



Garden Railroading News

September/October 2023 • 2023 #5 • GRNEWS.org

In This Issue

It's all in the details.

S pecials	
Featured Layout: Eastern Tennessee & Western Northern California Railroad • Forestville CA	8
by Catherine Yronwode as told to Ken Brody	
Buy It When You See It: Antique Store Finds by Mick Spilsbury	19
Loco of the Edition: Bill Allen's Baldwin Quadruplex	20
What the Heck is G-Scale?! by Paul Wagner	23
Pop-Up Railroad Displays Central Coast Railroad Festival & Lomita Railroad Museum Family Fun D	36 ay
Mixed Consist Club Interchange	
Plant of the Month: Finetooth Holly by Richard Murray Article from: Bay Area Garden Railway Society <i>Trellis & Trestle</i> February 2020	17
Another Plant of the Month: Parrot's Beak by Richard Murray Article from: Bay Area Garden Railway Society <i>Trellis & Trestle</i> September 2018	18
Upgrading your Chuff Sensor for Reliable Chuff by Eric Timberlake	27

Little "Large Scale" Layout in Chatsworth Depot Article from: Georgia Garden Railway Society Gazette May 2023	31
The Mail Car: Lubricating Your Trains by Pete Dahlberg Article from: North Texas Garden Railroad Club NTGRC News March/April 2023	32
Easy Corrugated Siding by Tony Woore Article from:Puget Sound Garden Railway Society Garden Railroading August 2023	35
Regularly Scheduled	
Seen On the Tracks: Photo Gallery	3
Seen On the Tracks: Photo Gallery May We Suggest: New Products & News GR News Third Anniversary, Regional Meet Info, New Products & More	3 4
May We Suggest: New Products & News	,
May We Suggest: New Products & News GR News Third Anniversary, Regional Meet Info, New Products & More	4
May We Suggest: New Products & News GR News Third Anniversary, Regional Meet Info, New Products & More Club Corner by Bill Derville Straight from the Iron Horse's Mouth: Letters	4
May We Suggest: New Products & News GR News Third Anniversary, Regional Meet Info, New Products & More Club Corner by Bill Derville Straight from the Iron Horse's Mouth: Letters	4 14 38

All articles herein are copyright by their respective authors or club newsletters and may not be republished without permission.

Cover Photo: Tourist Train Back to the 1890s

Moss Rock Canyon Railroad • Proprietors John & Pat Bomberger/Photographer Jeff Namba



Subscribe to the Garden Railroading News Channel on YouTube https://www.youtube.com/channel/UCmuyDnk2QRy1e1Q1AMFXrJw

Printed GR News Available On Demand. Go to: www.blurb.com/user/GRNewsEditor

Send suggestions and questions regarding Garden Railroading News to:

Mick Spilsbury, Bay Area GRS at: marketing@GRNews.org

Carla Brand Breitner, Santa Clarita Valley GRC at: editor@GRNews.org

Bill Derville, Club Corner, Advertising, Rose City GRS at: advertising@GRNews.org

or www.facebook.com/groups/gardenrailroadingenews

Editor & Layout Design Carla Brand Breitner ~ & Web & Marketing Mick Spilsbury

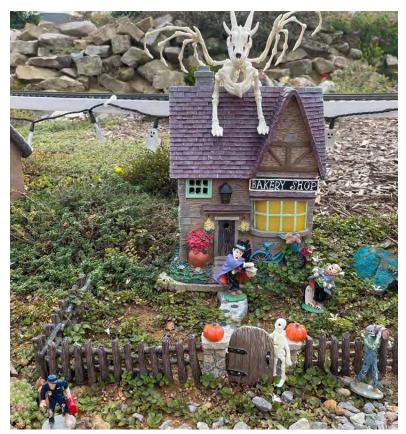




Go to **Page 40** for An Online Magazine Explainer
How to Download a PDF, Magnify Pages, and the "Hamburger" Icon.









Above: At Halloween, the village Bakery Shop serves multiple haunted treats to creatures fierce and strange. An alien turns up to haunt the pond; keep your hands inside when riding Grant & Jenny Sweer's Grant Funk Railroad. • Owens Cross Roads, Alabama

Below: On Rich & Ann Marie Perrelli's Oyster Creek Garden Railroad, heavy snow welcomes a train of holiday travelers. Actually, it is early summer. The ground is covered in Perlite and the scene is dusted with Baking Soda. Falling snow is clear plastic with white paint overspray positioned in front of the scene. • San Diego, California



Photo by Rich Perrelli





Growing the Garden Railroading Community

Garden Railroading News celebrates our third anniversary with this issue. When our hobby lost a dedicated-to-G-Scale publication, clubs on the West Coast came together to create a digital replacement. Articles republished from club newsletters made this magazine possible and continue to be an invaluable source of knowledge to share. Thank you to all the newsletter editors and authors who contribute to GR News. Original content has been increasing and is always welcome.

Our core volunteer crew remains at work: Carla Brand Breitner editor, Mick Spilsbury marketing, Bill Derville advertising, and Steve Cogswell treasurer. Regional advisors Ken Brody, Mark Edwards, Malinda Jungst, Ted Yarbrough and retired advisor Sue Elliot have helped us keep up with activities around the country.

145 clubs now distribute Garden Railroading News by notifying club members when new issues are available for download at www.GRNews.org. Downloads are free thanks to our advertisers. Individual readers can check the website every other month or so to catch the latest issue. Generally an issue has around 5,000 unique viewers from countries around the world.

We try to keep our advertising rates low to help our hobby's vendors share their product news. Their support covers our website costs and other expenses. Please remember to thank them when you contact them. Without our vendors offering track and trains, modeling in G-Scale would depend on scratch-building, custom commissions and secondhand items.

Thanks again to the clubs who spread word of each new issue, to the newsletter editors and authors who share their articles, and to contributors from around the world. Without you, GR News could not exist.

Our group of volunteers works hard to keep Garden Railroading News coming out. We seldom get feedback from readers, but are always hoping to hear what content you would like and what you would like to see changed. We look forward to hearing from you!

Your suggestions and story ideas can be sent to: editor@GRNews.org

PIKO America Adds New Freight Cars to Historical Series Honoring Railroad Nostalgia and World War II's Greatest Generation

The last week in October, PIKO America ships the second item in its "Railroad Nostalgia" series of cars featuring detailed original artwork highlighting historical railroad pioneers. This Reefer car honors Elijiah McCoy, whose work as a skilled engineer and prolific inventor left a deep impact on railroad innovations. The first car in the series, "The Commodore" Cornelius Vanderbilt Box Car, is currently in stores.



38963 "Real McCoy" Reefer



38962 "The Commodore" Box Car

Also arriving in October is the tenth hopper in a series honoring the Greatest Generation and their historic planes. The hopper features the Boeing B-17 "Flying Fortress." Each design is produced just once and features original artwork of these iconic warbirds.



38939 Vintage Warbirds B-17 Hopper More information at: www.piko-america.com

Coming Soon in GR News: Detailing a Locomotive Crane Boom Car by Bob Scherzinger, Rose City GRS





G-Scale Graphics 5V Lighting Board for Locomotive Lighting

If you need to power lights in a loco or rolling stock that has been gutted of the original electronics, this little board may help you. It provides three 5V voltage regulators powered from track voltage; 5V out in forward direction, 5V out in reverse, and 5V out in both directions. Each output is rated for 1 amp. Use with 5V lamps or LEDs with appropriate dropping resistors.

More information at: www.GScaleGraphics.net



Accucraft Mabel Live Steam Engine Arriving for November Delivery

Accucraft's 2-6-2 Mabel is based on a 3-foot gauge Baldwin style locomotive and will be available in both kit form and ready to run. This freelance narrow gauge steam locomotive in 1:20.3 scale, 45mm gauge, arrives late October and was developed from Marc Horovitz concept drawings.

More information at: www.livesteamstation.com



Mabel 2-6-2

Holiday Train Displays?? Where & When??

Email editor@GRNews.org with date, time and place info for holiday activities that include G-Scale trains to be listed in an event calendar next issue. Many botanical gardens, historical houses, and museums include trains for the holidays. Clubs often set up Christmas displays in nurseries, shopping centers and more. GR News would like to hear about your public display plans.

Save the Date and Make Travel Plans to Tour Regional Meets and Rail Fairs in the Next Year

Color Country Model Railroad Club of St George, Utah, is preparing for a 4 Day Tour of railroads in the greater St George Area over Veterans Day weekend. From November 10 to the 13th, 2023, there are 21 participating layouts (including 7 G-Scale railroads) available for the enjoyment of anyone wishing to come. Details can be found on their webpage: colorcountrytrains.org

The Rail Fair at Ardenwood Historic Farm in Fremont, California, is going to move to Memorial Day Weekend next year. Cooler weather will be more comfortable than September, and the forest at Ardenwood won't be as dry so the steam engines can run again. Put the dates of May 25, 26, 27, 2024 on your calendar now. All the model railroad groups (including the Bay Area GRS modular tracks) expect to be there. Info at: www.spcrr.org

MO-KAN Garden Railroaders will host a Midwest Garden Railroad Gathering over the weekend of May 30 to June 2, 2024. Layouts around Kansas City, workshops, vendors, swap tables and social gatherings are being planned. For info, email info@mokangardenrailroaders.org or check their website: www.mokangardenrailroaders.org

Georgia Garden Railway Society is planning a 2024 Southern Regional Garden Railroad Get-Together for three days from August 23 to 25, 2024. Based around the 65th Atlanta Model train Show in Duluth, Georgia, there will be two days of layout tours and multiple large scale vendors. More events are being planned. For more information, check www.ggrs.info

Email editor@GRNews.org with your events to share.

MiniForest.com Closing Sale

Shanna Dow has announced the November 13th closure of MiniForest.com with a note on the website. "Dear customers, It is with a heavy heart that I write this. I regret to inform you that I will be closing my business due to life circumstances. This was a dream for me that I wanted to keep alive and continue but unfortunately I am unable to. I want to thank the continued support that I have received from friends and family. I also would like to thank all my customers for their continued support. I could not have made it through this year without you."

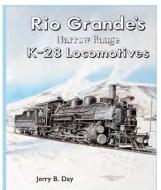
Last day of shipping will be November 13. 50% off on any order of \$50 or more. Discount is automatic at checkout; no code required. All sales final.

The team at Garden Railroading News wishes Shanna well with her next endeavors.



White River Productions Publishes a Deep Dive into the K-28 Locomotive on the Denver & Rio Grande Western

White River Productions has released *Rio Grande's Narrow Gauge K-28 Locomotives*, a new hardcover publication detailing the complete history of the con-



struction, use, modifications and final disposition of the legendary K-28 Mikados on the Denver & Rio Grande Western.

By the 1920s, the narrow gauge system of D&RGW had shrunk to a third of the railroad's total trackage, and standard gauging the lines made little economic sense. Upgrades in motive

power, allowing the railroad to move smaller power to lesser branches, proved to be the answer.

D&RGW's K-27s, purchased from Baldwin, had been in heavy service for 20 years and were already wearing out. In 1923 the Rio Grande turned to Alco for 10 new narrow gauge, outside frame Mikados. Designated K-28 (MiKado, 27,540 pounds of tractive effort), these "Sport Model" locomotives soon proved adept at hauling whatever traffic D&RGW required. The K-28 became the iconic symbol of the Silverton Branch and Silverton tourist train, and the three remaining locomotives continue in service on the Durango & Silverton Railroad. The book includes info on the changes D&RGW made to the lines to accommodate them, as well as their operational history.

In addition, the book covers the U.S Army requisition of seven of the K-28s for service in Alaska on White Pass & Yukon and their disposition, along with a brief history of the four locomotives built for Oahu Railway to the D&RGW/Alco design.

Author Jerry Day spent more than 40 years compiling information and more than 350 photos, maps, track folios, drawings, and diagrams, including a three page foldout drawing by Mike McKenzie for this volume.

Rio Grande's Narrow Gauge K-28 Locomotives retails for \$79.95 (plus shipping and handling) through your local dealer or direct from White River Productions.

Order at: shop.whiteriverproductions.com toll-free (US) 1-877-787-2467 Outside the US call 1-816-285-6560

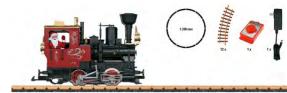
Please let our advertisers know you appreciate their support for Garden Railroading News.

Create Holiday Traditions with LGB

Märklin/LGB offers everything you need to set up and run a train around your Christmas tree. The starter set includes a holiday-inspired steam locomotive, two holiday passenger cars, Santa engineer, 12 sections of curved track, locomotive controller, track hook-ups, and transformer. Expansion track sets are available to add sidings, a station stop, and more.

Add this year's Christmas car to your consist along with a Christmas car exclusive to North America. Run the Christmas Rail Truck to clear the snow from your tracks or carry a G-Scale Christmas tree to your town.

More information at: LGB.com or email customerservice@marklin.com





72308 Christmas Train Starter Set



36023 Christmas Car for 2023

36923 Christmas Car exclusive to North America



24681 Christmas Truck

Find Garden Railroading News Online

www.GRNews.org

facebook.com/groups/gardenrailroadingenews facebook.com/groups/gardenrailroadingcommunity instagram.com/GRNewsimages youtube.com/channel/UCmuyDnk2QRy1e1Q1AMFXrJw

> Print a copy on demand: Go to: www.blurb.com/user/GRNewsEditor or

www.blurb.com/bookstore.
Use the magnifying glass to search for "GR News" to find (and order) all issues.

Magazines are perfect bound on glossy paper printed to order.



Experience the excitement of modern-era railroading in Large Scale with WITH 1:29 SCALE LOCOMOTIVES AND ROLLING STOCK new locomotives and rolling stock from Bachmann, including the powerful GE Dash 9 diesel locomotive with operating exhaust smoke and Evans Boxcar with Flashing End-of-Train Device. Then expand your roster with upcoming arrivals later this year including the Evans Boxcar (without EOT), featuring additional road numbers and paint schemes, and the iconic Bethlehem Steel 100 Ton Hopper in multiple eye-catching liveries. Start your modern 1:29 scale railroading adventure with these great new products and more!





(Gull Wing Cab) Item No. 90910

Click to learn more



RAILBOX #32113 Item No. 93554



TROPICANA #13088 Item No. 93575



PENNSYLVANIA POWER & LIGHT #296 Item No. 93651

GE DASH 9 DIESEL LOCOMOTIVE

Item No. 90901 • CSX® #9030 (HTM™)

Item No. 90902 • BNSF #4490 (Gull Wing Cab)
Item No. 90903 • NORFOLK SOUTHERN #9256 (Operation Lifesaver)

Item No. 90904 • UNION PACIFIC® #9599

Item No. 90905 • SANTA FE #635 (Gull Wing Cab)

Item No. 90906 • CSX* #9044 (HTMTM)

Item No. 90907 • BNSF #4562 (Gull Wing Cab)

Item No. 90908 • NORFOLK SOUTHERN #9252 (Operation Lifesaver)

Item No. 90909 • UNION PACIFIC® #9807

MSRP: \$1499.00 each • Shipping Now

53' EVANS BOXCAR WITH END OF TRAIN DEVICE

(TRACK-POWERED WITH BATTERY POWER OPTION)

Item No. 93551 • SANTA FE #504007

Item No. 93552 • CSX* #190857

Item No. 93553 • NORFOLK SOUTHERN #460309

MSRP: \$265.00 each • Shipping Now

53' EVANS BOXCAR WITHOUT **END OF TRAIN DEVICE**

Item No. 93570 • SANTA FE #504043

Item No. 93571 • CSX® #190840

Item No. 93572 • NORFOLK SOUTHERN #460322

Item No. 93573 • RAILBOX #32135

Item No. 93574 • TROPICANA #13081

MSRP: \$229.00 each • Shipping Late 2023

BETHLEHEM STEEL 100 TON HOPPER

Item No. 93652 • CSX® #351365

Item No. 93653 • NORFOLK SOUTHERN #146753

Item No. 93654 • UNION PACIFIC® #36297

Item No. 93655 • PENNSYLVANIA POWER & LIGHT #275

Item No. 93656 • CSX® #351279

Item No. 93657 • NORFOLK SOUTHERN #147120

Item No. 93658 • UNION PACIFIC® #36263

MSRP: \$229.00 each • Shipping Late 2023





Eastern Tennessee & Western Northern California aka the ET&WNC

Catherine & Nagasiva Yronwode, Proprietors



nder the Redwood Tree

By Catherine Yronwode, Forestville, California, as told to Ken Brody

The History

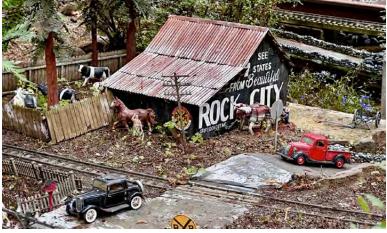
I have been fascinated by trains since childhood. During the 1950s, I grew up near the Southern Pacific Railroad tracks in Fresno and Berkeley, California. I loved watching the trains' motion, hearing their sounds, and, especially, seeing all their different colors and identifying the different places they came from. I regularly rode on the Redwood Valley Steam Train in Berkeley's Tilden Park, and visited the boy who lived next door and his Lionel layout. A little later in life, I worked with a man who built a huge, highly-detailed O-scale layout in his basement and I enjoyed watching him run it. It wasn't until much later, though, after I had married Nagasiva at the stroke of midnight on January 1st, 2000, that the inspiration struck me to build a train layout of my own on our property in Forestville, California. An area around a huge redwood tree along the path to our Lucky Mojo Curio Company metaphysical store seemed like an ideal site for an outdoor layout.

But what kinds of features did I want to have on the layout and what did I want to call the railroad? As an adult, I've traveled to many places around the U.S. and have ridden trains and visited train museums whenever I've had

continued on next page



The four routes of the ET&WNC wander past a working railroad crossing signal alongside an 1870 barn painted "See Rock City." A G-Scale version of the "See Rock City" barn is modeled on the railroad, and can be seen under the red light in the photo above.





Visitors to the ET&WNC take a break to chat on a stone bench alongside the railroad mainline.









Cranberry (North Carolina) General Store.



Above: Catherine Yronwode positions BurmaShave signs for the inaugural 2014 open house. Below: Car barn and house.





the opportunity. As a child, I rode the Southern Pacific Daylight between Northern and Southern California, but another location, the Appalachian Mountains region of western North Carolina and eastern Tennessee, particularly intrigued me. Through this area ran the narrow gauge East Tennessee and Western North Carolina Railroad, the ET&WNC, affectionately known as the "Tweetsie." With a little research, I found that along its route were various scenes and buildings that I thought would serve as a good basis for my railroad. I also liked that area's train history and the 1920s jug band music of Memphis, Tennessee. So, keeping with this Southern theme yet recognizing our home's location in northern California, I decided to call my railroad the Eastern Tennessee and Western Northern California Railroad. It is, of course, a fictional railroad as obviously no real railroad ever connected these two locations. Nevertheless, I wanted to keep to the character of the real Tweetsie and its 1919 to 1939 heyday.

Next came the question of how to get the railroad built. I knew I would be good at adding all the little details I wanted to include on the layout, but I knew nothing about how to put down track or make buildings. I learned that there is a garden railway club in my area—the Redwood Empire Garden Railway Society (REGRS). I made contact with them, attended one of their meetings, and met people who were not only helpful but have been my friends ever since. We broke ground on the layout early in 2014.

Nancy Norris, a train layout designer who also wrote about landscaping in the old *Garden* Railways Magazine, created the overall layout



The viewing path along the old barn is full-size rail on wood ties with gravel ballast to the top of the ties.







design. Most of the hard work of layout construction was then done by Bay Area garden railway craftsman Daniel Smith. He built bridges and tunnels, installed track, and constructed buildings. Landscaping was added by Don and Becky Herzog, owners of the now closed Miniature Plant Kingdom nursery, who selected, supplied, and planted most of the vegetation. With all this help, construction went quickly and, by midyear, we were ready to host a REGRS meet.

Features of the Layout

As the layout now exists, there is over 300 feet of track on four separate lines, all designed for running and watching trains. The longest is the original dogbone mainline loop that runs near the perimeter of the entire layout. A second line, the Excursion Route, goes in a circle around the redwood tree. Another loop, which we call the Crystal Caverns Mine Line, was inspired by my memories of the 1950s Rainbow Caverns Mine Train at Disneyland. It is for small equipment only, as it travels through low tunnels and a narrow ravine. Lastly, there is a point-to-point streetcar line.

A nice feature of the overall layout is that the tracks are all close to level; it is the scenery around them that rises and falls. Five pebble-lined streams run through the layout, providing eye appeal as well as water for our local songbirds.

All four lines are track powered and most of the track-powered locos are Bachmann 10-wheelers like ones that ran on the real ET&WNC. Some 0-4-0s, rail trucks, and other equipment are also in the fleet. I also have two small, battery-powered diesel switchers and

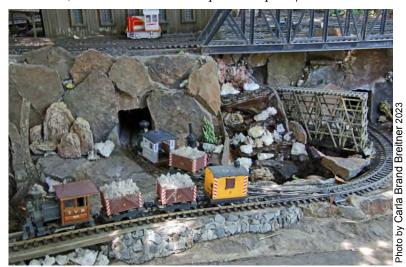
continued on next page



Modeled flat cars carry giant produce prototyped in a period postcard collection.



Trestles, rock walls and tunnels provide a path for the trains.



Above: Low tunnels and tight curves call for small locos and short mining cars in the Crystal Cavern Mines.

Below: The trolley is barely visible in upper left in the background.



The "hillside" formed along the redwood tree is pasture for a herd of cattle. No. 16 pulls a string of produce postcard flat cars.

Photo by Ken Brody 2017









Agricultural billboard reefers travel past a small outpost.



Buildings, roads, vehicles and figures add realism to the railroad.





The trolley line point-to-point passes a Christmas tree lot.

would like to get additional battery-powered locos. Additionally, I have a large collection of USA trains billboard reefers, mostly ones with agricultural motifs. Like many garden railroaders, I am a bit loose on scale. If I like it and it would look good with other things on the layout, I buy it. My guidelines are the "10-foot rule" and the desire to have fun.

There are many unique, scratch-built wooden buildings on the layout. Particularly noteworthy is the Rock City barn. Actually, there are two of them-the model on the layout and our full-sized barn, both of them painted alike and patterned after the Rock City barns once common in the eastern U.S. and particularly in the area through which the Tweetsie ran. There were once over 900 of them, all said to have been painted by one man, Clark Byers. You can read more about him and the barns online and in a book "Rock City Barns: A Passing Era" by David B. Jenkins. Other special buildings on the layout include the Cranberry General Store, Linville Station, and the Linville Mine building. all modeled after real buildings in the Tweetsie country.

Operations, Maintenance, and Rebuilding

Up until COVID struck, we ran trains on the layout almost every weekend for the enjoyment of visitors to our Curio shop. One of our shop workers took charge of this effort. This meant leaving the buildings and other details outdoors most of the time. Maintenance consisted largely of picking up the debris falling from the big redwood tree, pulling weeds, pruning the little trees, cleaning the track, putting figures back on their feet, and things like that. Since this was all done on a regular basis, the layout usually looked nice and trains ran fairly consistently.

continued on next page



A signal controls a railroad crossing in town.





Once we stopped running regularly, though, things deteriorated rather rapidly. When we decided a year ago to have the layout open for visitors as part of the 2023 National Garden Railway Convention here in the Bay Area, it was clear that a lot of work would be necessary and that help would be needed to do it. We hired a gardener to clean up the tree debris, pull weeds, and repair the water system. Fortunately our friends in REGRS volunteered to spend time on most everything else.

Ken Brody checked out the locomotive and rolling stock fleet, got most of the engines running, and installed metal wheels on the newest freight cars. He also did major reconstruction on the Cranberry General Store, which had suffered from dry rot. Doug Lodge repaired the Linville station, the Rock City barn, and several other buildings. Dick Couden and Terry Strom, along with Doug and Nagasiva, got the track in running order. All in all, things came together well and we had over 150 happy visitors for the convention. With not too much additional work, we ran again for a REGRS meet three months later.

We will be putting the more fragile buildings and many of the little details away for this winter. We hope, though, that we will be able to run on a regular weekend schedule next year, especially if we can get a member of our shop staff to help out as we did in the past. If you would like to visit, we are located in Forestville, California, and you can find our contact information and more about our Curio shop at:

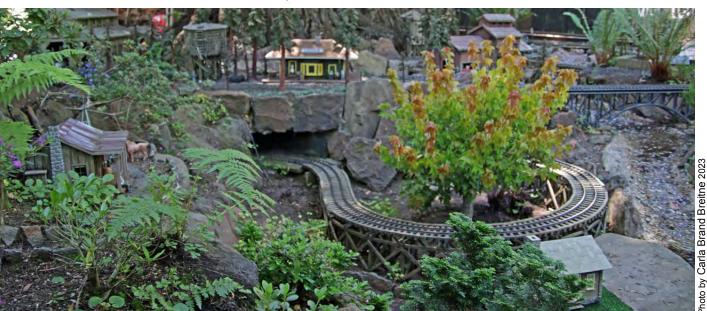
https://www.luckymojo.com/catalogue.html



A train pulling into Linville Station crosses over the mine line.



The trolley line stop is multiple stairways above the mine.



Miniature trees and ferns frame the towns and homesteads on the railroad. Several brooks wander under bridges.

Holiday Traditions with LGB LGB trains create Christmas memories and family traditions that last a lifetime.







Visit LGB.com to see the complete line of products. Purchase from your favorite LGB® dealer today!











CLUB CORNER

Curated by Bill Derville, Past President Rose City Garden Railway Society • Portland, Oregon

No two garden railroads are alike, and we all enjoy many and varied aspects of the hobby. Yet one of the great strengths of our hobby is the sense of community—and that sense of community is fostered by our conventions where garden modelers meet up with live steamers and modular display builders to share ideas.

Like many of you, my wife and I have enjoyed attending nearly every national garden railway convention since 2002. We enjoy visiting people's gardens and seeing the railroads they have built in them more than anything else. The vendor hall, the BBQ event and the many diverse clinics also add to making the convention a wonderful vacation.

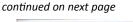
At conventions, I have gotten many ideas on improving my own railroad and refueled my energy to go home and get started with renewed vigor on new railroad projects.

It appears there will not be a national convention in 2024. It is not an easy task to sponsor a national convention. It requires two to three years of work by club members dedicated to hosting a convention. The one thing most conventions have is a lot of garden railways to visit over several days.

Most conventions make money, but not all of them, so while there can be financial reward, there is also risk for a club. It is a large financial commitment to host a convention. It requires contracting with a hotel for guest rooms, clinic rooms, and a BBQ and banquet with speaker. It requires renting space for the vendor hall. Some attendees do not want to drive to layouts, so it requires renting buses to transport them to the layouts and the BBQ. A website is needed for distributing information about the convention and registering convention attendees. A booklet with information about all the layouts, clinics and the schedule is printed and given to all attendees. I am well aware of these requirements as I was the chairman of the 2019 National Convention in Portland Oregon.

It is my hope that 2024 will be the only year I can't attend a convention. But there is an alternative. For many years, when the National Convention was in the Midwest or East Coast, a club in the West Coast would often host a regional meet. I usually attended both the national convention and the regional meet.

These regional meets consisted of several days of visiting local layouts. There were no



JUNE 19 - 23

















During layout tours, hosts can explain their railroads to interested visitors and families can introduce their children to railroading.

Share your ideas with me by email at bill@derville4.com and your club's experiences may be in a future column.







Booklets can be

printed and/or digitally distributed.











buses. The meet often included a BBQ or catered meal, either at a park where there were ride-on trains or at a layout with room to accommodate a meal for everyone who attended. It also included a booklet with names, addresses, descriptions, and a picture of each layout open, and a meet schedule. There were no vendors involved, no ice cream social, no clinics, no buses, no website, and no contracted hotel. Usually a single hotel was recommended, but there were others listed as alternatives. A small registration fee covered costs for printing, web support, and such.



Several clubs in other parts of the country have hosted these regional meets. Some clubs plan visits to clubs in other parts of the country. The Florida Garden Railway Society is invited to an event in Ohio in September 2024 after Florida hosted the Ohio club members for a winter visit.



Hosting a regional is a great way to encourage members to build a railroad or upgrade their current layout. Regional meets involve no major financial involvement and very few

events, but they are a lot of fun and a way to stimulate garden railroading in your region. Think about hosting one... and showing off your layouts to appreciative modelers.

Garden Railroading News will do our best to advise our readers of all regional meets for free, and I am sure that the regionals would welcome people from anywhere to register for their event. Send your regional meet information to: editor@GRNews.org — and make plans to attend a regional meet sometime in 2024.













A Regional can gather at a local train museum or ride-on.

HOT DEALS ON NGRC 2023 CONVENTION CARS

1 Car \$75 (25% Saving)

2 Cars \$140 (30% Saving)

3 Cars \$180 (40% Saving)

4 Cars \$220 (45% Saving)

Plus Shipping

Shipping to N. America Only

Or pick up in the San Francisco Bay Area



The NGRC Convention Car is

A CUSTOM USA TRAINS BOX CAR

All are brand new Shipped in their original boxes

Order yours today at www.BAGRS.org/store

Supplies are limited When they are gone, they are gone! RLDHOBBIES.COM RLDHOBBIES.COM RLDHOBBIES.COM RLDHOBBIES.COM RLDHOBBIES.COM

HOBBIES

The finest C-scale trains and train accessories



Revolution System

Onboard Receiver w/sound

\$99.89ea

Trackside Receiver w/

sound

PWC \$141.89



Blunami Receivers \$194.89ea



We Install Sound and Remote Control Systems

Accucraft* AMS*AML
Kadee*Bridgewerks*Bachmann
Phoenix Sound
*Splitjaw Railclamps*Piko*LGB
*USA Trains Revolution
Rail Pro Tsunami2-Blunami

Prices Subject to Change Without Notice.

Rail Pro

HC-2-SUN Controller \$267.89 LM-4S-G Snd Receiver \$152.89 AM-1 Accessory Controller \$66.89 CI-1 Computer Interface \$34.89

We Buy Collections!









PIKO	
R5 RH Man Switch	\$74.39
R5 LH Man Switch	\$74.39
R7 RH Man Swi	\$123.99
R7LH Man Swi	\$123.99
Box Cars	\$79.99
Ore Cars	\$103.99
Rib Side Hopper	\$63.99
LGB	
R5 Brs Switch RH or LH	\$115.89
R3 Brs Switch RH or LH	\$91.89
Brs Rail 4ft (6pcs)	\$152.89
R3 Brs Curve 16000 (box)	\$149.89
R5 Brs Curve 18000 (box)	\$179.89

Now in Stock Bachmann Dash-9s \$769.89ea

Coming in April
American Mainline
1:29th Scale
50ft High Cube
Box Cars
Die Cast Metal Trucks
With Steel Wheels
Body Mount & Truck Mount
Knuckle Couplers
\$156.00ea

Coming Soon!
AML GP60s
\$849.00 w/sound
\$659.00 no sound
Battery & Wireless
Ready





CSE



USA Trains

OD TO E COMMING COOM	Ψ-111.00
F7A, GP30, 38, GP7/9	\$378.89
FEF-3 Northern Locomotive	\$3699.89
Heavyweight Passenger Cars	\$281.89
Heavyweight Observation	\$291.89
Intermodal Car	\$224.89
3-unit Intermodal Car	\$292.89
Containers	\$52.89
6 Pack Containers	\$309.89

For all your Battery Power Needs

HJE	14.8v	3350mah	Lithium	\$59.89
HJE	14.8v	6700mah	Lithium	\$88.89
HJE	18.5v	3350mah	Lithium	\$69.89
HJE	18.5v	6700mah	Lithium	\$104.89
HJE	14.8v	Battery C	harger	\$26.89
HJE	18.5v	Battery C	harger	\$26.89

Business Hours M -T -T - F 10:00am - 4:30pm Wed 1:30pm-4:30pm Central Time 873 Funkhouser Drive Albion, IL 62806 618-446-2970 info@rldhobbies.com





By Richard Murray

BOTANICAL NAME: *Ilex serrata* 'Koshobai'

Common Name: Finetooth holly, Japanese winterberry

USDA HARDINESS ZONE: 5 (down to -20° F)



The most outstanding characteristic of 'Koshobai' is the proliferation of teenie-weenie red berries which are smaller than BB's. The berries are so small as to be almost cute. I know of no other berry producing plant that has smaller berries. The berries appear in late fall after small white flowers appear in the spring. Another nice thing about this holly is that it is self fertilizing, meaning that no male plant pollinator is needed. As is shown in this December photo, this dwarf plant is deciduous. When the leaves do appear in the early spring, the new growth is purple tinged. Its small narrow leaves then turn green after a short time. In ten years time, the plant will grow to a round ball about two feet tall.

Its cultural needs are somewhat similar to azaleas. It likes well drained acid soil. It does best with regular watering. The literature says the plant does well in part sun to full sun. My experience indicates that the plant prefers a little bit of sun (but not too much) in the morning. This is the third or fourth attempt for me to grow 'Koshobai.' The first attempt was in full sun, and the plant had no growth over a period of several years. The next couple of attempts were in almost full shade. They died in the first or second year. Of course, it didn't help that raccoons liked to dig up the plant. The present plant is doing quite well in some morning sun. To prevent digging by the local animal residents, I have had to place some wire screen over the dirt for this plant and about ten other new plants that have fresh dirt. (The screen was removed for the photo.)

The plant is native to Japan and China. Sadly, 'Koshobai' is rather rare in nurseries. I found mine at Don Herzog's Miniature Plant Kingdom in Sebastopol. There were only a few left, and supposedly they are about 25 years old.

'Koshobai' is a delightful plant that evokes the question from visitors, "What's that?" It makes an excellent bonsai or container plant. Of course, it works great in garden railroads, too. In summary, this whimsical plant is one of my favorites.

[Ed. Note: Don Herzog has retired, but may still have a few miniature 'Koshobai.' His email is donjherzog@gmail.com.]







- By Richard Murray

Botanical Name: Lotus berthelotii

Common Name: Parrot's beak

USDA Hardiness Zone: 10 (down to 35° F)

Sunset Zone: 9, 13-24



Parrot's beak is a delightful evergreen perennial that does well in many parts of the Bay Area. In colder winter areas of the Bay Area the plant can be treated as an annual, or if the plant is in a pot, it can be brought inside during winter. The stunning, brightly colored flowers have a bit of a tropical feel. It flowers heavily for a long period during spring. Thereafter and throughout the growing season, it seems to alternate heavy flowering with no flowering every 3 to 4 weeks. Because it produces such a heavy amount of flowers, the plant can benefit from regular fertilization. Warning: Seed is poisonous if ingested.

It likes full sun. The plant should be watered regularly, but it does not tolerate soggy soil. It's better to let the top layer of soil dry out before watering. Otherwise, the plant may suffer root rot. It is important to have good drainage. Older branches should be cut back to produce bushiness. The width of the plant is about 2 to 3 feet and its height is about 6 inches. Its flowers are about $1\frac{1}{2}$ inches long and about $\frac{1}{2}$ inch wide. My plant has orange flowers, but red flowers are also available. The plant looks great hanging over baskets or cascading over rock walls.

The plant is native to the Canary Islands. Although it is widely cultivated by nurseries, it is either extinct in the wild or persists as just a few individuals. In 1884 it was already classed as "exceedingly rare." Collection of plants has probably hastened its decline. The flower shape resembles parrot beaks and is believed to be an adaptation for bird pollination. Bird pollination is infrequent, so the plant has adapted by having extended flower lifespans.

The plant has been the winner of the prestigious "Award of Garden Merit" by the Royal Horticultural Society.





Buy It When You See It! Antique Store Finds that Fit on Your Railroad

Mick Spilsbury, Marketing Director for Garden Railroading News, visited the Hudson Valley in New York recently. In between visits to some of the area's garden railroads, Mick explored a number of antique shops and found a G-Scale sized log cabin and an additional canon for the security forces on his Black Canyon Drinking & Mining Railroad Co. Keep your eyes open and you can find G-Scale details for your railroad in unexpected places.





Photos by Mick Spilsbur

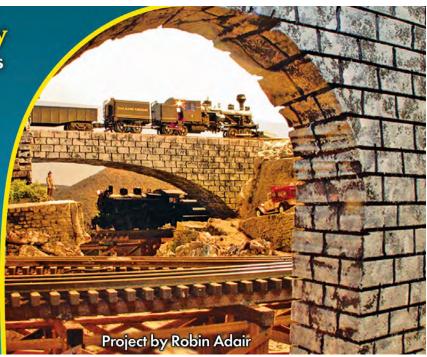




Dwarf and Miniature Plants miniforest.com 847 217 7524

Valley Train Station 13780 Pipeline Ave Chino CA 91710 Phone: 909-902-5351 FAX: 909-902-5352 Hours: 10 to 6 Tues-Sat G Scale Only! Slot Cars too!





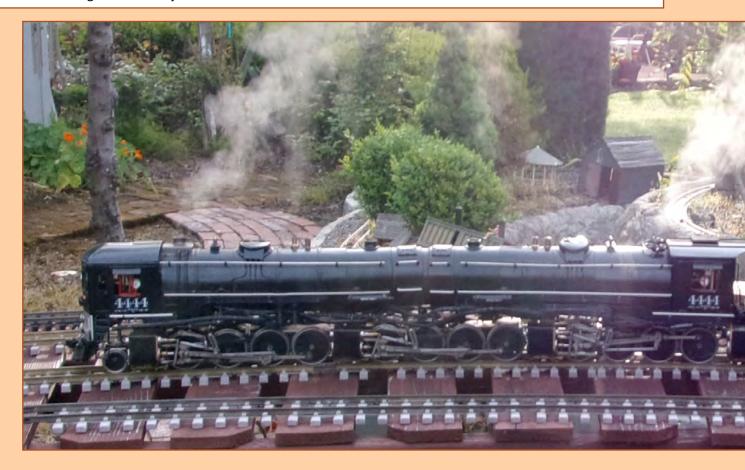


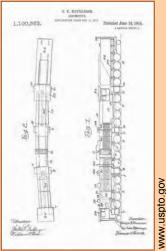
LOCO OF THE EDITION

Best displayed in Two-Page View.

The Baldwin Quadruplex A 1/32 Scale Live Steam Loco by Bill Allen

In 1915 Baldwin built three 2-8-8-8-2 Triplex locomotives for the Erie Railroad, and another 2-8-8-8-4 Triplex for the Virginian Railroad in 1916. Initial results were apparently promising, for Baldwin patented plans to build an even more monstrous loco—a Quadruplex, 2-8-8-8-2 or four engines in one. George R. Henderson was the designer. A machine of this length could not be built with a rigid boiler, so note the bellows connection in the middle. The design used a ball joint connection.





The designer recognized that forward vision wouldn't be too good if you had to squint along the length of such a boiler, so the loco was a cab forward. The driver was to communicate with the fireman at the back by means of a voicepipe. Baldwin Locomotive Works seriously intended to build this monster, but after it became clear that the Triplex was a failure, there were no customers.

My design was very similar to the original drawing except that rather than having one firebox in the rear, a hollow ball joint in the middle, and a smokebox in the front, I have two boilers joined at the smokebox with the ball joint separating the two. This results in four stacks, one for each engine. The boilers are locomotive design with ceramic burners fueled by butane. All eight cylinders are working. They are ½-inch bores with Walschaerts valving.



Some interesting specs are: 44 wheels, two cabs, two boilers, two tenders, four safeties, four whistles, ten servos for RC on direction, speed, cylinder drains, and whistle.

I believe this to be the largest and most powerful G-gauge engine in the world. The scale is 1/32, minimum diameter 15 feet. It weighs 60 pounds without the second tender.





Video of the quadruplex can be viewed at: https://www.youtube.com/watch?v=w4KhJDID6w4



Submit your scratch built, modified, weathered or detailed—unique in some way— loco. Send your photos and write-up to Editor@GRNews.org or Marketing@GRNews.org.

LIVE STEAM STATION



THE WORLD'S LARGEST STORE FOR MODEL STEAM TRAIN SUPPLIES
ACCUCRAFT - ASTER HOBBY - MAXITEAK - JEM MODELS - ARGYLE LOCO WORKS - AMS









































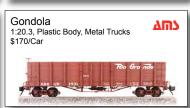






























WHAT THE HECK IS G-SCALE?!

by Paul Wagner, Florida Garden Railway Society Newsletter Editor

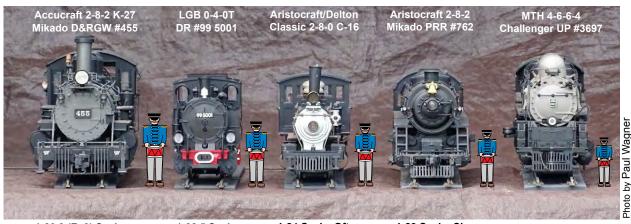


Mick Spilsbury jogged my memory back to this subject with his great article in the November/
December 2022 issue of Garden Railroading News about his visit to the United Kingdom, where he visited garden railroaders running on G gauge track; he mentioned that many in the UK were modeling in 16mm scale, which runs on "0" gauge track to simulate 2-foot gauge real trains.

FGRS member Peter Thornton then expanded on the diversity of scales in use in the UK in an article in the July/August issue of GR News. Pete provided the details of the 16mm scale running on 0 gauge track, and also described and showed pictures of an impressive large scale version of the same 1:22.5 scale that LGB offers as meter gauge trains, but this wider gauge represents an accurate rendition of "standard gauge" full-sized trains and runs on #3 gauge track measuring 2-1/2" between rails!

— Paul Wagner

Shortly after purchasing my first "G" gauge train set back in 1998, I returned to the hobby shop to buy a "G-Scale" ruler. My eyes must have grown three sizes larger when the man at the counter asked, "Do you want one for 1:20.3; 1:22.5; 1:24; 1:29; or 1:32?!..." I don't remember what my response was, but I certainly didn't buy a ruler. It took me quite a while to work out what he was talking about, and I have heard this dilemma repeated often by other garden railroaders, even some who have been at it for quite a while.



1:20.3 (Fn3) Scale. Correct for 3-foot gauge on 45mm track.

1:22.5 Scale. Correct for European meter gauge on 45mm track. 1:24 Scale. Often used, but slightly undersized, for 3-foot gauge on 45mm track. Correct for 42" gauge. 1:29 Scale. Close, but slightly oversized for standard gauge on 45mm track.

1:32 Scale. Correct for standard gauge on 45mm track.

This ain't the way we did it in "O" gauge, "HO" gauge, or even "N" gauge. With those, when you got a train that fit the track, you knew what scale it was, and the accessories you bought for it were the right size. So how did we get all these different size trains all running on "G" gauge track — 45mm between the railheads — more properly called "Gauge 1"? And how do we decide what scale we want to model?

As Pete Thornton pointed out in his article in the July/ August issue of *GR News*, garden railways and 45mm gauge started in the 1890s in Germany, when Märklin specified standards for Gauges 1, 2, 3 and 4. He goes on to tell us that Gauge 1 [45mm—approximately 1¾ inches between the rails], which later also became known as "G" gauge, became the most common size,

and that Gauge 1 models were produced at 1/32nd scale (3/6":1 foot) which is the correct scale for real Standard Gauge trains.

Then, in the early part of the 20th Century, Lionel developed a line of large scale trains that didn't adhere to any of the standards established by Märklin. Lionel admittedly approached the issue of scale indifferently, but 1/29th was the nominal designation for their scale size. Lionel ran on a track gauge of 2½" between rails, which they dubbed "Standard Gauge" and was roughly correct to model real railroad Standard Gauge at 1:29 scale. For many years, Lionel's "Standard Gauge" trains dominated the model electric train business. The Lionel trains of that period were stamped and brightly painted "tin plate."





As customers wanted more realistic trains, die cast models came into favor, which were only practical in O-Scale or smaller, and "Standard Gauge" trains faded away by the time of World War II.

So far, all was well and good with gauge and scale consistency. Then in 1968, LGB (Lehmann Gross Bahn) introduced its new innovative Large Scale train line at the Nuremberg, Germany, Toy Fair. Instead of continuing with 1:32 trains running on Gauge 1 track, the focus of the LGB line was a European Narrow Gauge train in 1/22.5 scale running on a conceptually Standard Gauge track — 45mm gauge or Gauge 1. This gave an oversized look to the trains, and the line was a runaway success. LGB used the scale of Gauge 3 (1:22.5) on Gauge 1 track in order to represent Meter Gauge prototypes, which were common in Germany.

So things began to get complicated for folks who wanted to run trains on Gauge 1 track.

But wait, there's more!

As recalled online in 1997 by Lewis Polk of Aristocraft fame, he and his father, Nat, saw the new LGB trains at the 1968 Nuremberg Toy Fair. Nat Polk had been a key figure in distributing the Lionel "Standard Gauge" trains, and immediately recognized the same "Wow!" factor and the impact the line would have on the marketplace. Nat tried to become the U.S. importer of these new trains, but was beaten to the punch by another importer who had gotten into the Fair a day early and made a deal.

It wasn't until 1987 that Nat and Lewis began contemplating a new train line in Large Scale. Lewis' stated mission was to make a Standard Gauge train of the post-1900 era, which was the dominant sales category in all other gauges of model trains, while at that time, LGB was committed to 1:22.5 scale Narrow Gauge only.

Offering a competing line of Standard Gauge produced in 1:22.5 scale would be too large and impractical to produce as a mass production item and, most important, would not run on the same track; it would be Gauge 3 with 2½" between rails. 1:32 scale Standard Gauge trains were possible, but the size did not have the same oversized "Wow!" factor and were not visually compatible with LGB trains. Finally, Nat counseled the use of 1/29th scale running on Gauge 1 track. He reasoned that this would let them be compatible in size with the established product line LGB had already achieved in almost 20 years of marketing. Nat felt that by using modern injection mold techniques that had not been available to Lionel in the 1930's, the Standard Gauge size train could make a come-back. Standard Gauge in the U.S. meant 1/29th scale and the Polks wanted a purely American concept that would make the sales pie larger, rather than just slice the same pie further down.

Around the same time, other manufacturers offered G-Scale trains. Bachmann brought out their 1:22.5 Narrow Gauge Big Haulers, Charles Ro produced USA Trains Standard Gauge in 1/29th scale; LGB added Standard Gauge items closer to 1:29 even if not marketed that way.

In the meantime, Delton, Kalamazoo, Hartland, and others added to the mix by producing Gauge 1 trains in 1:24 scale, right in the middle of the other scales. For some of the smaller prototypes such as from the early American period, these were also visually compatible, and were followed by the production of smaller prototypes in 1:24 by USA Trains, and even by Aristocraft.

All this production resulted in compatible trains that can be mixed amongst all manufacturers, which have become popular with hobbyists who like to run all sorts of trains together, and just have fun!

Another scale gradually found favor among those who only wanted to model American 3-foot gauge trains—1:20.3, which is exactly the correct scale for 3-foot gauge. Strictly speaking, it can be a little jarring to see a 1:20.3 locomotive alongside one from the other scales. The 3-foot gauge rolling stock prototypes were some of the smallest trains ever built, and, in 1:20.3, they will tower over some of the largest standard gauge ones built in 1:29 or 1:32 when seen side by side.





Lewis Polk in 2003













Two-foot gauge modelers build in 7/8th—
1:13.7 and their models tower over other scales.
Manufacturers modeling Maine's two-foot Sandy
River & Langely take scale liberties to offer models
compatible with their other trains.

True Standard Gauge purists wanted 1:32 trains to run. Manufacturers such as MTH Railking One Gauge, Aster and Accucraft brought out trains to meet this demand.

So there we have the large and small of it! Which is the best scale for you? Should you refuse to buy a new locomotive you really like because it is not a scale that matches exactly the ones you are already running?

Probably the most concise article ever written about the technical differences and implications of the various scales used on Gauge 1 track was written by Vance Bass in an article published in the October 2011 issue of *Garden Railways* magazine. He encouraged his readers to carefully choose a gauge and scale—and stick to it—to produce a realistic model railroad. If having even slight mismatches in apparent scale, period, and style offend your senses, then you will certainly be happier taking Mr. Bass' advice.

But if you have favorite engines and train cars in many scales, and want to run them together or separately on your Gauge 1 layout, I think that is fine! Model railroading has room for all sorts of interests and approaches to the hobby. When you see a model that really lights your lights, regardless of its scale or prototypical accuracy, that's one you should buy and proudly run on your layout!

It took me a few years in G-Scale to decide that 1:29 big steam standard gauge is what lights *my* lights, and I enjoy adhering as close as possible to that scale in most everything I own. I don't run the LGB or Kalamazoo or Bachmann Big Haulers on my layout. I would run the 1:32 Bachmann switcher if I ever get it converted to battery power. And yes, I did buy a scale ruler, but not for many years. I keep a few 1:29 rulers mostly for scoping out accessories. I usually use a digital calipers and multiply by 29 when I am checking out suitability of parts and rolling stock.

There have been many heated discussions throughout the years about the need for prototypical accuracy in our models, especially the mix of scales. To me, accuracy takes second place to having fun in our hobby.

A letter writer to an early GR magazine said it best: "If it looks right to you, then it absolutely IS right!"

*

Appearance Can Be Deceiving!



1:22.5 Scale. Correct for European meter gauge. 1:29 Scale.
Slightly oversized
for standard
gauge.

1:24 Scale. Slightly undersized for 3-foot gauge. Correct for standard gauge.

42" gauge.

The side tank Porter in the picture above is a bit of a ringer. It is an early Bachmann Big Hauler and, unlike most of that line, is a model of a standard gauge engine; the dimensions bear that out, except that the cylinders are a little large. Otherwise, it has the appearance, size and proportions of a 1:32 model.

In the photo below, the 1:32 Challenger is a HUGE loco, especially with the smoke deflector, but the cab is narrower than the 1:29 Mikado next to it. There is visual compatibility between the narrow gauge 1:22.5, 1:24, and standard gauge 1:29 models, allowing scale mixing although creating occasional confusion.

Accucraft 2-8-2 K-27 Mikado LGB 0-4-0T Aristocraft/ Delton 2-8-0 C-16

Aristocraft 2-8-2 Mikado MTH 4-6-6-4 Challenger



1:20.3 (Fn3) Scale. 1:22.5 Scale.

1:24 Scale.

1:29 Scale.

1:32 Scale.



Custom Built & Painted Large Scale Trains Custom Decals made to order



CATALOG \$ 7.00 REFUNDABLE ON ORDERS OF \$50.00 OR MORE

SHAWMUT CAR SHOPS.COM
307 North Michael Street, St Marys PA 15857
818-834-9455
email: shawmutcarshops@yahoo.com

ProMiniAir - A Low-Cost, Airwire(TM)-Compatible RC Alternative

- Compatible with Airwire(TM), Tam Valley Depot, Stanton Cab (S-Cab), and Gwire
- 19 Channels for North American and European Operation
 - Airwire: Channels 0-16
 - Stanton Cab (S-Cab): Channel 17
 - European Operation: Channel 18
- Receiver (\$39.99+s&h)
 - Works with all Airwire(TM) throttles: T1200, T2300, T5000, and T6000
 - Allows Airwire(TM) DCC Programming on the Main (OPS) and DCC Service Mode of your decoder
 - Other Compatibility
 - Tam Valley Depot DRS1 North American and European Transmitters
 - Stanton Cab Transmitter (S-Cab)
 - Gwire Transmitter
 - Unique "tethered" design provides mounting flexibility and modularity
 - Multiple antenna options: whip, surface mount, etc.
 - Powerful: 13A easily powers G scale locomotives. Smaller amplifiers are available.
 - Auto-scans all Channels on startup if the Default Channel (resettable) is not found
- Transmitter (\$39.99 to \$49.99+s&h)
 - Works with Airwire(TM) CONVRTR, G-4, and G-3
 - Other Compatibility
 - Tam Valley Depot DRS1 receivers, Mk3 and Mk4 – NA/EU versions
 - Stanton Cab (S-Cab) Receivers
 - Gwire Receiver
 - <u>Centrally locate</u> for optimal transmission to <u>all</u> of your layout simultaneously controls multiple locomotives

 - Standalone Version (\$49.99+s&h): allows multiple users with iOS and Android smartphone throttle apps such as WiThrottle. WiFi commands from the throttle apps are converted to wireless DCC for retransmission to compatible receivers. USB powered.
 - DCC Throttle Version (\$39.99+s&h): connect to ANY DCC throttle's DCC track output and wirelessly transmit the DCC to compatible receivers. Powered by DCC from the Throttle.
 - Both versions are equipped with OLED displays that provide useful information
- Low cost is maintained by using modularity and commodity electronics far less susceptible to supply-chain disruptions! Our software and hardware design is open-source: no opaque, proprietary "guts."
- Reconfigurable (Channel number, transmit power, etc.) using DCC OPS mode to change ProMiniAir Configuration Variables at DCC Address 9900(Tx) or 9901(Rx).

Where to purchase: Go to eBay and use search "ProMiniAir" to find the various ProMiniAir Receivers and Transmitters. Visit OScaleDeadRail.com to contact us for customization and installation options, and to find more detailed information. Returns accepted.





Use with Smartphone Apps or DCC Throttle

Upgrading your Chuff Sensor to Hall Effect Sensors for seriously accurate, seriously reliable chuff.

By Eric Timberlake, Aloha, Oregon

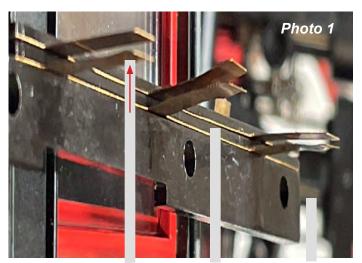
One of the things I like about Garden Scale railroads is that they are mostly not toys; they are solid working models of the "prototype" locomotive, including "realistic" sound. Many of the current steam locomotives feature built in electronics to simulate the sound of the real thing, including synchronized chuff, the sound of steam escaping at the end of each cylinder compression. I don't know about you, but that "synchronized" part is extra meaningful to me. The models are big enough that you can clearly see them actuate, and when "auto chuff" is racing while the wheels barely turn, well, that's a disappointing detail in what otherwise are many very beautiful models.

And then there's the common case of owning an older model or, perhaps, one where the designers tried, but effectively failed to provide this feature.

In this article, I will discuss my current method to provide chuff input to models that may or may not be "ready for prime time" in this regard.

A few years ago I was asked to upgrade a mid-generation Bachmann 38-Ton Two-Truck Shay. This locomotive uses an Upright Inline Triple Cylinder arrangement and as a model, it looks fantastic.

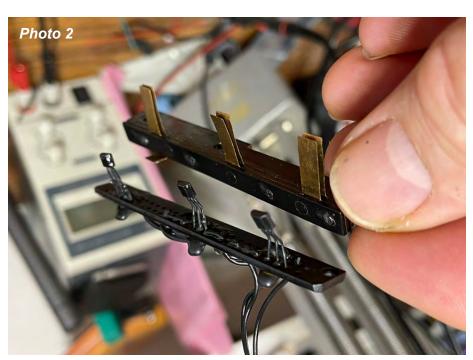
However, the built in chuff sensor (Photo 1) has proven to be a design failure. The trigger switch is comprised of two thin sheets of brass arranged as three simple "fingers" reaching into the motor where the piston-less push rod would poke it and create a signal for the sound card or sound-capable decoder. The issue is that the fingers are often out of alignment and corroded/oxidized. This leads to missing chuffs, and to "jitter" chuffs where a single contact results in tens of chuff triggers all at once due to switch bounce. Working on this friend's Shay, I replaced this troublesome assembly with reed switches and tiny magnets. It was a TEDIOUS job. It took three tries to get it right!



Bachmann Shay chuff trigger can oxidize or shift, causing inaccurate chuffing when stroke pushes "fingers" closing circuit.

Endless frustrating hours of work. After I got it working, I vowed to never again go the route of small expensive reed switches. The root of the issue is the very specific polarization required to operate a reed switch. A reed switch requires an aligned field from North to South along the length of the switch. This is just plain difficult to achieve in many applications when MOST small neodymium magnets mount with just the North or South pole facing the target area.

Fast forward a few years and another Shay lands on my workbench with the same ineffective stock chuff trigger. I relate my story to the owner and suggest that I can do better this time. This is the path I took.



Prototype hall effect chuff sensor on wiring; original chuff sensor in hand.

First, I ordered and tested a wide range of Hall Effect Sensors from Digikey Electronics. These devices are small transistor-like devices with three leads and an array of sensors inside that can detect a magnetic field. When such a field is detected, it turns on an "Open Collector" output which is effectively just a small switch to ground. I ultimately chose an "omni polar" (doesn't care about North or South poles on the magnets) device made by Texas Instruments; the DRV5033 is a modified TO-93 package. That's a form factor with real leads vs. a surface mount micro-dot that is so very common in today's electronics. This device cost \$1.67 each at my last purchase. A typical reed switch, especially a small one can top \$5 each pretty easily.

https://www.digikey.com/en/products/detail/texas-instruments/ DRV5033AJQLPGQ1/6571747

The DRV5033 is a "non-electronics savvy" modeler's dream device. It is tolerant of up to 38 volts applied in ANY possible way. You cannot hurt this device in your train, it just may not work if you have it wired up wrong, but it WILL NOT self-destruct under normal circumstances. This makes it ideal for the non-electronics-aware modeling nerd. You simply have to know which pins are what. And you could just GUESS if you wanted, though looking at the data sheet is a lot easier than testing all nine permutations of possible attachment combinations.

The next step is a little more challenging, but the internet, if you dig hard enough, has everything, right? In this case, we are looking for SMALL magnets. These are harder to find than I would have thought, but I DID finally find

a supplier that featured VERY SMALL disc-shaped Neodymium magnets. I ordered the 1mm diameter by 1/2mm thick. I also ordered several sizes to support my future experiments and projects.

https://supermagnetman.com/collections/micro-magnets

Missa was well would be a basses

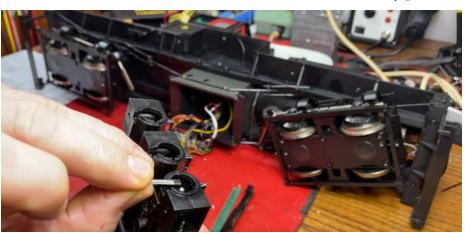
Micro-magnet next to a penny.

I picked VERY SMALL magnets for a reason, and that reason is sensitivity. The "stroke" of a Bachmann Shay cylinder is about 5/8 of an inch. If you put a typically available "small" magnet at 1/8 by 1/16 of an inch vs. a "micro" magnet, the DRV5033 will trigger when the rod is still 1/4 inch away. Turn the motor 120 degrees and we find that cylinder one is still close enough to be in trigger mode when cylinder two ALSO triggers, then the same with cylin-

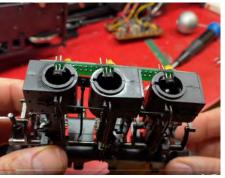
der two to three another 120 degrees along. The three chuff triggers, when viewed as a WHOLE, never de-trigger! To help with this, we use a VERY SMALL MAGNET that won't trigger the DRV5033 until it's only a few millimeters away, giving time to UN-trigger before the next cylinder reaches the top dead-center trigger point.

This is slightly different from methods which mount magnets to a driver wheel, where you might want a stronger magnet to reach the sensor. Also, placing a magnet in a little pocket in these pot metal wheels seems to weaken the magnetic field a touch in my experience.

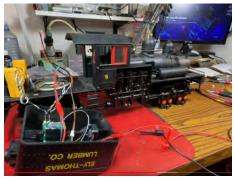
To make my prototype device, I used a small slice of readily available protoboard with solder holes on 0.1-inch centers. I sliced and sanded till it matched



Testing placement of Hall Effect Sensor DRV5033 above micro-magnet glued to top of cylinder rod.



Checking board and sensor position before black spray painting.



Cylinders hide painted sensor that is now wired to Revolution decoder.

the outline of the original switch assembly, then started mounting components, which in this case are FEW. Three of the DRV5033 Hall Effect sensors, three capacitors and... Oh. That's it! The data sheet of the DRV5033 says you should place some "decoupling" .01uf capacitors near the device, so I did. Most of the work was simply soldering a bunch of wire around to make the connections to all the devices.

A little testing, then some black spray paint to make the entire assembly as invisible as the original, and you get a new solid-state three-way chuff sensor that fits right where the original did. **Photo 2** shows the results of my rather mashed together prototype.

As far as wiring it up, this was relatively simple. Pin one, V+, went to the battery plus. Pin two, ground, went to battery minus. Pin three, the "output switch" was routed to the Chuff Trigger Pin, in this case, a revolution 57002S decoder with a dual "trigger input" jack on the decoder and included wire harness. These inputs aren't described in the manual at all. which is disappointing. However, a little testing showed me that "trigger one" set off the whistle, and "trigger two" set off a chuff. A trigger on the chuff input seems to



Bachmann Two-Truck Shay reassembled and ready to test chuff on rollers.

disable auto chuff, so no additional configuration is required.

The last thing required is a COM-MON GROUND - this is critical in the electronics world. The Revolution 57002S in this case appears to feature a 100% isolated 3- volt power supply, so ground on the decoder and battery minus need to be connected together so that the Hall Effect sensor output and the decoder share a common ground reference. Some brands of decoders and sound cards have +5 volts and system ground available to power the sensors so "ground is ground," so to speak. Check your decoder manual for more details on the trigger input and power configuration that might be available.

Here's a link to a way too long video of the Shay being put together using a prototype Hall Effect Sensor assembly.

https://youtu.be/UT7dVgtUHes 38-Ton Two-Truck Shay provided by Phil Yokers. *Thanks, Phil! A* privilege working on your model!

While I have focused on the Bachmann Shay, the same concept applies to ANY locomotive. Typically I will configure "Single Chuff"—which is NOT prototypical, but for some reason seems to simply sound better on many models. Most people I know who have modern Bachmann locomotives with a choice, leave the "2-4 switch" in the "2" position. This is equivalent to SINGLE CHUFF at





the recessed end of the stroke. To achieve this with a magnet mounted to a drive wheel is pretty simple MOST of the time. I use a carbide bit and dig a small hole in the back of a convenient wheel, then epoxy a small magnet into the divot. Next, you glue the DRV5033 to the chassis so the magnet passes over it. Bingo! Chuff! ACCURATE chuff that works every single time!

If you want real prototype chuff, you just have to arrange four magnets around the wheel spaced 90 degrees apart, or two on one wheel and another two on a different wheel. Be sure to DOUBLE CHECK stroke alignment before you start digging holes in your wheels!

The Shay cannot actually present double chuff; there's just no place to mount another round of sensors at the bottom of the stroke. So "single chuff" it is...

A short note on wheel selection here - to get accurate chuff, you have to use one of the driver wheels that are directly connected to the pistons. You can't (or shouldn't) use a small wheel or a wheel in the tender, for instance. Using a non-driver wheel technically will make a chuff, there's just no relation to the driver wheels and piston position. Many stock

locos use this sort of arrangement. I just took apart an Aristocraft 4-6-0 that had a hall effect sensor on the tender wheels, which in no way could create accurate chuff at any speed, much less slow speeds, which is where we really care the most.

If you choose to use two sensors, you can just tie the output pins (pin 3) together without fear. Remember, the "open collector" output is just an electrical switch to ground; you can stack as many outputs together as you want. The active output on any one device will short the chuff trigger to ground and create a chuff sound without affecting other devices on the line.

I was motivated by the apparent success of the second Shay project. But assembling the pro-

totype board was, just like the original reed switches, "tedious." Confirming that the concept works and seeing how the owner seems happy with the end result, I sat down and designed and ordered a few circuit boards that would make the assembly process significantly easier; solder down eight components and three wires and that's it-new solid state chuff sensor. You need a sound-capable decoder with a hard-wired trigger feature installed. I suspect this would work with the stock DCC sound decoder without issue, but I haven't had a chance to attempt it. There are only so many Shays out there, right?

Questions? Email me at: shayhalleffect@mtrcycllvr.org and perhaps I can help you out.



Eric Timberlake's custom made Hall Effect Chuff Sensor Board wired to test fire using magnet on rod upper right.

IF YOU CAN DREAM IT WE CAN BUILD IT

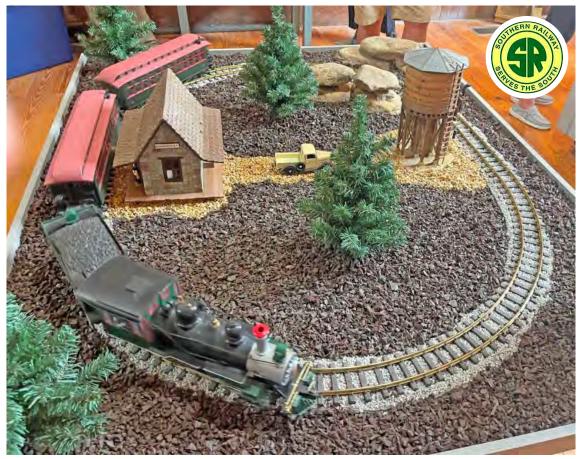
WWW.JSWOODCRAFTS.NET

Structures, Animation, Motorization,
Diecast, Accessories, Custom Freight Cars,
Custom Work and more.

e-mail: jswoodcrafts@sbcglobal.net ALL FIGURES & DIECAST 30% OFF 310-539-4246 P.S.T. All Week 10 to 5 P.M.







Chatsworth Depot: The ultimate little "Large Scale Layout" inside the Chatsworth, Georgia, Depot shows you don't need a lot of stuff, scenery, track, or space to make an awesome layout. One loop, one auto, two buildings, some stones, mulch, and a few trees...... Oh, and the figure on the porch watching the train go by. What more could you ask for? Maybe the story behind this layout? If interested, ask Ted Yarbrough (yarbrought@charter.net). It's a sad but sweet tale of Southern railroading.

LOCOLINC SERIES 200

Wireless Control Solutions





Keithco, Inc locolinc.com (503) 635-7604

Automatic device discovery and WiFi format make the new Locolinc 200 Series the most user friendly interface on the market.

- WiFi format at 2.4 Ghz
- Loco and Accessory Receivers
- Track or battery voltage (12-24V dc)
- Automatic device discovery: Loco & Accessories
- Superb NEW user interface 3"x 5"x 1"
- Easy implementation & cost effective
- Easy conversion for existing customers
- Renown LOCOLINC quality & reliability





The Mail Car

By Pete Dahlberg

Q: What do I need to do to lubricate my trains? What should I use? Where? Should old lubrication be removed?

A: Although I have some experience in keeping trains lubricated, I asked Mike Pritchett for additional comments. His information is included in the answer below.

First, there are **five major lubricants** that we will regularly use:

- Conductive grease
- Non-conductive grease
- Heavy gear oil
- Light oil
- Conductive lubricant

All of the above need to be compatible with plastic.

They are used as follows:

• Conductive grease – This typically contains carbon, which means that it is dirtier to apply. It is used when there is an electrical pickup attached to the sideframes of a truck (typically on an engine). You will need to place some in the journals on the sideframes where the axle enters the sideframe. The grease will provide for lower friction and will enhance the electrical connectivity. Failure to lubricate the journals will result in the ends of the axles and the journals getting worn excessively. This will result in a rougher ride and poor conductivity. If you use a non-conductive grease, electrical conductivity will be reduced. However, non-conductive grease is preferable to no grease at all.



NTGRC News

- Non-conductive grease This is used inside gear boxes and is thinner (more liquid) than conductive grease. Enough grease should be used so that the driving and driven gears will be lubricated fairly rapidly once the engine is started. If non-conductive grease is not available, conductive grease or heavy gear oil may be used temporarily to avoid dry gears. If gears have been cleaned of old grease, then some heavy gear oil in addition to the non-conductive grease will help to spread the grease faster.
- **Heavy gear oil** This is used on gears where it is not possible to use grease.
- Light oil This is used on metal on metal contact surfaces such as the running gear on steam engines or axle bearings. It should also be used on cars where the axles enter the sideframes.
- Conductive lubricant (conductive oil) This is used on electrical wipers to reduce friction and improve conductivity.

The frequency of oiling and lubricating (greasing) varies with the type of equipment, the amount of running and with the weather.

continued on next page





Reindeer Pass Railroad

Your garden railroad headquarters!

Vernon & Elly Guess

10919 N. 173rd E. Ave Owasso, OK 74055 918.361.6084 vernon@reindeerpass.com

www.reindeerpass.com

NTGRC News March/April 2023 continued

For engines, you should at a minimum follow the manufacturer's recommendation of lubrication, generally every 40 to 60 hours of run time. Beyond this you should be examining and listening to your engines for any unusual squeaks or grinding noises. If something seems unusual, check it; then oil or lube as necessary. This will include:

- Checking the sideframes and axle ends to see that they have sufficient grease. (These are often overlooked.)
- Checking the motor frame bearings for oil
- Checking the gears in the motor for grease
- Checking the electrical pickups for heavy wear.

When checking areas that are greased, you should look for dirt and other contaminants such as fine plastic burrs and brass dust. This type of contamination can cause premature wear and tear on gears and other parts. If there is more than a little contamination of the grease, it should be removed and replaced with fresh grease. To remove old grease, you can scrape it off or use a plastic-compatible solvent such as 3M brake cleaner or liquid dish soap such as Dawn.

For rolling stock, you should examine the ends of the axles and the sideframe journals every 10 to 20 hours and oil (or grease) as necessary. As noted above, if you are using grease vs oil you should look for contaminants

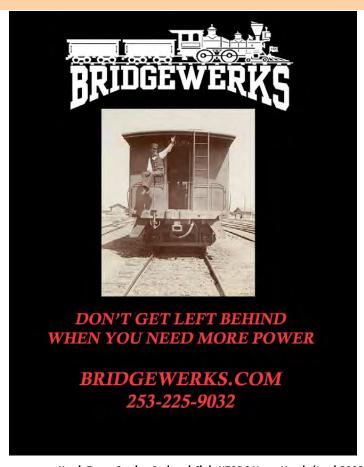
and, if found, remove the old grease before applying fresh. If you find that the end of the axle is significantly worn, you should replace the axle. Similarly if you find that the sideframe journal is more oval shaped than round, you should replace the sideframe.

If you are running your equipment continuously for long periods of time, you should be checking your lubrication more frequently. Continuous running will result in a heat buildup, which can create the need for more frequent lubrication.

Similarly, if you are running in warm to hot weather, you should be checking your lubrication more frequently. As with long run times, higher temperature will result in a heat buildup which can result in the need for more frequent lubrication.

An additional item to look at if you are going to be running for long periods of time, i.e. 12 hours per day, seven days a week, is the bolster where the truck is joined to the car body. Generally the truck frame and the bolster are both made of plastic and will wear over time. When the bolster is worn, the car body will ride closer to the wheels and may jam the wheels on curves. An additional problem that may occur is that the car may wobble excessively, perhaps even to the extent of causing a derailment. A plastic-to-plastic lubricant such as Teflon or PTFE will slow down this wear.

continued on next page



Gene's Integrated Engine and Sound

MostlyGscale.com

Locomotive repair
Installation-Sound and DCC Decoders
We install in <u>your</u> locomotive/tender
Sales of new and pre-owned items

Some O scale, die cast & brass, has arrived. ESU Loksound 5 decoders in stock. Check website for new additions. New & used starter sets available.



Miscellaneous sections of used curved track available. Call for more information.

Gene Rahrig

Ph (937)864-7411

If you have any questions, don't hesitate to call from 8 a.m. to 6 p.m. Eastern time Mon—Thurs and 8 a.m.to 4 p.m. Friday and Saturday

8074 Dayton-Springfield Rd. Fairborn OH 45324 Email bgrails@flatdon.com for specific information Please let us know where you saw this ad.

We can negotiate on most items



NTGRC News March/April 2023 continued

Synthetic vs "Regular" Lubricants

Q: Should I use petroleum based products or synthetic?

A: For this question, I asked Mike Pritchett and Tom Lytle for additional comments. Their information is included in the answer below.

The first difference between synthetic and "regular" lubricants is that the regular product is refined from petroleum while the synthetic lubricant is manufactured to only include the specific chemical products desired (even though they may be based upon petroleum). This means that the synthetic lubricant is inherently cleaner than the regular lubricant.

Other differences between synthetic and regular lubricants are:

- Regular lubricants will change viscosity with temperature changes; synthetics do so on a much slower scale. This is important when you are talking about automobile engines but is much less significant in the temperature ranges in which we operate our trains.
- Regular lubricant's viscosity will also break down over time, synthetics do not.
- The Ph (degree of acidity) of regular lubricants will change over time, synthetics do not.
- Both regular and synthetic lubricants will by design carry debris away from the parts we are trying to lubricate. Synthetic lubricants will coat the debris making it less damaging while regular lubricants will not coat the debris.

- Regular grease will harden over time particularly if the parts it is lubricating are not used. Synthetic grease does not harden.
- Synthetic oil has smaller molecules than regular oil and the molecules do allow electron flow.
 For this reason, it can be used where conductive lubricant would be otherwise needed.

Tom Lytle is a proponent of synthetic lubricants. His choice is the Mobil 1 20w-50 for wheel bearings and drive rods, and Mobil 1 Synthetic grease for gear boxes. We have been using these products at Clark Gardens for the past couple of years with good results.

Manufacturers of Lubricants

The following is a partial list of manufacturers of "regular" lubricants. Some will only offer specific lubricants such as light oil or conductive grease while others will offer a full range and in some case kits which include samples of each lubricant.

- Excelle
- Hob-E-Lube
- Labelle
- Bachmann
- LGB
- Lionel
- Piko
- USA Trains

Most of the major automotive lubrication companies will offer a synthetic oil and grease which could be used on our trains. The biggest issue will be that typically the oil is sold by the quart and you will have to find a smaller applicator bottle in order to conveniently apply the oil where needed. You may want to save some bottles from the "regular" lubricants for this purpose.

ONLY TRAINS.COM

Your Online Source for G Scale

Family owned and operated



We are the source for all your G Scale needs
We STOCK LGB, PIKO, USA Trains, Bachmann and much more!



Looking to sell? We also purchase pre-owned items.

Call or email to get the conversation started.



website: www.onlytrains.com

Email: Sales@OnlyTrains.com

Phone: 1-800-789-5738



Easy Corrugated Siding

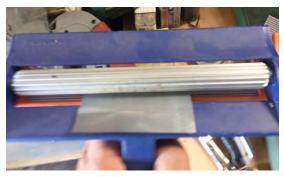
Article and photos by Tony Woore



I use a Fiskers crinkler available at most craft stores for around \$10. I cut the cans into 1½ x 3 inch pieces and run them through the crinkler.















Pop-Up Railroad Displays





Central California Coast Garden Railroad Society displayed a simple layout outside the San Luis Obispo Railroad Museum as part of the Central Coast Railroad Festival in early October. Club members also held open houses during CCRF layout tours.

> Cochrar Bob

Have Layout Problems?

We have Solutions!

hassles with our Stainless

Code 332

PROBLEM / SOLUTIONS

LOOSE TRACK?

Split Jaw Rail Clamps

The choice of professionals... Code 332, Code 250/215, Brass & Stainless

NEED POWER or INSULATION?

- Lug-Zilla TM heavy duty connector .o Light Duty Power Connector
- o 1/2 Length Power Connector
- Insulating Rail Clamps (shown)

RAIL ALIGNMENT ISSUES?

- Double Length Rail Clamp
- Code 250 to Code 332 Transition clamp
- o Expansion Sets Code 332 Brass (shown) Code 332 Stainless, Code 250 NS

LAYOUT ACCESS CHALLENGES?

- Drop-In Lift-Out Rail Clamps
- o Draw Bridges: up to 40" opening
- o Fixed Bridges: many styles offered

Visit us for more information at: WWW.RAILCLAMP.COM

EXAMPLES







Articles for Garden Railroading News are welcome. GR News would like to share the story that guided your plans when you built your railroad and your how-to tips. Send your Tale of the Track/How-To

to editor@GRNews.org with illustrating images.

If you are interested in a wider platform for short videos or photos of your garden railroad, Contact Mick Spilsbury at marketing@GRNews.org to share them on GR News YouTube, Instagram or Facebook.

> Videos less than 3 minutes are ideal. www.youtube.com/channel/UCmuyDnk2QRy1e1Q1AMFXrJw



Pop-Up Railroad Displays



Georgia Garden

Railway

Society



The Lomita, California, Railroad Museum held a Family Fun Day in late September and included railroad layouts in Z, N, HO and G-Scale. The Palos Verdes Wednesday Water Boil group ran G-Scale live steam trains all day on a modular track as visitors entered the grounds.



Southern California Garden Railway Society's crew, led by club president Jay Kelly, set up four loops on the grass by the museum's caboose. One train ran continuously; the other three engines were controlled by a steady stream of eager engineers—kids who pressed one of three buttons and then looked to see which train they had started... or stopped... or started again. A good day of fun for all.

2024 G-Scale Southern Regional Get-Together

Friday - August 23rd - Layout Tours

Saturday - August 24th - Vendor Hall The 65th Atlanta Model Train Show • Duluth, GA

Sunday - August 25th - Layout Tours

To be a vendor or exhibitor for the 1-day 65th Atlanta Model Train Show contact Charlie Miller at rrshows@aol.com or 703-536-2954

> Additional info coming soon to: GGRS.info



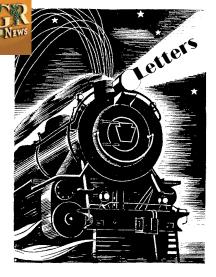
Our 25,000 square foot display has such amazing detail in the models... you might just say it's scary!



Other Attractions Include: The American Railroad Museum World's Most Complete Collection of Marbles Plus shop at Junction Hobbies & Toys

Go to entertrainmentjunction.com or





STRAIGHT FROM THE IRON HORSE'S MOUTH

Letters to the Editor should be sent as e-mails only to Carla Brand Breitner at: Editor@GRNews.org

Letters will then be addressed accordingly and/or passed on to the author for further edification. Unless marked otherwise, letters to this publication are assumed to be submitted for print. Please include your name and club affiliation. Please note that we may not be able to print all letters, though we will try to respond to them. Letters may be edited for length and clarity. We are unable to answer requests for information about specific products or systems; these are best addressed to the appropriate manufacturer.

A Successful Midwest Gathering in Iowa

Here's the video I compiled from "The Gathering"— the Iowa get together at the end of June 2023.

https://youtu.be/0k5sio5aQPE

The Gathering cost us roughly \$750 all total for 4 days of entertainment, gas, food, hotels, etc. A terrific value.

Plus no crowds; just the right size.

Plus I got to see layouts, attend workshops, meet wonderful people, ride a miniature train, buy trains, and bond at great picnics.

The video is 13 minutes; pretty good considering all we did in 4 days time. The first 8 minutes are mostly of the layouts and the second part are photographs randomly put together of fun times and interesting scenes.

Hope you enjoy it and really wish the Gathering will be back in the future somewhere in the Midwest again. Many thanks to the Team at Central Iowa GRS for taking the initiative and making it happen for us. Thanks.

Sue Elliot Minnesota Garden Railway Society

Thanks, Sue, for your favorable writeup and video supporting regional
events. And for your work promoting
garden railroading. You'll be pleased to
hear MO-KAN GRS will host a Midwest Regional May 30 to June 2, 2024.
Garden Railroading News wishes to
share club and group plans in 2024, so
that folks around the country can see
and appreciate different approaches to
G-Scale railroading. Send info on your
event, layout tour, or gathering to:
editor@GRNews.org



Photos Welcome for Seen on the Tracks

A G Scale Realistic Scene Photo Gallery

Please send uncompressed photo (with caption information describing the scene, rolling stock, railroad name & proprietors, location, and photographer's credit) to: Editor@GRNews.org; photos may also appear on the

GR News website and social media.

Affiliated Clubs outside the US by Province & Country as of 10/10/2023

	Canada
AB	Northern Alberta Garden Railroaders
	Rocky Mountain Garden Railroaders
BC	Black Mountain Railway Club
	BC Society of Model Engineers
	Fraser Valley G-Scale Friends
	Greater Vancouver Garden Railway Club
	Vancouver Island Garden Railway Club
ON	Bluewater Railroaders (formerly Ontario's West Coast GRS)
	Burlington Model Railway
	Central Ontario GR Association
	Golden Horseshoe Live Steamers
	London Garden Railway Society
	Ottawa Valley Garden Railroad Society

COUNTRIES BEYOND NORTH AMERICA AUS Garden Railway Club of Australia Inc. Australian Model Railroad Assoc QLD Australian Model Railroad Assoc VIC DE Club der LGB Freunde Rhein Sieg e.V (Monchengladbach/Rheydt) NZ Auckland Garden Railway Group Christchurch Garden Railway Group Locos, Lads & Lasses Waikato Garden Railway Group Wairarapa Garden Railway Group Wellington Garden Railway Group SWE NTJ, Näsets Trädgårds Järväg (Varmland) Sveriges Tradgardsjarngar (Stockholm) CH US G-Scale Friends Switzerland UK G Scale Society United Kingdom Kent Group: G Scale Society



Affiliated United States Clubs by State as of 10/10/2023 * Club/Society includes members from multiple states and is listed under each state.

AL	North Alabama Garden Railway Club	MD	Mason Dixon Large Scale Railroad Society
	Greater Hot Springs Garden Railway Society		Washington, Virginia & Maryland GRS
	Northwest Arkansas Garden Railway Society		Maine Garden Railway Society
	Ozark Garden Railroad Society		Lakeshore Garden Railway Club
	Arizona Big Trains Operators		Minnesota Garden Railway Society
, 12	Central Arizona Model RR Club		MO-KAN Garden Railroaders
••••••	Gadsden Pacific Div. Toy Train Operating Museum	•	Ozark Garden Railroad Society
	Oracle Community Learning Garden Kid's Railroad		Apple Valley Model Railroad Club
	Sun City West Model Railroad Club		Coastal Carolina Garden Railroad Society
	Tucson Garden Railway Society		Gibsonville Garden RailRoad Inc
	VDO Garden Railroad Club		North Carolina Garden Railway Society
	1:32 Scale Group		Piedmont Garden Railway Society
	Bay Area Garden Railway Society		Rivercity Railroaders
	Central California Coast Garden Railroad Society		Starry Night Railway
	Del Oro Pacific Large Scale Modular Railroaders		New Hampshire Garden Railway Society
	Diablo Pacific Short Line		New Jersey Garden Railway Society
	Fairplex Garden Railroad Volunteers		South Jersey Garden Railway Society
			New Mexico Garden Railroaders
	Gandydancers Gold Coast Garden Railway Society		Las Vegas Garden Railroad Society
	Mendocino Coast Model RR & Navigation Co.		Northern Nevada Garden Railroad Society
	Orange County Garden Railway Society		Central New York Large Scale Railway Society
	Redwood Empire Garden Railway Society	INT	Finger Lakes Live Steamers
	Sacramento Valley Garden Railway Society		Genesee G Gauge Railway Society Hudson Valley G-Scalers
	San Diego Garden Railway Society San Joaquin Valley Garden Railway Society		Long Island Garden Railway Society, Inc.
	San Leandro Historical Railway Society G&O Rwy		Western New York Garden Railway Society
	Santa Clarita Valley Garden Railroad Club		Buckeye State Garden Railroaders
	Santa Fe & Buthead Cove RR Train Group		Columbus Garden Railway Society
	Shasta Garden Railway Society		Greater Cincinnati Garden Railway Society
	Southern California Garden Railway Society		Miami Valley Garden Railway Society
	Upland Garden Railroad Society		Northern Ohio Garden Railway Society
	Denver Garden Railway Society		Riverside Railroad Crew
	Grand Valley Model Railroad Club		Central Oklahoma Garden Railroad Society
	Mile High Garden Railway Society		Ozark Garden Railroad Society
	Northern Colorado Garden Railroaders		Tulsa Garden Railway Club
C1	Boothe Memorial Railway Society	OK	Cascade Crossing Module G-Scale Group
	Central Connecticut "G" Gaugers Modular Club		Medford Garden Railroaders
	CT"G" Scalers		Northwest "G" Railroad Club
	Washington, Virginia & Maryland GRS First State Model Railroad Club		Rose City Garden Railway Society
	Shore Line Garden Railroad Club		Lehigh Valley Garden Railroaders
			North Central Pennsylvania Mountains GRS
	Emerald Coast Garden Railway Club		Pennsylvania Garden Rail Society
	Florida Garden Railway Society Gulf Coast & Central Florida RR Museum, Bushnell Stn		Pittsburgh Garden Railway Society Southeastern Pennsylvania Garden Railway Society
	Model RR Division of Florida RR Museum		Susquehanna Valley Garden Railway Society
	Tradewinds & Atlantic Railroad, Inc West Florida Railroad Museum		Crossville Model Railroad Club Knoxville Area Model Railroaders
	Georgia Garden Railway Society		
			Mid-South Garden Railway Society Nashville Garden Railway Society
	Central Iowa Garden Railway Society		
	Southern Idaho G-Scale Railroad Society Inland Northwest Garden Railroad Society		Houston Area G Gaugers North Texas Garden Railroad Club
	Chicago Area Garden Railway Society		San Antonio Garden Railway Engineer Society
	LGB Model Railroad Club of Chicago		Color Country Model Railroad Club
	Midwest RAILS (Railroaders Active In Large Scale)		
	Illiana Garden Railway Society		Utah Garden Railway Society Piedmont Railroaders
	Indiana Large Scale Railroaders		Tidewater Big Train Operators
	MO-KAN Garden Railroaders		Washington, Virginia & Maryland GRS
	Greater Cincinnati Garden Railway Society		Emerald Heights' Garden Railroad
	Greater Baton Rouge Model Railroaders		Inland Northwest Garden Railroad Society
	Amherst Railway Society		Puget Sound Garden Railway Society
	Rusty Rails & Rotten Ties		Kenosha Garden Railroad Society
	Kony Kana a Konon nea		
			Wisconsin Garden Railway Society
	National	US	

National US

Big Train Operator Club LGB of America

Please let our advertisers know you appreciate their support for Garden Railroading News.



Advertiser Index

Click on an ad to take you to their website (if they have one).

2023 NGRC Convention Car Sale 2025 NGRC Sacramento CA	15 40
Accucraft/Live Steam Station	22
Bachmann	7
Bridgewerks	33
EnterTrainment Junction	37
GardenLines.net	31
Garden Trains Annual 2023	35
Gary Raymond Wheels	19
G Scale Graphics	29
G Scale Society – UK	40
Hot Wire Foam Factory	19
J.S. Woodcrafts	30
LGB America	13
Live Steam Station/Accucraft	22
Locolinc (Keithco Inc)	31
Mini Forest	
Model Decal Depot	36
MO-KAN Midwest Gathering 2024	37
9 1	

Mostly GScale.com	33
MyLocoSound	29
Only Trains	34
PIKÓ America	18
ProMiniAir	26
RailBoss	29
RCS of New England	35
Reindeer Pass	32
RLD Hobbies	16
Shawmut Car Shops	25
Southern Region Get-Together 2024	37
Split Jaw Products/RailClamp.com	36
Stoneworks	36
Sunset Valley Railroad	30
Train Installations	32
Trainz.com	17
Valley Train Station	19
White River Productions	

Download Back Issues of *Garden Railroading News* with the Archive Tab at www.GRNews.org

Direct download web addresses changed in 10/2022 due to technical issues.

How to Download Garden Railroading News

GR News is a PDF document meant to be read in Acrobat Reader. It can be read in many browsers, but is best inside Acrobat Reader where you can control more display options and jump around throughout the magazine. All browsers have a download option, but the icons can vary. Look for an arrow pointing down and try clicking on it; then choose "Save File" and a location on your device. Some icon examples are shown here. Look for the arrow.

















New Easier

Magnification Control



WEBSITES & HAMBURGERS

Are you unable to see all our website pages on your mobile phone?

If so, let us introduce you to

THE 'HAMBURGER'



