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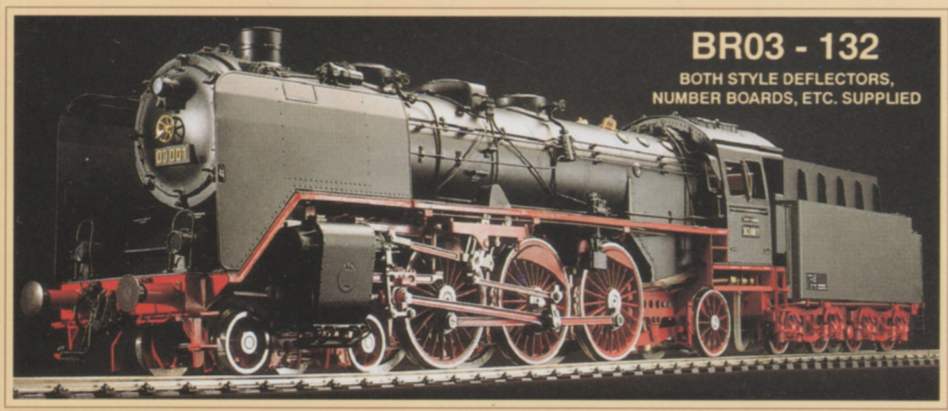




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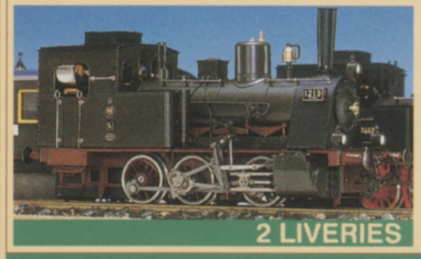

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# STEAM IN THE GARDEN

Vol. 8, Nº 4
Issue Nº 46
July/August 1998


## Articles



## Departments



**ON THE COVERS:**

**Front:** The mighty Union Pacific Big Boy thunders across a timber trestle with a long train of gondolas filled with coal in.....Pennsylvania? Well, there really is a full-sized Big Boy in Pennsylvania at Steamtown, a National Park in Scranton, Pennsylvania, but this one was photographed on the Pennsylvania Live Steamers beautiful new gauge 1 track during their Memorial Day Weekend steamup. The loco is by Aster and is owned by Bill Crane. ***digital photo by Ron Brown***

**Back Cover (top):** Train Watching & Boyhood Daydreams. Morgan Ritson (3 years old) watches his dad's trains at their home in Alaska. Who among us didn't begin our enthusiasm for trains this same way? The loco is a John Shawe model of the L&B "YEO", and the 8-ton bogie wagon was built from a Brandbright kit. ***photo by James Ritson***

**Back Cover (bottom):** Logging in the 19th Century might have looked something like this. Doug Smith's much modified BAGRS Project Loco hauls a log out of the Pennsylvania woods on Dan Long's line. ***digital photo by Ron Brown***


**Editor/Publisher**
Ron Brown

**Faithful Assistant**
Marie Brown

**Graphics Director**
Harry Wade

**CAD (and other) drawings in this issue by:**
Charlie Mynhier

**Regular Contributors**

| | |
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| Peter Barclay | Australia |
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| Rich Chiodo | New Hampshire |
| Tag Gorton | England |
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| Mel Ridley | England |
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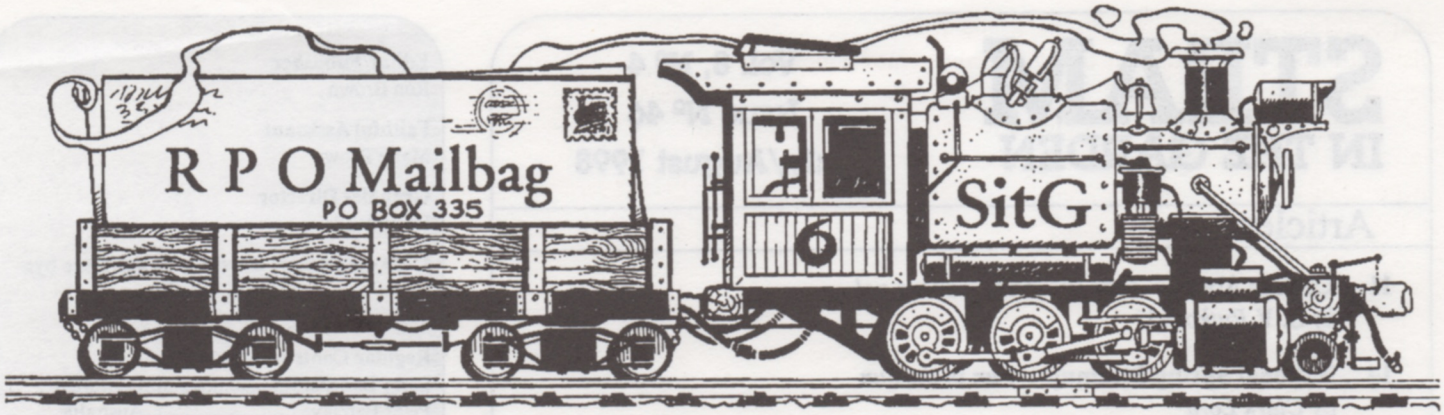



Letters from readers are welcomed and encouraged. Offer advice, encouragement, suggestions or constructive criticism. Tell us about your current project (and don't forget the photos!) or just share live steam experiences. But please keep your letters to a reasonable length so everyone has a chance to 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.

* * * * * *

via e-mail

Unto Ye Ed.:

While perusing Issue #44 I noticed a letter from a gent named E. F. Moxham who wanted to know if anyone supplied drawings for Gauge 1 S. P. Daylights and similiar beasties. Then, turning back to Issue #43 (I like to re-read them), I noted a comment in E. V. Rutkowski's article, Casting About, about his "library of drawings" for a S. P. GS type locomotive he plans to build. He further states that he intends to cast parts for same. Hmmmm....

Well, how about it, E. V.? It may not be Gauge 1, but it IS a garden-sized locomotive. I suspect that more than a few train-loving shop birds (self included) would welcome reasonably priced drawings and castings for a lovely locomotive like the GS. Besides, it'll give you an extended excuse for spending time in your shop, as well as defraying some of the cost of your equipment.

Cordially,

R. Inglish

* * * * * *

Livermore, California

To Ron Brown, Editor, Steam in the Garden Magazine.

Letter of thanks to the "very good guys" of
Gauge 1 live steam I have met.

I've been a railway enthusiast and modeler for several years through R/C planes, boats, cars, N and 00 scale railways, etc. It has been only during the last 2 years or so, during which I began dedicating more than a passing interest into live steam model railway engines, and gauge 1 in particular.

Although an engineer by profession and having a machinist background, because of extensive travel I never had time to machine a complete engine from scratch, so options were limited to choosing and building an engine from many of the pre-machined kits available. And against all advice I went for one of the more complex Aster kits, namely the U.I. 232, 4 Cyl. compound.

I found building the kit was not a real complex problem, as it appeared to go together relatively easily, or so I thought! The motion and timing worked great during air testing, and the completed model looked extremely good. But steam testing on the treadmill before introducing it to a real track was another issue!

Initial attempts showed the water feed from tender to engine appeared to be blocked, so all underside plumbing was removed, rechecked, cleaned, repacked and re assembled. Still no joy.

Overseas travel prevented more investigation until one week before the 1998 BAGRS steamup in San Jose. I contacted Richard Finlayson to set up a late entry, and explained that the engine was a steamer, but non-runner!. He invited me down and offered to help me get the problems sorted.

I arrived Saturday morning; not good timing as the show was getting into "full steam". After a brief discussion with Stephen Bray, he in turn introduced me to Gary White and Clark Lord. Another brief question and answer discussion followed, during which I explained that I had steamed it up, but cannot get the water feed working.

These two guys then proceeded to fuel up the engine, light it off, and attempt one lap of the track, during which they confirmed that there were some blocked feed pipes in the tender and the check valve ball was stuck.

To me the blocked tender feed pipes did not seem likely because I had checked and rechecked them at least three times, but the sticking check valve was a mystery to me, and visions of having to dismantle the boiler was not a thought I wanted to entertain! The thought of taking the engine home and it becoming a shelf ornament with an "unknown engineering problem" was a nightmare I could not live with. So with Gary looking over my shoulder, offering occasion input and swapping banter, I started unscrewing tender water pipes and fittings again. Within 10 minutes pipes and unions were off, and exactly in the middle of two of the unions were blobs of packing compound still blocking the pipes. I explained to Garry that I had already checked these twice before (yeah, sure!).

I removed the excess compound, rechecked the pipes again and refitted them to the tender. Another water check showed we

still could not get water through the whole system. The idea of dismantling the cab to facilitate the check valve removal looked to be a very dark option!

I suggested to Gary that I prefered to start with the shortest and most easily accessed pipe first, and then work my way into cab dismantling if neccessary, hoping that the problem would be found at the first ball valve, but realizing that chances were slim.

With check valve removed, we both tried poking a small wire through the pipe to lift the sticking ball, but it was obvious then that the ball was not the problem as it lifted easily from the seat. Then we realized that the wire was not penetrating whole length of tubing leading to the check valve. Gary confirmed that we could see a blob of solder blocking the pipe. (It never occured to me to check all pipes pipes for clean passages before assembly).

Gary brought Clark Lord back into picture, who quickly summed up the options, i.e. wait six weeks to get a spare pipe from Aster or take the pipe outside to the parking lot and heat it with Clarks butane torch, and hope we can blow out the melted solder.

It took me about 5 seconds to decide that six weeks seemed a long time to wait to test the engine again, and it was only 1 p.m. on Saturday afternoon with plenty of steaming time left, so why not!

Sitting on a wall in in the parking lot, with Clark holding the torch and tube, he started to gently apply heat to the blocked area.

As solder started to bubble, Gary quickly attached a neoprene tube to the opposite end of the pipe and blew through the tube. The melted solder flew out, and the tube was clear. We were very pleased that the quick fix appeared to have worked.

I replaced the pipe and we applied water again through the system. This time everything worked great. I refueled the engine, Clark volunteered me some of his valuable allocated running time and fired up the engine. Within 5 minutes and minor tweaking to the blower adjust, the engine began to move under its own power. Fantastic!

Another steamer quickly attached eight Marklin Swiss coaches for weight and 232 took off. Gary White added a couple more tweaks and handed the controls to me with the comment, "It's your engine, enjoy.", and walked away!

Following the engine round the track, viewing from a distance, refueling and controlling it over the next 20 minutes or so for the first time was an unforgetable joyous experience that is impossible to describe...and without the constant second by second nail biting nervouness of R/C flying.

Several times over the weekend, I expressed my thanks to Gary, Clark and Stephen for the time they had taken out of their own valuable running time to help an unknown novice. Gary did get a beer, but Clark and Stephen did not, so I still owe them one.

The help these guys gave me needs more than a quiet private thanks. A major public ***Thank You*** is still not enough to cover the pleasure they helped me achieve. I hope to be able to help them along next time we meet. Three cheers to all and happy steaming.

Regards,
Tony Dixon

* * * * * *

Burgdorf, Germany (via e-mail)

Dear Ron,

The following facts are taken from the August issue of the *Modelleisenbahner*, but they were also published in other magazines, such as *Focus.*

At the end of February, construction workers discovered, duringreconstruction work, the foundation stone of the "Maximilianeum" in Munich/Bavaria. The foundation stone was hidden since the founding of the Maximilianeum on October 6th, 1857. In a box made of lead within the foundation stone, a 1:10 scale model of an Adler (Eagle) type locomotive was found. By now experts of the German Museum in Munich have restored and conserved the locomotive for further display in the house of the Bavarian Parliament.

The 144mm gauge model was build by Rudolf Sigismund Blochmann in Dresden and sold to King Maximilan II of Bavaria, who included it into the foundation stone of the Maximilaneum.

During the restoration it was discovered that this model locomotive is an alcohol burning live steam model! And at 149 years the oldest of its kind in Germany. Even a pressure gauge and a steam whistle are present.

To save the original condition of the model it was not restored to working condition, but maybe someday a copy will show how the original worked.

Thomas Hentschel

* * * * * *

Virginia Beach, Virginia (via e-mail)

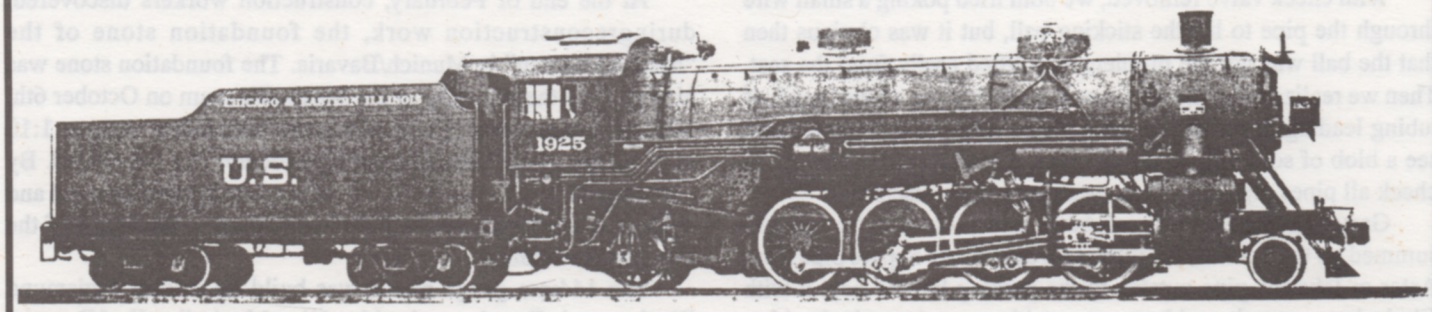
Dear Ron,

I have been meaning to tell you that the cover of your magazine (SitG #45) with the Heisler on it is simply beautiful! I sit and stare at it and I am transported to a very special place, with the aroma of pine and coal smoke in the air - mmmmmmmmm.

Thank you!
John Synnestevedt

IMPORTANT INFORMATION REGARDING THE

# ASTER USRA 2-8-2 LIGHT MIKADO




All design work has been completed. Some parts have already been made. From this point on production of this locomotive **DEPENDS ON US.** For this project to be feasible for Aster, we must sell about 100 locomotives (kit or built) immediately upon completion. We are **NOT** asking for prepayments or deposits. We need **100 PEOPLE WHO WILL SERIOUSLY COMMIT TO PURCHASE AN ENGINE WHEN THEY ARE READY.** Once we have 100 committed purchasers, Aster will commence production of the Mikado. It will take approximately 10 months to delivery. The locomotive will be supplied unlettered, but we have made arrangements with a Canadian company to produce the proper dry transfers for all 50 or so railroads which used this engine in freight and passenger service. You will be able to purchase these direct from the manufacturer for a very reasonable price.

**ASTER USRA 2-8-2 MIKADO MT - $3895** (at current exchange rate). Factory built slightly higher. Take a look at the photo of the Mikado above. Then, if you would like more information, or **IF YOU ARE SERIOUS ABOUT THIS LOCO AND WOULD LIKE TO BE ON THE LIST, PLEASE CALL OR WRITE US DIRECT ASAP AND LET US KNOW.**

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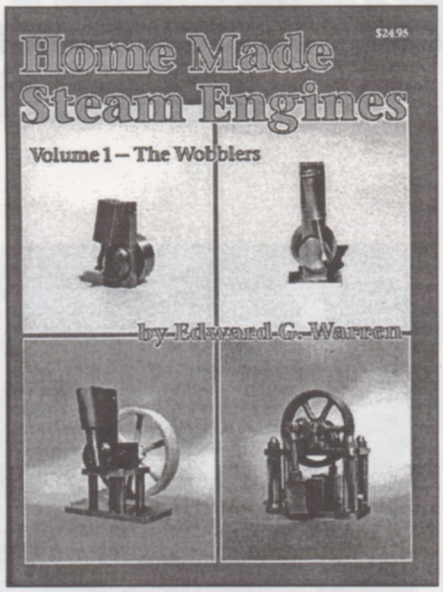
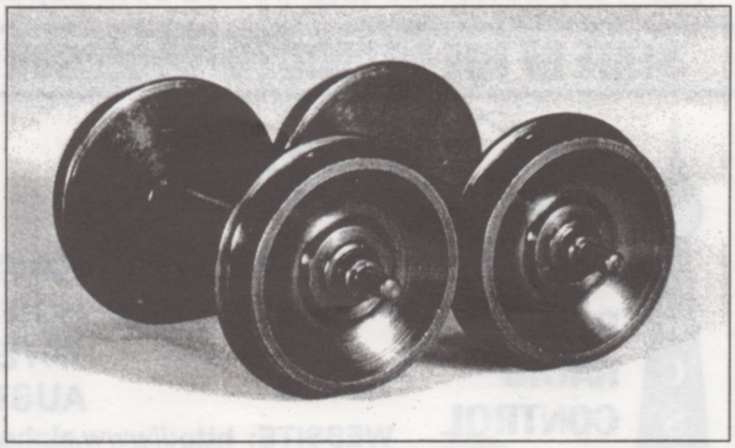
# WHAT'S NEW?

**Camelback Books, PO Box 1226, St. Cloud, MN 56302, Fax (320 240-8690,** has released a new book, *Home Made Steam Engines Volume 1–The Wobblers,* by author Edward G. Warren. As the title indicates, this volume is devoted to small oscillating-cylindered steam engines that you can build in your own home workshop. In addition to drawings and instructions for building eight engines, there are also plans for a low pressue vertical boiler and a small electric generator, and useful information on grinding toolbits, cutting threads, flywheel sources and more. The photos (all b&w) are clear and sharp, and the text is easy to read and follow. This will be a great source of simple projects for the novice hobby machinist, as well as quickie weekend or evening projects for anyone who loves carving little steam engines out of solid hunks of metal. Some of the steam engine projects could easily be adapted to power a little gauge 1 or gauge 0 locomotive. Good fun and informative, this is a good read and will keep you occupied in the workshop for many happy hours.



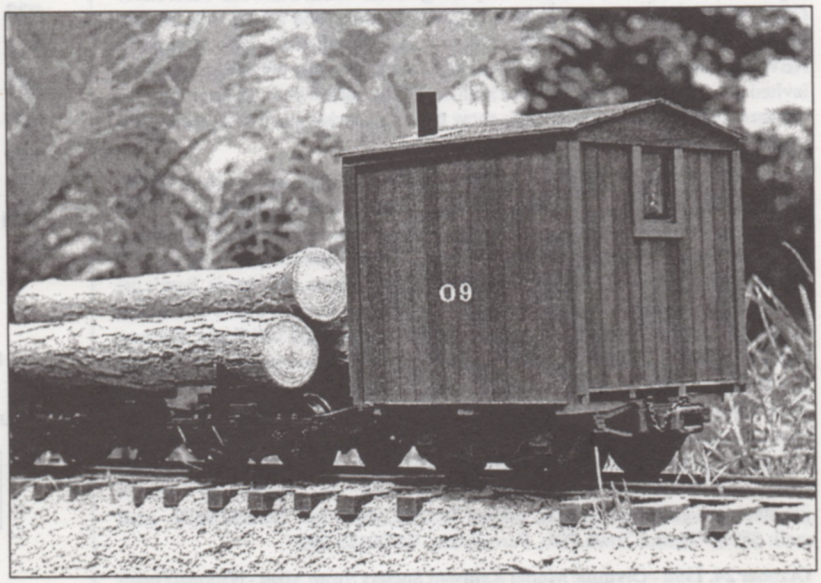

**Venture Publications** have just published a new edition of Richard Hills' work, Beyer Peacock - Locomotive Builders to the World. Beyer, Peacock is a name recognised throughout the world as a builder of railway locomotives. During its 112 year existence, from 1854 to 1966, over 8,000 locomotives were built at its Gorton Foundry in Manchester, ranging from tiny 18" gauge works shunters to the giant Beyer Garratts, some of which were the largest steam locomotives in the world outside America. The book chronicles the formation, growth and eventual demise of the Company. Drawing heavily on the official records which were passed into his care as Director of the Manchester Science Museum, the author, Dr RL Hills, has produced a scholarly yet very readable history which is complemented by, and benefits from, the expertise of the book's designer in incorporating over 520 illustrations - some full page - in the book's 302 A4 pages. 302 pages, 520 illustrations, £32.50 (overseas please add £5.00 towards shipping). Available now from MDS Book Sales, FREEPOST SK2162, Glossop, Derbyshire SK13 8YF ENGLAND - phone 011-44-1457 861508 ● fax 011-44-1457 868332 ● or email us at MDS_BOOKS@compuserve.com

**Gary Raymond Quality Large Scale Metal Wheelsets** has announced their latest release for Large Scale, the **G 26 BL Finescale** wheelsets for Bachmann, LGB, USA Trains and other G scale rolling stock. These wheelsets are the same diameter as our current G 26 BL Semiscale wheelsets, but feature a new smaller flange for those who want a more accurate appearance. The wheelsets also offer excellent reliability in outdoor layouts with 4' or larger radius because the smaller flange is less likely to hit rocks and twigs that commonly fall on the track. Order from your local dealer or direct from Gary Raymond, PO Box 1722-S, Thousand Oaks, CA 91358 ● 805-492-5858.



**Rio Pecos Garden Railroad Co., 27136 Edenbridge Ct., Bonita Springs FL 34136 ● phone (941) 495-0491 ● fax (941) 495-7264** now has the Airedale Models Sentinel 1000 (for one channel) and 2000 (for 2 channels) Glitch Busters in stock. These units plug in between any R/C receiver and servo, and have a row of dip switches to adjust for varying degrees of glitch protection. As the amount of glitch protection is increased, servo speed slows down and the "momentum effect" increases. There are 8 selectable servo speeds. I find this adds a degree of realism, challenge and interest in operating a steam loco. The Sentinel unit also has a switch setting for reversing servo direction...a very useful feature if your transmitter doesn't have servo reversing built in. The Sentinel 1000 sells for $34.00, and the Sentinel 2000 is $65.00 Prices include shipping for addresses in the U.S.A. Check the Rio Pecos ad in this issue for more info.

**Little Railways, 1621 Cherry Street, Williamsport, PA 17701** has just introduced a very fine quality model of a 4-wheel, narrow gauge logging caboose, which they are calling the "Tiny Logging Caboose". The model, with a body length of 4-1/2", is built to a scale of 1:20.3 for Little Railways by Bill Coffey and features authentic narrow-gauge design, fine quality hardware (including a truck by LGB with scale contour wheels), individual board-by-board construction, and a realistic weathered finish. It comes completely built and ready to run, and is available with a unique 2-digit number, or with no number at all. Our sample exhibits the excellent workmanship that Bill Coffey is known for. We like the board-by-board construction, and the roofing material used is the best looking we've seen. Very realistic effect. The caboose has a single door with Hartford Products handle and grab, 2 windows, smokejack, a brass step, and an LGB truck with link & pin couplers. It will make a fine addition to any narrow gauge logging railroad.....or a fine looking model for the mantel, shelf or display case. A catalog is available...please refer to the Little Railways ad in this issue for pricing and ordering information.

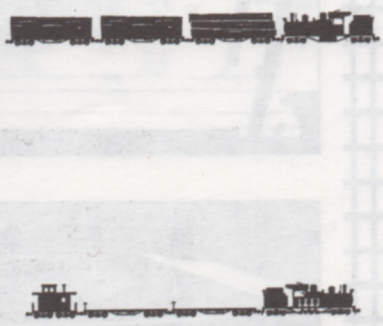



**Little Railways** also has some excellent 1:20.3 scale figures, an item that's not easy to find in this increasingly popular scale. R. Stanton (#LP-003) is described as a "locomotive engineer, sportsman, part-time insurance agent". Dirty Harry (#LP-002) is the "locomotive fireman, lumber company executive and man about town"; and Big John (#LP-001) is the "logger, philosopher and former clarinet player". The figures all have excellent detail and realistic proportions. They are made of cast resin and come unpainted, and they'll really add some life and visual interest to your 1:20.3 scale railroad and logging operation. Check the LR catalog for prices on these figures, and for information on other 1:20.3 scale items from Little Railways.

**R. Stanton**

**D. Harry**

**B. John**



# 1998 CALENDAR OF EVENTS

**August 21, 1998 -** Chip Rosenblum's track will be the "official" steam track for the LGB National Convention in Columbus, Ohio. Anyone who would like to come and run steam (gauge 1 or gauge O), and help to educate and convert the electric mice guys & gals will be welcome! For more information, contact Chip at 111 North Roosevelt, Columbus OH 43209 - (614) 235-7732 - e-mail: DOCFLAME@worldnet.att.net.

**September 4 - 6, 1998 – Pennsylvania Live Steamers Memorial Day Steamup,** Rt. 29, 1 mile north of Rt. 113, Rahns, PA. Come and steam with us on our beautiful new Gauge 1 track. Also available - ground level track for 1/2" - 3/4" - 1" and 1-1/2" (7-1/4" gauge) scale trains. Food is available on site, lodging nearby. For more information, contact Harry or Paul Quirk, PO Box 215, Springtown, PA 18081, phone 610-346-8073.

**September 12-13, 1998–Atlantic City Large Scale Train Show AT THE NEW CONVENTION CENTER. Contact J. J. Productions, 558 7th. St., #3c, Brooklyn, NY 11215 - phone 718-788-0516 - FAX 718-965-4067.** Istra Metacraft's NEW portable track (PETS) will debut at Atlantic City, and all live steamers are invited to bring locos to run either or both days. The track will be set up indoors, so weather will not be a problem. Let's show these folks what small-scale steam railroading is about!

**September 12 - 13, 1998 - The Sam Murphy Memorial Steamup** will be held on the IE&W Railway at the home of Jim and Jo Anne Stapleton. This year's fall steamup is honoring long time live steam enthusiast Sam Murphy of Kirkwood, MO, who passed away in June after a lengthy illness. Participants will be encouraged to participate in a group donation to The City Museum of St Louis, Sam's pet project at the time he became ill. This museum, largely through Sam's efforts, has a 7.5 inch gauge riding track circling one of the upper exhibit hall floors. Because it is inside the building, Sam had to settle for an electric locomotive, rather than live steam, to haul the train. The IE&W has an elevated double-track main line 500+ feet long, with storage yards and a covered steaming bay. For British loco fans, we expect to have the first production models of the GWR 14XX class 0-4-2T live steam locos from Finescale Locomotive Co. in operation. For more information and/or directions contact Jim and Jo Anne at: email: jim.stapleton@mindspring.com, phone: 703.882.3886 - fax: 703.882.9670 - snail mail: 38200 Charles Town Pike, Purcellville, VA 20132-2927

**October 24, 1998 –Olympic Model Railroad Society Swap Meet** - National Guard Armory, 515 S. Eastside St., Olympia, Washington. 10am - 4pm. Adults $3, Seniors $2.50, children under 12 free. For more information contact Jeff Schultz at 360-456-0546 or tschultz@u.washington.edu

***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.)***

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# Casting About

by E. V. Rutkowski
drawings and photos by the Author

## Chapter IV - And away we go

Now that I had my portable foundry, my boots, my gloves, my goggles and my bronze it was time to fire up and melt some metal. I decided that I would get some experience with the furnace before making any serious attempts at casting. My first chore would be to melt down all those surplus bronze valve bodies that I bought and pour the metal into those ingot molds that I spoke of in the previous chapter. So, on a sunny day I rolled out the foundry for its initiation.

After connecting the gas supply and plugging in the blower cord I decided to test the lighting off and operation of the furnace before I put in a crucible and actually melted metal. I had read in books about how adjustment of the gas and air supply was critical and something you had to develop a feel for. This was the first thing in which a complete neophyte like myself would have to try and develop some proficiency.

With the furnace lid swung to one side, I opened the gas valve a little bit and, using a long fireplace lighter, lit off the gas. I opened the valve a little more and when the gas flames roiled above the furnace I started the blower with the air inlet completely closed. Even with the inlet closed there was enough air leakage to see an effect on the furnace flame; shortening and becoming a little fiercer. Now I started to slowly open the air inlet, without changing the gas flow. The flame shortened and became less luminous while the furnace began to make the roaring sound described in the texts.

I continued increasing the air supply; the roaring increased and the flame was swallowed into the furnace interior when POOM! with a bang the furnace went out. Too much air.

On my second try I went through all of the steps except when I got near the point where I had a flame out I increased the gas flow a little then added a little more air. When the roar sounded loud enough and the flame was well within the furnace and almost invisible I quit adjusting and swung the lid into place. I let the furnace come up to temperature for the first time in its life. After about half an hour I shut down by doing the lighting off steps in reverse: lid swung to one side, air flow turned off then gas flow off. These procedures become more comfortable with experience. You get to know the roar which signifies that the furnace is operating properly.

After the furnace cooled down a bit I put in the crucible that I got when I ordered the furnace. I started the furnace again, and while it was heating up I placed some of the hunks of scrap bronze on the furnace lid to preheat them and insure they were perfectly dry. When the furnace was glowing dull red I removed the lid and put the metal into the crucible, swung the lid back into place and continued heating. It didn't take very long for the scrap to melt and when the interior of the furnace had reached a bright yellow heat and the metal in the crucible was liquid I added some flux. For fluxing bronze I used 1 inch lengths of flux coated, bronze brazing rod. This is a convenient source of flux and easy to use. You just toss a few pieces into the melt.

I find that between four and six are enough for my melts. You can find more detail on fluxing in some of the books I previously listed.

Now that the bronze had melted, and was a mobile liquid in the crucible, I grabbed a large stainless steel kitchen spoon and skimmed the dross off the top of the melt, tossing this dross into the sand bed. Now, with the tongs, I lifted the glowing crucible from the furnace and took it over to the ingot molds which I had lined up on a spare firebrick placed on the foundry sand bed. I poured the molten metal into the molds, then put the crucible back into the furnace, turned off the air and gas supply and swung the lid back into position. There was some residual slag in the crucible and I dumped this into the sand bed. Later I removed it and the dross by sifting the sand with an ordinary, large kitchen sifter.

When I looked at the ingot molds I was disappointed. Where I had expected to see shiny bronze all I saw was a blackened, wrinkled surface. Being way down on the learning curve I didn't know that all I was seeing was the residual dross and that underneath was a good bronze ingot. That's one of the functions of the "riser" in making a mold. It provides a place where the dross accumulates while good metal flows into the casting. I continued melting down my scrap bronze and casting it into handy ingot sizes preparatory to making my first real castings.

# Notes From The Backyard

by Rich Chiodo

## Potpourri...

I have a folder in which I keep scraps of notes and other detritus squirreled away. Lately it has been overflowing, so in no particular order here are some random musings. Pick the one that irritates you the most and write a letter.

**A potpourri:**

What we need is an affordable, starter model, coal fired, locomotive. Stuart Browne's creations are exquisite but are somewhat higher end. Legend's vertical boiler Climax is getting closer.

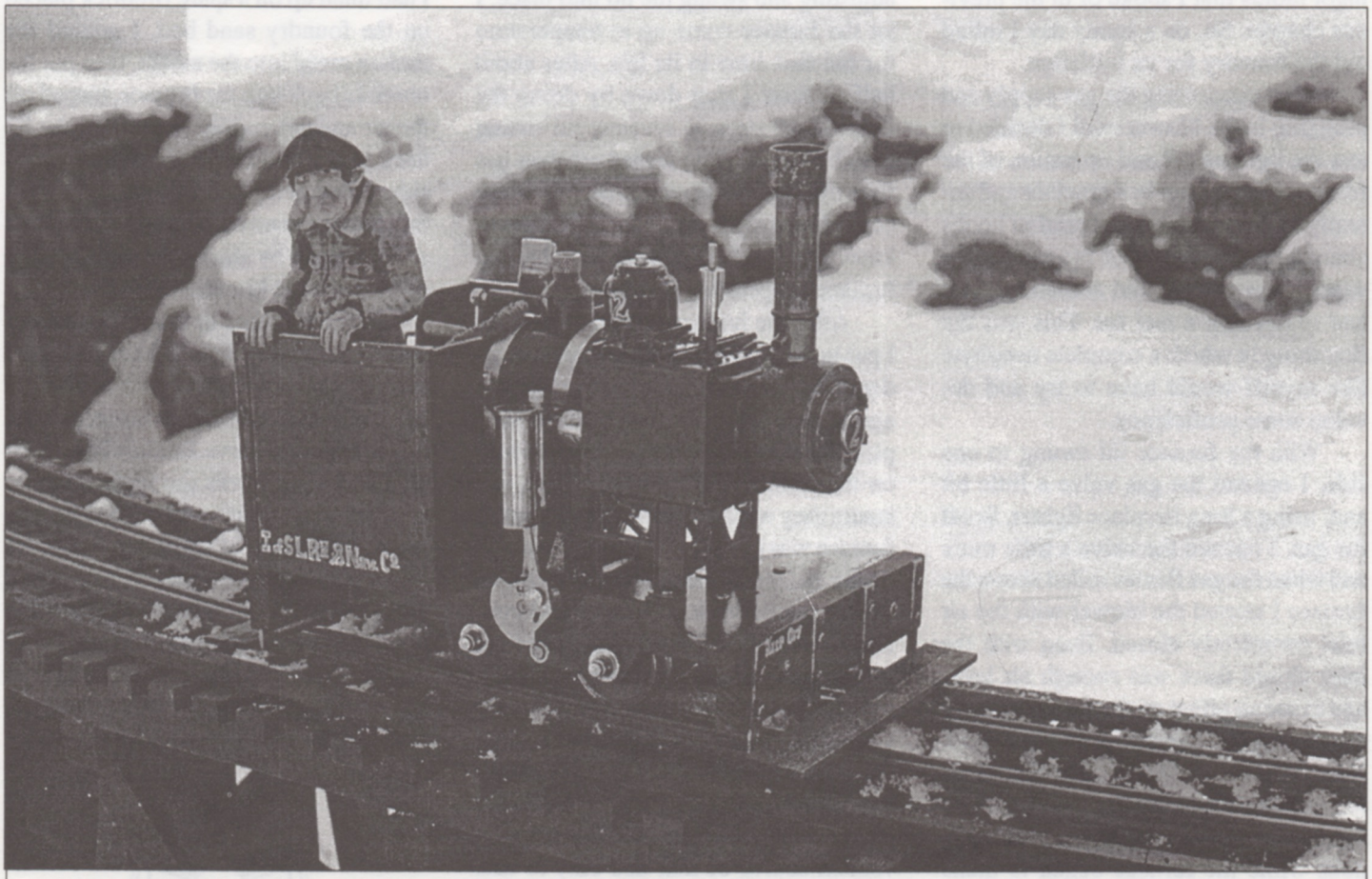
I don't care much for radio control. Here we have a miniature of the high art form of the post industrial revolution equipped with CMOS, PLL surface mount circuit gadgetry. It just doesn't "feel" right.

Out of the box, RTR garden railways dominate our world. A growing number are eschewing this sameness for the wilds of creativity, scratchbuilding and fidelity to prototype. Our hobby will be better for it.

I find all that is written about plants for the garden railway difficult to understand and apply. Maybe it's just me, but somehow all that is known and that is applicable to our little world needs to be written down in layman's terms, with lots of pictures.

Rarely have I seen a small scale live steamer fired up without a problem in the presence of company. Is it the nervousness of the driver, bad karma, the wrong trousers? A normally docile beast will find the most exquisite way to befuddle its master when others look on.

Early morning, just after sunrise is the



Pictured is the newly shopped 0-4-0T geared steam motor for the new 7/8n2 Isle of Shoals. This much-modified Berkely Loco Works Cricket characterizes the typical industrial narrow gauge beasts used by private firms to haul every thing from ammunition to zinc ingots. The engine driver, G. Ennis Plammer (motto: everyday is Monday) stands 5-1/4 inches tall. He gives perspective as to how BIG diminutive prototypes become in 7/8 scale.

photo by Rich Chiodo

best time to be out on your railway.

Running light engine doesn't seem right. Running a radio controlled locomotive without a train really doesn't seem proper. We're getting better here in the States, but the habit persists.

I've lost track, long ago, how many times I have forgotten something, usually critical, after planning for days to attend that big get-together. Why is that? And why is it just after the point of no return that you remember?

Speaking of GTG's...the ones that run the smoothest, no matter how modest, have a track marshal and train order board. However, I too will gladly participate in the helter skelter running around that occurs when no such controls are in place.

Industrial narrow gauge is finding its way into the garden railway hobby. These are diminutive prototypes such as Lister, Rustin, Simplex, Deutz, Decauville, Vulcan, Porter, etc., consisting of locomotives and 4-wheel rolling stock, mostly flat cars and tippers. Industrial NG has the advantage of realistic garden railroading in a limited space and offers the modeler a wide range of prototypical look and feel.

Yesterday, the time necessary to finish the project list pinned to my workshop wall exceeded my life expectancy. Henceforth, I will need to spend time each day deciding which project to eliminate. If I do this in my usual anal retentive way, I will get nothing done for the rest of my life. Cheery thought.

On my last locomotive project (pictured) I was searching for a way to represent a graphited smokebox. Quite by accident, I tried rubbing the smokebox with my construction pencil, in which the "lead" was very soft....and voila (after some finger burnishing)! An authentic graphite-colored smoke box. It seems to wear acceptably and gets your fingers dirty when you touch it. I like that.

My reborn Isle of Shoals Light Railway is somewhat torn up as track gets upgraded to 7/8n2 standards. It's a bit sad not to be able to steam up and run a train, even if it is just to and fro.

I have had a chance to visit other steam powered lines this summer and have picked up good ideas from all of them. One common thread with my friend's railroads is that they are all an individual expression of what the creator pictures a proper garden line to be. I've mentioned the higher level we should all work toward in previous columns. Visiting these lines always returns me to the IofS inspired to make it better.

Helpful hint #73. Those surplus, military "foldable, short-handled shovels" used to dig foxholes and such make the quintessential garden RRy tool. I use mine to dig, pry, plant, tamp....but it's really tough to lean on, foreman-like.

Speaking of tools, those laser sighted levels seem like the most perfect grade siting tool ever invented. As soon as the price comes down to something affordable, as every electronic gizmo eventually does, I think I will be retiring my water level.

Well, I feel better and my notes file is a bit thinner. It's summer time here on the coast of New Hampshire and, torn up track or not, I'm headed out to raise some steam...if only just to sit back and watch the safety lift.

# The National Spring Steamup

by Clark Lord

all photos by the Author except where noted

## Fun in the Sun in California

Things got underway Thursday afternoon May 28, 1998 as folks gathered at the Sunnyvale Hilton in Northern California (San Francisco Bay Area) for three days of steamup fun. New to this year's event was the installation of a live WEBCAM by Scott McDonald and Richard Finlayson, and an elevated Gauge O track built by Gary Broeder and Charley Lix. This track was constructed on site and completed at 2 a.m. Friday morning.

I had the pleasure of the first and last runs on the BAGRS track, and like many others, enjoyed operating my live steamers with full trains. My Aster Schools with a 5-car set of new Bulleid coaches built by David Leech polished the rails several times, including a Southern Green triple header with Gary Broeder and Richard Finlayson. Friday saw heavy steamup activity and socializing.

The Dealers room was open 3 hours each day. Sunset Valley Railroad was showing their line of code 250 track, including plans for a double-slip switch. Scott McDonald represented Potomac Steam Industries while NSS 98 organizer Richard Finlayson represented Legend Steam Locomotives. Bob Hartford, Hartford Products Inc.; Lee Klaus, Valley Car Works; S.T.E.A.M., OS Locomotives; Lee Barrett, Barrett Railways; Pete Thorp, Trackside Details; and Gary Watkins, Sierra Valley Enterprises rounded out the dealers in attendance.

Gary Broeder, Clark Lord and Richard Finlayson prepare their triple headed Aster Schools for a run. (see text)

Seen operating on the big track were Geoff Spenceley and Peter Comley, each with an Aster King George V and seven of Peter's GWR coaches. Brand new was Jim Hadden's Poison Creek #5, a scratchbuilt Heisler.

Friday's events finished up with two of the seven clinics offered during the steamup weekend. Jim Reyer gave a talk on *Whistles for Small Scale Steam.* The theory behind whistles was demonstrated with several examples. His final whistle was a 6-inch long 4-chime unit that sounded great. Next up was Gary Broeder talking about *Lathe and Mill Basics.* Saturday's clinic schedule included Mike Martin, *BAGRS Project loco;* Vance Bass, *Pop-Pop Boats;* Charley Lix, *Hand Lettering;* Marc Horovitz, *Getting Started;* and Kevin O'Connor on *Silver Soldering.* I attended all the clinics and found them very informative.

Some of Saturday's highlights included another triple headed Aster Schools, belonging to Gary Broeder, Richard Finlayson and Clark Lord, pulling 3 goods vans and 10 Southern Railway coaches. Another awesome sight was Dan Pantages' Daylight pulling a magnificent 10 coach set built by David Leech. This was a complete train set consisting of a baggage, articulated coach, coffee/kitchen/dining cars, 44-seat coach, tavern lounge, parlor car, and observation parlor car. Saturday night concluded with a group dinner at a local restaurant.

After dinner you could find Jim Reyer and Morgan Jennings steaming their Crickets on the small dual gauge track. The door prize giveaway proved popular and lasted quite some time due to the wide variety of interesting items donated by the many vendors who support our hobby.

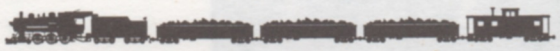
The O Gauge track saw lots of action throughout the day. Marc Horovitz, assisted by Michael O'Rourke ***(Mr. Cricket)*** operated his steamer, and Pete Thorp found time to make a run with his Catatonk Heisler.

A new addition to the schedule this year was a field trip to Roaring Camp and Big Trees RR in Felton. We got a shop tour and then took a ride behind DIXIANA, a two truck Class B Shay. Back at the steamup, Dion Dostaler took lessons from ***The Master,*** Gary White, on proper firing of a Baldwin B1 Rear Tank loco. The last run on the big track was by me with my Aster Alisan Shay.

Many attendees took advantage of local steamups organized for Monday & Tuesday after the main steamup at the Hilton. Monday we were treated to a steamup at Gary Broeder's home. One of the unsung heroes who did a lot of the setup and teardown work on the steamup tracks was Tom King, who could be seen running his Gumby Cricket at Gary's place. About 30 folks attended.

Tuesday it was off to Sacramento to visit Kevin O'Connor's home. Early on, Jim Hadden had his new Heisler in steam. Later John Coughran had his coal fired Jack running beautifully. John Shawe did the coal firing modifications on this loco.

This year's National Spring Steamup was a resounding success. Richard Finlayson is to be congratulated on a first class show. We'll see those of you who attended this year, and hopefully many more, next year on May 28-30, 1999. Watch *Steam in the Garden* for details!



Clockwise from below:

Some of the gang who showed up at Kevin O'Connor's place in Sacramento for his "After the Steamup" steamup. John Coughran (CA), Richard Finlayson (CA), Reg Stocking (CA), Grover Cleveland (CA), Earl Martin (CA), Kevin O'Connor (CA), Dee Dostaler (Utah), Jim Hadden (Utah) and Dick Bruce (CA)..

Geoff Spenceley (CA) always puts on a good show wiht his steamers, and no one has more fun than he does!

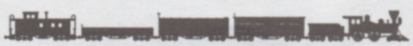
Some of the NSS '98 gang took advantage of the opportunity to ride behind a narrow gauge Shay on the Roaring Camp & Big Trees Railroad in the Santa Cruz mountains.

Top: Gary White(California), with a devilish glint in his eye, lights up!

Center:John Coughran (California) makes a run at Gary Broeder's "After the Steamup" steamup.

Bottom: Is Jim Hadden (Utah) pround of his new Poison Creek Heisler? Looks like all that effort was well worthwhile!

all photos this page
by John Coughran



Clockwise from right:

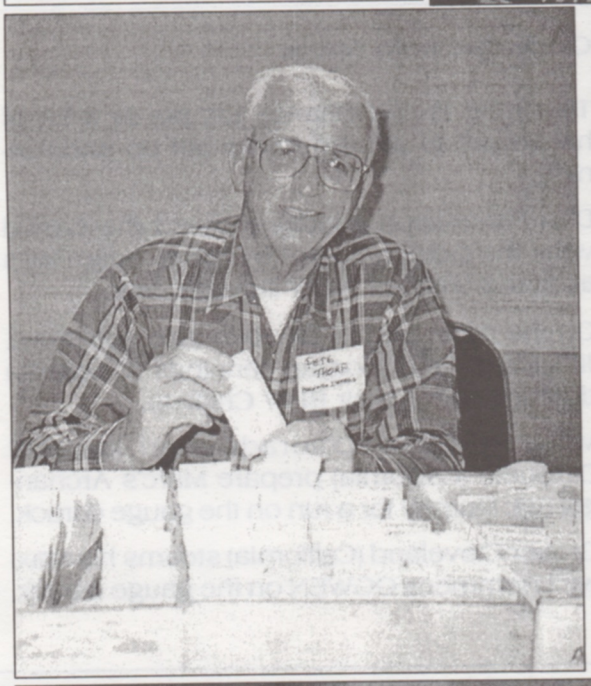
Mike McCormack (Massachusetts), Gary Broeder (California) and Richard Finlayson (California) rest from their labors during track setup.

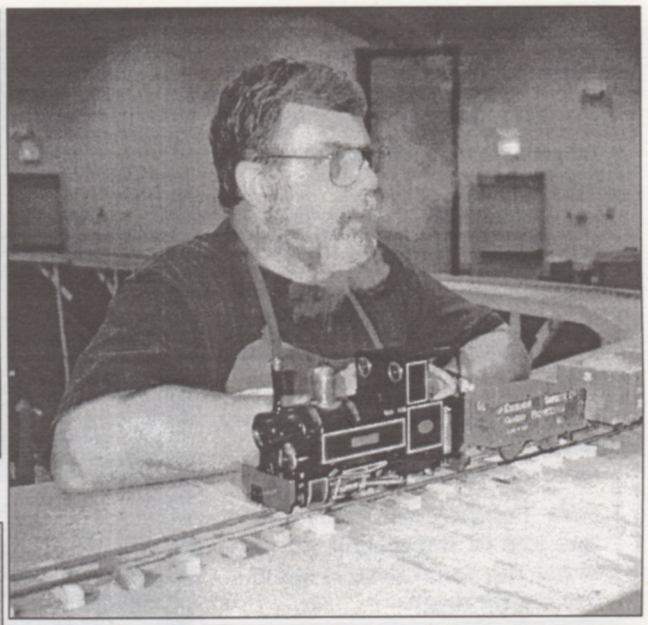
Clark Lord (Nevada) with his Aster Alisan Shay & log train.

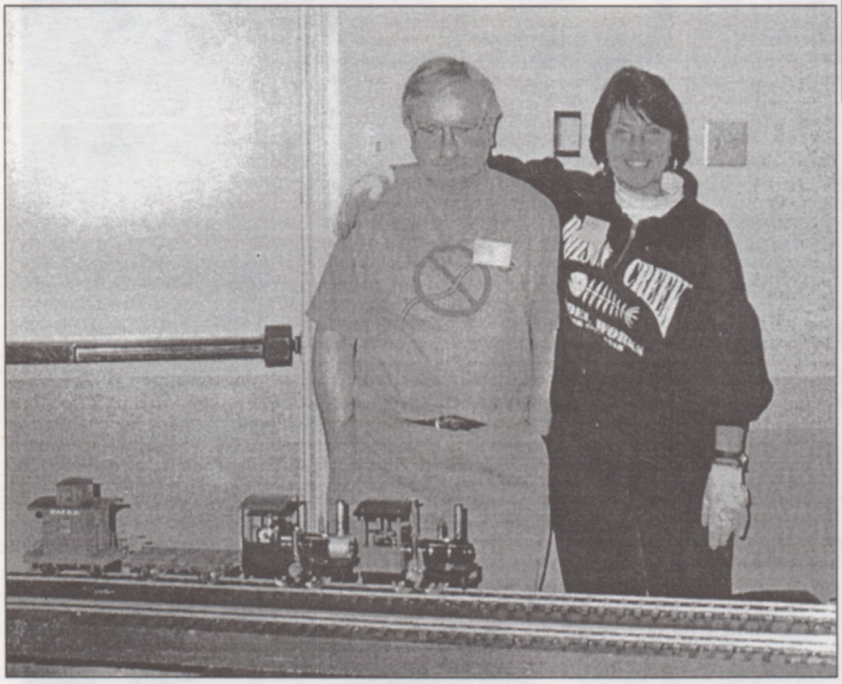
Lee Barrett (California) shows some of his beautiful Barrett Railways rolling stock in the dealer room.

Dan Pantages (Canada) nearly disappears behind a cloud of steam from his Aster Climax.

Pete Thorp (California) always has lots of interesting goodies at his Trackside Details stand in the dealer room.





Clockwise, from below:

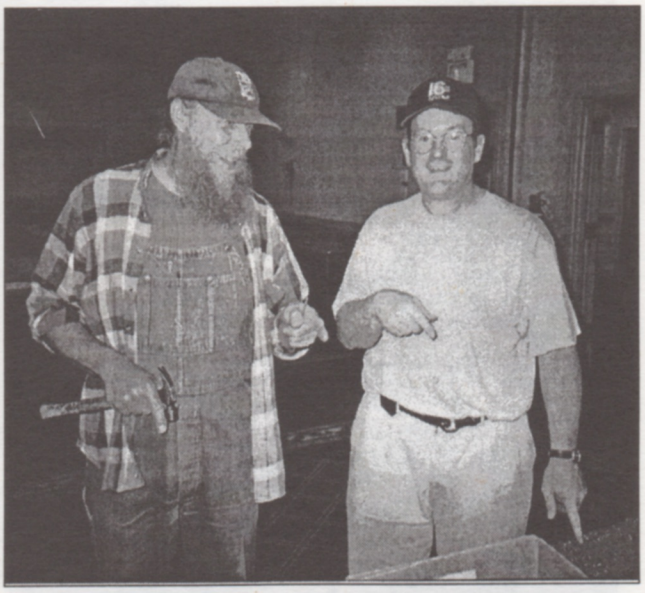
Tom King (l) and Charley Lix put in a lot of hard work to get the tracks set up and running.

Dan Pantages (Canada) showed the crowd what the Golden Age of mainline steam was all about with his Aster Daylight train.

On the other end of the loco size spectrum, Jim Reyer and Morgan Jennings (Colorado) doubleheaded their BLW Crickets.

Marc Horovitz (Colorado) and Michael O'Rourke (California) prepare Marc's Archangel Sgt. Murphy for a run on the gauge 0 track.

Grover Cleveland (California) steams his Maxwell Hemmens OGWEN on the gauge 0 track.



## Model Steamboaters Association Forming

This is to all model steamboaters in North America. Two model steamboaters on the East Coast, Ernest Morris of the Valley Forge Model Ship Society in Pennsylvania and Charlie Roth of the South Orange Seaport Society in New Jersey, have been kicking around the idea of a loose knit model steamboaters association as an organization for the exchange of ideas and information, with some scheduled steamboat meets throughout the year in various parts of North America.

We have been in contact with an association in the U.K., which was the first of this nature. No formality, as boaters are far flung, even in the U.K. The U.K. association has periodic meets and share a variety of information on steamboats through a quarterly newsletter.

If you feel you would like to be a part of this type of association, please drop one of us a note or a phone call, giving us your name, address and phone number.

With this type of organization there would be no need for a formal organization, with officers or insurance. A postcard, phone call or letter is all we ask for now to get this started.

The South Orange Seaport Society has a Steamboat Only meet on June 7th at Meadowlands Park, Meade Lake, in South Orange, New Jersey. This is their 7th Annual running of this event.

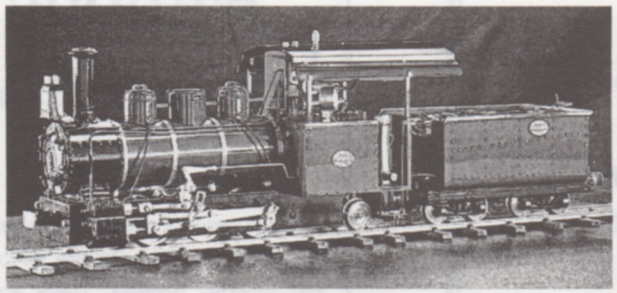
The Valley Forge Model Ship Society has scheduled their Steamboats Only meet for July 5th at Gotwalls Pond in Kimberton, Pennsylvania, just outside of Phoenixville. This will be the 3rd Annual running of this event. We are a small group, but we hope to get bigger as our lake is dredged and deepened.

Both Societies have tables available, and lodging nearby. The lake at South Orange has been refurbished and there are lovely high trees for shade and a nice meeting place.

We hope to hear from many of you!

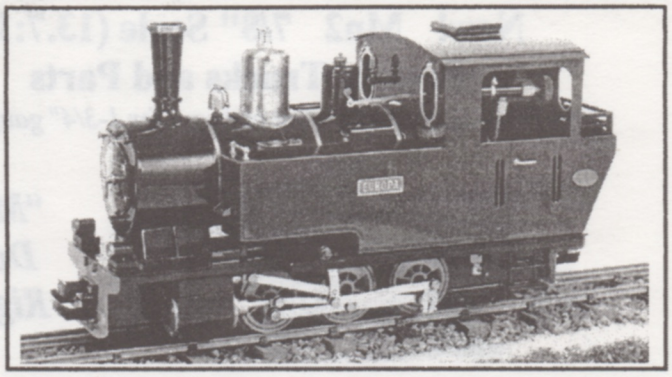
Ernest Morris
929 Spring City Rd.
Phoenixville, PA 19460
610-948-8107

Charlie Roth
212 Rt. 513
Glen Gardner, NJ 07726
908-638-8341



## Roundhouse Fowler

**0-6-0 outside framed chassis**



## Pearse Europa

**European narrow gauge 0-6-0**

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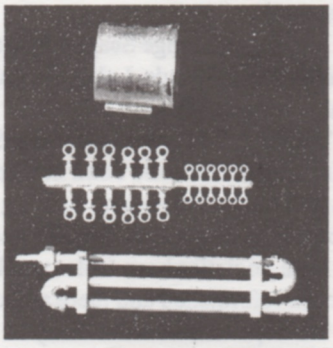

## New Brass Stuff!

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# Loco Review –
# Pearse Locomotives' Switcher

text and photos by Tag Gorton

**Specifications**

| | |
|---|---|
| **Description:** | Generic 0-4-0 American switcher locomotive with slope back tender |
| **Scale:** | 1:20.3 |
| **Dimensions:** | Length: 23" Width: 4-3/4" Height: 6-1/4" |
| **Gauge:** | Gauge 1 (45mm) |
| **Minimum Radius:** | 600mm or 24" |
| **Cylinders:** | 2 - 17mm bore x 15mm stroke, with piston valves |
| **Boiler:** | 2-1/4" x 8-1/2" internally gas fired, "T" flue |
| **Lubricator:** | displacement type with underfloor drain |
| **Wheels:** | 36mm diameter, 8-spoked, insulated as standard |
| **Finish:** | Any colour you like, so long as it is semi-matte black |
| **Other:** | 27 MHz radio (40 MHz for UK) See text |
| **Price:** | Base price, $2269.00 (includes servo and linkage installed) |
| **Options:** | Complete Radio (27Mhz) - $50.00 ● Water Glass - $73.00<br>Goodall Type Water Fill Valve with Spritzer Bottle - $20.00 |
| **Built by:** | Pearse Locomotives in England |
| **Available from:** | In the USA, Rio Pecos Garden Railroad Co., 27136 Edenbridge Court, Bonita Springs FL 34135<br>Phone (941) 495-0491 ● Fax (941-495-7264 ● e-mail: riopecosatsteamteam-com@msn.com |

Now I am very much afraid that you will have to bear with me when it comes to using the exact US terminology for the various parts of steam locomotives! While I am perfectly happy to conduct reviews of British locomotives in American magazines, or, indeed, American locomotives in British publications, it is rather more daunting to undertake a review in this esteemed magazine and lay bare my somewhat sketchy knowledge of US railroad terms and terminology!

I have to say however, that in common with a large number of British modellers, I very much enjoy American steam. I am sure that there is a large nostalgia element to this enjoyment - based no doubt on a diet of cowboy films in my misspent youth! Be that as it may, I am very pleased to get my hands on this, the *third* American locomotive produced by Pearse Locomotives.

Until fairly recently, the road testing of G-scale locomotives (rather than my own 16mm scale on 32mm track) has involved a certain amount of travelling. I am therefore pleased to report the commissioning of Phil Tomb's G-scale American 'Crocodile Line' in Saltash, less than a mile from the Longlands & Western. The 'Crocodile Line' runs live steam locomotion in the form of a Pearse *Colorado* and already has a large collection of suitable rolling stock.

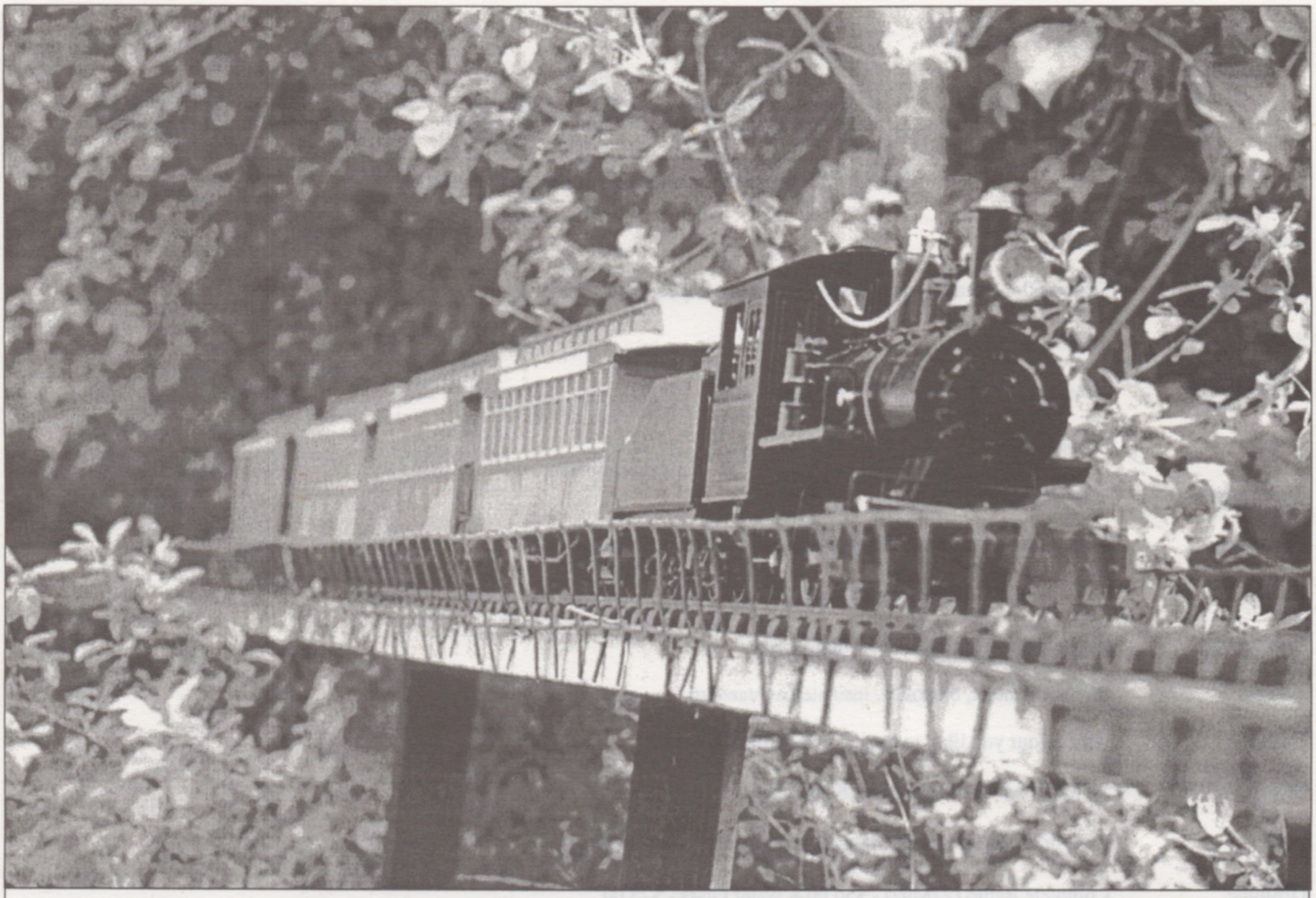
Despite its designation as a switcher, this is nevertheless a fairly hefty item of motive power. The locomotive itself is over twelve inches long and the slope back tender brings total length to something under two feet. The switcher, while not an exact prototype model, would fit happily within the pages of the Baldwin catalogue and certainly would look comfortably at home on any American narrow gauge line. In fact I don't think there was ever a narrow gauge switcher, complete with tender anyway, actually produced for the home market although Baldwin certainly turned out similar locomotives for the standard gauge or for export. Perhaps this engine could be found in the more esoteric corners of Colorado!

**Bar Framing**

The locomotive itself is an 0-4-0 and has, in common with other Pearse US models, a neat representation of a bar framed chassis. This type of construction always looks impossibly flimsy to British eyes, but in fact bar framed locomotives, using the boiler itself as a structural member, were actually pioneered by Edward Bury, an English engineer who exported some of the first early locomotives to the USA at a time when light axle loading was of primary importance. You don't need me to tell you that this design copes very well with backwoods track, and bar framed locomotives could be found working in the United States right up until the end of steam!

**Stephenson Link**

The chassis on this model is more detailed than the earlier Pearse examples in that it has a riveted red oxide firebox sitting between the frames below the cab, and also neat representations of leaf springing. The 'airiness' of lightweight bar framing is particularly difficult to achieve in G-scale live steam modelling, where running gear has a proper job of work to do, and radio control tackle with its associated linkages has to be shoehorned into a locomotive that has nowhere to hide anything. Compromises do have to be made, nevertheless I think Pearse Locomotives have done an outstanding job in this department.



Filling in for a "road" locomotive, the switcher makes a good showing with a passenger consist. In the 1:20 scale world, however, this locomotive is powerful to the limits of adhesion and can cope with very heavy, if non-prototypical, consists.

While we are below the running plate it is worth taking a look at the working gear, and this switcher employs what is described as 'simulated' Stephenson Slotted Link valve gear. In fact it is a link gear operating from fixed eccentrics between the frames, enabling single channel control of regulation and reversing. Some people might query this type of running gear, perhaps preferring separate reversing gear in the form of full function Stephenson Link. I have to say that first of all it would look very little different, secondly it would be less reliable and finally, would be *considerably* more expensive!

The steel tyred wheels are spoked, and have appropriate balance weights. Square section slide-bars supported by brackets fitted to the frames and cross-head detail complete a layout that looks absolutely 'right' for this type of locomotive.

**Working Disengaging Gear?**

It is at this point, as we start to explore the detail fittings on this engine, that I confess to being at a bit of a loss. I do know that the swinging arm on both the front of the locomotive and the rear of the tender is the rather clever equivalent of the British shunters pole, in that it is there to enable the shunter (yard man?) to release the buckeye coupling without crawling in between the vehicles, but I really haven't a clue as to what it is called. I fitted a Bachmann knuckle coupling to the tender to match the stock on the test line and it looks a simple matter to make this disengaging gear function as per prototype just by drilling out the dimple and adding a bit of chain! Anyway, steps, handrails and couplers of your choice complete this part of the locomotive.

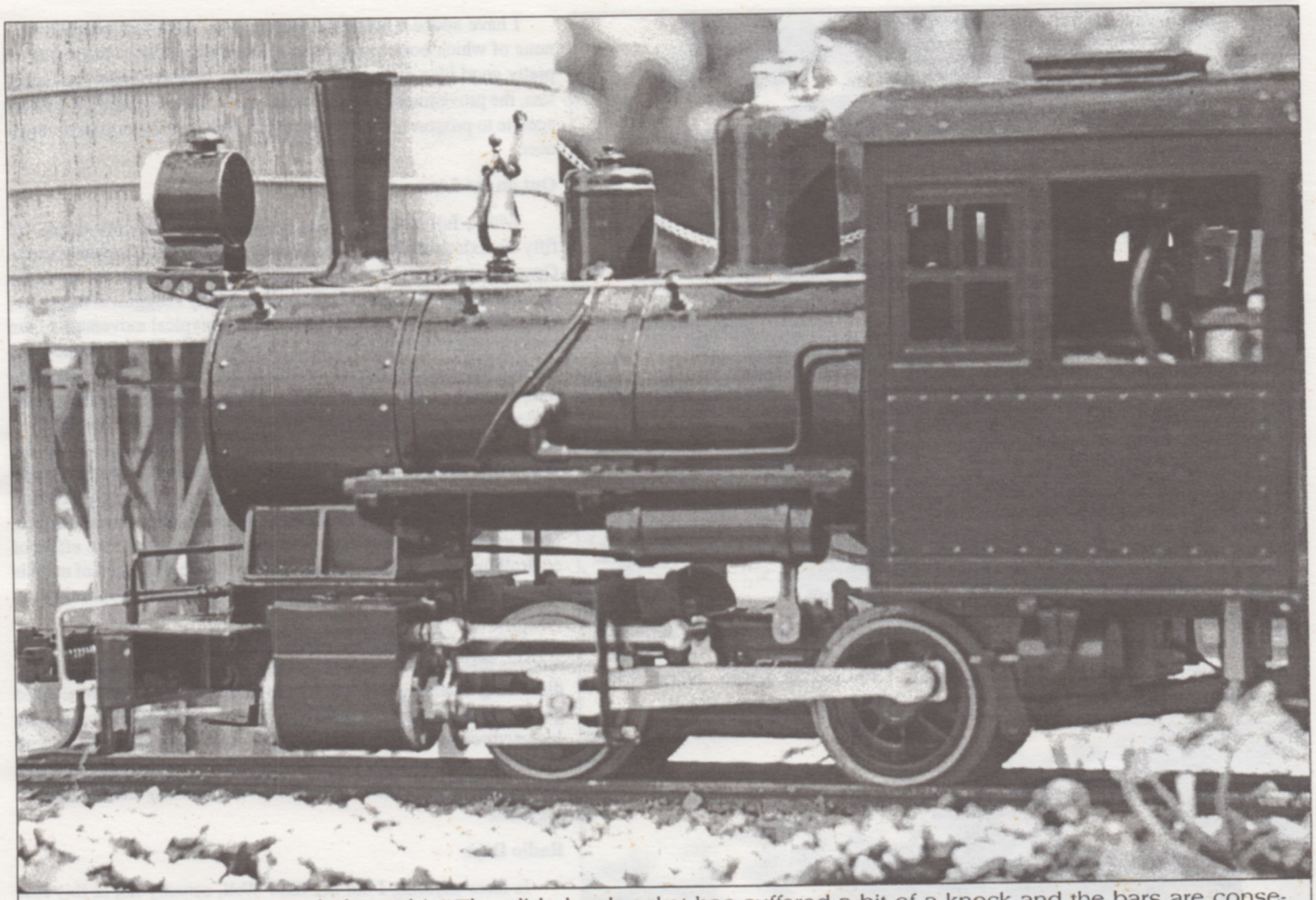
The smokebox is similar to that on *Colorado* or *Nevada*, as is the headlight. I should like to digress at this point and mention that the head lamps on both tender and locomotive are fitted 'for but not with' - i.e. it is a very simple job to put working lamps in these fittings and the front plate on the tender has a set of holes next to the ON/OFF switch to allow the fitting of a standard switch-plate for exactly this job. Again, some people might query why electric lighting is not supplied, given that it is so easy to fit. The reason is that while lighting is certainly very easy to add, it does take time, which adds man hours and therefore costs to one's locomotive. My own time as a purchaser, on the other hand, is free, and considering most people are capable of adding a battery pack to a set of 'grain-of-wheat' bulbs, it seems silly to pay another $75 on the purchase price.

**Encrusted with Rivets**

The high set boiler has timber footboards with steel hand rails and there are brass clack valves with their associated piping on either side of the boiler, which is topped with bell, sandbox and dome. I do like the neat arrangement PEARSE uses for their safety valves. The working item is hidden inside the dome and two neat near scale representations actually emit the steam. Traditional chain control linkages are provided from the cab to both whistle casting and bell. The air pump casting is on the left hand side of the boiler with reservoir cylinder below the footboard on the right, while the brake actuating cylinders themselves may be found beneath the cab on either side of the locomotive.

The eight wheeled slope backed tender on this locomotive is nothing short of a delight whose prototype could only have been built in America. Encrusted with rivets, it has steps (one could almost say stairs) with an associated handrail up one side of the sloping back. There is a nicely detailed tank filler and headlight on the sloping portion of the bodywork, while a wooden toolbox, complete with metal hinge castings, also doubles as the radio antenna. A coal load drops out to provide access to the battery compartment.

The basic engineering fit is the same or very similar to other PEARSE offerings. All locomotives use laser cut steel frames and axles run in phosphor bronze bearings. Motion and rods are again laser cut steel but are nickel plated.



Now I am a bit annoyed about this! The slide bar bracket has suffered a bit of a knock and the bars are consequently not quite parallel. It is a few moments work to adjust, but I am ashamed to say I did not notice this until too late. Note, however, the open bar framing. From this angle it is not possible to see the slotted link rods between the frames, but one should be able to pick out the leaf springing, brake cylinders and ashpan. A simple detailing job here would be the glazing of the cab windows.

Cylinders are 15mm diameter and 17mm stroke, while pistons are 'O' ringed and piston rods run in 'O' ringed rear glands. The steam chests are the heart of any locomotive and PEARSE motive power use centerless ground stainless steel valves in matched chests. These items are excellent quality, supplied as matched pairs, with the valves running in honed bores - and it is at this point worth emphasizing the importance of correct lubrication. The honing in the bores retains steam oil where it is needed most and, if your locomotive is oiled according to the instructions, will mean that your valves are actually running in oil, not brass!

**Sight Glass with Blow Down**

The boiler is an 8" x 2-1/4" centre flue type with slotted gas burner and safety valve set at 50psi. The steam riser/boiler fill turret is in the cab and access to backhead fittings is via the cab roof, which is hinged at the side. A 0-100 psi pressure gauge is fitted and there is a stop valve in the steam line to the cab mounted lubricator. The provision of a sight glass with blowdown valve on this locomotive is something I shall look at in more detail below. All cab fittings employ 'cool touch' control wheels, and filler caps are knurled and 'O' ringed for tool-free use while blowdown valve and lubricator drain neatly below the footplate.

The cab is, of necessity, fairly full on this locomotive. No deep British outside frames or capacious side tanks to hide everything in! The gas tank is in the port side of the cab and is shaped to the cab dimensions below the windows to reduce visual impact. The single servo is in the same place on the starboard side, which also houses the lubricator. Radio receiver and battery box are housed in the tender, and connected to the locomotive via standard R/C plugs/sockets.

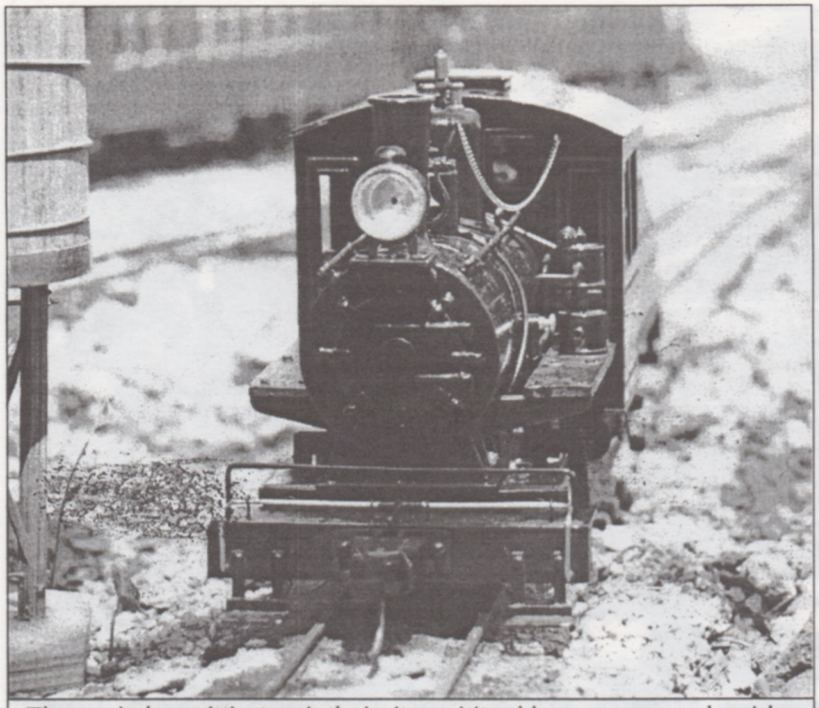
This locomotive may be run using the accepted 'single fill' system employed on most commercial offerings, and this is probably a good idea when the locomotive is first put into revenue earning service on your pike. This means running the locomotive on a full boiler, with both gas tank and lubricator charged. In common with other locomotives, the switcher is designed to run out of gas before the boiler runs dry. I am not going to fall into the trap of quoting running times when operating in 'single fill' mode, but a capacious boiler will provide satisfactory running times in all usual conditions.

**Pleasurable Learning Curve**

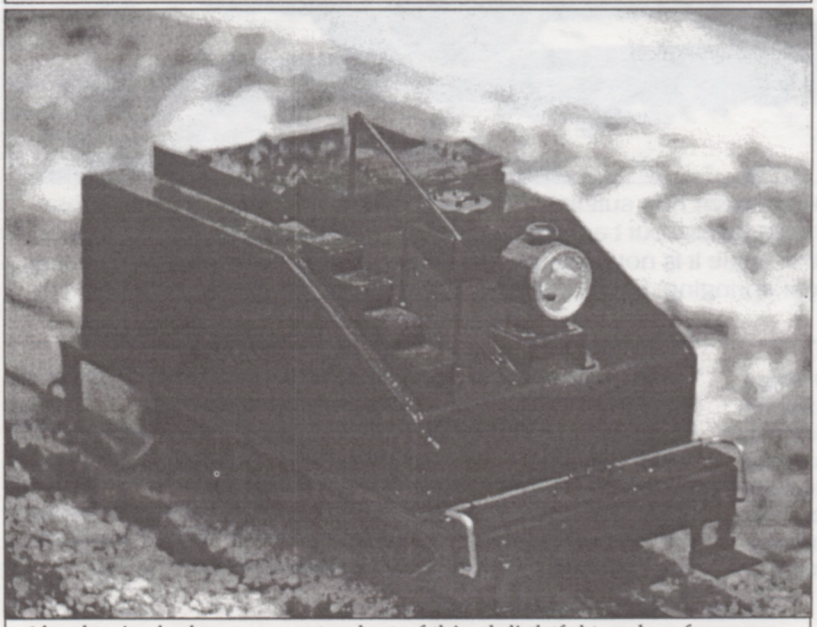
Backing the locomotive onto a heavy consist reminds me that single channel locomotives tend to be smoother runners than those with two channel radio control, and hooking up to the cars using knuckle couplings, rather than my own centre buffer with fiddly three link chains, is really rather pleasant. If this engine were mine I would certainly get that disengaging gear fully functioning!

There have been several reviews of PEARSE locomotives and so I really don't need to go into full detail regarding locomotive servicing for running - which is in any case comprehensively detailed in the well written instruction pack. What you want to know is that the locomotive is a powerful and responsive runner that the newcomer to garden steam can use with confidence, while also providing a challenging driving experience for the more seasoned engineer.

I remember once reading a critique of a very successful computer game. Now I don't actually use computer games, and I am sure that you are thinking what on earth has this to do with live steam engines!! In fact the point made by the reviewer was that the key to success for this particular piece of recre-



The switcher sitting quietly in its spiritual home - a spur beside the water tower on Phil Tomb's Crocodile Line. Note the headlamp, designed for easy retro fitting of working lights.



I had to include a separate shot of this delightful tender - far more attractive than the oblong box found on British locomotives.

ational software was that it could *successfully be enjoyed at varying skill levels and therefore had a rewarding learning curve.* What is good for someone else's pastime is most certainly good for ours, and the same comment could be very easily applied to this locomotive

You see, like any other garden scale steam motive power, the switcher can be run initially on the 'single fill' system - and if one is new to live steam it is very much recommended that one does so. Serviced as described in the instructions, one does not run the risk of running the boiler dry while expanding one's driving skills. There is always much to learn about a new locomotive before feeling at ease in the cab, but as knowledge increases, the provision of a working sight glass means that it is perfectly possible to leave the switcher in steam all day, topping up the boiler with the Goodall boiler fill system and filling the lubricator as required. A glance at the cab mounted sight glass will provide an exact indication of the state of the boiler.

I have added a boiler fill system to most of my locomotives - none of which boast a sight glass. Experience allows me to have a pretty good idea of just how much water is in my boiler, nevertheless, the provision of a decent working sight glass enables the steam acolyte to progress comfortably through the grades to grizzled engineer.

**Out on the Line**

With a full head of steam we back down onto our consist of fifty-six axles and the knuckle couplings (hopefully) lock into place. Opening the regulator, the locomotive moves slowly forward, the exhaust 'chuff' reflecting the heavy load. May I suggest at this point, that you lower your head to watch the prototypical movement of the running gear? The open bar frames mean that you can see the links moving between the frames as well as the coupling and connecting rods working. This is a free steaming locomotive, and as the engine settles to the collar, the regular beat of the exhaust and the rattle of the stock over the rail joints is relaxing and evocative. Now is the time for finding out what the locomotive will do at varying boiler pressures. It is always good fun to try to regulate the supply of steam to the job in hand while attempting to run properly at scale speed. Most garden scale locomotives are run far too fast and the effect of controlling a real steam locomotive is lost. A small conceit of mine is to see just how slowly I can move a heavy consist without stopping. Do try it!

Because of the slope-back tender, this is one of very few locomotives that look just as good running in reverse - and while we are discussing reversing, I should like to make the point that these fixed geared locomotives have a measurably smoother power curve than locomotives with separate reversing gear If you are running with low boiler pressure and your train grinds to a halt, a few seconds blowup will see your locomotive move without any alteration of the regulator.

**Radio Days**

Is there anything I did not like? Well, actually no, in this case there isn't. I know a reviewer is expected to find something, if only to underline the fact that he is totally independent, but I have to say that careful design has provided a locomotive with both excellent runnability and a satisfying level of detail.

The only thing I could mention is that the locomotive is supplied with a 27 MHz radio for export to the USA, rather than our European 40 MHz FM set - for obvious reasons. If I were an American owner then I would think about replacing receiver and transmitter with a set on the now standard 75 MHz frequency set aside by the FCC for ground-based hobbies. Do contact the helpful folks at Rio Pecos, as there are various options to be considered. For instance, a 27 MHz set will work very well indeed with one of the latest 'anti glitch' devices - even in an area that suffers from interference. Indeed, these things are a good idea anyway, and I use a Sentinel 2000 on my PEARSE *Countess*, not because the loco glitches, but because I like to switch the radio off whilst running. Ask at Rio Pecos about this option - it is *sooo* relaxing to use!

Of course, I *would* like a working whistle - I always do - but I really don't see how one could be fitted without spoiling the carefully crafted appearance of the switcher - and in any case, the expertise of 'Chime Whistle' Bangham is difficult to replicate in a commercial environment. Those with suitable skills could well consider fitting a 'digital' chime whistle in the tender, however.

**Final Thoughts**

This is the third PEARSE 'Yankee' and they just keep on getting better. I particularly like the availability of a sight glass, the prototypical 'airy' layout beneath footplate and boiler, and that oh-so-beautiful tender. It is good to see that PEARSE LOCOMOTIVES are so committed to American steam power, and this is not the last by any means. I would keep your ear to the ground and your eye on SitG for news of a really big 'road' locomotive!

Product Review -

# Istra Metalcraft's PETS

## (Portable or Permanent Elevated Track System)

digital photos and article by Ron Brown

The two questions we hear most often from our readers are:

*1. Which steam engine should I buy?*

*2. How do I build a track for steam power?*

These are both tough questions because there are so many factors to consider. However, the second question has just become a lot easier to answer with the introduction of Istra Metalcraft's PETS. In this article we will attempt to tell (and show) how we did it. Our methods worked well for us, but are not necessarily the best for every site or locale.

Those of us who have been to the National Small-scale Steamup at Diamondhead, Mississippi during the past two years have seen, and perhaps even run trains on, Istra's excellent portable track. The heart of this track is a framework built of aluminum tubing, which is covered with a deck of plywood or your choice of materials, and track is laid on this deck. You can support the frames in a number of different ways, and you can purchase frame sections or a complete, ready-to-run track with your choice of curve radii and sized to fit your available space and your budget.

We started out many years ago with a ground level track. Over the years it was rebuilt several times, and it always required a lot of maintenance to keep it level and usable. We decided that our next track would be elevated. An elevated track is much easier on backs, legs and knees.....and it sure is a lot nicer for operating manually controlled steam locos. The photo below shows our new elevated track nearly completed, lacking only some yard tracks and turnouts.

Once this decision was made, we began searching for the ideal method to build an elevated track. At first we considered a wood structure, but they are prone to sagging, warping, rotting and all

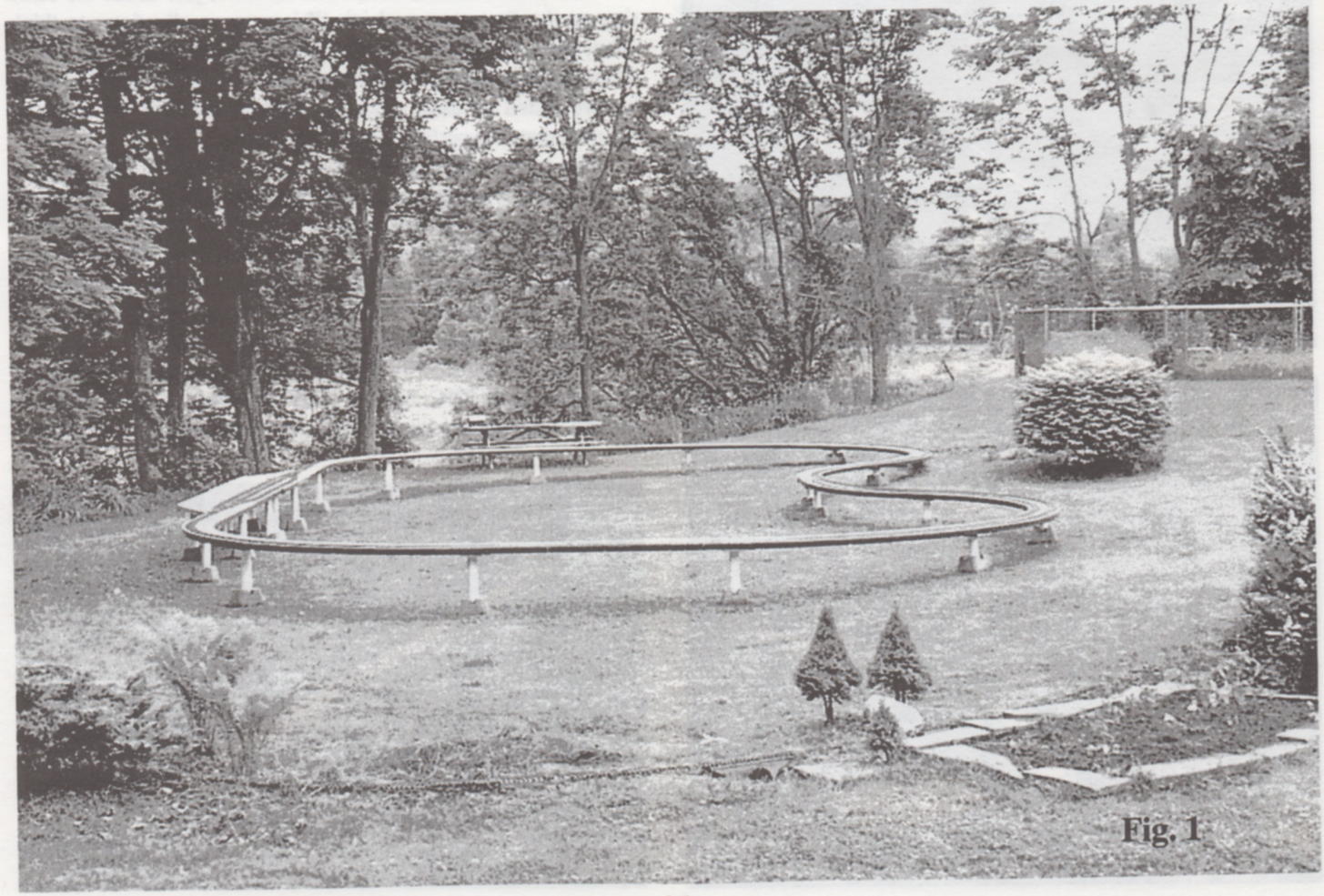


**Fig. 1**

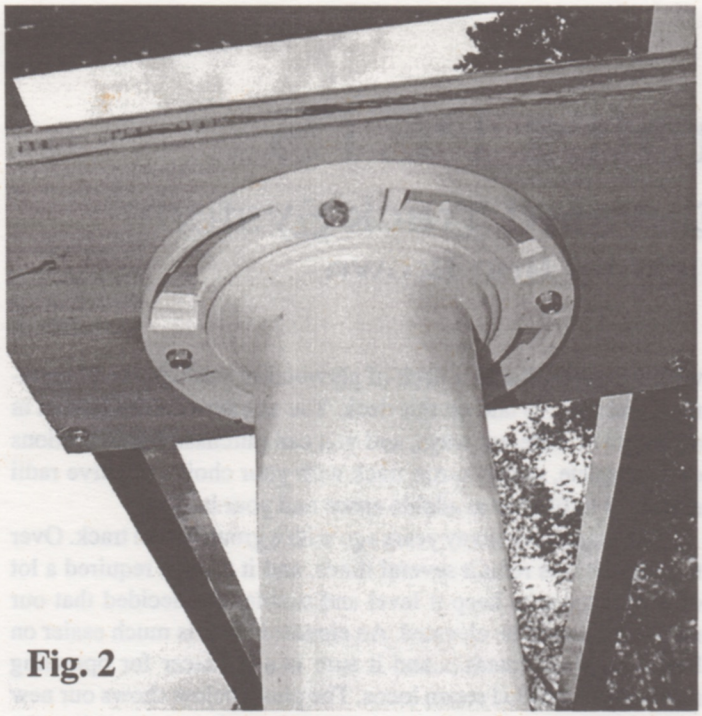


Fig. 2

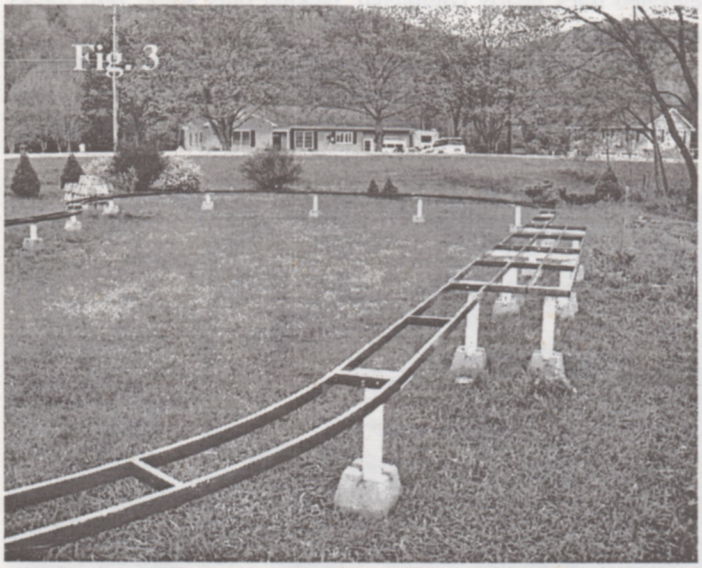


Fig. 3

Fig. 4

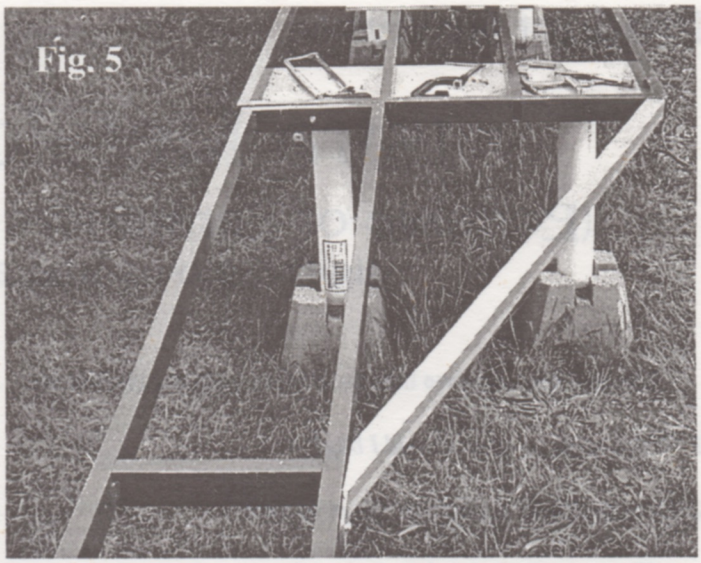


Fig. 5

those things that wood does when exposed to the elements. When we saw Walt Swartz's PETS track, with its aluminum tube frame, it was love at first sight. But we wanted something more interesting than a simple oval, so we drew up a simple kidney bean shaped track (See Fig. 1 - Walt is now calling this the Brown Bean!) and sent it off to Walt to see if he could build us a set of frames to match our drawing. We had already decided to keep the cost as low as possible by purchasing just the PETS frames and adding our own supports, decking and track.

The frames arrived in the fall of 1997, just about the same time as the first snow and ice. This gave us all winter to think about how to build the supports and what to use for decking. Many different materials were considered. Each had some good features, but we ended up using plywood because we couldn't find any material that was perfect for this application.

The support system kept us thinking all winter. Did we want to sink posts in the ground, which would require going down 4' to get below frost level? Not really! A trip to David Morgan-Kirby's steamup in Ottawa last year gave us the idea of using concrete deck blocks placed right on the surface. If it worked in Ottawa, it should work in Newark Valley! I wanted to eliminate as much wood from the structure as possible.

Walt used 1-1/2" PVC pipe for supports on his home track. I liked the idea of PVC, but the 1-1/2" size was a bit too shaky to suit me. I bought the largest PVC pipe that would fit into the re-

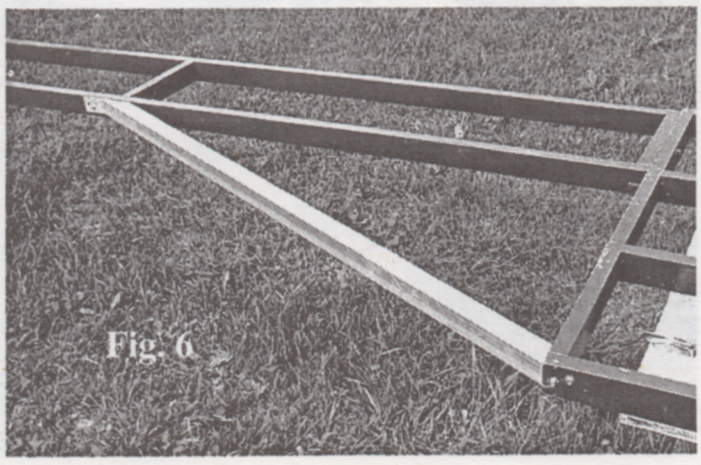


Fig. 6


cess in the top of the deck block.....3".

Now I had to deal with the question of how to attach the PVC pipe to the frames. A trip to the DIY store solved this problem when I found that a toilet flange would plug right into the 3" PVC. I cut plywood plates and screwed them to the bottom of the PETS frames, then screwed the toilet flanges to the plywood plates. (See Fig. 2) Simple, sturdy and inexpensive.....my kind of construction!

Our son Ken is in the construction business, and he has a laser level. This seemed like the best way to ensure that the track would be as level as possible, and it made the job of leveling quick and easy. With the laser set up in the approximate center of the track and leveled with a built-in bubble level, the laser was then used to mark the PVC pipes, and we cut them to length quickly and cleanly with a chopsaw. The whole task of assembling the frames and leveling the structure took just 3 hours. (Fig. 3)

We had decided ahead of time on a height of 32" for the steamup/yard area. Because the site for the track has a slope to it, this put one corner of the track close enough to ground level that we can just step over it to get to the inside (see Fig. 10), eliminating the need for a walkover or the dreaded crawl-under.

I've often been accused of overkill in everything I build, and my original plan was to use at least two, and possibly three, supports on every 8' track section. Ken didn't think this was necessary, and pointed out that it would be much simpler to level the structure - and keep it that way - if we used just one support per section. Ken is no lightweight at 225 pounds, so when he sat down midspan on an undecked section with 8' between supports and started bouncing up and down I nearly fainted! I just knew it would fold up under him. But the section barely flexed, and I was convinced. One support per section was plenty.

At my insistence, we did use support legs on all 4 corners of the 3' wide yard and steamup sections. This gave us a stable, freestanding anchor point from which to begin attaching the 1' wide sections that form the rest of the track. The assembled structure, even before applying the decking, was reassuringly solid and stable.

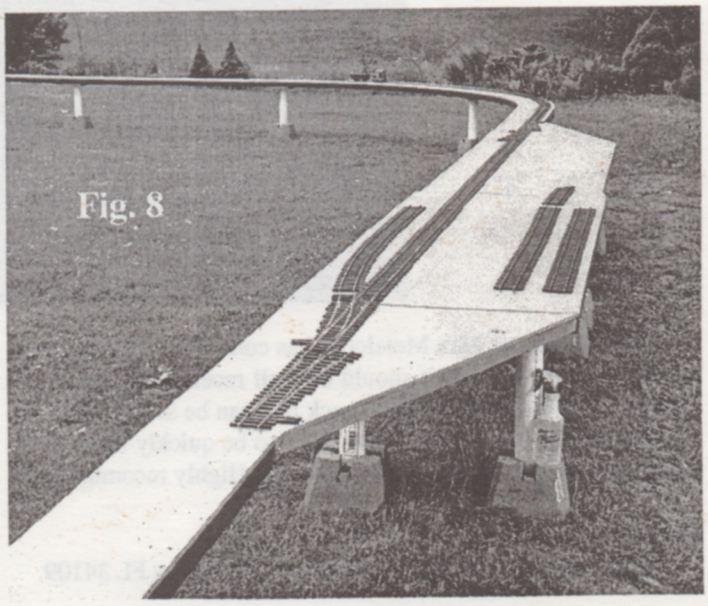
Once we had the structure all together, I noticed that a lot of real estate was going to be lost where the wide sections and narrow sections joined (Fig. 3). A bit of digging through the scrap bin produced some aluminum angle that would work perfectly for what I had in mind. By extending the decking at an angle from the outer tip of the wide section to some point along the outer edge of the adjoining narrow section, I would be able to locate the switches for the passing and yard tracks so as to gain some extra track footage on these sections. The result of this brainstorm and a few minutes additional work can be seen in Figs. 5 and 6.

What to use as decking material took a great deal of research. I didn't want to use plywood, and we looked at plastic, aluminum and even cement board as possible weatherproof solutions. Nothing quite filled the bill, and so we reluctantly used 1/2" ACX plywood. Marie painted all the wood parts with SuperDeck™ (Fig. 4), which came highly recommended by the clerk at our local paint store. It's supposed to protect the wood surface from the elements for 3-5 years, but the memory of the pressure treated timbers used on our first outdoor railroad are still quite vivid. These timbers were guaranteed to survive the elements for 40 years, but in 1 year they were warped and twisted, and in 4 years they were severely rotted. I wish we could have found a suitable substitute for the plywood decking, and I'm still looking. Stay tuned!

Once the plywood decking had been cut to rough size and attached to the PETS frames (all fasteners used in the construction of our elevated track are stainless steel - they cost a bit more, but they won't rust or corrode), Ken used his router with an edge bit (Fig. 7) to trim the deck flush with the sides of the frames.

Since we opted to use flextrack, tracklaying (Fig. 8) was a relatively simple proposition. There are several very good track systems on the market, and the choice of which one to use is a matter of personal preference. Narrow gauge logging is our theme, and so we chose Llagas Creek's Narrow Gauge Look tie strips and nickel silver code 215 rail for that light, fragile, backwoodsy look. Matching Llagas Creek turnouts were also used, and the whole track system has proven to be troublefree.

It was a happy day when we carried locomotives and rolling stock out to our completed track for a few delightful hours of steaming. (Figs. 9 & 10) We are so well pleased with our new elevated track and the PETS concept that we are going to install a smaller version at our winter home in Florida (Snowbird Haven!), and this smaller PETS track will also be used as a portable display track at train shows, where we will use it to demonstrate the joys of Real Steam Power to the unwashed masses.



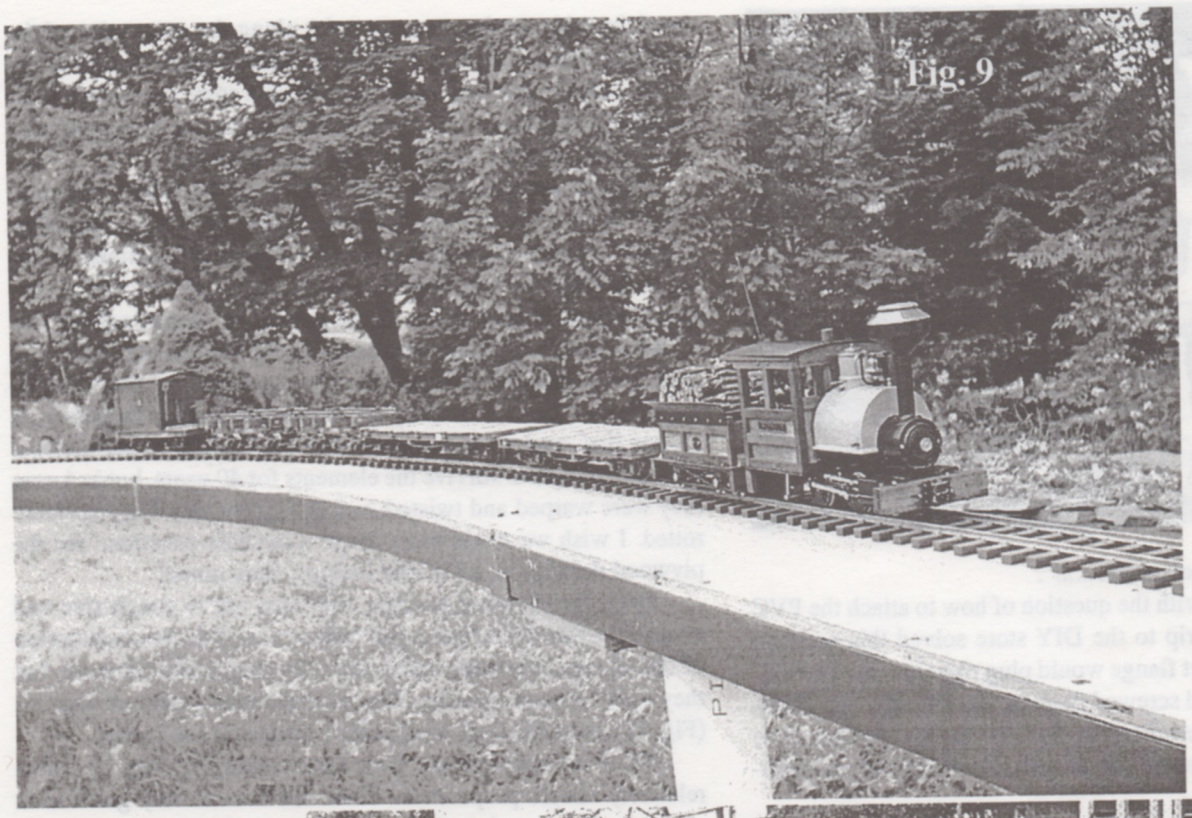


Fig. 9

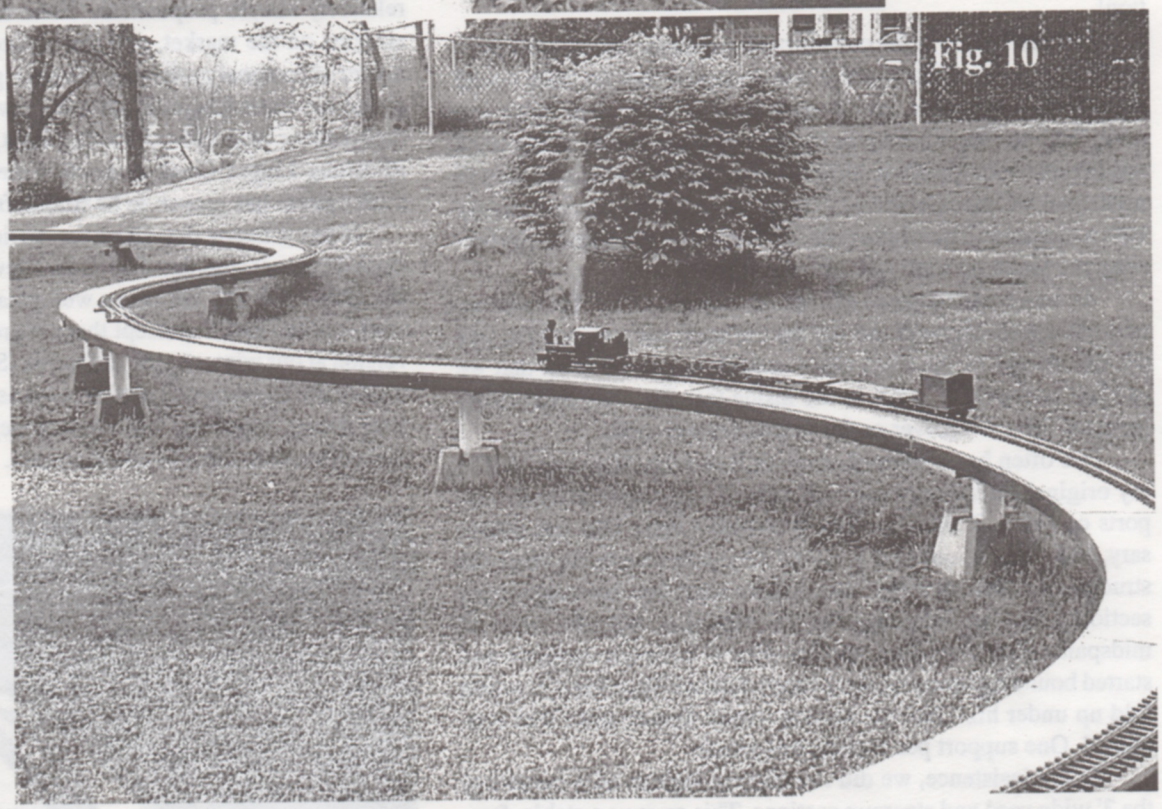


Fig. 10

Walt Swartz of Istra Metalcraft has come up with a real winner with his PETS, and it should be well received by many live steamers who are looking for a track that can be set up in the garage, basement or outdoors - and can also be quickly taken down and stored or transported when necessary. Highly recommended!

**Source:**

- Istra Metalcraft, 6089 Lee Ann Lane, Naples FL 34109
- phone: 941-597-6445
- fax: 941-597-6230
- e-mail: waltswartz-istrametalcraft@worldnet.att.net

**Price:** Check with the manufacturer, as price will vary depending on size and configuration.

The proof of the pudding, as they say, is in the eating. We invited some friends and fellow steamers over to help us break in the new track and check for flaws and possible trouble spots. Fifteen steam locos and a handful of battery powered locos showed up, and we had a fantastic day.....one of those that you wish would never end.

# Marx Commodore Vanderbilt

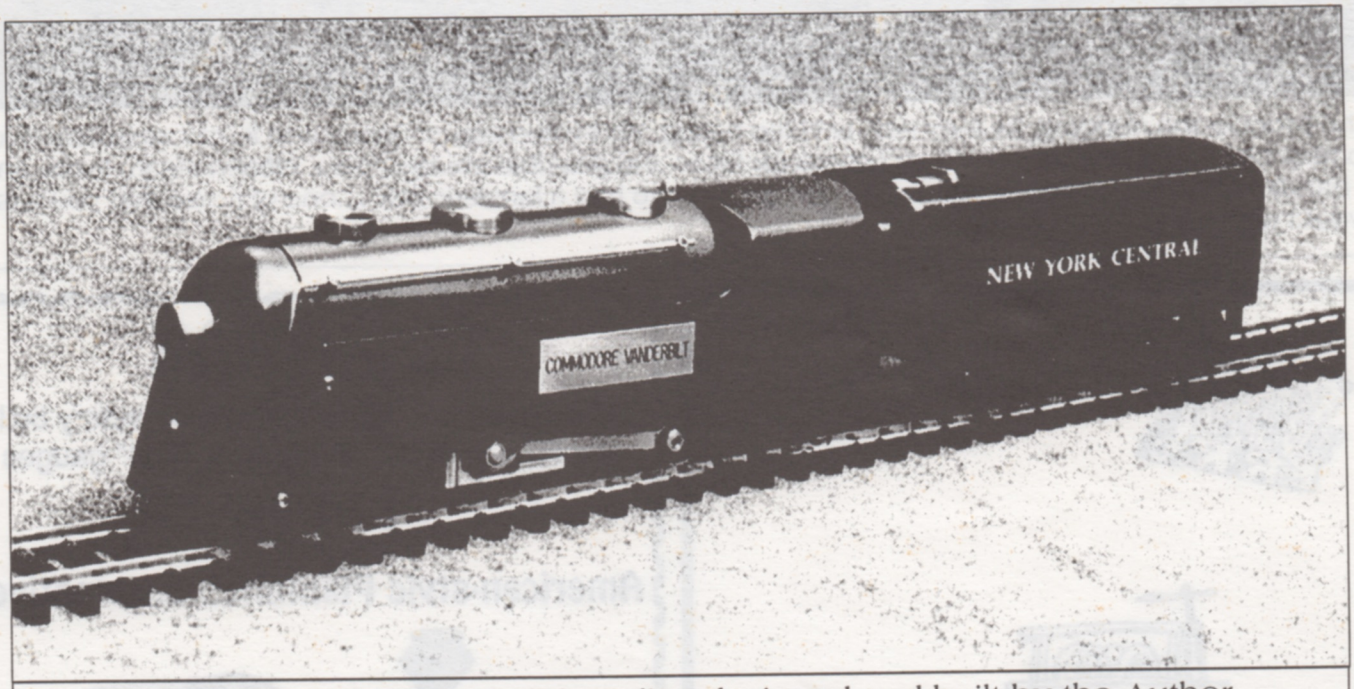
article, drawing and photo by Charlie Mynhier

## A trip down memory lane...

It was a bright, sunny, Saturday morning in the summer of 1959. I decided to go down the road and see if I could find something exciting to do, or at least find some friends to run around with. As I was passing over a small bridge, I looked down to the creek bed, and saw where someone had thrown away some trash. Among the trash, I saw some three rail train track, so I went down to investigate futher. While sorting through the trash, I found some 4 wheel tinplate cars, the economy kind with all the detail painted on. These cars were rusty and beat up, so they did not interest me very much. Continuing my search, I found the locomotive, and also the transformer. The locomotive was a "Marx Commodore Vanderbilt". I took these items straight home and plugged the transformer into the electrical outlet, ran 2 wires from the transformer to the shoe plate and frame of the locomotive to see if it would run. I was very happy to find that it did.

I had a friend who had an electric train, so I would go down to his house, take my locomotive, and we would play on his train set. By the way, this was my first electric train.

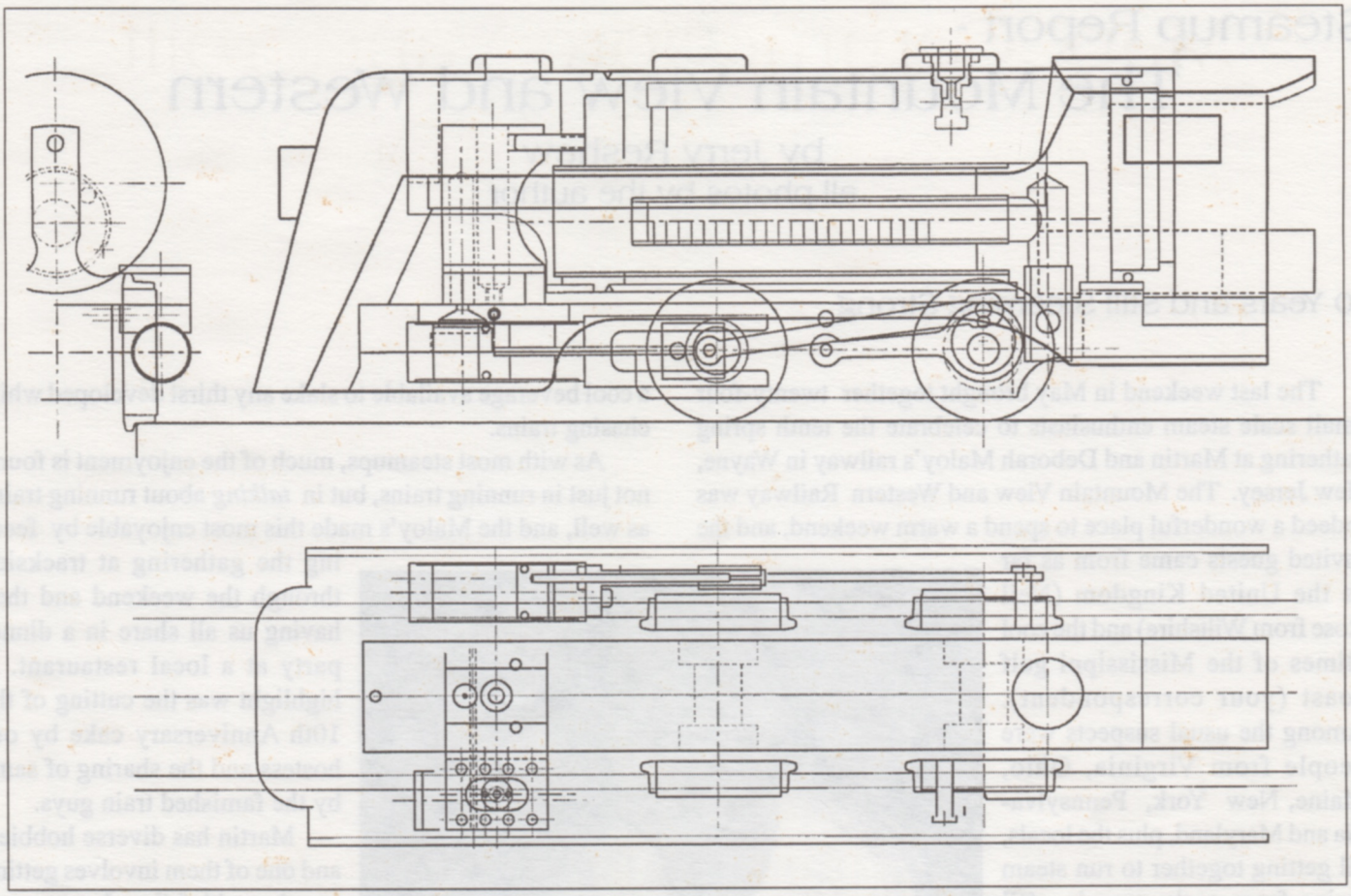
Last year I got this old locomotive out, and sure enough, it still runs. I got to thinking that it would be easy to remove the electric motor, and replace it with a small boiler and oscillating engine. The more I studied the problem the more difficult it became to make something that I would be proud to own. So I decided to start from scratch. While designing, I gave myself only one restriction, and that was that my new engine would have the same shape and size as the old Marx. There were many technical diffuculties that had to be overcome while building this engine. There was not enough room for the side rods, cross head, and cylinder to fit between the wheels and outter skirt. I solved this problem by putting the piston rod eccentric with the piston. This is the first time that I intentionally made a piston with the rod out of center. The other times that my pistons had rods out of center...well, enough said.




Marx Commodore Vanderbilt replica designed and built by the Author.

Another problem was that there is no appreciable steam dome to gather dry steam, so I used the collector tube scheme that the Stirling single used. I drilled thirty .015 dia. holes along the top of a 3/6" dia. brass tube, plugged one end, ran a 1/8" dia. steam line out the other end, and it worked beautifully.

The next problem was...where do I put the oiler? On this engine the frame is milled from one solid bar of aluminum bronze 7/8" wide x 3/4" high x 7-1/4" long. I bored a 1/2" dia. hole into the frame between the cylinders and fitted a threaded bottom to



this hole so the frame becomes the reservoir for the oil.

Because of space limitations I was not able to couple the front and rear wheels with a main side rod (as per standard practice) and still have space for the (essential) crank rod, so only the rear wheels are powered by the crank rod.

So far, so good...until I tried to run the engine. Notice that the front driver is very near the center of the engine, so most of the weight is on this wheel with very little weight on the driving wheel. While running, the rear wheel would spin like an egg beater, but the engine would only pull about 2 cars if the track was level. Since most of my engines do a respectable job of pulling cars, this would not be acceptable. I considered several ways to get power to the front wheel, but none were easy to do in an already finished engine. I finally decided to add pilot wheels as far to the front as possible, remove the flange on the front drive wheel, and turn it to a smaller diameter. The weight is now distributed between the pilot wheel and the rear driver with most of the weight on the drive wheel where it would do some good. This was not so difficult to do, and it worked. The engine will now pull all 12 of my cars, and it will run in excess of 105 scale miles per hour while doing it.

Let me explain how we can know how fast our engines will run. We will need a stop watch, a measuring tape, a loop of track, and have such information as what scale our engine is made to, as well as being able to do multiplication and division. This must be the reason mommy and daddy made me go to school when I was a little boy. The first thing we will need to know is how far it is around our test track in inches. Be fair, and measure it on an imaginary line halfway between the rails. The next thing we will do is get our engine warmed up and running, then count how many laps, or parts of a lap it will make in one minute. Multiply this number times the distance around our track, and this is how far it travels in one minute. Multiply this number times 60 to determine how many inches it travels in one hour, then divide this number by 12, giving us the number of feet per hour. Finally, divide this number by 5280, and we have the actual miles per hour it will run.

Now all we have to do is multiply the actual miles per hour times the scale of the engine, and we have the scale miles per hour. Let's say we have a standard gauge mainline engine built to a scale of 3/8" = 1'. Divide 12 by .375 and get 32, multiply the actual miles per hour times 32 and get scale miles per hour. Thanks, Mom and Dad.

Almost everyone recognizes this engine to be a "Marx", and when they first see it they think I took a Marx shell and put a steam engine in it. After looking closer it is easy to see this is not now, and never was, a Marx. What you see is not a shell; the boiler you see is the boiler, the cab and side boards are made integral with each other, and the boiler fits into them. The front is milled out of a solid block of aluminum, and the wheels were made the way I always make wheels. (Remember those construction articles?)

In all, this simple little engine turned out to be a very tough project. I am glad I did it, it was fun...but I don't want to do it again.

Steamup Report -

# The Mountain View and Western

by Jerry Reshew

all photos by the author

## 10 Years and Still Steaming Strong

The last weekend in May brought together twenty-four small scale steam enthusiasts to celebrate the tenth spring gathering at Martin and Deborah Maloy's railway in Wayne, New Jersey. The Mountain View and Western Railway was indeed a wonderful place to spend a warm weekend, and the invited guests came from as far as the United Kingdom (Neil Rose from Wiltshire) and the cool climes of the Mississippi gulf coast (your correspondent). Among the usual suspects were people from Virginia, Ohio, Maine, New York, Pennsylvania and Maryland, plus the locals, all getting together to run steam trains from early morning 'til sundown.

Deborah Maloy presenting the MV&W anniversary cake.

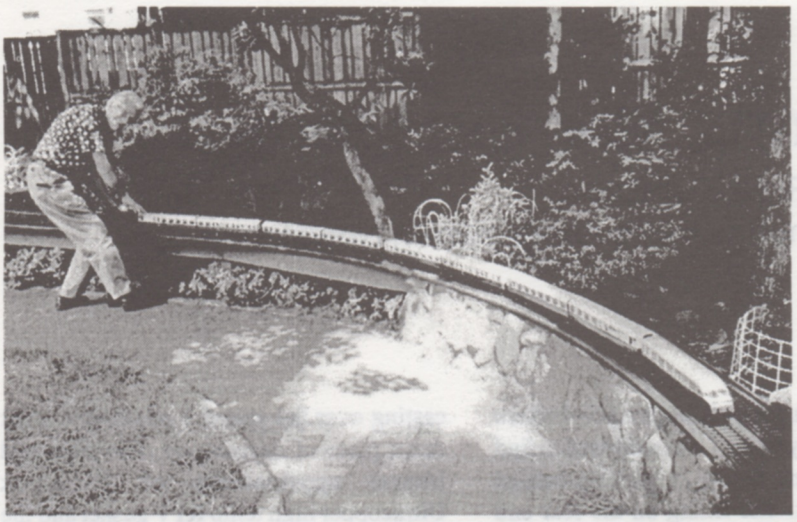
The MV&W is a gauge one, double-tracked mainline built partly on a stone viaduct at convenient running level. The assembly yard is at one end, and rules of the road required counter-clockwise operation, with no trains to be placed in the yard until it was about time to get set up for a scheduled run. The frenetic activity at the yard was noticeable on Friday, but somewhat abated on Saturday as people became accustomed to the system. Predominantly a standard gauge railway running high speed passenger and goods stock, there were a few narrow gauge trains in operation throughout the weekend. It always comes as a shock to our British fellow hobbyists to see this strange mixture sharing the road, but we seem to enjoy the hobby all the more for its diversity of scales.

The gardens at the Maloy's home are shaded so that the warm days didn't feel uncomfortable, and there was always a cool beverage available to slake any thirst developed while chasing trains.

As with most steamups, much of the enjoyment is found not just in running trains, but in *talking* about running trains as well, and the Maloy's made this most enjoyable by feeding the gathering at trackside through the weekend and then having us all share in a dinner party at a local restaurant. A highlight was the cutting of the 10th Anniversary cake by our hostess and the sharing of same by the famished train guys.

Martin has diverse hobbies, and one of them involves getting together with fellow Jaguar owners in the Jaguar Touring Club. This became a blend of the best of both worlds for all of us when the club members showed up at noon on Saturday to watch us run steam trains, while we had a chance to look over some wonderful automotive iron. The interest shown by these auto buffs was surprising, and we were kept on our toes trying to answer some rather complex questions put to us by this nice group of people - quite a far cry from the usual *"How much does it cost?"* variety, I can assure you.

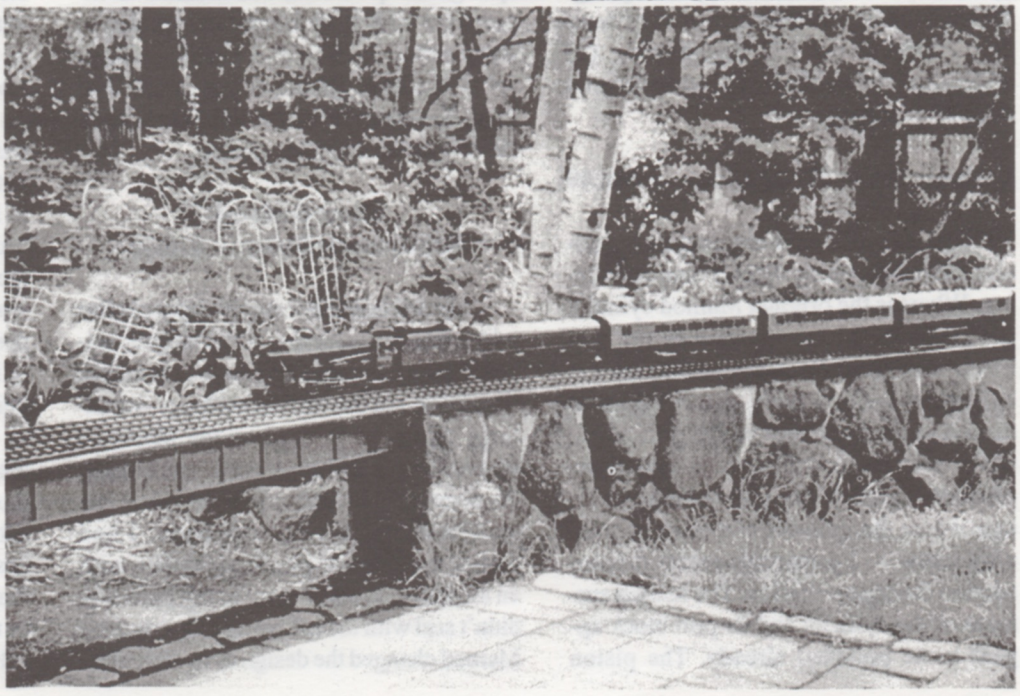
The 10th time must be a charm since there were no major derailments and all went well with most of the trains. From the massive Daylight train run by Jim Curry, to the elegant Coronation train manned by Barry Harper; from the little Cricket to the cute Stirling, they were all great. A wonderful event. The photos only tell part of the story - you had to be there!



Left: Barry Harper and his "Coronation" train.

Below left: Rudy Kouhoupt looks on while Marty Maloy prepares a loco for a run.

Below right: Jim Curry raises steam on his Aster Daylight while Neil Rose works on his Collett, a new model in Neil's Finescale Locomotive Co. line..



Right: The setting for the MV&W is lovely, offering many fine photo opportunities, as we can see in this photo of Bob Moser's Royal Scot at speed.

Product Review -

# I. P. Engineering Mamod Mods

by Rob Kuhlman

(based on a review published in the Author's 32mm Newsletter)

As I am sure was the case with many of us, my first live steam locomotive was a Mamod — in my case, the kit. I was lucky; my drivers didn't twist out of quarter, their crankpins never flopped off (though they did loosen), my boiler had only tiny weeping leaks around its many seams, and my cylinders had adequate compression. Early on, I installed an alcohol burner, a Shirley safety valve, and a van Dort drip lubricator in the steam dome. With these modifications, my Mamod was a satisfactory locomotive. But it never was great, and so it languished, and I suppose I hadn't run it in three years.

In the past year or so, I'd been thinking of resurrecting my Mamod with additional quality replacement parts. Unfortunately, this plan hasn't been easy. Jim Wilson, of MSR, had wonderful replacement drivers and cylinders, but since his death they've been unavailable. Mike Chaney's line of Mamod parts was sold to Robert Cloke, and apparently the line has languished since. So, when Sulphur Springs Steam Models announced that they were now carrying the I.P. Engineering (of JANE-fame) line of Mamod accessories, I decided to indulge.

**Cylinder Set — 32mm Gauge — $56.00**

The I.P. cylinders are gorgeous massive cylinders which display fine machining. Whereas the original Mamod cylinder got steam to the rear portion of the port block with channels in the gasket, the I.P. cylinders instead have these channels carved in the back face of the port block, which then mates with its own smooth replacement gasket. The port block has a recess where the cylinder pivots on its trunnion screw — I gather this recess reduces friction during oscillation. The mating surfaces of the cylinder and its port block appear to be polished already. The piston rod/crank arm passes through a gland where it leaves the cylinder. I was surprised to find that there is no O-ring or packing behind the gland nut. The fitting on the rear end cap of the cylinder is robust and should support the piston arm well. There's no steam leak from the orifice; if wear sets in and steam begins to appear, a gasket can be readily installed behind the gland nut. The trunnion screw and spring don't have as much free play, or slack, as the original Mamod's. I couldn't just flop the crankarm over the crankpin on the lead driver; I had to unscrew the crankpin, slip its pin into the big end of the crankarm, and screw it back into the driver. This was easily accomplished with my MSR drivers, but with the original Mamod drivers, with their pressed-in crankpins, I think you'd have to unscrew the trunnion screws to get more slack — not easily done in the confined space between the frames. One of my trunnion screws kept backing out during operation; Loctite soon fixed that. The trunnion springs are quite stiff; I'm inclined to experiment with their length and tension to try to soften them a bit. A similar cylinder set is available for the 45mm gauge Mamod; be sure to specify which you need — the sets aren't interchangeable.

**Silver Soldered**
**Replacement Boiler — $75.00**

The I.P. boiler is a sturdy copper boiler with a fine resonant ring when tapped; soldered joints are neat and secure. It comes unpainted. All the various bushings and fittings appear to be dead-on the Mamod's dimensions; I had no trouble remounting the dome and Goodall-type refill valve. The backhead was a bit problematic. I had melted my original plastic sightglass with an alcohol fire, and a spare in my parts box didn't seal with the I.P. boiler properly. Had Mamod changed the design of its sightglass casting over the years? I substituted a cut down piece of microscope slide glass and liberal applications of Permatex Ultracopper high temp RTV gasket and the backhead sealed up quite nicely. The original Mamod boiler has a hole on each side at the forward end to receive the screws (or rivets in some Mamods) which attach the smokebox and sheet metal sidetanks to the boiler. These holes are missing on the I.P. boiler. I suppose they could be drilled in (there's a concave recess at the front of the boiler to accommodate these holes) but I didn't bother because the tangs on the sidetanks fit into slots in the smokebox, and the smokebox is a tight-enough press fit onto the boiler that friction has been able to hold things together.

**Regulator — $46.00**

The I.P. regulator is a clever design. Whereas Mike Chaney's cab-mounted regulator takes steam from the original steam dome, down through the internal vertical tube in the boiler, back to the cab to the regulator, and then forward to the reversing block, the I.P. design mounts right on the top of the boiler at the rear-most bushing (where the whistle mounted) and extends into the cab. The cab front needs to have a semicircular notch cut into it to accommodate the assembly — it ends up looking much like the Roundhouse design when it's all done. The regulator is composed of several parts. First, a plug is placed in the vertical internal tube in the middle boiler bushing to close it off. This plug has an O-ring to seal it and is held in place by the pressure of the spring inside the Mamod steam dome. Next, a sideways-oriented T-fitting is mounted in the rear boiler bushing. This replaces the whistle. It has female threads on the top so the whistle can be reinstalled; I mounted my new I.P. safety valve here. The shank of the T extends into

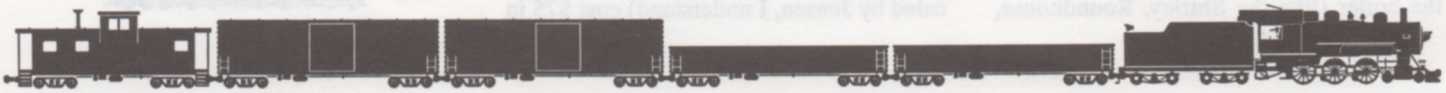
the cab and the throttle valve body is finally screwed on. On the throttle body is a threaded fitting to which a new replacement steamline (provided) is attached. This steamline then extends down and forward through the firebox to the reversing block. I modified things a bit by splicing into the steamline one of my home-brew displacement lubricators, which I mounted in the cab doorway, and by hard soldering the steamline into the reversing block. That's one fewer seam to leak (I used to blow out the flame on the burner wicks with leaks from the O-ring fittings of the steamline and reversing block). I.P. provides two pages of instructions which thoroughly cover the installation of the regulator.

**Replacement Safety Valve — $12.50**

I had long ago replaced the original low pressure dribbling Mamod safety valve with a Shirley valve. Unfortunately, after having installed the previous three I.P. items, the Shirley valve gave up the ghost. I tried to swap in a spare Salem valve and then a spare Mike Chaney valve without success; these safety valves' "guts" extend into the boiler, and there isn't enough internal clearance on the regulator fitting where I desired to mount the safety valve. The "guts" of the I.P. valve mount above the boiler (like the Shirley, Roundhouse, and Archangel safety valves) so internal clearance isn't a problem. The I.P. valve has a massive brass housing with a robust hexagonal base to wrench it steam-tight on the boiler; a fiber gasket is provided. The instructions state it's designed to blow off between 18 and 25 psi. Though not nearly as zealous as an Archangel valve, the I.P. valve does "let loose" when it blows — no half-hearted dribbling here.

Well, how does it all work? The I.P. boiler steams quite efficiently and effectively; I'm quite pleased with it. If you're accustomed to using the Mamod reversing block as a throttle, you'll find the I.P. regulator to be a marvel. It has about 180 degrees of swing between just ticking over and full on. You'll enjoy having a throttle which actually gives you a range of speeds rather than the Mamod digital control — fully off or fully on! Given how much design and machining went into its fabrication, the price for the regulator seems to be fair. My I.P. cylinders were initially a bit tight — just like a new JANE, I understand — and have gotten better as they've worn in. As they are now, they're a distinct improvement over the originals. If they continue to improve, they're probably the best value of these items. Considering that the MSR replacement cylinders, which had such a splendid reputation (and were fabricated by Jensen, I understand) cost $75 in 1991, the I.P. cylinders at $56 seem to be an incredible value. The I.P. safety valve does its job competently and inconspicuously — it seems you only notice safety valves when they fail.

Does it make sense to invest nearly $200 for these parts to upgrade a stock Mamod when a new I.P. JANE costs only $400? Probably not, I suppose. But I had the Mamod sitting on the shelf, and it already had MSR drivers, a Goodall-type injection valve, a Shirley safety valve, an alcohol burner, and a homemade lubricator. For an additional $190 I replaced the remaining marginal Mamod components to upgrade the entire locomotive to JANE caliber. I think this represents a satisfactory investment, and I'm thrilled with the way my Mamod now runs. No more gathering dust on the shelf — and isn't that the idea, after all? If you don't have a Mamod or have no interest in resurrecting one don't dismiss these parts out of hand. I can envision many applications of them as more of us get involved in our own locomotive design and construction. Contact Sulphur Springs Steam Models or Brandbright/ Potomac Steam Industries for prices and availability of the complete I.P. Engineering range.



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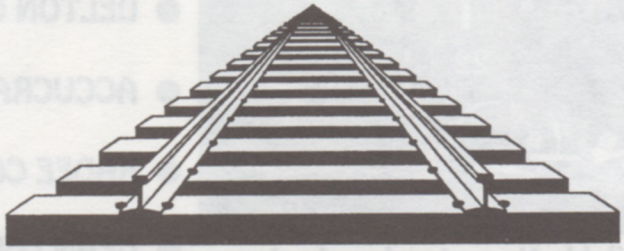

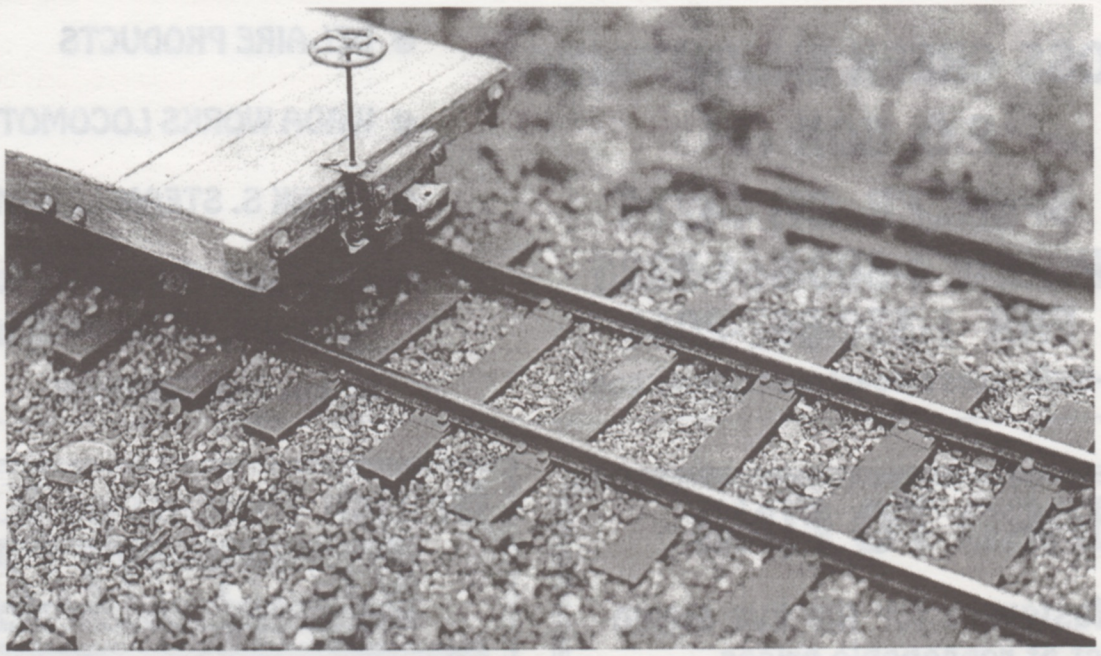

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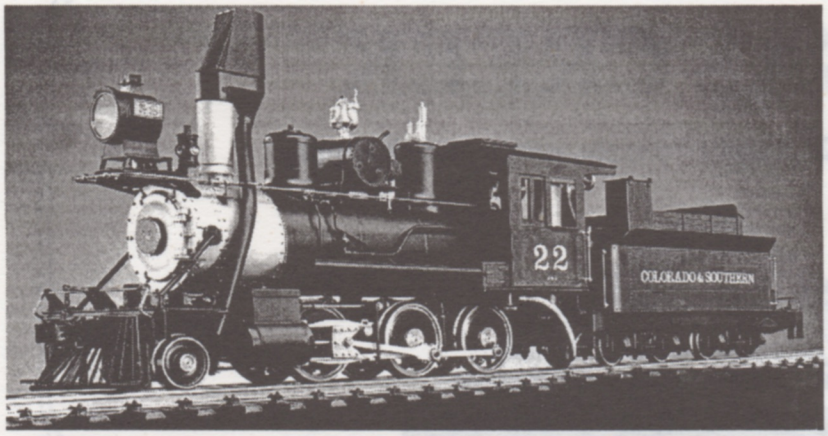


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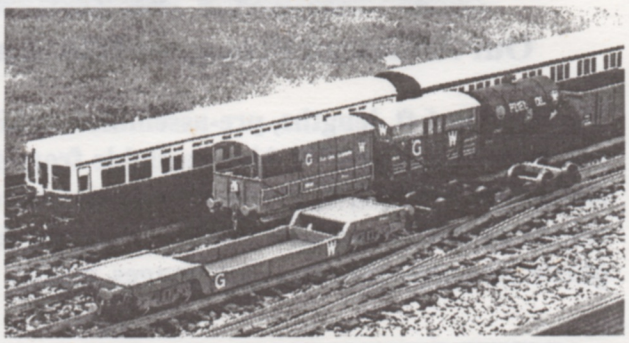

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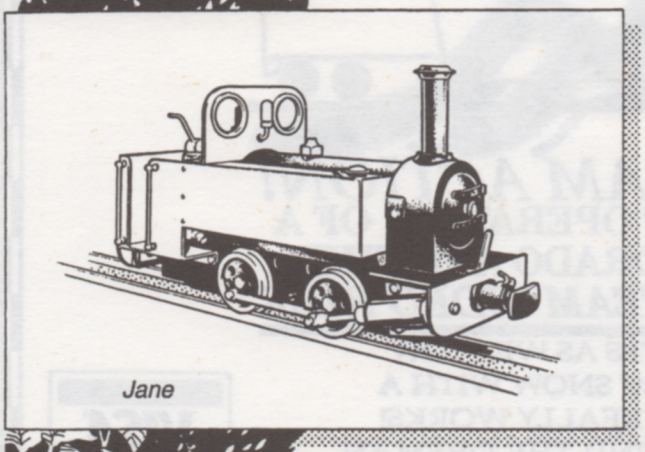

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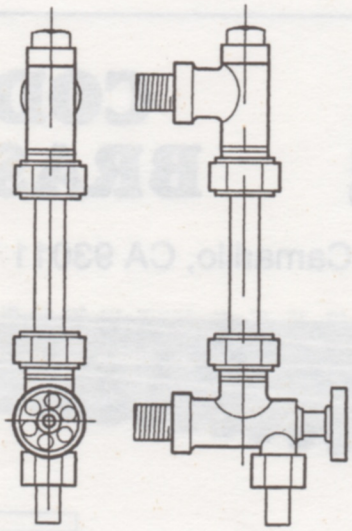

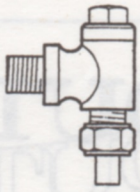

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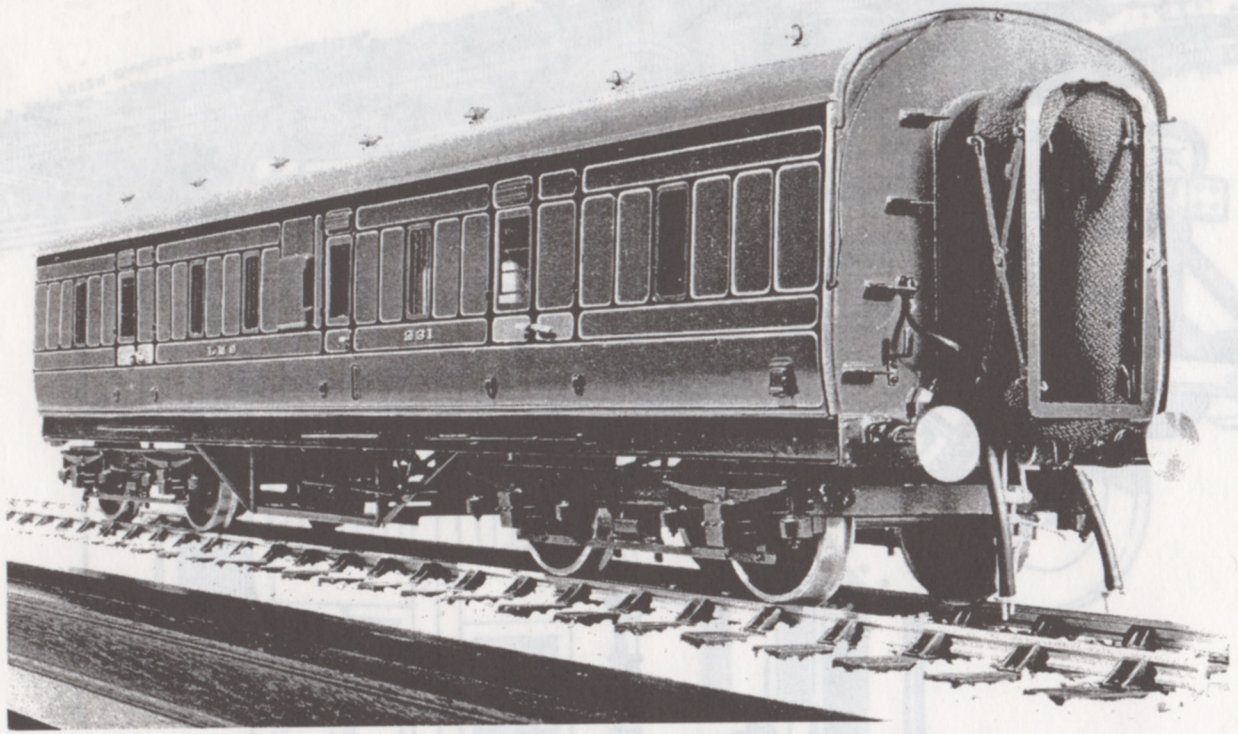

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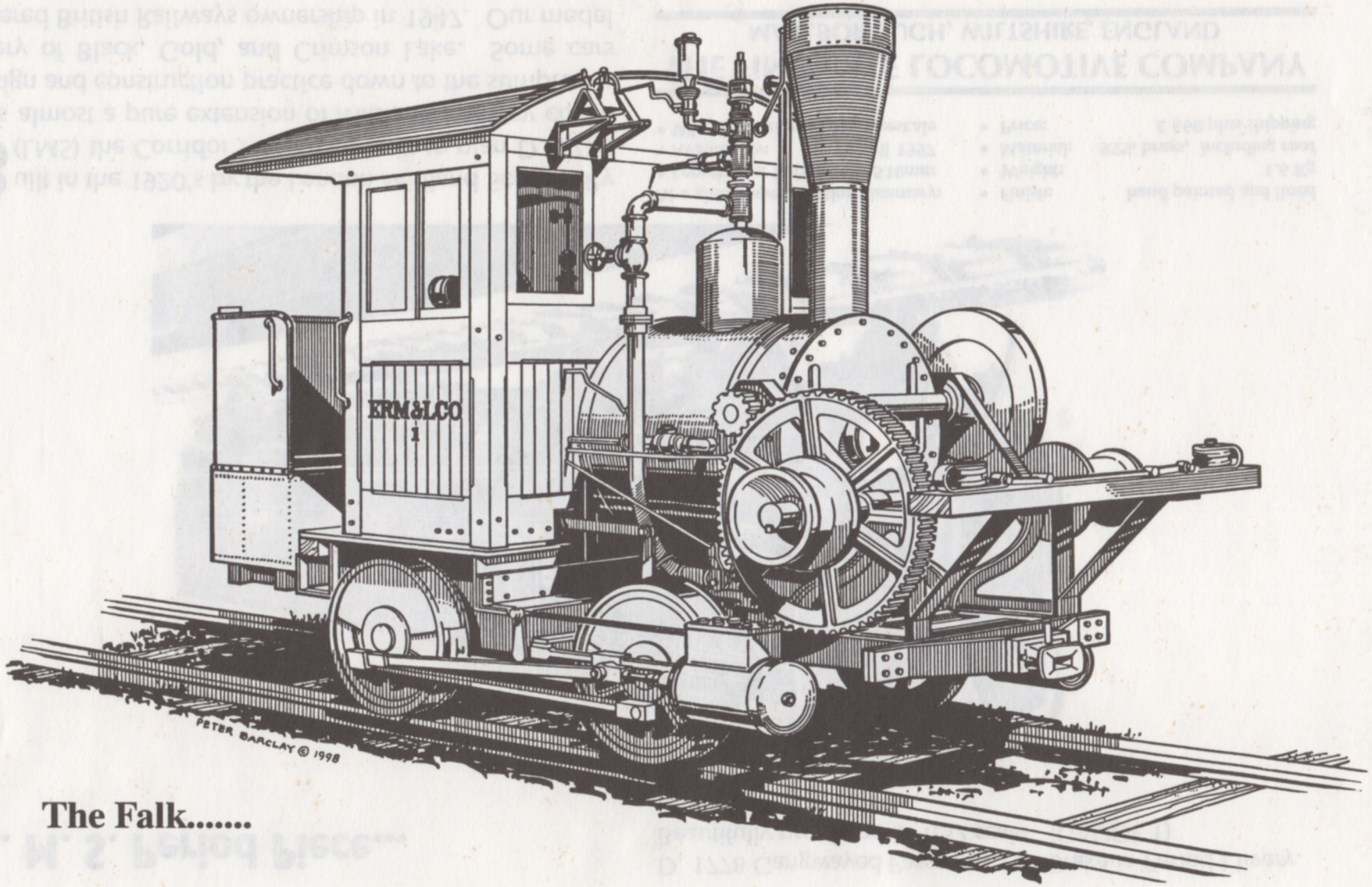
# *Peter's Page*

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# End of the Line

We were saddened to hear of the recent passing of Sam Murphy, a veteran live steamer and a fine fellow. Our condolences to his wife, Barbara, his family and many friends.

Check the *Calendar of Events* in this issue for info on the Sam Murphy Memorial Steamup and plan to attend.

**Steam on the Water**

Many of our readers responded to the notice in the last issue from Ernie Morris and Charlie Roth about organizing the model steamboaters in North America. We've noted the increased interest in steamboating among the Diamondhead attendees, spurred on, no doubt, by the steamboats seen operating in the pool during this event these past few years.

Though steam trains are our personal passion, we have an interest in anything that runs on steam power, and we'd like to do our part to help promote the steamboating hobby by adding a section on steamboats to our regular coverage. Depending on available material, this added section may or may not be in every issue. We want to emphasize to our readers that this steamboating coverage will be *in addition to* our regular miniature steam railroading coverage, and will in no way take anything away from our focus on steam locomotives.

As always, we are interested in your comments, and we hope that you will be as enthusiastic in your support of steam on the water as you have been with steam on the rails.

If the steamboaters, closet steamboaters and wannabe steamboaters among us want this section to float *(pun intended)*, it's up to you to respond with enough material to fill up a few pages. Send your reviews of marine steam items such as boilers, engines, boat kits and essential accessories for publication.

Every hobbyist and modeler needs sources for their hobby materials, so send us a list of sources for all the necessary items to get a boat into the water.

We'll need photos...lots and lots of photos...and reports on steamboat regattas, too. Don't forget public notices in the *Calendar of Events,* and please send them in well in advance of the listed event.

That's it for this issue. Faithful Assistant and I are enjoying a great summer and hope you are doing likewise. We hope to see you at a steamup somewhere, and until then.....

Happy steaming!

Ron

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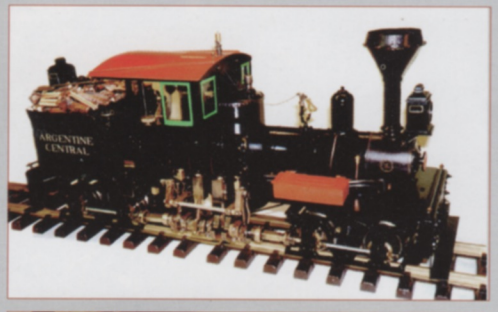



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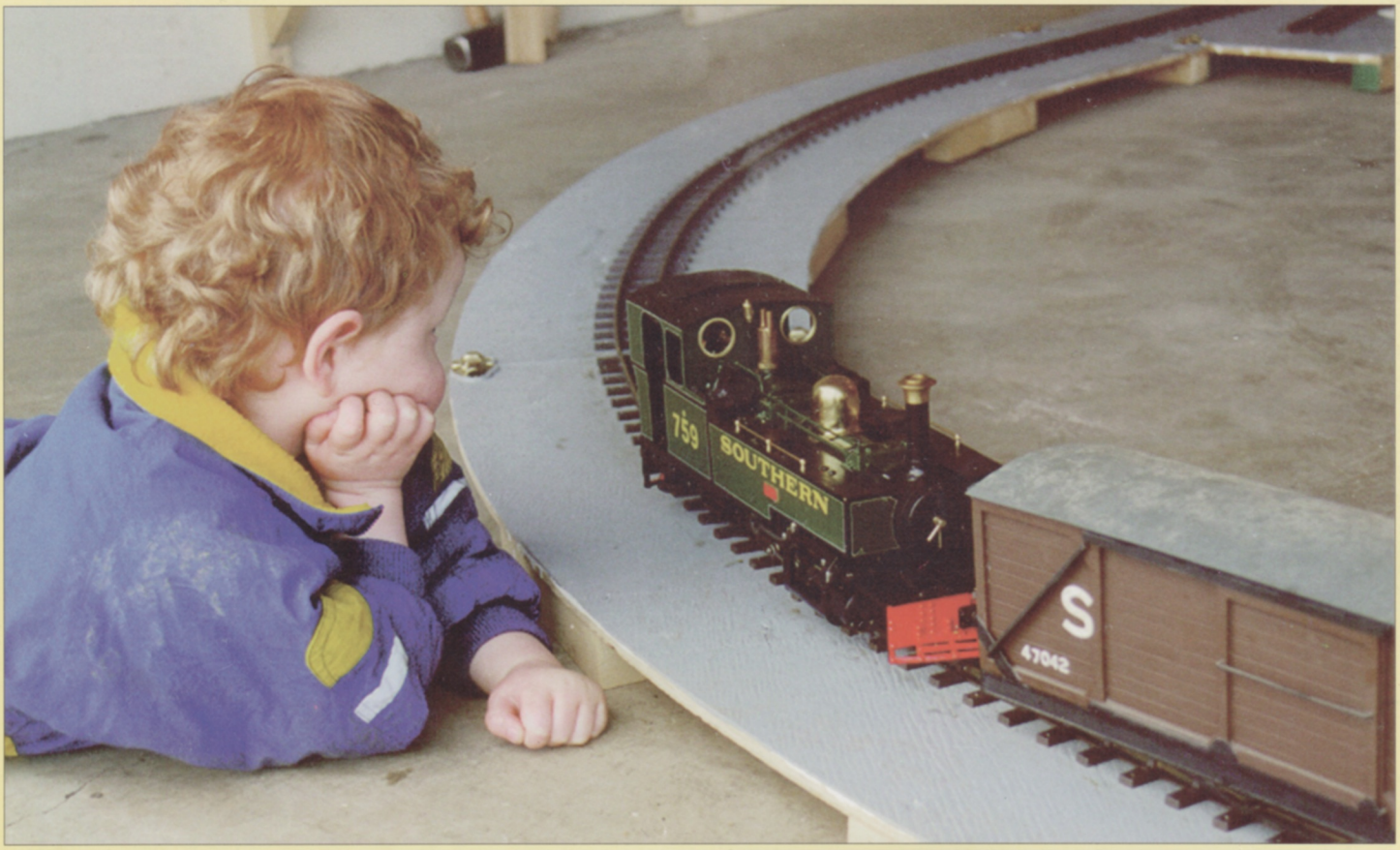
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