



# GGRS Gazette

## August, 2021

Official Newsletter of the Georgia Garden Railway Society

### President's Message

### LATE BREAKING NEWS



The Invisible Man admits to coming to the meetings, being president all this time, but simply being quiet out of courtesy, allowing you to run the meetings for yourself.

*"Don't think I didn't hear you at the last meeting. Its awfully hard staying out from under some of your feet..... Just saying.*

Don't be invisible. Step up and be the Visible President of the GGRS!

### In This Edition

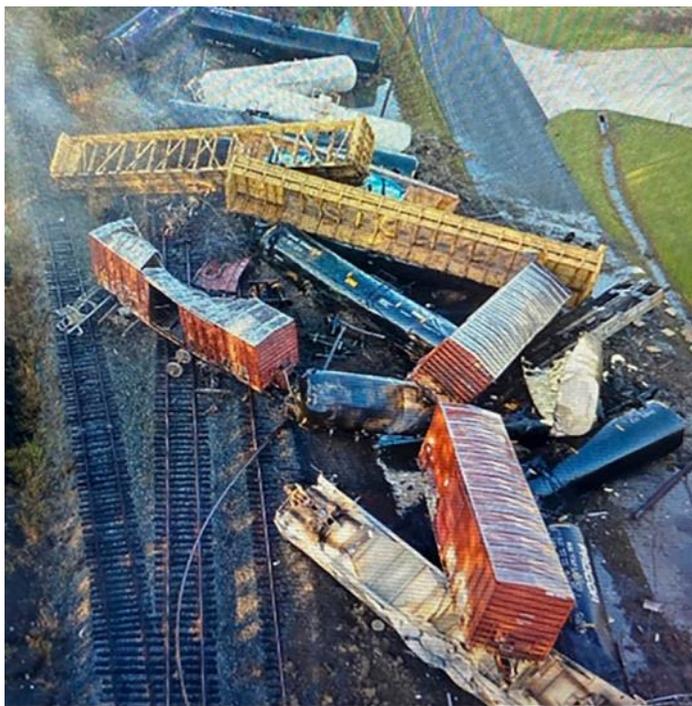
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## Major derailment on the eastern end of the Coppermine Railroad

**Subject:** News story / for immediate release  
**Dateline:** Dahlonega, Georgia Major derailment on the eastern end of the Coppermine Railroad

*Reported from the scene by On-Location Reporter - John Lees:*

The streamliner set of one each of an F1 F2 F1, has derailed on the Williamson Viaduct. The train traveling in a counter clockwise direction passed through the fence cut at a high rate of speed and in the brief moment of limited sight collided with the neighbor's cat who had been asleep for an undetermined amount of time.



*Continued on page 2*



Witnesses stated the cat was quite vocal about the incident; meanwhile the engine was also making a significant amount of noise as it fell six feet to the bottom of the viaduct. The cat could not be found afterwards for a statement. The train operator would not comment due to back injuries sustained while laughing at the cat who reportedly jumped several feet into the air. (The cat apparently sustained no injuries other than to its pride).

Train traffic is at a standstill until someone is located to be blamed for the accident.

### UPDATE:

As of tonight, the engine is back in service. The cat is nowhere to be found. The engineer has taken two sick days to recover and he passed the mandatory drug test. The ASAR, (Association of American Railroads), along with the NTSB (National Tabby Sleeping Bureau) is investigating the “dead man’s switch”. “Why did it not stop the train?”



# ***EVEN MORE LATE BREAKING NEWS***

## **She heard our plea and accepted the position !**



You can come out from under your rocks now, all ye who were hiding in fear. The GGRS is no longer looking for our next victim er....president. At the July meeting held at the Manning's, Juliet Foster graciously took the opportunity to step forward and claim her 15 minutes (*ha.... year and 1/2*) of fame and is going to lead our fine organization into the future. And a bright future it looks to be!



### **At the Depot**

The June Meeting at Peter and Lori's house in Dawson County was another example of a great fusion of gardening, trains, fun and fellowship.

The group discussed the National Convention, upcoming events, groups in the lower portions of Georgia, (below the gnat line) and just railroading in general. Lunch was a "create your own sandwich", with all the traditional sides one would expect for a summer picnic.





This year has a complete schedule of meetings with layouts through November, and we even have a plan for starting next year's meeting tour.

Outside, the Cothran Valley Garden Railroad features a double loop, bridge, and switchback, set amongst a landscape of dwarf shrubs, annuals, and perennials, simulating the foothills of the North Georgia Mountains.



Anyone would envy the green thumbs of Peter and Lori. The house is surrounded with plants, and decorations that call out for one to simply sit outside and enjoy the surroundings.

Vegetables were ready for picking, and we were invited to partake of the onions, as they were already ripe for harvesting.





## Track Warrants

Event	Location	Date	Status
GGRS August Meeting	John & Marge Lees 305 Town Creek Church Road, Dahlonega, GA	August 14 2021	In Planning Stage
SER Convention	Hilton Hotel Greenville, SC	Sep 9 - 12, 2021	Rescheduled
The Model Train Expo	Chatsworth Depot	Sep. 11, 2021	Outdoor Display
GGRS September Meeting	Dennis and Ellen Bass 1972 Lansbury Court, Snellville, GA	Sep. ? 2021	In Planning Stage
Model Train Show 2021	Clarence Brown Convention Center, Cartersville, GA	Oct 2 - 3, 2021	On a siding but still on schedule
GGRS October Meeting	Phil and Barb Jones 8084 Allerton Lane Cumming, GA	Oct ? 2021	In Planning Stage
GGRS November Meeting	North Georgia Live Steamers 1632 Centennial Olympic Parkway NE Conyers, GA	Nov 20, 2021	Picnic, Mtg. & Ride 1:00 - 4:30
GGRS Southside Atlanta Consortium	Multiple: At least 4 ! Peachtree City and outlying area.	May 2022	In Planning Stage

**Whistle Stop:****July Meeting @ Mount Jefferson**

*The Manning's railway community is called Mount Jefferson -- a combination of Terry's home town of West Jefferson and Ginny's home town of Mount Gilead.*

The 32-foot Serengeti Tourist Railway is one of three railroads operating in "G" scale in the gardens at the home of Terry and Ginny Manning of Lilburn, Georgia. The STR was created in 2016.

It is encircled by the larger 100-foot Southern Ohio Railroad built in February and March of 2017 that features an 8-foot Warren truss bridge crossing a small pond and waterfall, a tunnel feature, and two other bridges spanning the local roads.



The entire community includes over 200 structures. The Manning's are particularly interested in providing details to their structures that allow each one to tell a story. The following storyline transports you to the place and era of this miniature community.

**The Serengeti Wildlife Preserve and Zoo in Southern Ohio**

In the early 1900s, wild animal and railroading enthusiast Mars Manning envisioned a wildlife preserve and zoo to be located in Southern Ohio to share his love of animals with the general public of this little-served area of the Buckeye State. Unable to obtain necessary zoning changes in either his home town of Marietta in Southeast Ohio or his business location in Cincinnati in Southwest Ohio, he found a suitable site in a farming community called Mount Jefferson about halfway between the two locations in Central Southern Ohio.

It was in this area that Mars Manning purchased land on which to create his dream of a typical caged zoo area and separate wildlife preserve area encircled by a small oval shaped tourist rail line. This Serengeti Tourist Railway operates independently of the nearby larger Southern Ohio Railroad serving the residential and industrial community.

A ride on the Serengeti Tourist Railway allows visitors to view, from the safety of a train car, the African-like scenery of free roaming giraffe, zebra, hippopotamus, deer, rhinoceros, elephant, and other species in a natural setting.

Across the railway tracks is located the caged zoo area at which some of these animals, especially those having recently birthed a young one, can be viewed at close range by the public. The caged zoo area also displays predator species such as lions, tigers, and crocodiles not suited to safely share the same space as less aggressive species on the open preserve.

The Serengeti Wildlife Preserve and Zoo is named for that 12,000 square mile area of Tanzania and Kenya in Africa comprised of a variety of forests, swamps, grasslands, and woodlands famous for its herds of 70 different large mammal species. This Southern Ohio preserve became a model for the later appearing Busch Garden programs in other areas of the United States.

Mr. Manning maintains a residence near the zoo as its Director following his retirement as an executive of the Baltimore & Ohio Railroad in 1920. His small hunting lodge home sits just off the zoo property in a rustic area suited for hunting deer and small game where even an occasional bear might be seen among the rocky terrain.



## July Meeting @ Mount Jefferson (Cont.)

### Rural Mount Jefferson

Much of the surrounding community is rural and includes the two largest farms in the community -- the Pyatt family dairy farm and the Dudley family beef farm. There is also a pig farm along the tracks. A ride through the countryside by horse and buggy or by Model T will take you past the Boy Scout Camp, fishing lake, a fresh produce stand, the fire tower, old cemetery, and even a local moonshine still.



The Pyatt farm includes a lovely two-story home, cow barn, horse barn, chicken coop, milk shed, and potting shed -- many of the buildings painted in the signature white with green trim used by the family for several generations.

### The Village of Mount Jefferson

The zoo complex is located near the town of Mount Jefferson. Local residents provide staffing and local businesses provide support for the preserve and its tourist industry. The community continues to grow and includes such facilities as a courthouse, county jail, nursery, dry goods store, grocery, doctor's office, gasoline station, diner, restaurant, fire department, post office, barbershop, dentist, school, church, lumber yard, fire station, hotel, cemetery, and residential area. The town is served by the Southern

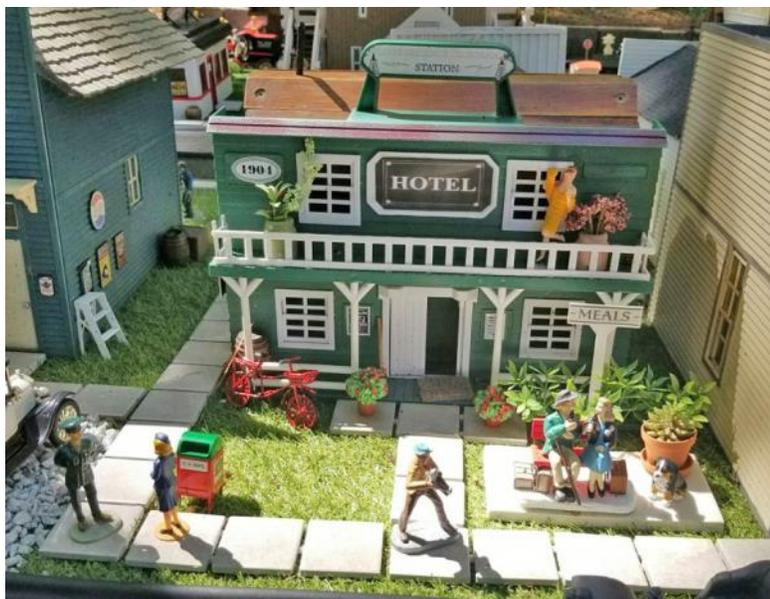
Ohio Railroad (also called the Mount Jefferson Railway by the locals).

A residential area of small cottages as well as medium sized homes surround the downtown area of Mount Jefferson.



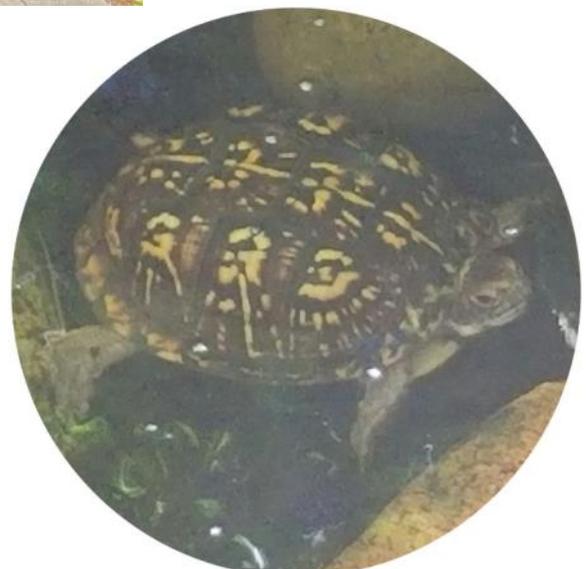
### Circus at the Fairgrounds

Taking advantage of the tourist industry created by the wildlife preserve and zoo, a circus has also made nearby Mount Jefferson its home at the fairgrounds since 2020. It is serviced by a 40-foot Circus Railway and circus train with a variety of rolling stock. The circus grounds include a freak show, carnival rides, clown show, wild animal acts, marching band, and other Big Top attractions.



*NOTE: You will forgive me if the photos and writeup does not exactly match. The writeup was given to me by Terry. It included photos to match..... However, Pam took some wonderful photos during the meeting that just seemed too good to leave out, so I did some substitutions. Everybody enjoyed the layout, including the visitor from the family **Testudine** (see photo lower right).*

*It takes from late May till the day of the meeting to get all the layout setup, and then an equal amount of time at the end of the season to put it away. Continual landscaping maintenance is labor intensive as well. Lots of work, but we are grateful for your efforts. Kudos to the Manning's. ....Editor.*





## Gandy Dancers

Highlighting Members and their work

Theme for the Month - Look What I recently acquired for my Railroad!

Everybody who went to the Convention surely picked up something for their railroad. Those who didn't go might have ordered or purchased something as well. Why not share your latest acquisition with us.



*This cattle ranch building was purchased at the 2021 convention from Michael's Custom Woodworks out of Kansas. I have several of his buildings and love them! - Ted Yarborough*



*While attending the Convention, I was inspired to light up this car. Let There Be Light! - Alan Luebs.*

*[Go to page 14 to read the article Alan wrote about LED installations. . . . Editor]*



*While visiting the Kentucky Railway Museum I purchased a pin to help support the restoration of the L&N 152.*

*I now have all 5, in the USA American Series - L&N Steel Box Cars 103798, 103799, 103800, 103801 and now 103802. - Roy Williamson*



*I found an awesome trio of scratch-built flatcars at an excellent price. If I knew who did the actual construction, I would enter them in a contest under his/her name. - Emil Decker*

*One of our buildings needed dual staircases, and we found just the thing at the convention. We also purchased a set of bleachers for the circus spectators. - Genny Manning*



The Piedmont Division, NMRA, is back to having live meetings. And who did they pick to present the first Clinic? None other than our own John Lees. His Caboose story and soon to be new book was a hit. I am sure of it.

**Where did the term horsepower” come from?  
Who came up with it, and why?**

Horsepower  
1 hp = 745.7 watts

$\Delta t = 1 \text{ s}$   
 $\Delta h = 1 \text{ ft}$   
 $m = 550 \text{ lb}$

**Answer on page 20.**

**ANNOUNCING...**  
**OUR FIRST IN-PERSON MONTHLY MEETING in 15 months!!**  
**ALSO IN A NEW LOCATION!**  
**Tuesday, July 13th**  
**6:00 Board Meeting**  
**7:00 General Meeting & Clinic**  
*(This will also be available on-line!)*

So let's get together at the  
**Governors Gun Club**  
1005 Cobb Place Blvd, Kennesaw, GA 30144  
and enjoy a Clinic by John Lees about how he got, re-located and renovated this Southern caboose!

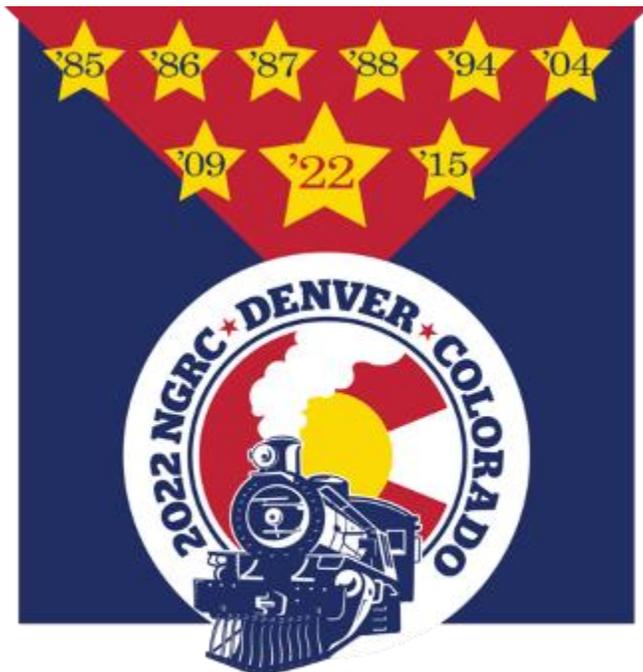
He will also have copies of his book about this experience available for sale at the Meeting.

Regarding the Gun Club: There will be a sign to show us where to enter the building. If you want to order food from the Club, there will be a menu in an eblast closer to the meeting for you to choose what you want, and also pay. Your selection will be waiting for you when you arrive.

**We hope to see you at the first in-person event for our Division since March of 2020!**

[www.piedmont-div.org](http://www.piedmont-div.org)

**Highballing down the Track**



**DENVER GARDEN RAILWAY SOCIETY**  
proudly hosting the  
**37th NGRC ★ JUNE 20-25, 2022**  
VISIT [NGRC2022.COM](http://NGRC2022.COM)

The 2022 National Garden Railway Convention website is now on line:  
visit at <https://www.ngrc2022.org/>

Colorado 1:1 railroading cannot be beat. We are looking into some awesome opportunities for post-convention group excursions you won't want to miss. Stay tuned for more details.

## LED Basics

By Alan Luebs

Light Emitting Diodes (LEDs) are cheap and widely available in a multitude of colors. For bulk purchases try eBay or AliExpress (slower delivery). A few dollars may get you 100 LEDs. Illuminating the outside or inside of buildings and rolling stock are common uses, giving a greater sense of warmth and realism to the diorama you have created in your layout.

Here are some basic facts about using LEDs:

1. Typical round LEDs (not installed in a fixture) come in various physical sizes: 3mm, 5mm and 10mm in diameter. There are also the flat/square variety. The smallest ones do not really have sufficient lumens to illuminate the surroundings but are “seen” as lamps, headlights, signs, etc.
2. They come in a myriad of colors. I just bought some “warm white” LEDs that give an ‘old-time’ look to simulate turn of the century kerosene or gas lamps.
3. They function like a dam in a river of electrical current. When the water (current) behind the dam reaches a certain height (voltage), it flows over the spillway unimpeded. Water current can’t flow backwards up thru the dam. The height of the spillway is the “forward voltage”,  $V_F$ . The forward voltage is a fixed characteristic an LED.

### 4. Basic electrical facts:

- a. When **voltage across the LED is above  $V_F$ , current flows without restriction.** The LED has a very small resistance when it is ‘conducting’. Therefore, current thru the LED must be limited to protect it.
- b. The **voltage  $V_F$** , that the LED conducts current and illuminates **depends on the color of the LED** and how the manufacturer made it. Typical values for  $V_F$  are 1.5 to 3.5 volts (see table below). Some multimeters can measure  $V_F$ . Look for the ‘diode’ symbol on the selector.
- c. **LEDs have a polarity**, the “positive” anode and the negative cathode. The positive wire lead is usually longer than the negative lead. Sometimes a black bar is evident at the negative cathode end. If a LED is wired backwards it won’t work and if the reverse voltage is high, say 30 vDC, the LED will fail.
- d. The forward **current (milliAmperes),  $I_F$ , thru the LED determines its brightness.** Pushing more current thru the LED makes it brighter. Pushing too much current thru it results in a bright but short life. Typically for the LEDs we are talking about in our hobby use, the desired current is 20 to 30 milliAmperes (.020 to .030 Amperes). They don’t instantly fail above 30 mA; they just don’t last as long.
- e. For a given supply voltage,  $V_S$ , and a forward voltage,  $V_F$ , (color), **a series resistor is chosen to set the LED current,  $I_F$** , and therefore its brightness. Varying the supply voltage and/or resistor value changes, within limits, the LED brightness. To determine the series resistor use:

$$R_S \text{ (ohms)} = (V_S - V_F) / I_F \text{ (amps)} \quad \{\text{using example - } (12.0 - 2.2) / 0.020 = 490 \}$$

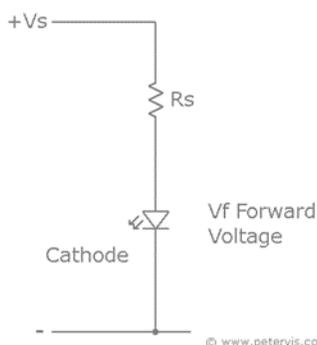
### Example

$V_S = 12.0$  Volts

$V_F = 2.2$  Volts

$I_F = 0.020$  Amps

Then  $R_S = 490$  ohms (470 ohm resistors are a standard size and would be chosen)



If the 470 Ohm resistor is used and the supply voltage was increased to 14.2 volts, then the current thru the LED would increase to 26 mA. The LED would be slightly brighter but the current is still well below 30 mA so the LED should be long-lived.

5. The **resistor may be installed on either leg** of the LED. Note that as the supply voltage increases the required resistance of the series resistor increases so that the current does not exceed the 20 to 30 mA range. Incidentally, resistors can be purchased in bulk for a few dollars on eBay or AliExpress.

6. **Resistors have power (wattage) ratings:** typically 1/8, ¼ and ½ watt.

$$\text{Power (Watts)} = I_F^2 R_S$$

Using data from previous example:

$$P = .026 \times .026 \times 470 \text{ ohms}$$

$$P = .312 \text{ Watts}$$

Therefore, use ½ watt rated 470 ohm resistor

7. **LEDs can be purchased with resistors already installed.** The Buyer tells the Vendor the planned supply voltage and the color of LED, and the Vendor installs the appropriate series resistor for 20 mA current. Also, Vendors sell LEDs appropriate to different supply voltages and of various colors (e.g. “12V warm white LEDs”). Buying them with resistor installed saves a bit of soldering work. However, choosing the series resistor means you can tailor the brightness of the LED. It is a good idea to use the ammeter feature of your multimeter to verify the electrical current thru your LED(s) with the intended power supply is less than 30 mA.

8. **Typical Forward Voltage vs Color** (your mileage may vary). Try to get info from Vendor or measure it yourself.

Color	Forward Voltage $V_F$
White	3.2 to 3.8 Volts
Warm White	3.2 to 3.8 V
Blue	3.2 to 3.8 V
Red	1.8 to 2.2 V
Green	3.2 to 3.8V
Yellow	1.8 to 2.2 V
Orange	1.8 to 2.2 V
Pink	3.2 to 3.8 V
Ultraviolet	3.2 to 3.8 V

9. **Multiple LEDs can be arranged in series or parallel.**

a. If they are arranged in series then the net forward voltage is the sum of all the forward voltages of the individual LEDs. One series resistor is used. At some point, the number of multiple LEDs will be limited by the power supply voltage. This works well if you have a battery of high voltage (12 vDC or above) since the current draws from battery is limited to 20 to 30 mA.

b. If LEDs are arranged in parallel, each LED/series resistor receives the full power supply voltage. The current flow from power supply should be about 20 mA times the number of LEDs. The electrical current delivery capability of the power supply/ battery may become limiting

# GGRS 1:1 Train Ride (+ Bonus)

*As we go over upcoming activities, this Saturday's 1:1 Train in Nashville, GA is almost here. We also mention that a side trip had been set up for lunch and a layout tour on **Friday July 23th**. If you not going on the 1:1 train ride but would like to see a layout on Friday, please consider joining us.*

*We will be having lunch at 12 Noon at the:*

**Pickle Barrel Cafe & Sports Pub – Dublin**  
**2111 Veterans Blvd**  
**Dublin, GA 31021**  
**(478) 304-1594**

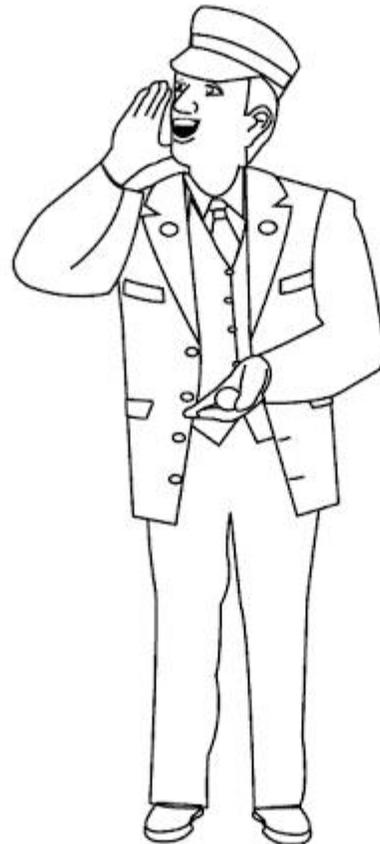
*Joe & Mary Schrock will be joining us for lunch. The Schrock's have a 30 X 50 foot pavilion with an operating G Scale layout. The Schrock's have invited us back to their home after lunch to visit their layout.*

*If you interested in joining us for lunch, please let us know so we can give the restaurant a head count heads-up.*

*If you just want to visit the Schrock's layout, trains will be running after lunch until 5 P.M. The Schrock's address is:*

**Joe & Mary Schrock**  
**546 Cauley Road**  
**Est Dublin, GA 31027**  
**775-772-3367**

*Hope to see you in Dublin. If you have any questions let me know or you can call Roy Williamson at 770-891-9462.*



## The Rip Track

**Need Repairs? Supplies?  
Buy Good Stuff from  
our Members**

Members with Garden, Train, or other related items to sell (new or used) can submit their items for inclusion in "The Rip Track". Send information to the editor for the next issue. Items will run for a single issue, unless the editor is notified to repeat the item. (Quality photos appreciated) Members with related business advertising may also submit ads. These will run continuously until policies change or notice is given. Non-member publishing by arrangement. (Contact Editor for details.)



1359 4th Avenue  
Auburn, GA 30011

Hours of Operation

Thursday through Saturday - 11am-6pm  
Sunday through Wednesday - Closed



Visit us at <http://trainz.com>

[trainz.com/products/trainz-digital-gift-card](http://trainz.com/products/trainz-digital-gift-card)

## Your shirt is dirty! Get a new one !

### Engineer's Wish List

**Embroidery Design & Gifts**  
by On-Line Consign, Inc.

**Sally Bando** | 404.550.4816 | [sbandogeorgia@comcast.net](mailto:sbandogeorgia@comcast.net)

Machine embroidery designs & themes on shirts and gifts.  
Prices upon request. Company and group projects welcome.

Embroidery Design and Gifts  
Georgia Garden Railway Society  
Club Shirts  
Each Shirt will have the club logo  
on included in the price.

Contact Sally for other designs

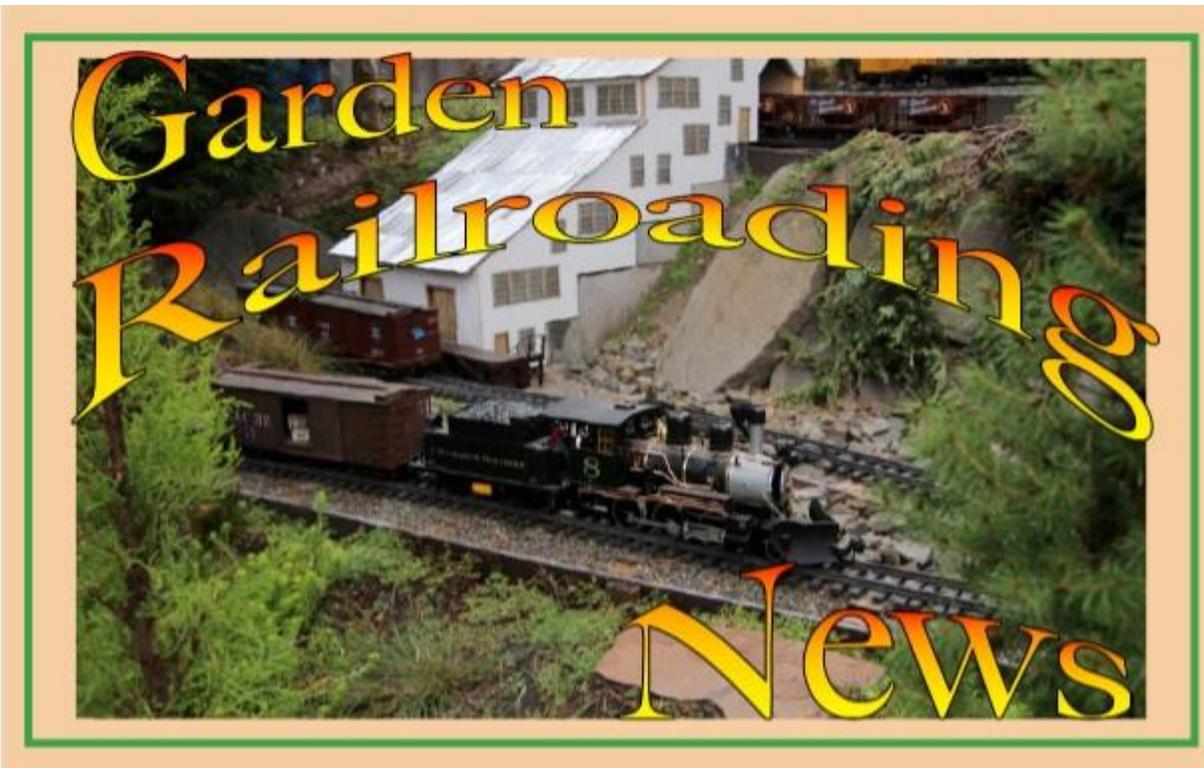


Men's	S	M	L	XL	2XL	3XL	Price
Grey Pocket t-shirt							\$10.00
Carbon or Burgundy Polo							\$18.00
Carbon or Burgundy Pocket Polo							\$20.00
Long Sleeve Denim							\$22.00
Short Sleeve Denim							\$22.00
Name on Men's Shirt (Specify Name)							\$5.00

Ladies	XS	S	M	L	XL	2XL	Price
Grey T-shirt							\$10.00
Carbon or Burgundy Polo							\$20.00
Long Sleeve Denim							\$22.00
Name on Ladies shirt (Specify Name)							\$5.00



<https://www.railclamp.com/>



Dear GR News Community Clubs:  
We are delighted to share the latest edition of GR News (#3 this year). Please forward the link to the edition with the suggested cover letter to your members. As always the edition is free.

Dear Members:  
The third 2021 edition of GR NEWS, our hobby's bi-monthly digital magazine has been released. You can view, download, or

even print it by using this link: <https://dl.orangedox.com/GRNews-May-June2021>

Note the guidance on page 12 to customize how you can view it.

You can also:

Visit [www.grnews.org](http://www.grnews.org) to access past editions, see a list of the 126 GR News affiliated clubs and share feedback with the GR News Team, who are garden railroaders just like us.

Join the 1,600+ garden railroaders who have already joined the GR News Facebook Group at [GRNews on Facebook](#)  
Visit GR News' new Instagram channel where images of great garden railroads are being posted [@grnewsimages](#)

<https://www.instagram.com/grnewsimages/>

We enjoyed meeting many of you in Nashville, where we got lots of encouragement and ideas for the future  
For the (small!) GR News Team  
Mick Spilsbury  
GRNews Marketing & Distribution

[GRNews.org](http://GRNews.org)

[GRNews on Facebook](#)

[GR News on Instagram](#)





## Train Installations, LLC

Woodstock, GA 30188

770-597-0038

[dave@traininstallations.com](mailto:dave@traininstallations.com)

### Did you miss me at the National Convention in Nashville?

No problem....Check out our online store and updated website at [www.traininstallations.com](http://www.traininstallations.com)

Think about other ways or things we can help you with while we are stuck at home over the next few weeks including:

- Layout planning and CAD drawings
- Custom bridges
- Overhead RR systems
- Model kit assembly
- Train storage shelving

Now is a better time than ever to distract yourself with the hobby of model railroading! Let us know how we can help.

**Thanks - Dave 770-597-0038**



After my success with the LEDs in the Sante Fe Combine, I am looking for a Sante Fe Passenger Coach.

LGB 38805 Sante Fe Passenger Car specifically.

Alen Luebs -  
[farm1811@hotmail.com](mailto:farm1811@hotmail.com)



Aristo C-16 with QSI sound for sale. No box. Can bring to the next meeting. Make an offer. Ted Yarborough [yarbrought@charter.net](mailto:yarbrought@charter.net)

## Horsepower: Marketing wonder of the 18th Century

The term “horsepower” originated as a marketing tool. James Watt didn’t invent the steam engine, but he did create the world’s first modern one, and developed the means of measuring its power.

In the 1760s, the Scottish inventor began tinkering with an earlier version of the engine designed by Thomas Newcomen. Newcomen’s design required constant cooling down and re-heating, wasting vast amounts of energy. Watt’s innovation was to add a separate condenser, greatly improving the engine’s efficiency.

A savvy salesman, Watt knew that he needed a way to market his new product. He calculated how much power a single horse working in a mill could produce over a period of time (many scientists now believe his estimates were far too high), a figure that he dubbed “horsepower.”

Using this unit of measurement, he then came up with a figure that indicated how many horses just one of his engines could replace. The sales ploy worked - we’re still using the term “horsepower” today - and his engines soon became the industry standard, leading directly to invention of the first steam locomotive in 1804.

## Yard Hostler

The National Convention, two excellent layout meetings, and a 1:1 just around the corner. Lovin the resurgence of activity.

So much info these last few weeks, I have delayed the final episode of “Great Train Robberies” until next issue. Hope it doesn’t derail your reading pleasure.

**For our next Gandy Dancer Section:** Before being set aside for a later date, (convention purchases and the like...) I requested your favorite color scheme, Fallen Flag, etc.

I received a bewildered email regarding just what a fallen flag was? Read about it in the next issue. And send in those photos of your favorite 1:1 color scheme.

Emil Decker, Editor, GGRS Gazette  
480 Grizzle Rd., Dawsonville, GA 30534

[eldecker@windstream.net](mailto:eldecker@windstream.net)

