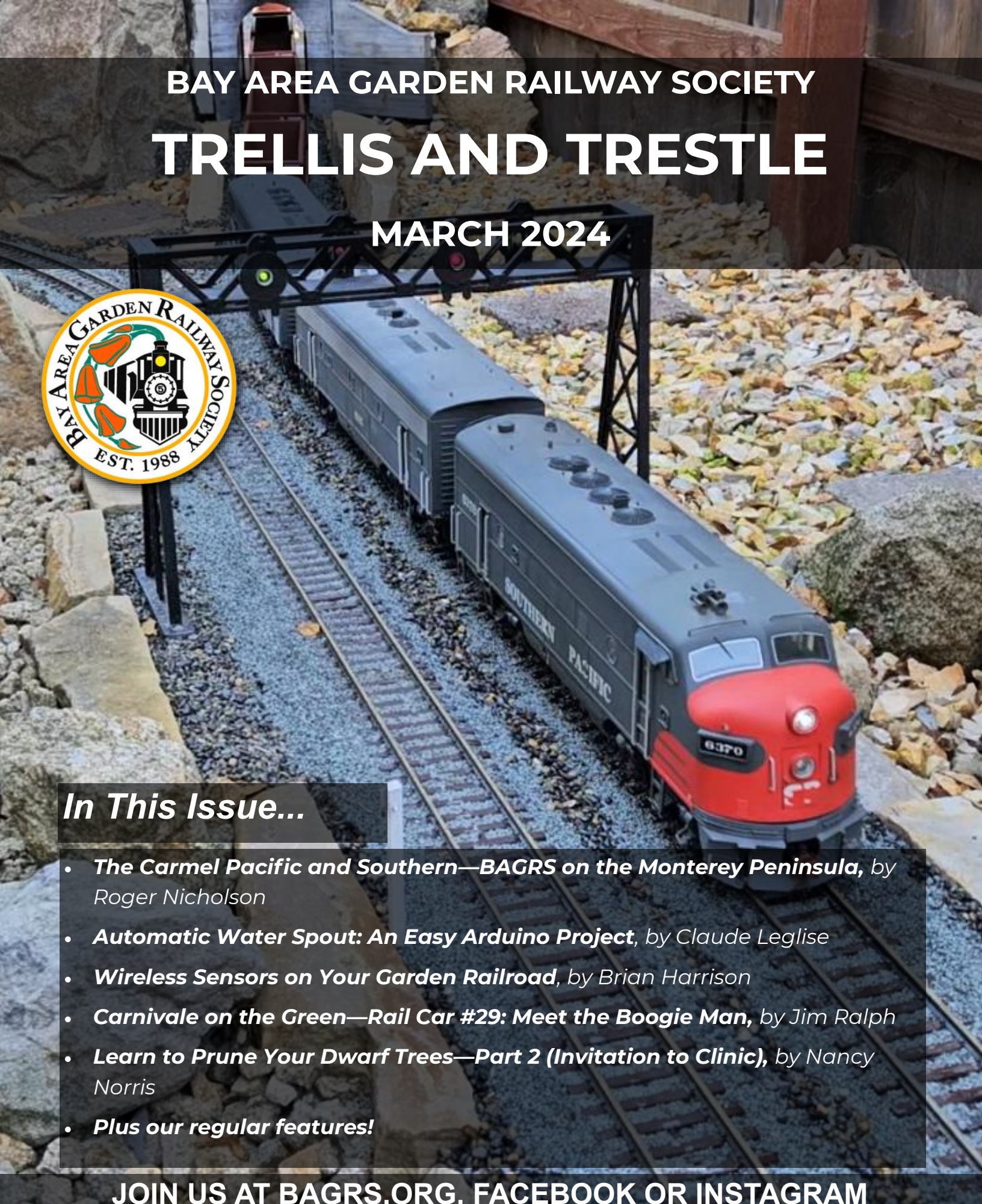
BAY AREA GARDEN RAILWAY SOCIETY

TRELLIS AND TRESTLE

MARCH 2024



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PRESIDENT'S PERSPECTIVES

GOODBYE 2023 - HELLO 2024

As the 2023/4 Board of Directors concludes its term, I look back at 2023 and forward to 2024.

Like many of you, I am frustrated by the outcome of NGRC 2023. A dozen members, led by Russ Miller, invested hundreds of hours in the convention, planning and implementing events, bus, schedules, security, the vendor hall, the convention website, registration, convention merchandise, and many other details. Dozens of members prepared their railroads and then opened them. All told, BAGRS members invested thousands of hours in the convention. The financial outcome was disappointing for all the time & effort that so many members invested.

We don't know why attendance was so far below our expectations and below both Denver 2022 and Nashville 2021, but we do know that hosting a national convention is an increasingly risky venture and we have proposed bylaw changes, which will give members the opportunity to weigh in on any proposal to host another one.

Now it's time to look forward to 2024.

We have already been joined by 15 new members since January 1. We continue to be the largest garden railway society in North America and defy the shrinking participation experienced by many societies. Registration for the 2024 annual meeting is up 15% from the annual meeting in 2023. The success of a trial way of scheduling open railroads last fall has persuaded us to adopt that scheduling approach in 2024, which should yield more open railroads, on more dates than we have seen in recent years.

Our monthly magazine *Trellis & Trestle*, has been upgraded beyond recognition, first, under the editorship of Greg Hile, and, now, under the editorship of Roger Nicholson. I hope many of you look forward to each edition as much as I do. This year, we will roll out a similar transformation to our website, originally planned for 2023, but delayed by our focus on the convention.

We will work hard to bring members together more often to spend time enjoying garden railroading with one other and meeting new members. We realize that this will be challenging and we will invest time and energy helping our new areas bring their members together one or two times a year. Earlier this week, the board approved financial support for those get-togethers in the form of up to $100 to cover the costs of the food that must always be part of any gathering of garden railroaders!

I am looking forward to showing off my new waterfall, which also created space for another useful passing track. I am also looking forward to visiting more railroads this year and seeing what other members have been doing.

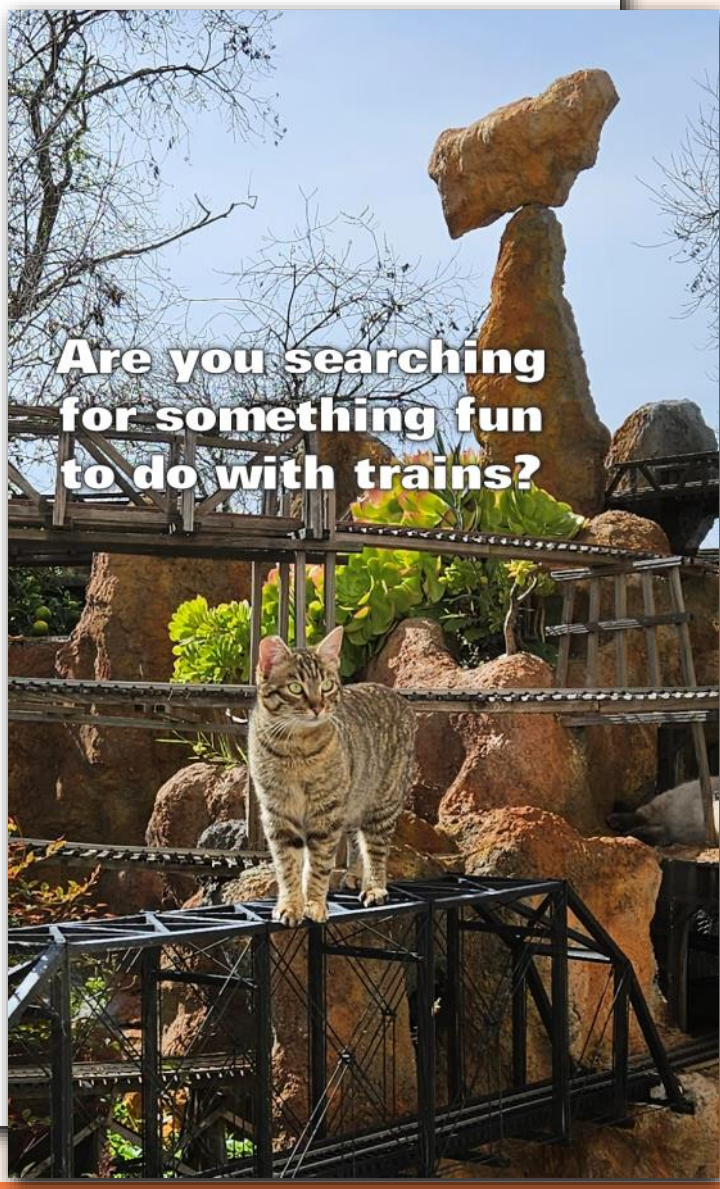
I hope you'll join in thanking Russ and his convention team for all their hard work and moving forward to realize the increasing potential of our society and membership, because:

Garden Railroading in the Bay Area is alive and well. **To 2024 - Mick**

From the Editor's Desk

Roger Nicholson lives in Union City, California, and operates the *Crystal Cove & Rose Railroad*.

- **On the Cover.** A trio of USA Trains F3 units pass under a signal bridge on Ed Rodriguez's *Carmel Pacific and Southern Railroad*, located in Pacific Grove, California, right in the middle of the Monterey Peninsula. I had the opportunity to visit Ed's railroad for the first time, and it was quite impressive. Ed strives for time period accuracy as he models the SP during the years that they were transitioning from F3's over to SD40's. BAGRS covers a large geographical region, with Monterey at its southernmost tip, so many of you will not have had the opportunity to see Ed's railroad. It was well worth the trip, and I have included an article introducing this unique railroad in this issue of the *T&T*.
- **Dave Frediani warned me he was sending an article about building another yellow car**, which he cleverly titled, "Another Yellow 7/8 Scale Car." Rob Lenicheck proves that the live steamers really are "playing with fire," and Jim Ralph introduces us to the Boogie Man.
- **Are you searching for something fun to do with trains? Come to the BAGRS Annual Meeting!** We will be having breakout sessions and clinics this year! There will be food and contests. We will have a session for new members. And, I guess I need to spend some quality time putting together my battery conversion clinic.



WELCOME NEW MEMBERS

We would like to welcome BAGRS' newest members and invite you to tell us something about yourself. We are happy that you decided to join us, and we hope that you will enjoy getting to know other members.

Remember, you do *not* have to have a garden railroad to participate in the club or have to contribute to BAGRS or the *Trellis & Trestle*—approximately half our members do not have their own railroad. Also, if I get some information wrong or misspell your name, please let me know and I'll take care of it.

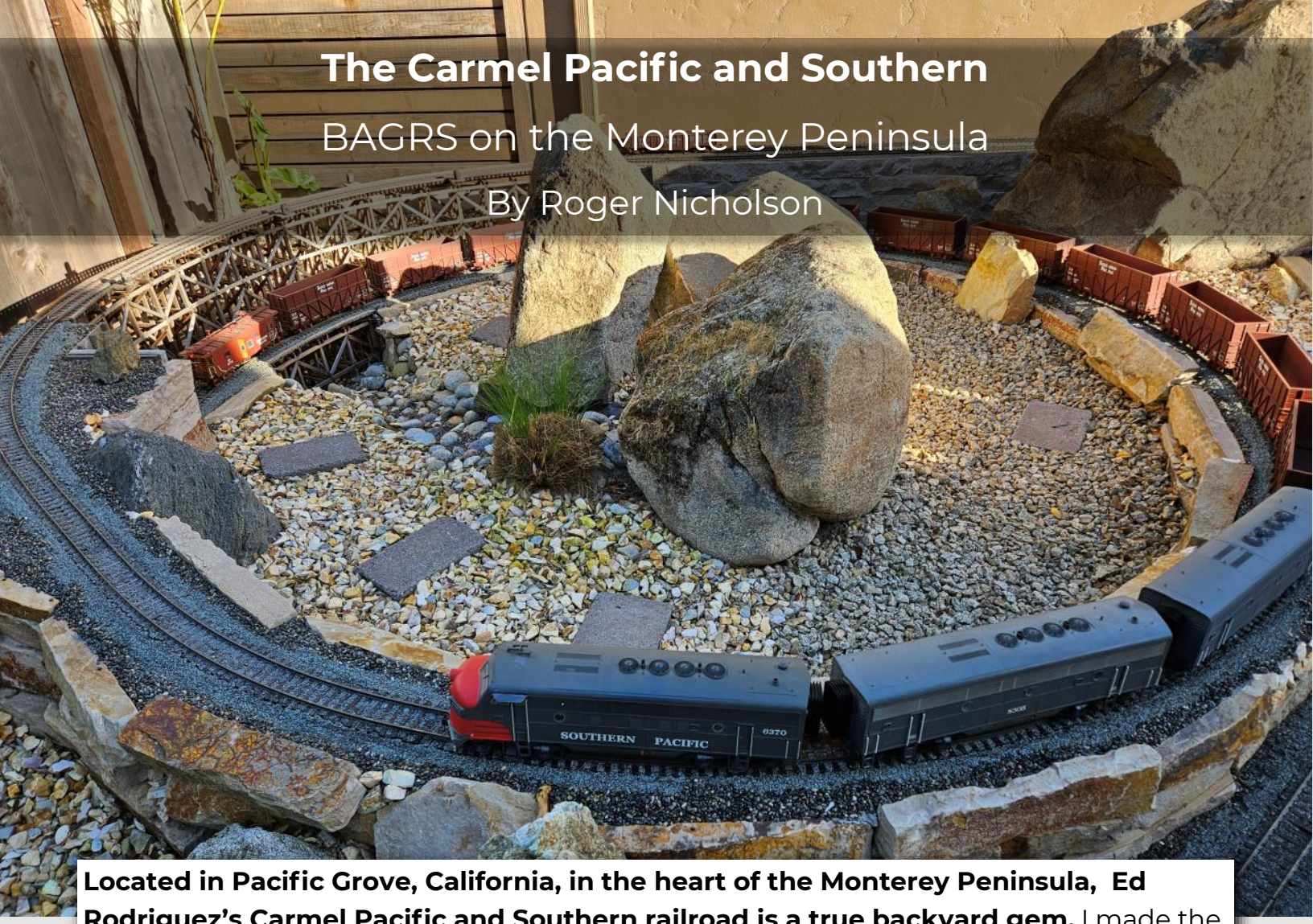
If you would like to submit an article, member update, fun train-related thing you saw while traveling, open house you visited, photographs, videos, or have any questions or corrections, please contact me **(Roger Nicholson) at communications@bagrs.org**.

- **Lee Kirkpatrick**, Mill Valley, California. Joined 23 January 2024.
- **Vova Tymoshchuk**, Livermore, California. Joined 31 January 2024. Railroad Name: Fern Pine Railroad.
- **Michael and Carole Epstein**, Carmel, California. Joined 4 February 2024.
- **Jim and Gail Ralph**, El Dorado, California. Joined 6 February 2024. Railroad Name: Carnival'e
- **Ricardo Llanos**, San Jose, California. Joined 6 Feb 2024.
- **Stephen Harris**, Reno, Nevada. Joined 14 Feb 2024.
- **Clint Baker**, San Bruno, California. Joined 24 Feb 2024. Railroad Name: San Bruno Shortline and Railway Park
- **Matthew Spencer, Angel Capagli**, Brentwood, California. Joined 24 February 2024.
- **Stephen Cramer**, Capitola, California. Joined 26 February 2024. Railroad Name: SW&S RR

The Carmel Pacific and Southern

BAGRS on the Monterey Peninsula

By Roger Nicholson



Located in Pacific Grove, California, in the heart of the Monterey Peninsula, Ed Rodriguez's Carmel Pacific and Southern railroad is a true backyard gem. I made the trip down to Pacific Grove on a Saturday morning and spent a few hours there. It was well worth the trip. The first impression I had when I entered Ed's backyard was how neat and clean everything looked. Everything right down to the ballasting of the track was well thought out. I learned that Ed is good friends with master garden railroad builder Daniel Smith, and that Daniel had a big part in designing and constructing the layout. Many within BAGRS have seen the high quality of Daniel's work on their own layouts, and this layout is no exception.

Construction of the *Carmel Southern and Pacific* started in June of 2000. Daniel and Ed co-built the layout, which originally consisted of a dog bone from the front yard to the rear storage shed with about 300 feet of initial track on the ground. Over the next 2 years, an additional S loop with passing siding was completed, followed by a full curve around a newly built guest house. The last addition includes a 3-track car barn for 3 18-car trains. Highlights of the line include a 1.8% grade loop, a wye, 4 stub sidings, 6 tunnels, 6 wooden trestles, and 4 steel bridges.

The track is Sunset Valley code 250 brass, with large radius turnouts and the minimum curves are 10 feet. The code 250 track, particularly when ballasted, provides quite a realistic look to the main line.

The storage shed houses all charging stations, the locomotives, and cabooses. With the entire fleet recently converted to battery power, each locomotive has its own individual AirWire receiver and Lithium-ion battery pack. Multiple locomotives are gathered into AirWire “consists,” providing plenty of pulling power.

Rolling stock is authentic Southern Pacific and contains a high level of detail. Caboose LED lighting runs off a single 3.7V rechargeable Li-ion cell, with switches and a charging port located underneath the caboose body. Particularly impressive (at least to me!) are the SP bay window cabooses. These are the cabooses that I watched roll by my house on the SP tracks when I was a child, so they bring back memories.

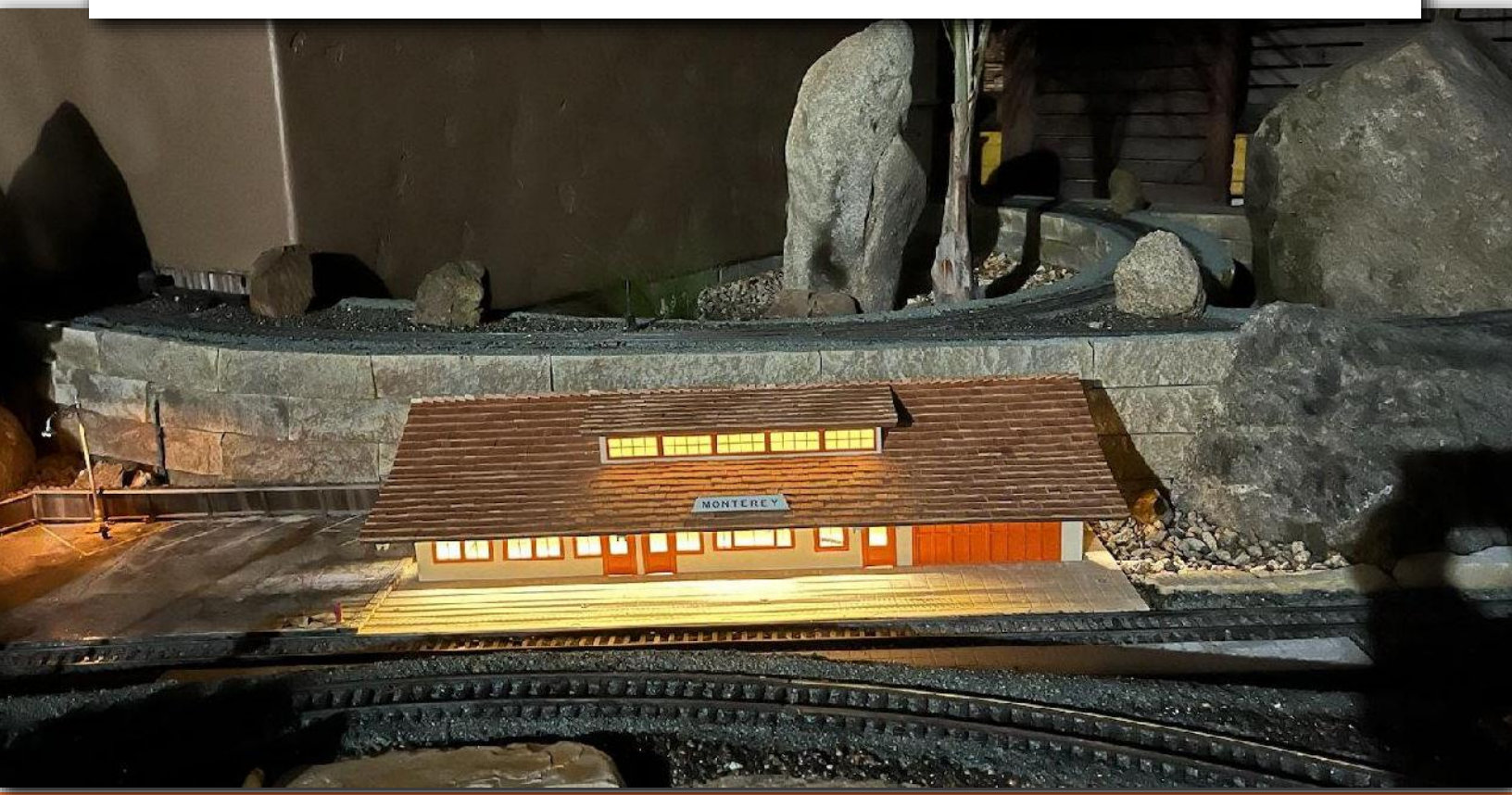
Ed models the Southern Pacific in the 1967–1968 time frame, when they still had passenger operations and were in the process of transitioning from first generation to second generation diesels. Ed has had each locomotive and caboose repainted using authentic SP colors for the era.

Locomotive consists are assembled and staged out of the storage shed, and then coupled to preassembled trains that are stored in the long 3-track car barn. The landscaping is pristine with large boulders, rocks, and gravel adorning the right-of-way. Among the features in the backyard is an arched footbridge built out of treated lumber and teak decking, allowing passage over a portion of the mainline.

The railroad also incorporates a working signal system.

There is even an authentic Southern Pacific “beet train” consisting of modified Bachmann gondolas whose sides have been raised to make them resemble the prototype. Ed told me that there will be some weathering of cars in his future.

The most recent addition to the layout is its one and only structure: A very accurate replica of the Monterey Depot as it appeared during the time that Southern Pacific owned it. The depot was constructed by Daniel Smith and includes full lighting. The depot was not yet in place when I visited, but Ed sent me some photos after its installation.



Consistent with the time period that depicts the changeover from older motive power to newer diesels, Ed sometimes likes to run a mixed consist, with a USA Trains SD40-2 coupled with a pair of older F3 B units. The F3 A and SD40-2 locomotives even have working Mars lights, just like the real SP locos used. It is amazing how lighting can make a train so much more fun to watch!

If you happen to be a SP fan, like I am, this is a railroad well worth a visit! ■

See this railroad on YouTube: [Carmel Pacific and Southern Railroad, Pacific Grove, CA - Dec 2023]

Automatic Water Spout: An Easy Arduino Project

By Claude Leglise

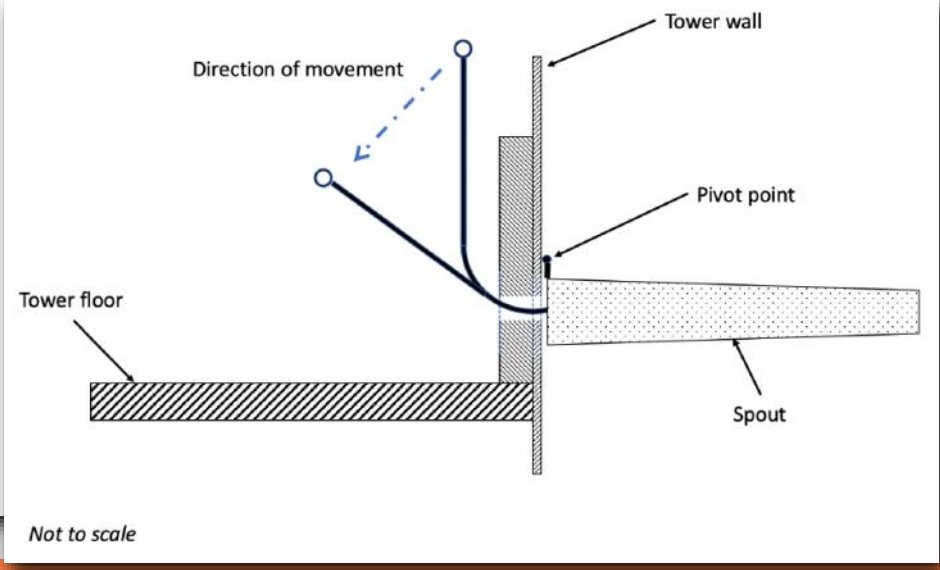
Last winter, I built a square water tower for my *Monida & Yellowstone Railroad*. It has a sound system triggered by an LGB reed switch in the track that simulates water pouring into the tender, but it is a static model. This winter, I decided to add animation to make the water spout go up and down automatically when a locomotive stops at the tower.

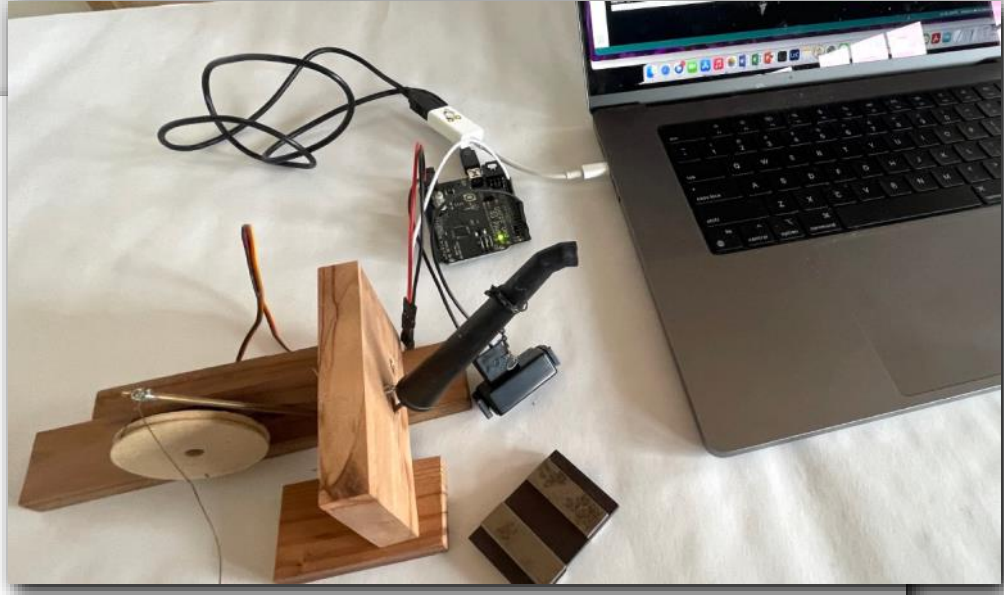
This project involves an inexpensive Arduino board, a small servo, a relay, and a few homebuilt parts.

PROTOTYPING

The spout is held in place on the wall by a piece of electric wire that goes through the ring at the top of the spout and then through the wall of the tower. This defines the pivot point for the movement.

I inserted a curved metal rod in the back of the spout. When the spout is down, the rod is up against the inside of the wall. A string of fishing wire will pull the rod down and raise the spout. The best radius for the curved part of the rod is such that the rod just touches the inside wall when the spout is down. The hole through the wall is ¼" in diameter. The rod slides through it easily.





Rather than work inside the tight space on the model itself, I built a little jig with the exact same dimensions as the tower wall thickness, pivot point height and hole diameter. I added the servo motor, the pulley, and the fishing wire that pulls the spout rod down to the setup. This allowed me to check the clearance and movement of the spout, and to develop and test the Arduino code at my desk.

The pulley itself consists of two thin pieces of MDF that were cut with a 2” diameter hole saw, chamfered on the drill with sandpaper, and then glued together. The groove thus created guides the fishing wire. The finished wheel is glued on the servo’s arms.

PROGRAMMING

For prototyping and software development, I used an Arduino board that has a variety of connectors for easy access to its functions. It is the type of board that commonly comes with entry-level learning kits. It has all the pin functions and power supplies needed for this project.

Programming the Arduino board is fairly straightforward even for non-software engineers. It was designed for hobbyists after all. If this is your first Arduino project, plan to get one of these learning kits and spend a couple of hours playing with it before starting. Many more details can be found at: www.arduino.cc .

In addition to the Arduino board, we need a servo motor to pull the fishing wire. For this purpose, an inexpensive ($15) radio-controlled airplane servo does the job and the Arduino board can power and control it directly.

Here is the flow of what we want the program to do:

- Start
- Listen for the LGB reed switch trigger
    - Wait a few seconds for realism
    - Lower the spout
        - Wait 2 seconds
            - Trigger the soundboard
            - Wait 15 seconds for the sound to play and 5 more seconds for realism
    - Raise the spout
- Return to the top

It only took a couple of hours to develop, test the program, and figure out the correct angle for the pulley to pull the rod down to the right level. Here is a snippet of the part that creates the movement:

```
// Start servo movement to lower the water spout
for (int angle = 0; angle < 140; angle ++){ // The maximum value of angle can be adjusted
depending on your spout setup
servoPosition+=1;
waterSpoutServo.write(servoPosition);
delay(10); // This can be adjusted to make spout go down faster or slower
}
// Wait at the bottom for a couple of seconds
delay(3000);
//
// Trigger water fill sound
//
digitalWrite(soundTrigPin, HIGH);
delay(100); // Just long enough to start soundboard
digitalWrite(soundTrigPin, LOW);
// Let the sound play for 15 seconds
delay(20000);
//
// Raise the water spout
for (int angle = 140; angle > 0; angle --){
servoPosition+=-1;
waterSpoutServo.write(servoPosition);
delay(10);
}
```

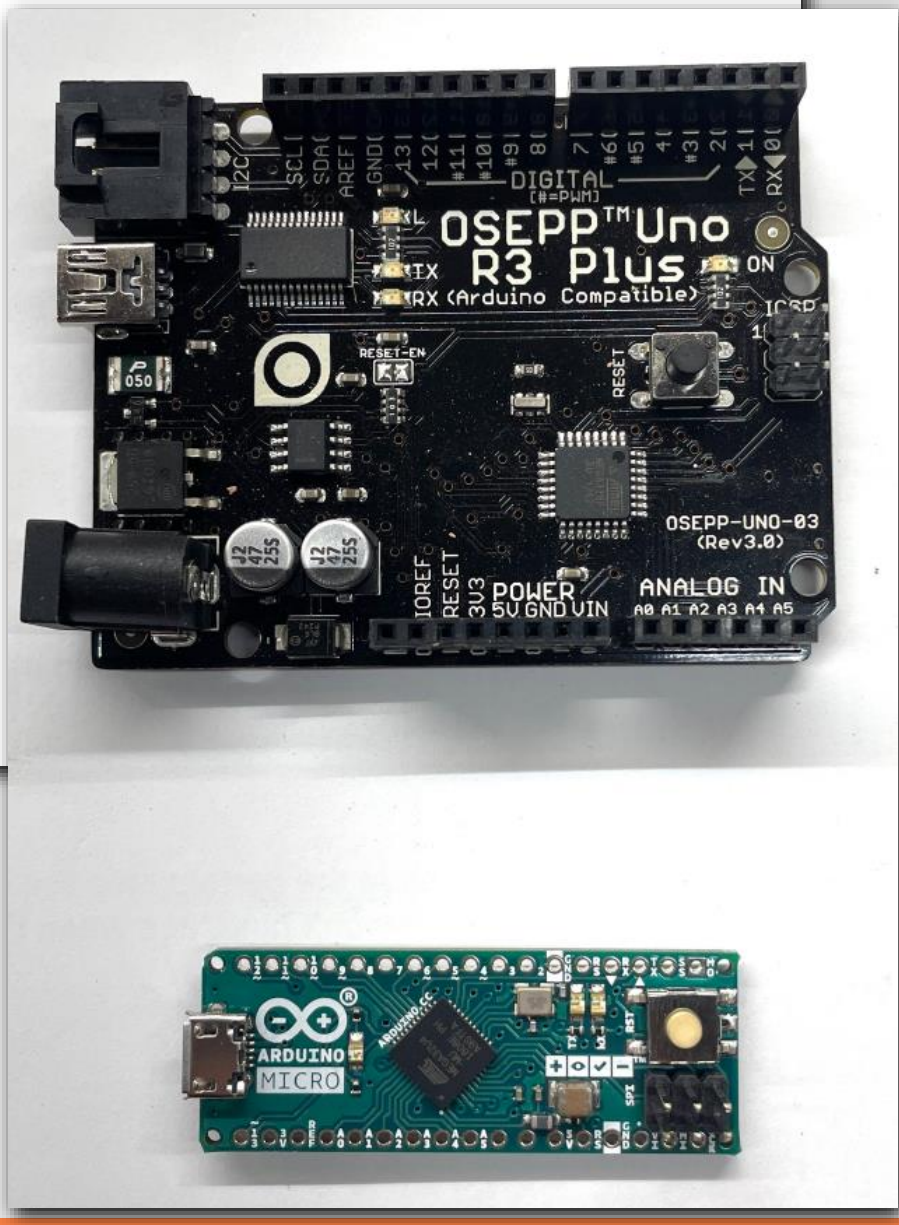
You can download the complete program from my website: www.railroad-buildings.com. It is fully commented, so you can follow along and see what it is doing. You may have to adjust angle values depending on the diameter of the pulley, the length of the rod, and the range of motion you want. All the parameters can be modified. Other than that the program is ready to upload to your Arduino board and try.

INSTALLATION

Before starting the installation inside the water tower, I had to solve a couple of minor issues.

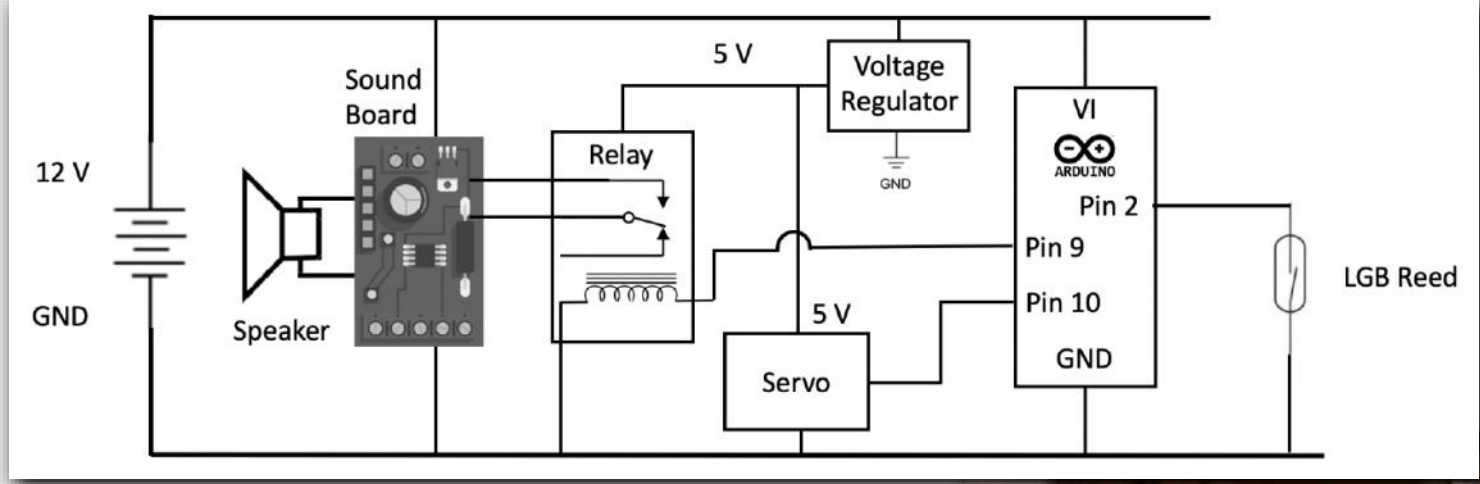
- Power supply: I use an old 12 V acid battery to power the soundboard. The Arduino board is happy with 12 volts too, but the servo requires 5 volts. I added a voltage regulator to create a 5 volt supply.
- Sound trigger: The soundboard is triggered by shorting two wires. I could not determine accurately how much power flows through these wires and I feared frying the Arduino board. I added a small $5 relay as a precaution.
- Space: There is not much room inside the water tower for the pulley, the servo, the water spout rod, the loudspeaker, etc. I chose to use a micro Arduino board. It is much smaller because it does not have connectors. An additional benefit is that the connections are soldered so they will stay in place.

The image to the right shows the size difference between the prototyping board with its connectors and the micro board as installed.



The full schematics are shown below. From left to right:

- The 12 volt battery
- The soundboard and its loudspeaker. It is connected to the 12 V supply and the relay that shorts the inputs to start the sound
- The relay connected to the 5 V supply and controlled by Pin 9 from the Arduino board (as defined by the software)
- The servo connected to the 5 V supply and controlled by Pin 10 from the Arduino board
- The voltage regulator that produces 5 V from 12 V
- The Arduino board powered by the battery's 12 V
- The LGB reed switch that triggers the whole sequence by pulling down Pin 2.



The pulley and servo assembly go in the tower first, making sure to align the groove in the pulley with the rod from the spout, and clearing the top of the loudspeaker. I used the setup from the prototype jig above and glued it in place inside the tower.

The various electronic components are attached to the tower walls with Velcro so they can be moved if needed. My wiring looks a bit like a rat's nest but it all works just fine.

Here is the spout in the up and down positions. The counterweights move along with it; they are also held by fishing wire.

The video of the full motion and sound is on my website at https://www.railroad-buildings.com/animated-water-spout

This was a fun winter project. As soon as the rains stop, this model is going outside for service on the railroad.

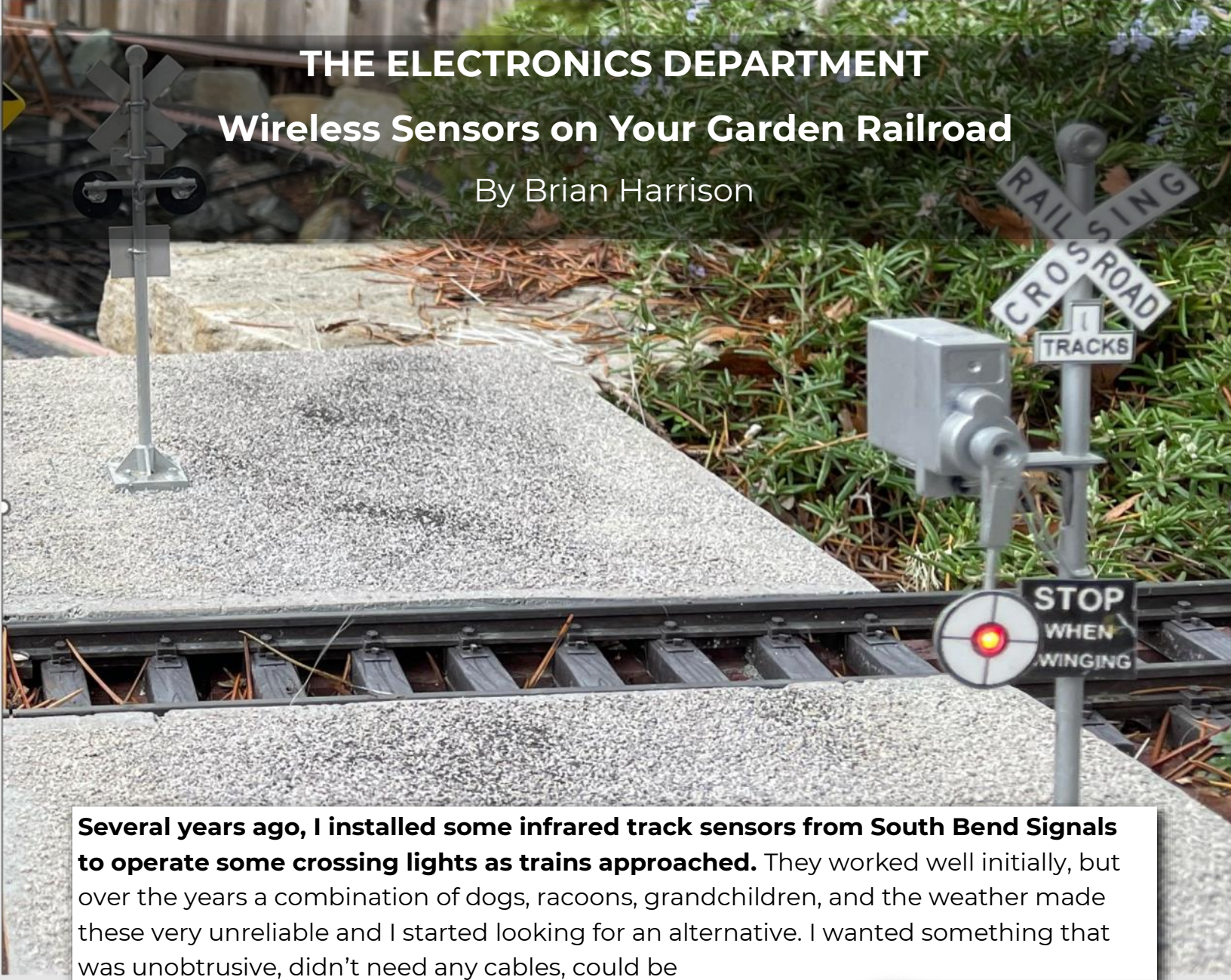
LIST OF SUPPLIES

- Arduino:
  - Starter kit and tutorial: ELEGOO UNO Project Basic Starter Kit ($25 on Amazon)
  - Micro board: from Amazon or arduino.cc
- Reed switch: LGB 17100 EPL track contact
- Servo: Hitec HS-55
- Relay: Tolako 5 volt relay
- 5 V voltage regulator module: $13 for 10 on Amazon
- Sound board: from ITT Products www.ittproducts.com

THE ELECTRONICS DEPARTMENT

Wireless Sensors on Your Garden Railroad

By Brian Harrison



Several years ago, I installed some infrared track sensors from South Bend Signals to operate some crossing lights as trains approached. They worked well initially, but over the years a combination of dogs, racoons, grandchildren, and the weather made these very unreliable and I started looking for an alternative. I wanted something that was unobtrusive, didn't need any cables, could be brought in out of the weather, and had great battery life, so I didn't need to worry about turning it off.

I initially thought I'd use the sort of sensors you'll see around homes for wireless burglar alarms. These are passive infrared (PIR) sensors and are available for less than $10 including a wireless connection. A PIR sensor detects infrared light radiating from objects and sends an alert when the light changes. This works well for detecting people or animals, but not so well for detecting a train (although probably works great for a live steam locomotive!). They are also difficult to calibrate, and could be confused by more distant objects.

After a little research, I decided to use an infrared proximity sensor similar to that used in my original track sensors. These have an infrared LED and a photo sensor. When an object passes within a short distance in front of the sensor, the infrared light is reflected back and the sensor raises an alert. The Adafruit APDS9960 sensor has lots more features than I need on a nice small board for $7.50, so I decided to use this as the basis for my sensor. It can be tuned to give an alert for objects up to several inches away.

While I could connect this sensor directly to the module that controls the crossing lights, I want to have these at some distance away and with no cables. I'd already decided to use Bluetooth Low Energy (BLE) as the wireless protocol to communicate between sensors and devices, so I needed a small controller that could be battery powered and supports BLE. I already had some controllers from Particle that would support everything I needed so I ordered some of their latest version, the Photon 2. These are normally $18 but were available at half price. Another $10 buys a small LiPo battery which can be directly connected to the Photon, and a USB cable can be connected to charge the battery. These modules also support WiFi, which makes debugging and tweaking the controllers much easier. However, I turn off WiFi in normal use to minimize power consumption and wakeup time.

The three signal pins of the sensor can easily be directly connected to the Photon leaving lots of pins free for other uses, such as operating lights or motors. A small circuit board mounts the sensor above the controller, with the battery behind. No additional components are required. The controller software sets a sensitivity threshold on the sensor. The sensor will send an interrupt to the controller when an object is close enough, and the controller will then send out a BLE advertisement to indicate that an object is on the line. In my case the alert continues for 10 seconds after the line is clear, giving time for the train to move past the crossing (or reach another sensor).

To minimize power consumption, I put the controller into ‘ultra low power mode’ if no activity happens for 10 minutes. The sensor remains active, and if an object is detected, the interrupt will wake up the controller. This allows a BLE alert to be sent within 1 second even if the controller is in low power mode. With this configuration, my battery (1800mAh) lasts about a week even if I forget to turn it off.

Finally I needed an unobtrusive place to install the sensor. I built a small trackside hut with a suitably placed window for the sensor. I initially planned to glaze the window but the sensor doesn’t work through normal acrylic so I had to leave it open.

I’ve done a few sessions with the sensors in place and find them quite reliable. They are easy to bring inside when not in use. With suitable naming of the sensors they can be used throughout a railroad to operate various types of devices - projects for the months ahead! ■

Carnivale on the Green: A Railcar Based Traveling Carnival

Rail Car #29: Meet the Boogie Man

By Jim Ralph

Jim Ralph is a member of both BAGRS and the *Sacramento Valley Garden Railway Society*, and is the brother of BAGRS member Bill Ralph.

Remember that weird uncle at Thanksgiving that liked to tease and scare us kids? His standard scare story was about the creature that lived under your bed. He told you that you were safe as long as you never looked under the bed or slept with an arm or leg hanging over the edge of the bed. And he also pointed out that this is why you were always 'tucked in'. If you ignored this warning, the BOOGIE MAN would grab that limb and pull you under the bed never to be seen again! The boy in the photo apparently survived such an encounter.

Playing to that childhood fear, this creepy attraction would surely create new nightmares or maybe eliminate old ones. When ascending the stairs for the meet and greet, the parent would discreetly point to the appropriate happy face images* posted nearby to signal the BOOGIE MAN which way to react with the child.

* With this being the earliest known appearance of the iconic yellow happy face, we can definitely say that the BOOGIE MAN was the creator of the happy face image.....True ■

Brought to you by the creator of the “happy face image.”

THE GARDEN DEPARTMENT

Learn to Prune Your Dwarf Trees—Part 2 (Invitation to Clinic)

By Nancy Norris

***Pruning Practices, Part 2* is a follow-up to *Pruning Practices, Part 1,* which was reprinted in the February Issue of the Trellis & Trestle.** Part 2 is about trimming back broadleaf shrubs and trees.

I want to invite you and your friends to an open house and bonsai-pruning clinic in San Leandro, 10 a.m., Saturday, March 16, at the San Leandro Historical Railway Society, slhrs.org, in Thrasher Park, corner of Davis Street and Orchard. Bring your own pruning shears!

The G&O Garden Railway is on Orchard Ave. at Davis Street.

Please read "*Pruning practices, part 1*" (which is reprinted in the February issue) and "*Pruning practices, part 2*" (reprinted in this issue) before the clinic to understand some of the lingo and concepts that will help you prune with confidence and success.

This story, printed here in this issue of the *Trellis and Trestle* with permission from the now defunct *Garden Railways* magazine, will be available as a link on March 4: https://www.trains.com/grw/how-to/gardening/pruning-practices-for-miniature-trees/ This links to part 2 as well.

See you there,

Nancy Norris

Member, *Bay Area Garden Railway Society* and *San Leandro Historical Railway Society*. ■

This article originally appeared in *Garden Railways*, December 2016, and is being reprinted with permission of Kalmbach Media Co.

NANCY NORRIS

GREENING YOUR RAILWAY

Pruning practices, part 2: Transform broadleaf shrubs into scenery

1. Marcus and Vanessa Kollmann model European railroads on their Landschaft Gartenbahn. Living scenery wraps around the structures and cozies up to the track for a lush landscape. At left, a cut-leaf Japanese maple (*Acer palmatum* 'Dissectum', Zones 5-9) stretches over the street for bright, dappled lighting. After winter, the Kollmanns shape this tree while the branches are bare and it's easy to see where the tips are headed (the primary indication for where to cut back plant material). When the sap starts to flow, they'll wait until early summer to cut back aggressive branches and keep the weaker ones for slow, steady growth. They must stop pruning in late summer, so as not to encourage soft, weak new growth that will perish in their cold winter climate. PHOTOS AND ILLUSTRATIONS BY NANCY NORRIS EXCEPT WHERE NOTED

Are you practicing? In the last issue, we discussed the need to jump into the garden, shears in hand, and take a stab at pruning our needle-leaf conifers, such as spruce and false cypress, to create pointy, airy cones. Illustrations showed starting points and steps for finishing the scale tree; by following an illustration, you know when you're done, just as in building a model structure. Over and over, year after year, we practice keeping living scenery manageable and out of the way of oncoming trains.

Woody broadleaf shrubs, whether evergreen like boxwood or deciduous like maples, model a different style or shape than our cone-shaped conifers, and require a new look at the role they play in the scenery. Most railway gardeners, such as the Kollmanns (**photo 1**), like to plant umbrella-shaped trees in town to shade buildings and keep scale plastic figures cool. Without our attention, the greenery could turn into fat bushes, hiding those buildings and townsfolk. Finally, we'll take a look at how to clean up herbaceous perennials, including grasses.

Open a canopy from a sphere

Broadleaf means "not needle-like." The scale purists are already whining, "Too big!" But perceptive modelers, like the Mortillaros, use the photographer's trick of placing trees with larger leaves to hang in front of their mid-field scenes. This gives the viewer perspective and the sense of sharing the same ground as the artist (**photo 2**). In other areas, broadleaf "trees" could hide a fence or other 1:1 object.

To make the lower branches (trunk) visible and the top ones lush, think of the lowest trunk-like branches as scaffolding or supports for the roof of finer branches bearing the canopy of leaves. **Photo 3**'s specimen boxwood shows how the Sommers divided the trunk near the bottom into interesting gnarled arms reaching up and out to hold up the top. When

2. Joe and Ann Mortillaro's Costa Plenti Railway is a theme park of historic miniature scenes of their native Canada. Near one path, a high crowned, red-leaf Japanese maple (*Acer palmatum* 'Atropurpureum', Zones 5-8) frames a town. The maple's large palmate leaves are somewhat mitigated by their dissected shape. Notice that the distant scene appears farther and smaller due to those larger leaves up front.

3. In the park-like setting of Joe and Miriam Sommer's Munee Pitt & Lunisea Railway. The craggy bark grabs our attention where the Sommers have pruned away side branches on the lower trunk. Finally, they chose one of the dozen or so boxwoods, probably a miniature-leaf box (*Buxus microphylla*, Zones 4-9), that will stay in scale longer than some other types.

Prune with a purpose

"Open up" the tree to let in goodness:

- light for photosynthesis
- air for fungus-free leaves and stems
- water for hydration and cleaning off pests
- space to let defoliating leaves fall
- aesthetically balanced shape resembling a tree, not a shrub.

On an "opened up" little tree, one can imagine a scale bird flying down to perch on one of the shelf-like branches.

4. Next to their car barn, Dave and Jenny Miller planted a varied landscape of evergreen and deciduous plants, woody and herbaceous. In the foreground, left to right, they will deadhead their perennial pink-flowering heather after blooming and keep the young boxwood's multiple trunks clean of branches. Up front, the perennial thyme groundcover doesn't need much fussing because they're trying to get it to spread.

younger, it might have looked similar to the Millers' boxwood in **photo 4**. Both boxwoods have been pruned of lower branches, crossing and crowded branches, and tips that shoot for the sky. **Figures 1-2** show how cuts may keep the plant open and small throughout the life of the railway.

Pinch back perennials

Herbaceous perennials live year after year but die back to the ground in winter. When low temperatures kill the stems, the flattened tops of the plant can act like blankets to protect the roots from excessive cold and promote self-seeding. More importantly, stems act like mulch to prevent repeated freezing and thawing, which heaves poorly rooted plants up and out of the ground.

At the end of winter, prune or pull away the dead material to see green sprouts for the new season. In warmer climates, perennials can be pinched or pruned back after blooming, relieving the plants of dead flowers and broken stems for a tidier look. Some perennials, like heather, require pruning (deadheading) immediately after blooming to encourage next year's blooms (**photo 4**).

Get into grasses

It makes us smile to see how seasoned railroad gardeners have solved some

5. Behind the barn on their Radishbahn railway, Barry and Bonnie Altman allow the grass to mat into a nest suitable for a rusting tractor. It may need to be called into service for mowing this field one day.

6. If you can't beat 'em. . . . Pat and Dennis Johnson, after mowing the 1:1 lawn (far right), get out the scissors to trim the scale wayside grass on the retaining wall just above. Here, grassy weeds look just right as the Johnson Pass Spur leaves town.

REGIONAL GARDENING REPORT Zones are USDA Hardiness Zones

How do you prune your broadleaf trees and groundcovers?

Gary Everitt
Salem, Oregon, Zones 8-9
Dwarf burning bush

Last year we had such a beautiful early spring that most of the plants produced leaves and flowers much earlier than usual. I didn't have an opportunity to prune until May. I usually prune according to the schedule I was told by an orchardist years ago: "The best time to prune is when you have the time." So I have been known to prune any time of the year, but I usually start pruning the miniature plants in the spring after the branches have a huge growth spurt. Sometimes (read "usually') a long rainy spring up here can put that off until the new growth is pretty long and after the dwarf Alberta spruce have already passed their new-growth soft stage. Our burning bush (*Euonymus alatus* 'Compactus', Zones 4-9) gets a big growth spurt in the spring, so I cut it way back. This year I severely pruned it back to give clearance for a streetcar on a new trolley line that I installed behind the diner.

Ray Turner
San Jose, California, Zone 9
Shrubs and thymes

Shrubby cinquefoil (*Potentilla fruticosa* var., Zones 2-9) can be maintained tree-like by thinning and removing low-growing branches every few months in the growing season. It blooms in the spring and all summer. Cotoneaster naturally wants to be a bramble, so it requires monthly pruning to open it up and remove branches growing downward. In the spring it fruits nice "apples" but I'm not convinced they are worth the pruning effort. Elfin thyme grows thick with time and just needs shearing around the track every few months. Woolly thyme sends out runners, which will root if left alone and require cutting off near the track.

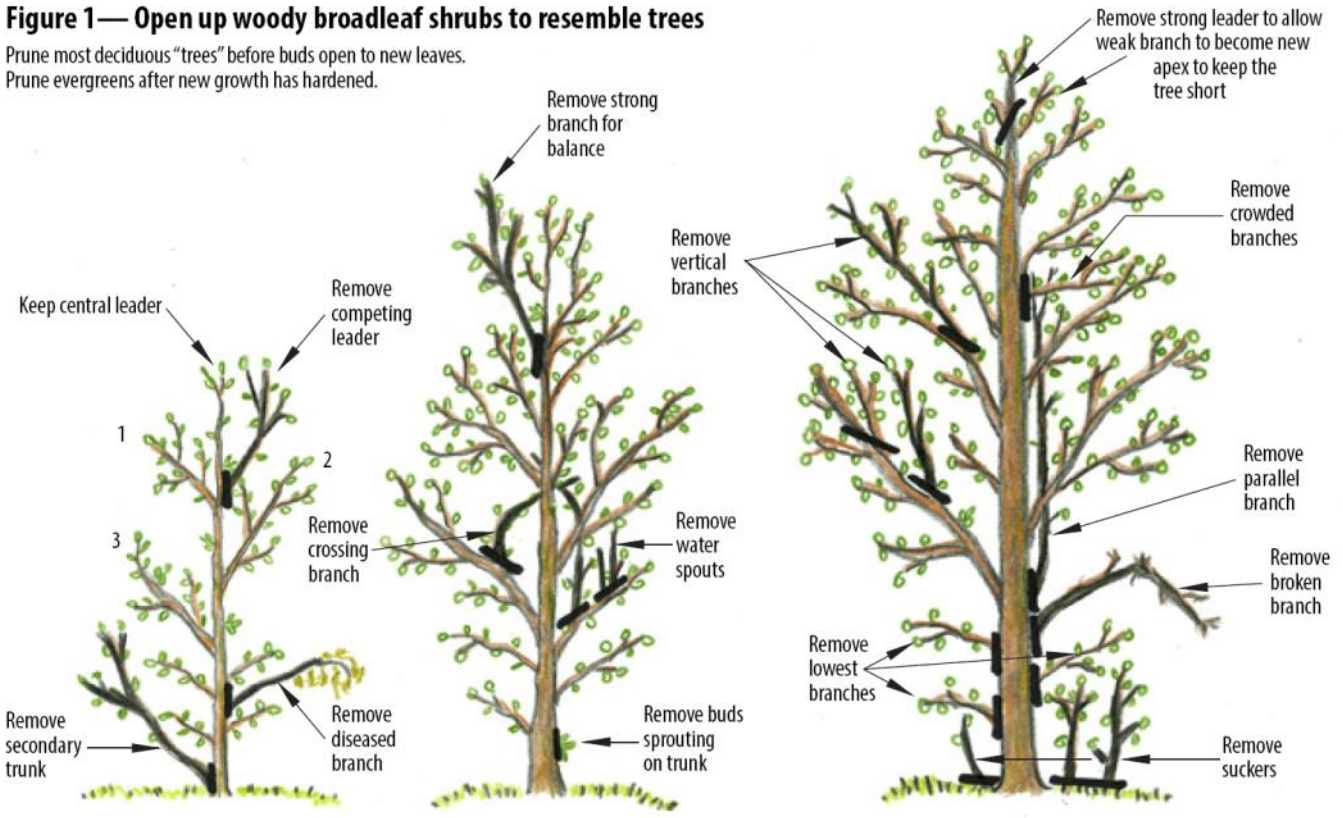
A deciduous dwarf spindle tree/burning bush accents the Raging Beaver Diner. Late fall, the leaves turn a glorious magenta. In winter the winged stems add interest to Gary's Story Lines.

Bright-yellow blooms light up Ray's mainline on his Mystic Mountain Railroad. The best time to prune this shrubby cinquefoil into a scale tree is late spring and late summer after the flowers have finished. The neighboring cotoneaster seems to reach into the photo with outstretched leggy branches, which always need cutting back or removal. RAY TURNER

Near the end of their blooming season, several varieties of thyme blend near the track. Ray prunes creeping stems away before they root under and through the ties. At the top of the photo, spent brownish-gray flowers require pruning to give sun and air to next year's crop.

Figure 1— Open up woody broadleaf shrubs to resemble trees

Prune most deciduous "trees" before buds open to new leaves.
Prune evergreens after new growth has hardened.



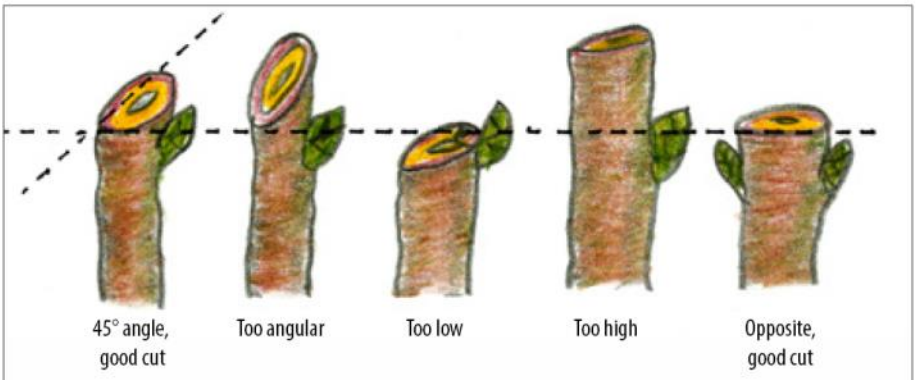


Figure 2—Prune to a lateral bud correctly

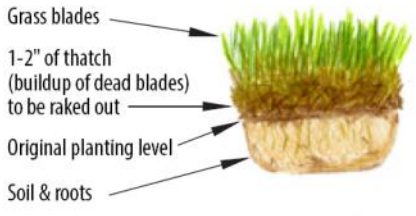


Figure 3— Grass maintenance

Use rake or hand cultivator to dethatch perennial grasses

problems, owing to their many years of dealing with the same issues. Here are two solutions for perennial grasses.

How many times have you seen a worn tractor lying fallow in a forgotten field? That's how the Altmans pictured their peaceful Canadian farm in **photo 5**. The Johnsons learned how to deal with bird-planted lawn-grass "weeds" next to their depot—they just shear them with scissors to keep the look in scale (**photo 6**).

Tidy up

Keep your pruners handy when visiting the garden. Deadhead spent flowers. Use grass trimmers for groundcover. Dethatch grasses (**figure 3**). Pull out dead leaves from between branches with your gloved hand. Shake or knock the upper trunk a bit to allow loose, dead defoliation to fall out. It's okay to leave an occasional lifeless tree or branch; it's only natural and provides a perch for dragonflies and small birds. But be aware that most gardeners' eyes will repeatedly fall on that deadness. Some people think there's a best time to prune out diseased or dead wood, and there is—any time.

Let the sun get into branches to light up your scenery. With each pruning experience, the way to best care for your growing landscape becomes more obvious. It's living art. As Neitzsche declared, "We have art so that we shall not die of reality."

All Steamed Up

by Rob Lenicheck

Rob Lenicheck has been involved in the live steam hobby for about 20 years, modeling in 1:20.3. He has scratchbuilt multiple engines and converted others to his passion: running coal-fired locomotives.

BAGRS Live Steam Gathering, Feb 24, 2024

What more can we hope for? A 70 degree day with abundant sunlight, great steam plumes from happy engines and a large and congenial group of live-steamers having a great time.

That was the scene on the 24th of February at the Lenicheck residence in Palo Alto. A couple of early risers, Chris Gathard and Richard Murray, are the first ones to fire up:

The crowd is starting to get a bit larger as Jim Hague is deciding how to go about getting his new-to-him acquisition ready for its first-time steamup. Others in the background include Bill Mansell (at right), Colton Snell (at left), Richard and Melinda Murray, and Tim Boles.

Even some wives came to enjoy the day. Here Virginia Allen and Melinda Murray savor the sunlight.

Part of the group in attendance that day, from left: Phillip Boles, Tim Boles, Ron Malouf, Bill Allen, Ron Sickler, Richard Murray, Jim Hague, Colton Snell with Steve Heselton taking a picture of the picture.

Bill Allen's scratchbuilt engines never cease to amaze. Here is his model of the 2-2-4 CP Huntington, the prototype of which resides in the California State RR Museum in Sacramento. Bill was able to get permission from the Museum to go under the "gold ropes" and get detailed measurements and pictures of the engine prior to building it.

Learning how to control a new engine can be a challenge. Here Jim Hague is finding out the amount of butane necessary to light his D&RGW C-21. Notice that he wisely was attempting to maintain his beard in this pursuit.

The engine did settle down and proved to be quite a good runner:

A new release from Accucraft, the 13 ton 2 cylinder shay, made its debut on the track. And, yes, it does come with a roof, which, of course, is optional while running.

Now, let's see. Which end do I light? Ron Sickler contemplates his scratchbuilt work of art before his very successful run.

Richard Murray is busy getting his Adams Radial engine ready to run. This kind of maintenance is very necessary to ensure many hours of faultless running.

And here is the speedster running after providing another pyrotechnic display. (Did someone bring the marshmallows?)

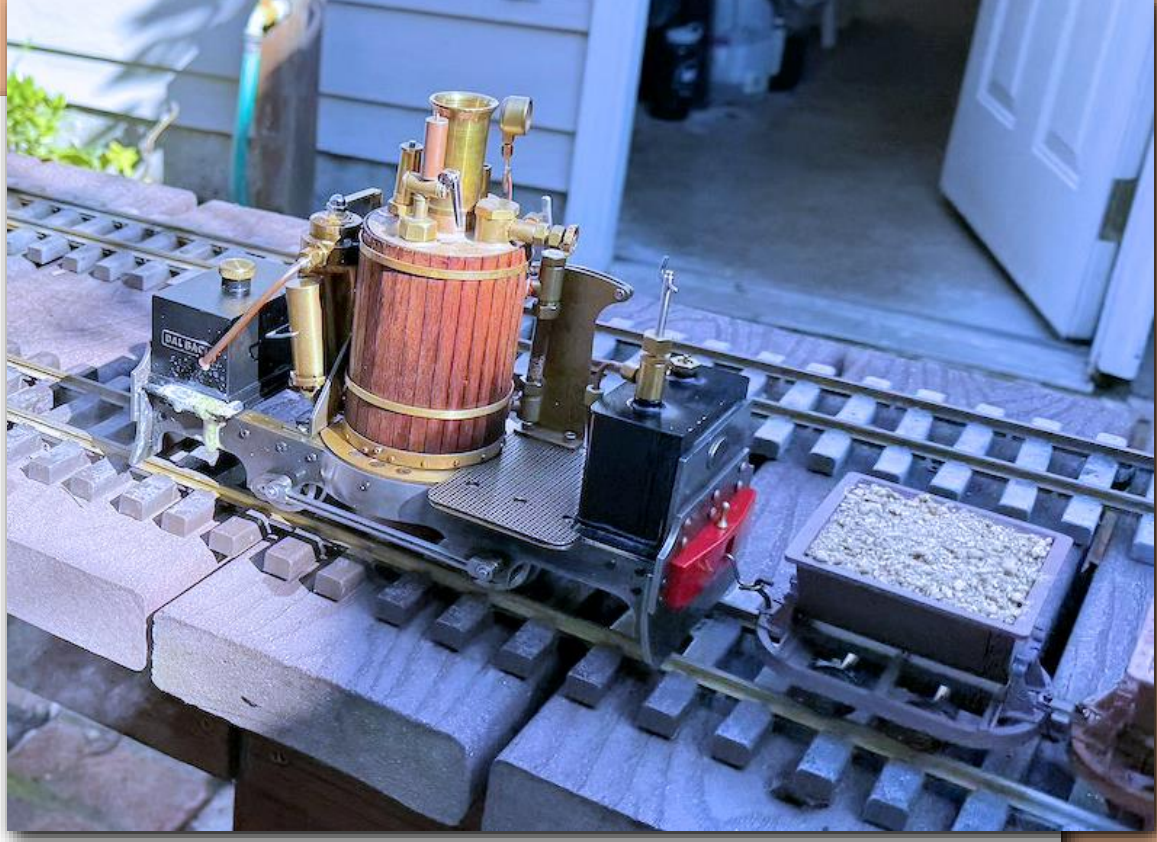
Colton Snell's little Regner-made Guiness shuttle engine is always the crowd pleaser and a great runner. Now, let's see. Where'd I leave my beer?

It's always great to have the chance to welcome newcomers to the live steam hobby. Here Matthew Spencer runs his newly-acquired Ruby. Matthew is now an official member of BAGRS!

John Rhoadarmer ran his fine consist of an Accucraft 4-4-0 American and two brass Accucraft passenger cars.

Yes, even the gals get into the live steam act. Here is Melinda Murray's Regner Vincent during a run.

Bill Mansell is another very talented scratchbuilder who turns out models like this.



Concluding, a picture of the picture taker and steamup sponsor. And a good time was had by all. ■

Dave's Corner

by Dave Frediani

Dave Frediani lives in Sonora, California and, among his many talents, constructs 7/8 scale rolling stock.

Another Yellow 7/8 Scale Car

Well, my friend really liked the yellow boxcar I built him last month, so he asked if I would build him another yellow car, but not another boxcar. This is what we came with, a freelance 7/8 scale quarryman car, like the ones used in some quarries, and mining operations, and even on some narrow gauge railroads to move workers to and from their job sites. I know that West Side Lumber Co. in Tuolumne, California, used cars similar to this build to move loggers to their logging camps.

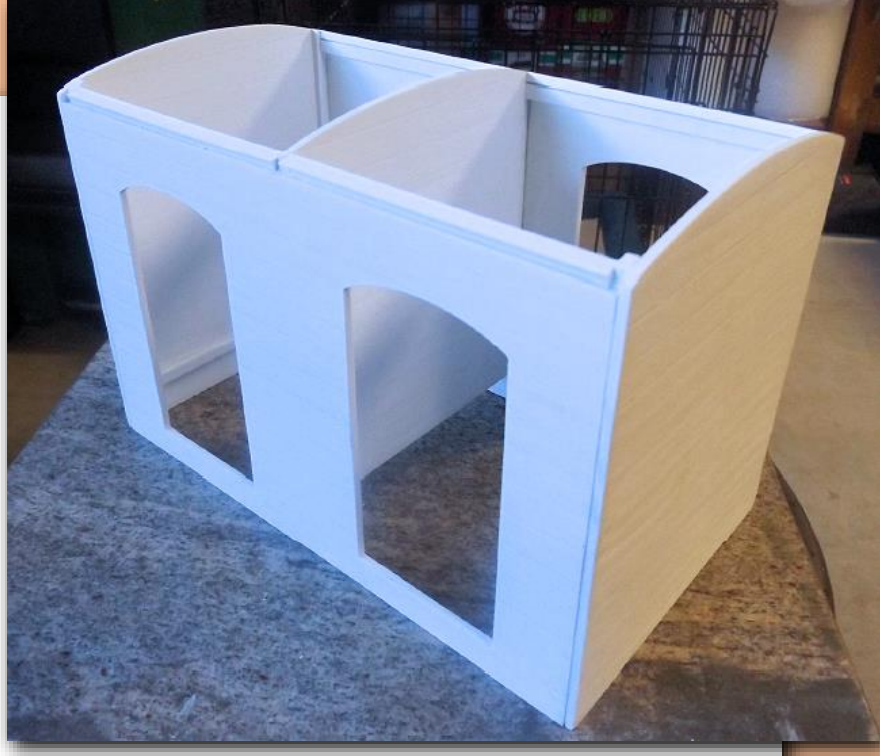
I've built this type of car in the past, and this car will have the same measurements as last month's yellow outside braced boxcar with a length of 8-11/16", a width of 4-7/8" and a height of 6". These measurements are for the four main body parts only, and doesn't account for any trim added to the car.

This car will be a much easier build than the outside braced boxcar I built last month.

As with most of my other cars, the four main body parts will be built of 1/8" styrene and the roof will be built of 1/16" styrene. I will also be using Evergreen styrene strips to trim out the roof and corners of this car.

This car will be planked and etched with simulated wood grain inside and out.

Here are the four main body parts of the quarryman car.



With all four main pieces glued together, I used Evergreen #188 strips in the corners for extra strength. Next I installed the middle wall that will separate the two passenger sections, keeping in mind that the middle wall needs to be 5/8" shorter then the end pieces to allow for the floor to be installed at a later time.

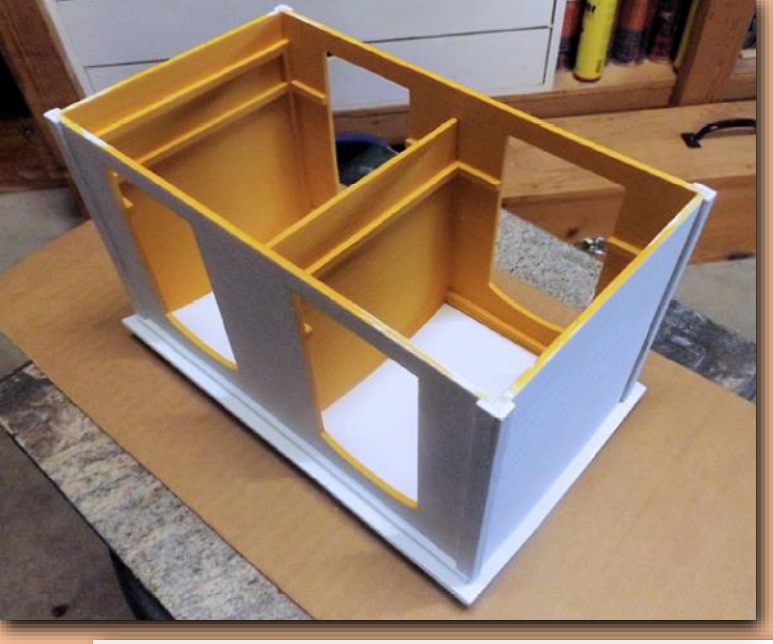
I also used Evergreen #188 strips to add extra strength and a place for the roof to bond to the body when the roof is glued in place. Here you can see the center section installed along with the #188 strips to support the roof.

Next I started on the framework for the four benches, using Evergreen #188 strips. The benches will be installed after the inside of the car and roof are painted. As I stated before, it's so much easier to paint the inside of the car without the roof and other objects being in the way.

This photo shows the framework for the benches, and also shows the center section with the wall shortened by 5/8" to make room for the floor.

With the inside of the body painted, it's now time to install the roof. For the roof I used a piece of 1/16" styrene and cut it a ½" larger then the body all the way around. Next I used two strips of #189 and cut them to the length of each side of the body, then glued them to the sides where the roof meets the body.

On each end of the roof, I glued #159 strips to the bottom of the roof next to the body. Then I glued #159 strips to the bottom of the roof on each side against the #189 strip.



After the glue dried, I trimmed the roof to meet the #159 strips glued to the bottom of the roof. Here are two views of the trimmed out roof.

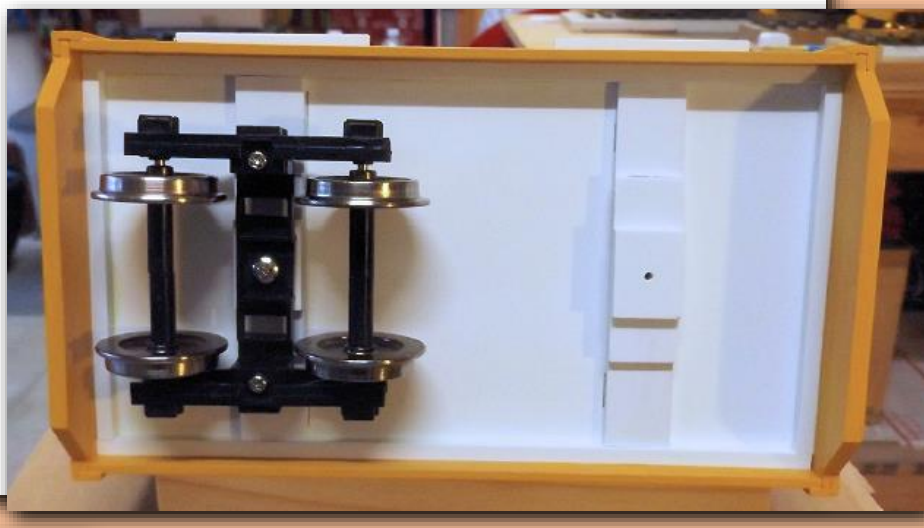
With the roof all trimmed out and all the outside corners trimmed with #169 strips, it's time to finish painting the inside of the roof. After the insides are painted, I started installing the benches with 1/8" styrene scraps that I had laying around. Before installing the benches, I scored planking and etched them with simulated wood grain.

With the benches in place, the only things left is to is install the floor and mounts for the truck assemblies. Here are two views of the benches installed.

For the floor I used 1/8” styrene and before installing the floor, I planked and etched wood grain into the floor and painted it.

I almost forgot. Because the floor is 1/8” higher then the bottom cut on the door openings, I had to use #189 strips for each door opening. On the left, you can see the one opening with the piece of #189 strip styrene installed to meet the height of the floor.

Here you can see one of the two supports for the truck assembly. There’s nothing special about the two truck supports. The only thing you need to know is that the height of the supports needs to be 3/8” high where the trucks pivot. I’m using two used Bachmann truck assemblies complete with metal wheels. The cost of this car, less truck assemblies, is about $25.00.



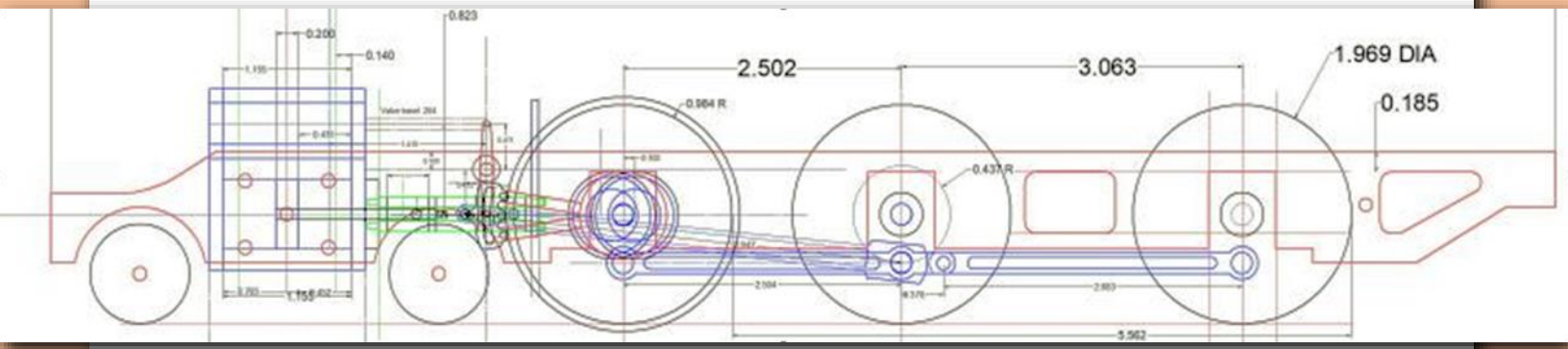
Here are two views of the finished car, less couplers. ■

East Devil Hills Modeling Group

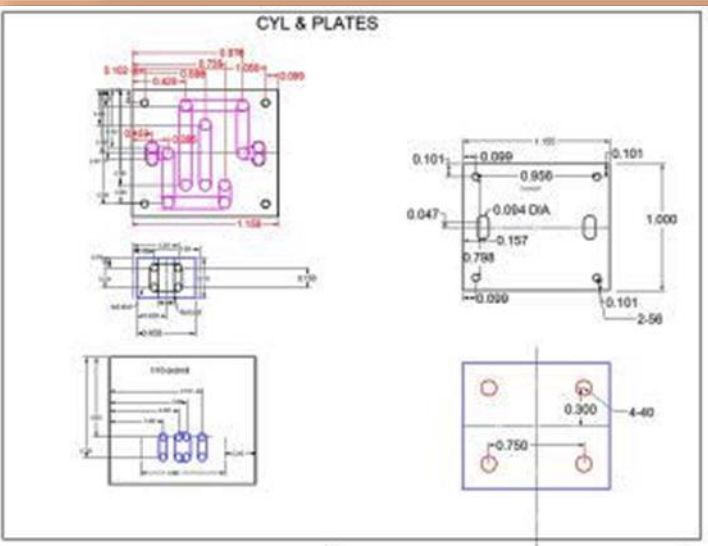
by Henner Meinhold

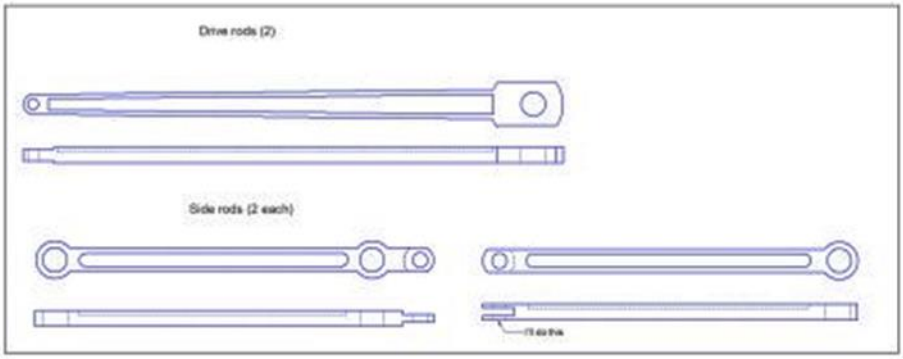
Henner Meinhold resides in Berlin, Germany. The *East Devil Hills Modeling Group* meets regularly to create, collaborate, and share incredibly machined models.

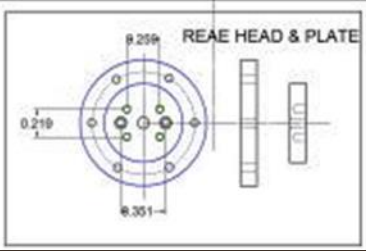
This month only Bill Allen contributed with his new project. It is a logging(?) rod locomotive. A couple of years ago, he learned how to use a CAD system. Now he uses this technique to generate drawings, which can be used for making parts, especially CNC cut components made by Dennis. Here is a drawing of the frame:

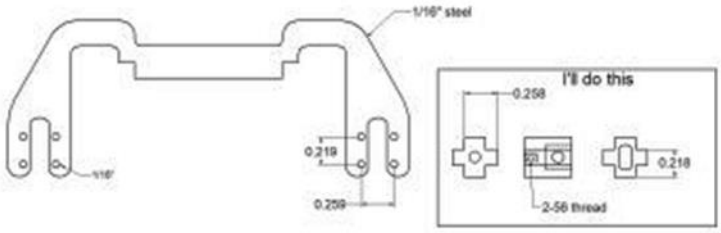


and some rods and parts of the cylinder:





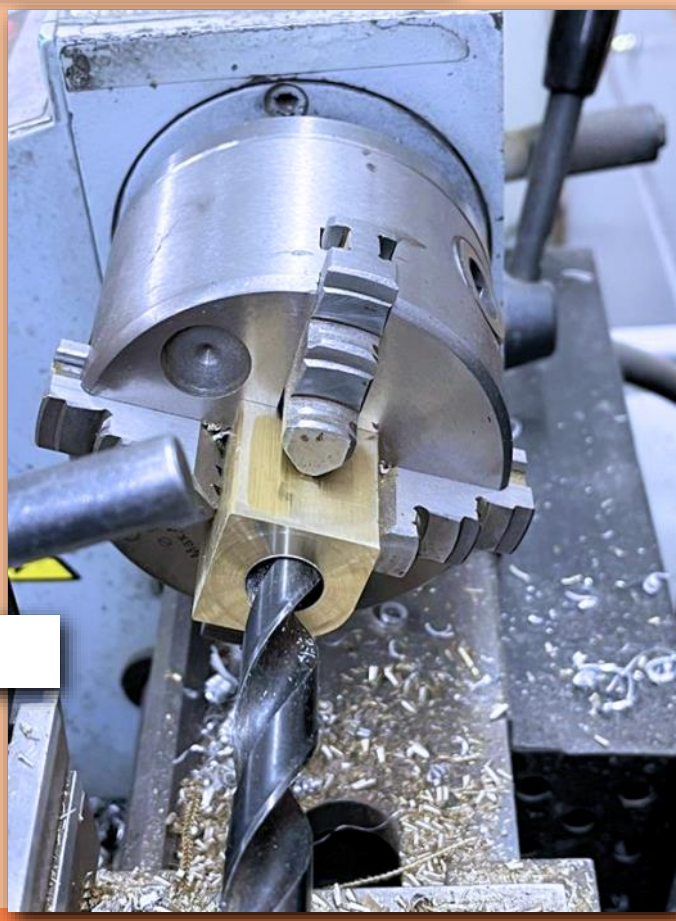




The loco has Stephenson valve gear. On top of the cylinder is a valve plate, which distributes the steam and can also be used to simulate piston valves by rearranging the ports.

For the cylinders Bill uses rectangular brass stock, where he rounds one edge with a router. This bar is then cut with the band saw into individual pieces:

The embryo cylinders are then clamped in a 4 jaw chuck and transferred to the lathe. The first operation is to face the cylinder, so he gets a plane perfectly perpendicular to the outside.



In the next step the bore is started with a drill bit:

Followed by a boring tool, which opens up the bore to almost the final diameter:

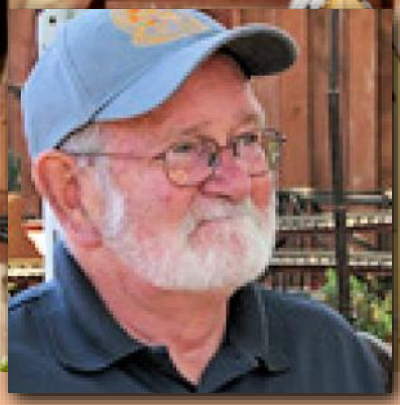
The last operation is reaming, which removes only a couple of 1/1000” and creates a very smooth surface/a precise diameter:

This completes the cylinder bore. Next steps would be drilling/milling the steam passages and mounting threads for the valve chest, the front/rear cylinder covers, and the frame attachment.

Henner ■

Postcards from the Past

By Bill Ralph



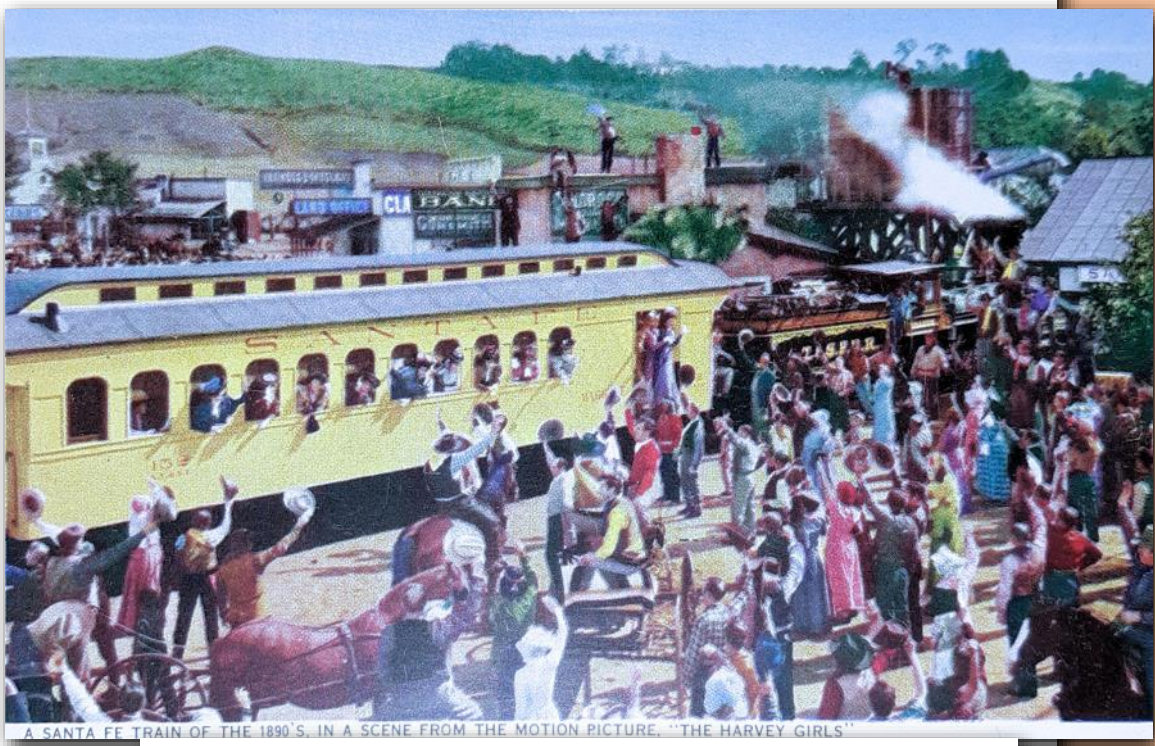
Bill Ralph operates the *Porcupine Gulch Railroad*, and knows a thing or two about amusement parks and postcards.

The Harvey Girls

"The story of the early-day Harvey Girls is being told on the screen in a new Metro-Goldwyn-Mayer Technicolor musical production, starring Judy Garland. "THE HARVEY GIRLS" tells how Fred Harvey waitresses of the 1800s brought romance and a civilizing influence to a typical frontier town."

Paramount purchased the 1875 4-4-0 Virginia & Truckee locomotive Inyo, No. 22, in 1937 to add to their growing stable of vintage steam equipment for use in filming popular westerns.

MGM leased locomotive No. 22, a car, and two V&T historic Brill coaches from Paramount in 1945 and had them trucked to their back lot 3, Western Street, for the filming of *Harvey Girls*. Re-lettered as Santa Fe, the vintage equipment was operated on the lot's 1100 ft. "main line," which was just long enough for the three-car train to appear to get in and out of "Sand Rock, New Mexico," (with 250 ft. to spare!). In order to change directions, No. 22 needed to be turned by a large overhead crane while the consist was remained unchanged. *Harvey Girls* went on to be a successful classic film. MGM's lot 3 has been replaced by a large housing complex, and the V&T No. 22 Inyo has returned home and is on display at the Nevada State Railroad Museum in Carson City. ■



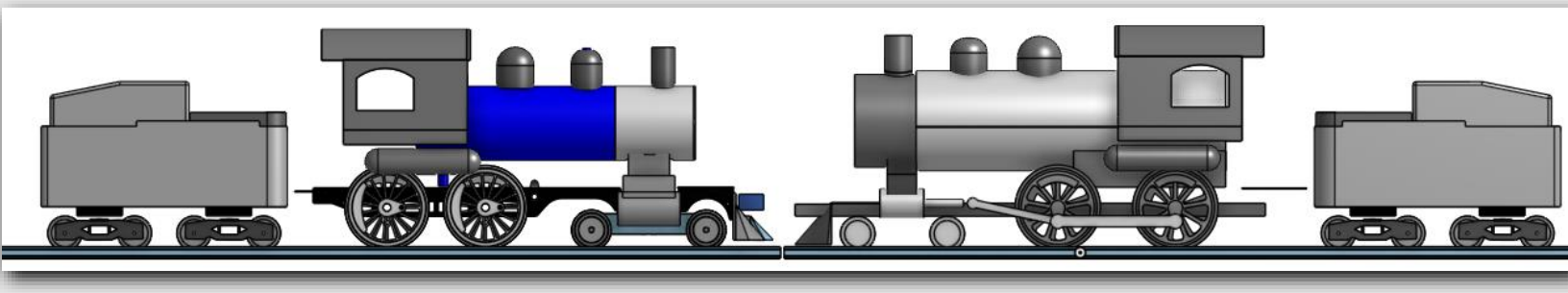
Circa 1940's postcard from the collection of Bill Ralph

MEMBER UPDATES

From Paul Wallace:

While the 4-4-0 Ruby in Blue is an excuse to get out to the shop and make things in metal, along the way, I have tackled CAD drafting and 3D printing as tools to help me visualize the project and rapidly prototype parts.

I should be wrapping up the drafting phase of the Ottaway miniature steam train and riding cars and get back to printing soon. Look for updates on the drivers, pilot, and cab at the March 2024 Annual Meeting.



There is a new YouTube video up by TSG Multimedia of F. John LaBarba's *Sonora Pacific NGRR*. Check it out here:

[Sonora Pacific Garden Scale Layout with F. John LaBarba]

MEMBER UPDATES

From Roger Nicholson:

I visited the Great Train Show at the Santa Clara County Fairgrounds last Saturday. Garden railroading was well represented by the presence of the *Diablo Pacific Short Line* (many of these folks are BAGRS members as well) and the *Wandering Railroad* (from the Sacramento Valley Garden Railway Society).

Here are a few photos of the Diablo Pacific Short Line in operation. There are a lot of animated scenes, such as the amusement park, but I especially like the miniature "ride on" park train that goes around its loop.

MEMBER UPDATES

If you have never seen the *Wandering Railroad*, it is a completely mobile G Scale railroad installed in a very large trailer. The scenery is spectacular, and it is well worth seeing.

MEMBER UPDATES

From Ray Turner: This is what happens to the *Mystic Mountain Railroad* when SCALE 1,000 MPH winds strike.

THE LAST PAGE

The Bay Area seems to have an endless supply of attractions for anyone interested in miniature trains. According to the website traintown.com, Sonoma Traintown Railroad (quarter scale) was established by Stanley L. Frank in 1958, who considered it to be a “10 acre tabletop railroad, which is outdoors and rideable.”

TRELLIS AND TRESTLE

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