 3rd Street, P.O. Box 1235, San Juan Bautista, CA 95045

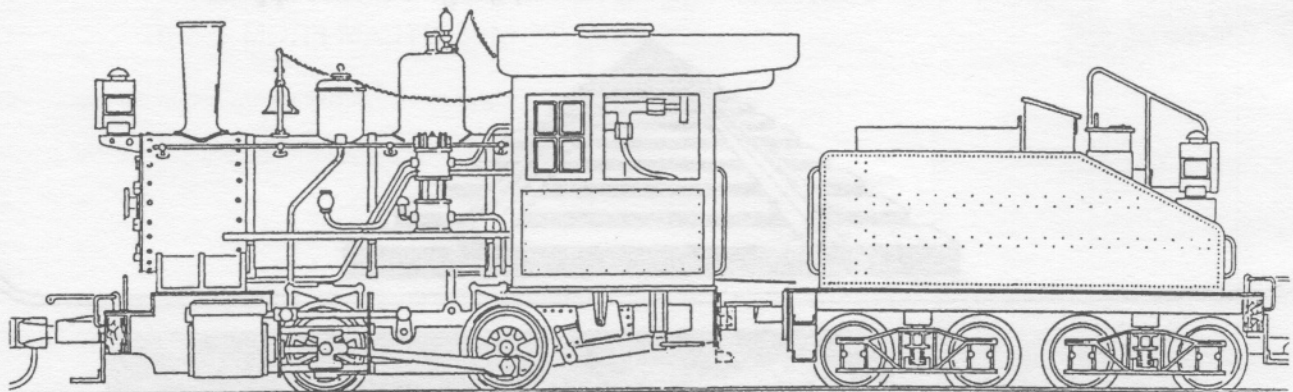
Phone: 408-623-1088 ● Fax: 408-623-9162 ● e-mail: [doodlbug@pnet.net](mailto:doodlbug@pnet.net)

Hours 10-6 Thursday – Monday

VISIT OUR NEW WEB SITE AT: [www.pnet.net/doodlbug](http://www.pnet.net/doodlbug)



# 0-4-0 SWITCHER



## PEARSE LOCOMOTIVES

Place your order now with a deposit

The RIO PECOS Steam Team extends a thank you for all your support in 1997 and looking forward to seeing you at the National Small Gauge Steam Up in January 1998

Catalogs with price lists

O.S.....\$ 5.00  
Pearse.....\$ 6.00  
Roundhouse.....\$ 6.00  
Rio-Pecos.....\$ 3.00

Call or send SSAE for current price list

Visit our Web sites <http://www.steamup.com/riopecos> & <http://www.steamup.com/os>

# RIO PECOS

GARDEN RAILROAD CO.

27136 Edenbridge Ct. Bonita Springs FL. 34135

Phone (941) 495-0491 Fax (941) 495-7264

E-MAIL: [riopecosatsteamteam-com@msn.com](mailto:riopecosatsteamteam-com@msn.com)



**P. H. S. R A I L C o.**

For a catalogue and sample of our rail and tie strips please send \$2.00 or a LSASE and 52¢ postage for catalogue only.

Code 250 L.H. and R.H. #6 Turnouts Now Available



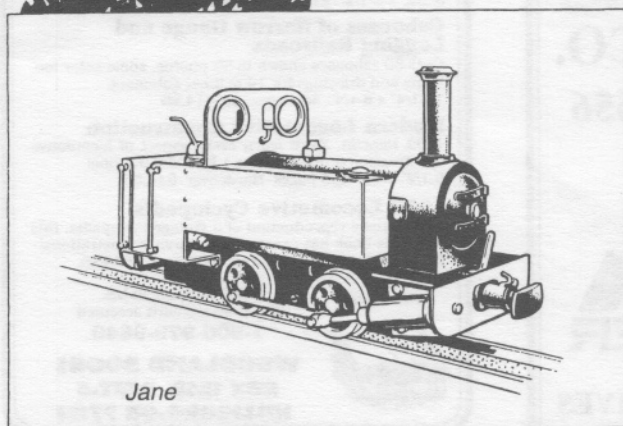
R.R. #3, Chatham, Ontario N7M 5J3  
Tel/Fax: (519) 436-1201 or (519) 439-9246  
In the USA call 1-800-443-0440



Tuesday – Friday 5:30 to 9:00 pm Saturday 8:00 am – 6:00 pm

# Brandbright

**LIVE STEAM FROM \$399**



Jane

Yes, the Brandbright choice of live steam locomotives starts at \$399 (plus shipping and subject to exchange rate) for our remarkable **JANE**, alcohol fired, powerful and yet very controllable. JANE even has a gauge glass and a water top up facility as standard!

For an American outline, Brandbright supplies the **Sandy River #24** - in either gas or coal fired forms, the **Liberty Belle**, the **Colorado**, and a choice of **Porter** saddle tanks. Now joining this established range is **BERTHA**!

**BERTHA** is a Porter 0-6-2 engine, the original being built in 1897 for the Westfield Plantation in Louisiana. The Brandbright model is gas fired, well engineered and crisply detailed. She is a pretty little locomotive and pulls like a champion!

Remember - Brandbright sells quality British engines with the Brandbright quality back up. Brandbright - the obvious place to get a working steam locomotive!

Check with us for availability or send \$5 for the 80 page Brandbright Catalogue.

Mike's Railway Supply Co.  
1461 Sierra Street  
Redwood City, CA 94061  
Phone or FAX: (415) 361-8114

Brandbright Limited  
The Old School, Cromer Road,  
Bodham, Holt, Norfolk NR25 6QG  
Phone: 011 44 1263 588755  
FAX: 011 44 1263 588424

Potomac Steam Industries  
5595 Saint Charles Drive  
Dale City, VA 22193-3503  
Phone: (703) 680-1955  
FAX: (703) 590-9399



## HARD TO FIND

small fasteners for the live steam hobbyist at reasonable prices.

Examples: Socket head cap screws, 4-40 x 3/4 alloy - \$4.75/100, stainless \$6.95/100. Hex head machine screws, 2-56 x 3/8 stainless \$7.25/100, 2-56 x 1/2 brass \$5.75/100.

Sizes 0-80 thru 10-32 in brass, alloy, aluminum & stainless. Call, fax or write for **FREE CATALOG**.

## MICRO FASTENERS

110 Hillcrest Road  
Flemington, NJ  
08822  
Phone (800) 892-6917  
FAX (908) 788-2607  
e-mail: microf@blast.net

visit our web site: <http://microfasteners.com>

## SHAY STUFF

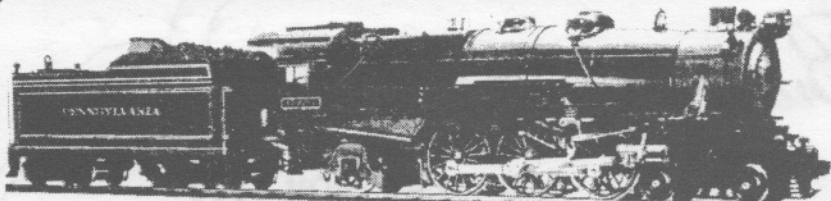
"STUFF" is stuff you use for Logging with a Shay loco. If you don't have a Shay it also works good with any small Logging Lokey.

**WE HAVE:** Shackles and pins, chain, chain binders, roosters, rooster pockets, riggers blocks, loading jacks, 12" logging blocks, 16" logging blocks, tree shoes, fall blocks, 24" logging blocks, slackline carriages, chockers & hooks, hand winches, 4 steam Donkey winch kits, 2 portable steam power plants, sheaves & pulleys, logging tongs, crosscut saws, limbing saws, 4 types axes to grind, picks, mauls, cant hooks, peaveys, log pikes, bow saws, shovels, ground & skyline yarding parts, log car bunks, journals, couplers, brakes, brake wheels, fitting and N.B.W.s. **LOKEY PARTS:** Smoke stacks, rerails, whistles, pop valves, globe valves, 5 types link & pin couplers, pilot & tender steps, poling pockets, boiler fire doors, trycocks, water glasses, back head tool trays, washout plugs, drifting valves, brake shoes and hangers, canvas water bags, oil headlight, electric (barrel) headlight, number plates, smokebox ash cleanouts, smoke box door dogs, snow plow brackets, 3 types hand rail supports, 3 sizes air tanks, air tank drain cocks, air pump, loco bells, steam generator, steam pressure regulator, tender truck leaf springs, tender hatches round & oval, tender water valves, tender steps, rust hole patches. **CAR & LINE SIDE DETAIL PARTS: IT'S ALL SHOWN IN OUR "NEW" 17 PAGE CATALOG. PHOTO DICTIONARY. ONLY \$2.00**

OZARK MINIATURES  
DEPT R.B., P.O. BOX 107  
DESOTO, MO, 63020

FAX (314) 586-2480





## NORTH JERSEY GAUGE ONE CO.

8 Spring Valley Rd., Park Ridge, NJ 07656

201-391-1493

Bob Moser



LIVE STEAM AND ELECTRIC - GAUGE 1 LOCOMOTIVES  
also larger scale & gauge live steam locomotives

## Shays & More

### Shay Catalogs, 1919 & 1921

Shay loco & parts catalogs - you'll get photos, dimensions & literally tons of useful & priceless info. 8" x 10-1/2" 30 & 50 pages s/c \$12.50/set

### Locomotive Valves & Valve Gears

1921 Reprint, subtitled "An explanation of the construction & action of the plain slide valve, the piston valve and the gears which operate them..." detailed drawings. 5-1/2" x 8-1/2" 272 pages Hardcover \$23.95

### Cabooses of Narrow Gauge and Logging Railroads

Over 30 cabooses shown in 50 photos, some color too. Plans and drawings for 14 of these cabooses. 10-1/4" x 8-1/4" 48 pages s/c \$14.95

### Modern Locomotive Construction

1892 Reprint. You'll learn every aspect of locomotive construction & design. Over 1,000 illustrations! 8-1/2" x 11" 685 pages Hardcover \$44.95

### 1930 Locomotive Cyclopedic

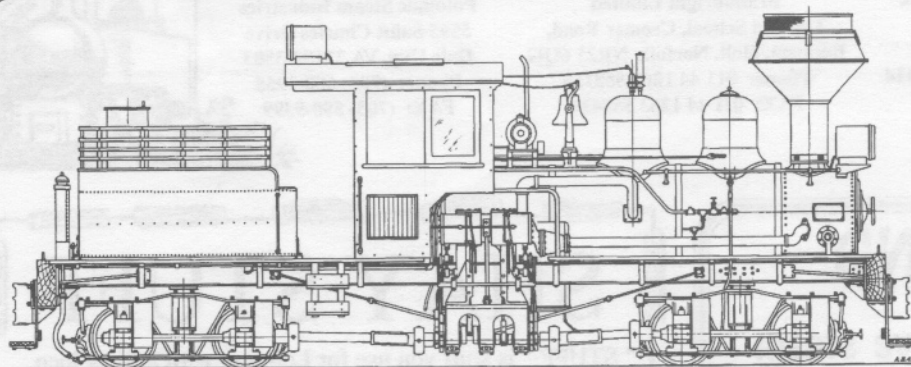
An exquisite reproduction of a vintage cyclopedia, this awesome book has over 3400 pictures & illustrations! 8-1/2" x 11-1/2" 1,440 pages Hardcover \$54.95

Order Now!



FREE shipping in US  
VISA & Mastercard accepted  
1-800-979-9840

**WOODLAND BOOKS**  
BOX 1268, DEPT. G  
HILLSBORO, OR 97123



drawn by Al Armitage, used with permission of Precision Scale Co. Inc.

## NARROW GAUGE LOGGING!

Lima 24-ton, 2-cylinder, 2-truck Shay in  
1:20 scale live steam

Available in 1998

call or write for information

## CATATONK LOCOMOTIVE WORKS

PO Box 335

Newark Valley, NY 13811

(607) 642-8119

e-mail: docsteam@spectra.net

# Garden Railways

The premier magazine for the outdoor modeler since 1984



Alan Olson's G-scale Acoma Central Garden Railway

Garden railroading can be everything from finescale modeling to just plain fun in the garden. Get it all with Garden Railways.

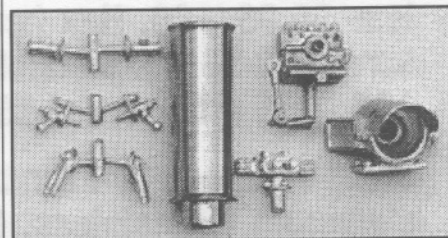
Scratchbuilding  
Kitbashing • Operation  
Track and roadbed  
Locomotives, rolling stock,  
and structures • Realistic  
use of plant materials

A year's subscription (6 issues): \$21 (US) • Foreign (including Canada): \$28 via surface, \$55 via air  
Sample copy: \$4.95 (US) or \$8.00 (foreign via air) • VISA & MasterCard welcome

Garden Railways Magazine

Box 61461 Dept. SitG • Denver CO 80206 USA • 303-733-4779

Illustrated Catalog \$2.00 plus SSAE



More New Parts!

## TRACKSIDE DETAILS

G-1/2" Scale Parts

1331 Avalon Street

San Luis Obispo, CA 93405

# SWAP SHOP

**For Sale:** Aster OUEST 0-6-0T. Steady runner, excellent condition. USD\$875. Frank Wear, 31 Hill St., Newmarket, Ontario, CANADA L3Y 4Y4. Tel. (905) 853-7470. (41)

**Wanted:** Code 250 steel rail. Tom Moriarty, 760-480-2337. (42)

**For Sale:** Garden railroad, 20' x 40' area, approximately 250' of track, 5' x 8' pond with mountain stream, nicely landscaped, located in Oak Harbor, Washington - \$149,000. 3 bed, 2 bath house on 1/4 acre of land included. Call Stan or Kristen at (360) 679-0608 for more information. (41)

**For Sale:** Aster King George V. Steamed only once. Kit built, excellent runner. A classic model of these beautiful locomotives. US\$4800 plus shipping, estimated at Air Post US\$120 or FEDEX US\$190. Contact Gordon Watson (Argyle Loco Works) Australia. Ph/Fax - 011-61-359-686573.

**Wanted:** Wrightscale Porter. Have several interesting trades possible. Call or write: Rich Chiodo, 9 Janvrin Rd., Hampton NH 03842. Tel: 603-926-4858 - before 10:00 pm est, please. (41)

**For Sale:** Cheddar Steam Marine Plant V4 Engine w/3 Tube Gas Fired Boiler. Engine equipped with water pump and oiler. Re-fillable gas tank with Gas Attenuator Valve. Whistle & pressure gauge. Excellent condition (used 4 times). This is a stunning steam model! Cost: \$1500.00, asking \$980.00. Peter Martin, (212) 927-1696 (eastern) (41)

**For Sale:** Contact Richard Finlayson 408/871-0318, 2408 Grandby Dr., San Jose, CA 95130 - Email: richardf@steamup.com. COAL FIRED Roundhouse/Shawe SR&RL #24. Excellent performance; a fun and unique locomotive. \$5000. Will consider trades. (42)

**Trade:** My factory built Aster Western Maryland #6 live steam Shay (never fired) for your factory built Aster Greenbriar Shay...steam or electric. Charles Crehore, 6308 E. Joshua Tree Lane, Paradise Valley AZ 85253. Phone 602-948-7166 or e-mail <creshay@aol.com>. (42)

**Gauge 3 Newsletter:** The last of the four free newsletters have been sent out, and it is now available for \$10 per year for four issues. Gauge 3 runs on 2-1/2" track width and is modeled after mainline, full-size, the scale being 1:22.6. The newsletter will contain at least one useful project; information, general and specific; a Quiz/Puzzler, one for the thinking man and the other just data and facts; instructions on building and a Who's Who, and more. Four pages, double sided. Send \$10 check to Ga-3, Box 434, Williams, OR 97544. And...thank you for your past interest and some donations! (42)

**For Sale:** ASTER GER - kit built and recently overhauled by Jim Montgomery, who also capped one of the 4 wicks. Engine now runs nicely. \$500.00. John Bigelow, 919 - 2nd Ave. West, #402, Seattle, WA 98119-3774. Phone 206-284-5038. (42)

**For Sale:** Richard Finlayson 408/871-0318 - 2408 Grandby Dr., San Jose CA 95130 - e-mail: richardf@steamup.com - Aster "GWR" Pannier. Excellent performance - \$1900. Aster B&O Atlantic "Grasshopper" with two extra coach kits (for a total of three) - \$1150. Pearse "Colorado" - \$2400. Steamlines "Aileen". 'Bohemian' profile based on LGB Stainz. Butane fired, includes pressure gauge, dual safety valves, piston valve cylinders. Inside frames. An excellent live steam chassis/mechanism as-is or for a project - \$500 includes R/C. Jane - Green - \$450. (42)

Swap Shop listings are offered at no charge as space permits. No dealers and no phone-in ads, please! Send your listings to SitG, PO Box 335, Newark Valley NY 13811, or fax to 607-642-8978 (24 hours), or e-mail to <docsteam@spectra.net>. Ads must contain sellers name, plus address and/or phone number. Ads will be run one time only unless previous arrangements are made.

## THIS IS YOUR LAST ISSUE OF SITG

if the code number on your address label is 37

Renew now...phone (607) 642-8119 • fax (607) 642-8978

\$27.00/year (USA Periodicals Rate)

\$39.00/year (USA 1st Class Rate)

\$34.00/year (Canada)

USD\$35.00/year (overseas via surface mail)

USD\$59.00/year (overseas via air mail)



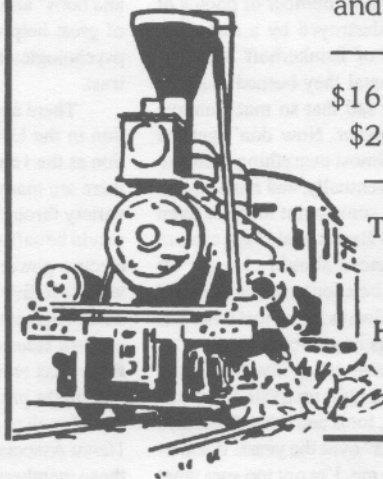
**Sorry, we will no longer send expiration notices -  
check your label now!**

# LOGGING?

**YOU NEED TimberTimes**

A Subscription to this quarterly modeling magazine will bring you scale drawings, historical information and great photos

\$16.00 per year  
\$20.00 foreign



**TimberTimes**  
P.O. Box 219  
Dept. 6  
Hillsboro OR  
97123

## TRACK 1

1073 Foley Avenue  
Ottawa, Ontario K1G 2R4



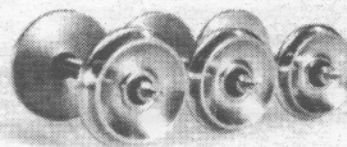
3/8" scale Clerestory Roof stock

C-D-S Lettering Ltd.  
Dry Transfer Lettering  
3/8" scale (std. ga.) - 1/2" scale (n.g.)

Custom lettering a specialty

For latest list please send a #10  
self-addressed envelope  
with an International Reply Coupon

## GARY RAYMOND METAL WHEELS™



### Nickel Plated RAIL-GLIDE™

with Stainless Steel Axle

3.95 PER AXLE

UNPLATED STEEL

2.95 PER AXLE

\$5/50 axles s&h. CA residents +7.25% sales tax.

For 1:20.3, G, 1/2", 1:29, #1.

P.O. Box 1722-S

Thousand Oaks, CA 91358

805-492-5858 ©1992 - G.R.M.W.



# End of the Line

Guest Editorial by Don Beach

The weather has been so bad recently I've had to spend most of my time inside reading instead of being outside in the garden playing trains (I know, I know - simulating railroad operations with quality, dimensionally correct, miniature representations of railway equipment).

As I browsed through several books about the abandonment of some of the Colorado narrow gauge lines, I came across a number of photos of rare equipment being destroyed by a scrapping company by the name of Brinkerhoff Brothers. To recover the scrap metal they burned much of the rolling stock. How sad that so much unique equipment was lost forever. Now don't get me wrong - I realize that almost everything seems to outlive its usefulness eventually, and must be disposed of or replaced at some point in time. Even my own Lockstock and Barrel could face closure someday if circumstances should change. Of course, I hope this will be a long time in coming! The point is, we don't always know just what lies ahead of us in the weeks or years to come.

Like many who have gotten involved in the live steam hobby, I have built up a fair sized collection of models, track, tools and other "treasures known only to ourselves" over the years. If something were to happen to me, I'm not too sure what would happen to all of my "train stuff". I would like to think that my children or grandchildren would carry on with it and that the L&B would live on forever! And it could, I suppose, if they had the interest and time to carry on in my place. The truth is that other than a few keepsakes, most of the stuff would probably be sold off. Herein lies the problem. For lack of an infamous company like the railroad scrappers, the Brinkerhoff Brothers, to dispose of my stuff, I don't think that my family would know what to do.

I have become concerned lately with how to provide for a way of disposing of my collection to benefit my family without losing a lot of my investment or having to get rid of things before I really want to.

I am a member of the 16mm Society here in the U.K., and we as an organization have addressed the issue by asking for volunteers within the Society to help a member's survivors dispose of his/her equipment. As in many organizations, there is always a problem trying to get volunteers to step forward most of the time. What seems to be happening here is that members of the various local groups step forward when a member in that group needs help. This works well where there are other members within a geographic area close enough to have contact with other members, but it seems to fail when the members are isolated or out of

contact, as they can be in the States. I hate to think of how much equipment is lost from the hobby to uninterested relatives, or worse yet, sold for a fraction of its value.

This came home to me just recently when a good friend over here died of cancer. It appears, luckily, that his collection will be disposed of by his friends who know the value of the various "bits and bobs" and also know the market. It should be of great help to his widow both financially and psychologically to have the help of people she can trust.

There appears to be a lack of any organization in the U.S. that might serve the same function as the 16mm Society does here. I realize that there are many local clubs of the garden railroad variety throughout the country, but I think that it would be safe to say that most of the equipment is electric powered. I would think that those of us who have live steam equipment would be a very small segment of the hobby indeed. I have stuff on both sides of the Atlantic (the Lockstock and Barrel has two divisions!) and it is the U.S. side that might prove to be a problem at some future date. I realize also that there are members of the 16mm Association in the States, but I don't think those members are really organized in any way to provide their services to each other in this way.

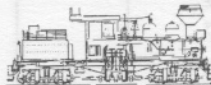
Perhaps we should be thinking of some sort of national organization in the States that could serve as a contact point for those of us into this branch of the hobby. Your magazine is the only common thread for most people in this hobby in the U.S. Perhaps your readers might have some thoughts on the subject and could use the RPO as a forum. I for one would be interested in what others think about this distasteful but necessary subject.

By the way, what ever happened to the Brinkerhoff Brothers?

*You have brought up a very good point, Don. As you said, it is a distasteful but necessary subject, and one that has occupied my thoughts on several occasions over the past few years. I would invite our readers to drop us a note on the subject, and we will gladly continue the thread in RPO.*

*Unless or until a National Association is formed, we at Steam in the Garden would be glad to serve as a central clearinghouse to direct bereaved families to an honest, knowledgeable and willing individual who could help them dispose of the live steam contents of an estate for fair value.*

- ed.



Steam Scene - outside rear cover:

Top - A Roundhouse SR&RL No 24 roars through the tiny community of Cripple Creek on the way to the sawmill with a heavy load of logs on Bert Wettenschwiller's magnificent American-style garden railway in New Zealand.

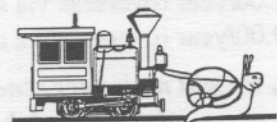
Bottom - The pilot model of Brandbright's Bertha sizzles quietly in the winter sunshine as she waits for the road with a short passenger train.

photo by Tag Gorton

## ADVERTISERS INDEX

ACCUCRAFT TRAINS .....	46
Argyle Loco Works .....	40
Aster Hobby Co., Inc .....	2
Barrett Railways .....	44
Bayou Ltd. ....	32
Brandbright .....	51
C. M. Models .....	33
C&G Products .....	11
Catank Loco Works .....	52
Cherry Scale Models .....	23
Cross Creek Engineering .....	12
Del-Aire Products .....	40
Doubleheader Productions .....	32
Figure It Out .....	40
Finescale Railroader .....	33
Garden Railways Magazine .....	52
Gary Raymond Wheels .....	53
Geoffbuilt .....	45
Harper Model Railways .....	12
Hyde-Out Mountain .....	32
I E & W Railway Supply .....	47
Istra Metalcraft .....	12
Lantz Woodcrafts .....	48
LEGEND Steam Locomotives .....	55
Llagas Creek Railways .....	49
MAXITRAK .....	45
Micro Fasteners .....	51
National Spring Steamup .....	24
North Jersey Gauge One Co .....	52
Ozark Miniatures .....	51
the Parker Co .....	48
P.H.S. Rail Co. ....	50
Potomac Steam Industries .....	55
Precision Mfg. Co. ....	34
REM Video Productions .....	19
Rio Pecos .....	50
Roundhouse Engineering .....	33
Saxton Car & Foundry .....	45
SitG Back Issues .....	9
SitG Online .....	19
Sierra Valley Enterprises .....	32
S.T.E.A.M. ....	46
Sulphur Springs Steam Models .....	44
Sunset Valley Trackworks .....	45
Timber Times .....	53
T.Q.M. Co .....	19
Track 1 .....	53
Trackside Details .....	52
Woodland Books .....	19, 52
Yesteryear Toys & Books .....	17

Please tell our advertisers,  
"I saw it in SitG!"





**GAUGE 1**  
**(45MM)**  
**1/32**  
**SCALE**

# WADA WORKS CO., LTD.

The Newest Name In **QUALITY** and **PERFORMANCE**

**LIVE**  
**STEAM**  
**GAS-**  
**ELECTRIC**



## EMD GP9 DIESEL LOCOMOTIVE

- OS.10 Two-Stroke Gas Engine
- Self Contained Electric Starter
- DC Generator & Four Traction Motors
- R/C Ready. Just Add Receiver
- Real Exhaust Streams from Exhaust Port
- Full RPM Range Control

*Available for Immediate Delivery!!*



## O-4-OT DOCKSIDE

- Alcohol Fired
- 'D' Valve Steam Chest
- KADEE (tm) Couplers
- Four Tube Boiler
- R/C Ready Servos Included - Just Add Your Own Transmitter/Receiver

*Beginning Delivery In Summer 1997!!*



## READING A-4 CAMELBACK

- Alcohol Fired
- 'D' Valve Steam Chest
- Stephensen's Valve Gear
- KADEE (tm) Couplers
- R/C Mountings
- Tender w/Hand Water Pump

*Beginning Delivery In Fall 1997!!*

See All of the Wada Works Products on the WWW - <http://www.erols.com/diesel/>

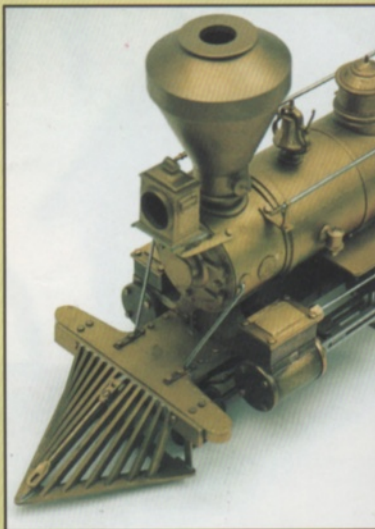
U.S. IMPORTER/DISTRIBUTOR

*Authorized Wada Works Dealers*

**CROSS CREEK ENGINEERING**  
P.O. Box 191  
Spencer, OH 44275  
(800) 664-3226

**NORTH JERSEY GAUGE ONE**  
CO.  
8 Spring Valley Road  
Park Ridge, NJ 07656  
(201) 391-1493

**Potomac Steam Industries**  
5595 St. Charles Drive  
Dale City, VA 22193  
(703) 680-1955  
FAX: (703) 590-9399  
email: [diesel@erols.com](mailto:diesel@erols.com)



Production pilot model shown. Available in two liveries, D&RG and South Pacific Coast.

## LEGEND Steam Locomotives

- Butane fired, with fully reversing valve gear.
- Slide valves, bronze cylinders.
- Continuous running capability, with gauges.
- Brass and stainless steel construction.
- 1:24 scale Gauge One. 6.5' min. radius.
- \$2495. Specifications and price subject to change without notice.

## An Operator's Locomotive with the Beauty of a Scale Model.

Legend Steam Locomotives • 2408 Grandby Dr. • San Jose, CA 95130 • 408/871-0318  
Email: [info@steamup.com](mailto:info@steamup.com) On the web: <http://www.steamup.com/legend>

**DEALERS**

**Potomac Steam Industries**  
5595 Saint Charles Drive  
Dale City, VA 22193-3503  
Phone: 703/680-1955

**Rio Pecos Garden Railroad Co.**  
27136 Edenbridge Ct.  
Bonita Springs, FL 34135  
Phone: 941/495-0491

**Sulphur Springs Steam Models**  
P.O. Box 6165  
Chesterfield, MO 63006  
Phone/FAX 314/527-8326



