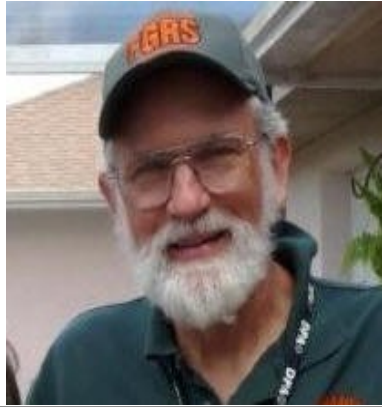




**NOVEMBER 2019**



## **PRESIDENT'S NOTES FROM PAUL WAGNER**

A big meet blown away! Dave and Ruth were so disappointed, as were the rest of us, that their meet was cancelled due to a nasty storm coming in from the gulf. I was in the area during the storm, and it would have been a wet, windy day for trying to run trains outdoors. The meet has been rescheduled for January 18<sup>th</sup>; the week after the big Deland Train Show – where we'll be setting up the large modular Event Layout on January 11. January will be a big month for railroading!

Don't overlook Corky and Wanda's Fun Run Meet on November 16<sup>th</sup>, just two weeks from today. After traveling most of the summer, they got right to revamping their railroad, and will have it ready to go. See details in this newsletter.

We are rolling into the 30<sup>th</sup> year of Florida Garden Railway Society supporting garden railroading in Florida. New polo shirts and hats will be available at low member cost with handsome FGRS monograms announcing the anniversary. The special 30-year celebration event is still in the planning stages – let's hear your suggestions for putting on a big shindig.

Most important of all, let's get those railroads running. I know there's a lot of you still with work to do, so call a few friends, have a track gang party, and schedule a meet. Most of the months for 2020 are still available. Step up to schedule your fun run meet for the best weather of the year.

We need members to step up and help with many things! The Vice President position is still open for the coming year. Come on out and help us shape the future of garden railroading in Florida!

In summary, we need nominations for the elected board members:

1. Vice President
2. Secretary
3. Membership Chair

Additionally, there are three appointed positions we will need to fill:

1. Newsletter Editor
2. Event Chair
3. Webmaster

Please send me an email or phone to discuss what's involved.

The big Tampa Train Show is coming fast – December 21<sup>st</sup>. We need your help with set-up and running our exhibit railway, and talking to folks about garden railroading. Please call Fred Weber to sign up for a time slot.

Good Health and Railroading to All!

Paul Wagner, President FGRS

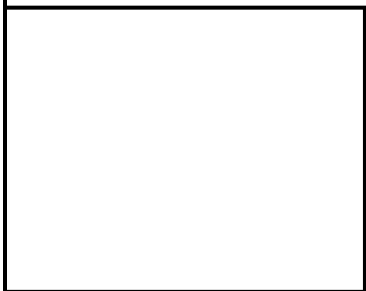
[fgrs.president@gmail.com](mailto:fgrs.president@gmail.com)

941-445-0409

# FGRS 2019 BOARD MEMBERS



**FGRS President**  
**Paul Wagner**  
**941-445-0409**  
**fgrs.president@gmail.com**



**FGRS Vice President**  
**OPEN POSITION**  
**fgrs.vicepresident@gmail.com**



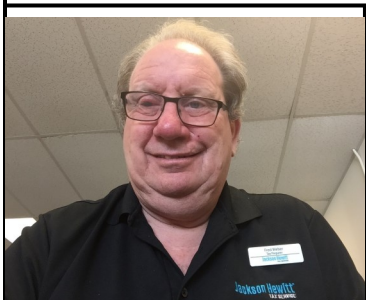
**FGRS Treasurer**  
**Melinda Archer**  
**727-421- 5894**  
**Fgrs.treasurer@gmail.com**



**FGRS Membership**  
**Jay Archer**  
**727-736-1989**  
**fgrs.membership18@gmail.com**



**FGRS Newsletter**  
**Tom Hite**  
**860-803-0049**  
**fgrs.newsletter@gmail.com**



**FGRS Event Chairman**  
**Fred Weber**  
**410-310-6001**  
**fgrs.eventchair@gmail.com**

# TRACK SWEEPER PROJECT

Track Sweeper Project — by Tom Hite

Every time I want to run some trains I have to clean off the tracks.

This is nothing new to anyone who has an outdoor layout. My situation might be a little different than some in the fact that most of the layout is surrounded by firelite stone. Landscaping stone is not unique and neither is firelite stone. It is very rough in nature and difficult to move around. That in itself shouldn't pose a problem but the squirrels in my area seem to like them.

They pick up the stone and carry them onto the tracks and at some point realize they can't be eaten (the tracks provides smooth pathway for them instead of being on rough stone). During their voyage the realization sets in that this stone I am carrying has no nutritional value and it gets dropped. You guessed it right in the middle of the track. When I was up north for the summer and returned home I was amazed at the number of stones on the tracks. At this time it became clear to me I was at war. I always went out with my broom and cleaned up. Using a broom was a pain in the butt. The broom doesn't work all that well because of the angle in which it is applied and some of those stones get lodged in between the ties. The ones that become lodged have to be removed by hand. So it was time to look for a track sweeper. After scouring the internet and only finding one that was used and it didn't look like it was up to the task to remove stone from my track the decision was made to build my own. So it was time to put pencil to paper and design something. Most of the track sweepers I have seen on you tube use a bottle brush for the sweeper this is great for leaves not for wedged stones. So the project began to find the right brush for the job and once found I would build the sweeper around the brush as opposed to the other way around. I knew I needed a stiff brush but where? Let's go to EBAY since I was looking for something unique.

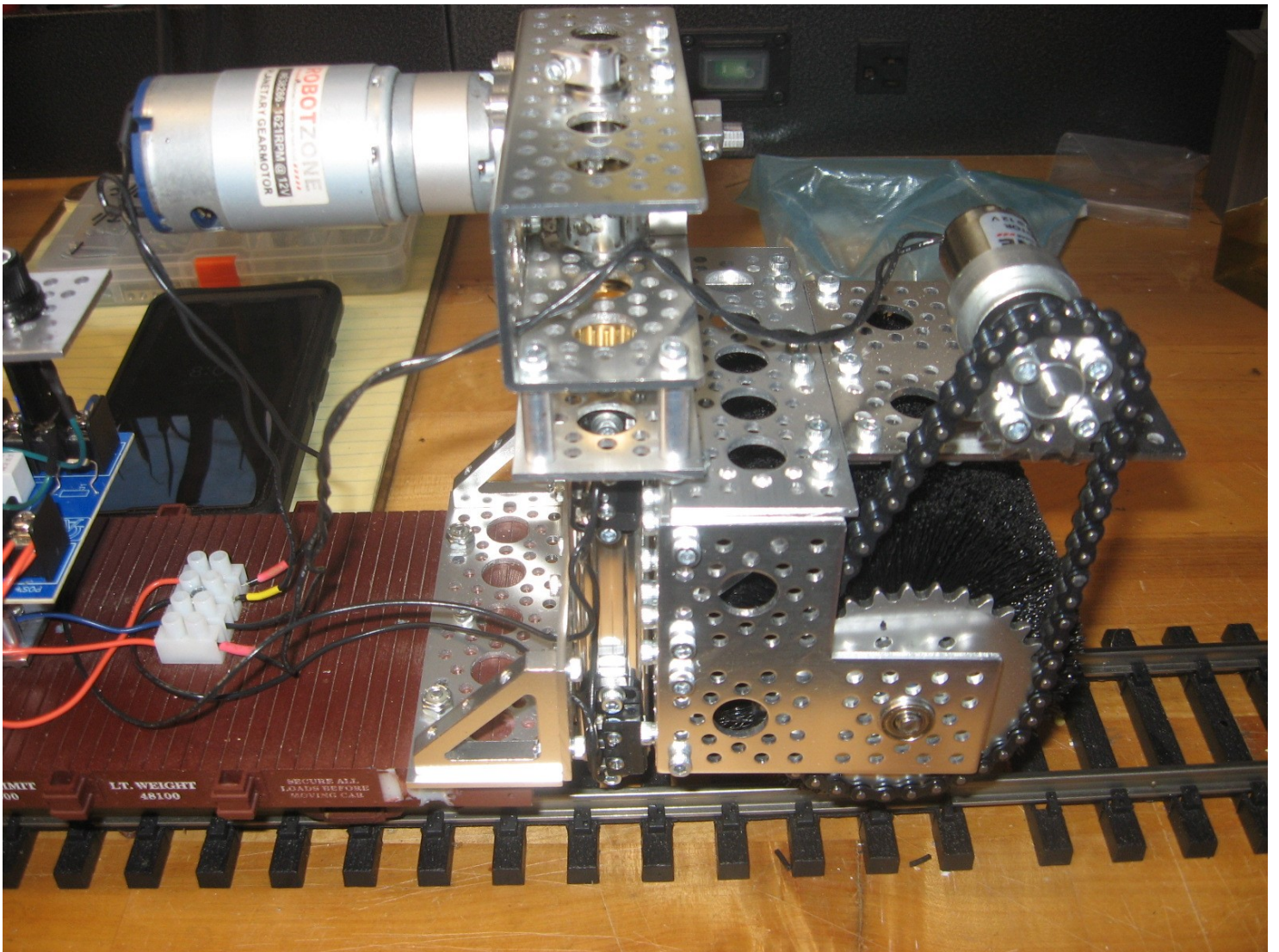
Trying different searches over a few days I found one, looked over the specs and decided I would buy it hoping it was going to be up to the task. Then the brown truck showed up and the project officially started.

I unpacked the box and held it like a baby and said this is going to be the king of all track sweepers (I know this because when I usually start designing and building it's over kill). Ok now the thrill of the brush wore off quickly. I starred at it rotating it several ways saying wow I have to get this thing mounted and rotating at a speed that will do the job. R&D cost time and money even for a hobby. I knew the final product has to be very well built and rigorous. I just couldn't bend a few pieces of metal together and have a sweeper powered by a motor with a rubber band. So I sat for days thinking and looking at that baby that was on the work bench. Then it hit me like a ton of bricks why not design it using an erector set . Heck as a child I spent many hours building things from my erector set. I started looking at erector sets but they were not going to quite be up to the task because I didn't believe it was gong to be sturdy enough. I knew I was on the correct path just needed something more robust. Then BANG it hit me robust ....robot. If I design it using robotic parts it will be very sturdy. So my search began and I found a robot supply place. They had all the stuff I would need. I now just have to design it. Well 4 or 5 pencils later I was ready to order my parts. The big challenge was going to be incorporating the brush into the robotics. After the parts arrived the first thing was to put a shaft on the brush and spin it with my drill. I was testing what the proper speed should be. My drill max speed is 1700RPM. I spun the brush at the 1700RPM it didn't come apart which was a good thing. I placed stones on some track and gave it a spin to see how it would react with the stones at that speed. I determined that 1700RPM was fine. So with that in mind I would have to come up with a motor speed of about 3400RPM since I wanted to gear it down by half to make sure there was enough torque so I would not stall the motor during heavy stone removal. I have pictures and video links on the following pages.

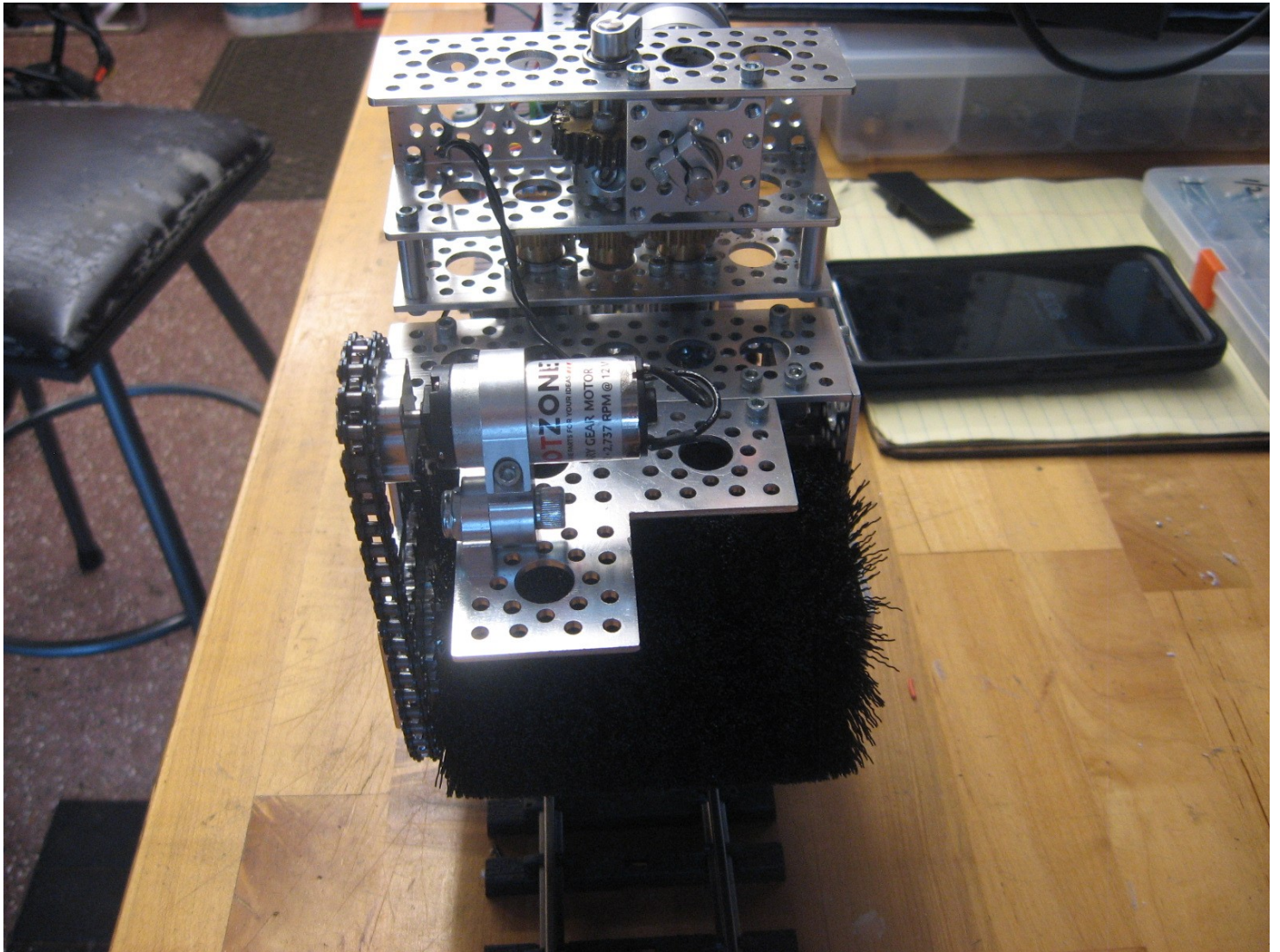


**Here is the brush out of the box.  
As you can see the dimensions are  
Perfect for what I needed.**

**This is a very well made heavy duty brush. As you can see with the tape measure that the opening is exactly 1/2". I used a micrometer to be sure and it is spot on 1/2". No special machining would be needed. So it was simple enough, I put two 1/2" x 1/4" bearings in the opening and put in a 1/4" shaft. That's what I spun at the 1700RPM. I knew now that it was going to be easy to adapt this to a frame.**

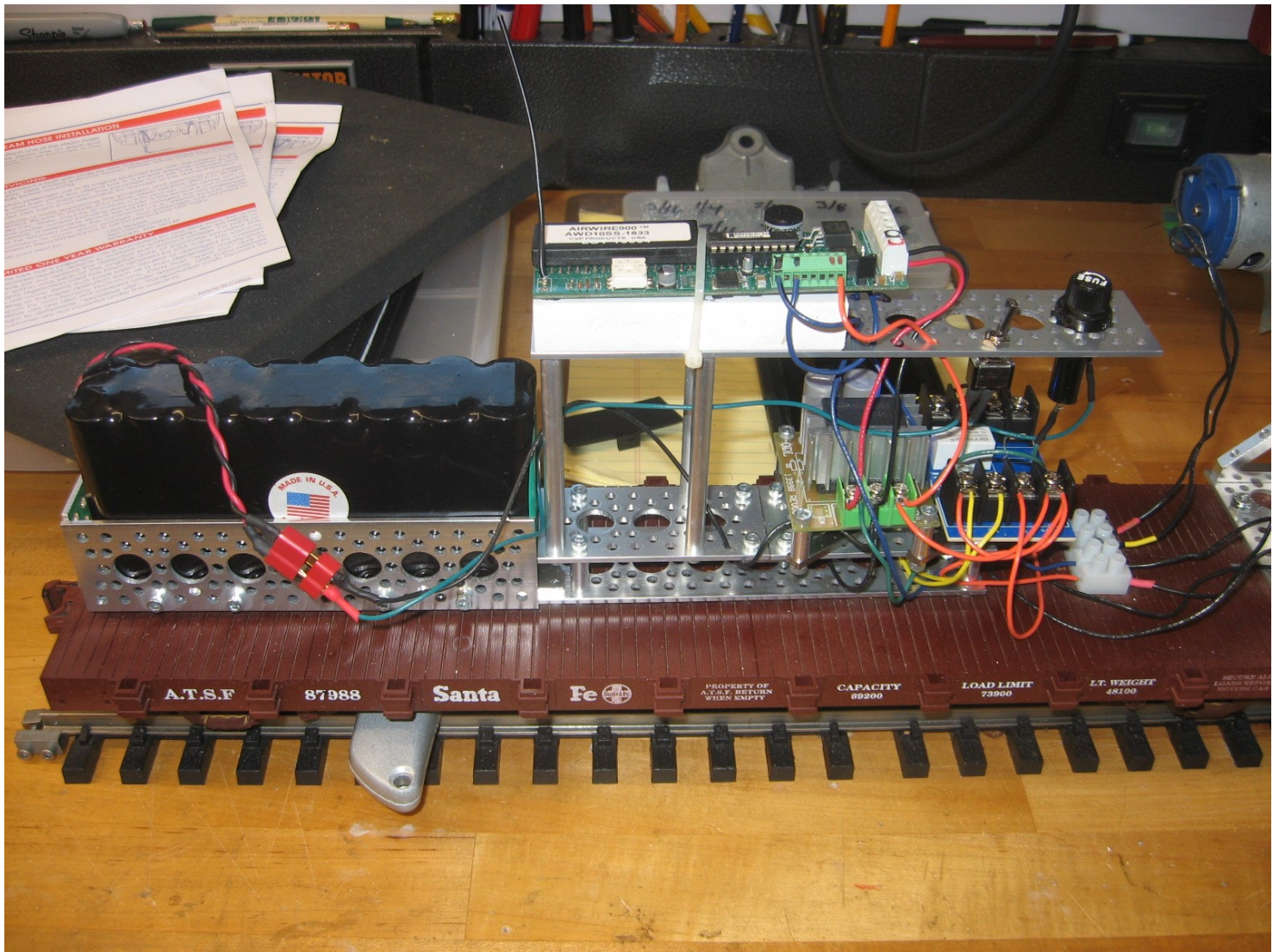


**Sorry I didn't take pictures during the assembly, I completely forgot. Anyway I can explain what is going on here in this picture. The brush assembly has the motor with a chain drive. The motor is planetary gear driven 2740RPM. Couldn't find 3400RPM so I got the next best RPM. With the 2 to 1 reduction the brush comes in at 1370RPM a bit slower than tested. Still fast enough and with some torque behind it. You can see the end of the shaft which comes through a ball bearing 1/2" x 1/4". So the brush spins very freely. The gear is attached to the 1/4" shaft with a gear housing that has a set screw and is torqued down onto the shaft. Same type that is holding the small gear on the motor. You can't see the thrust bearings that are against the housing on each side of the brush. I had to snug the brush very closely to the side of the frame so I would not have any side to side movement.**

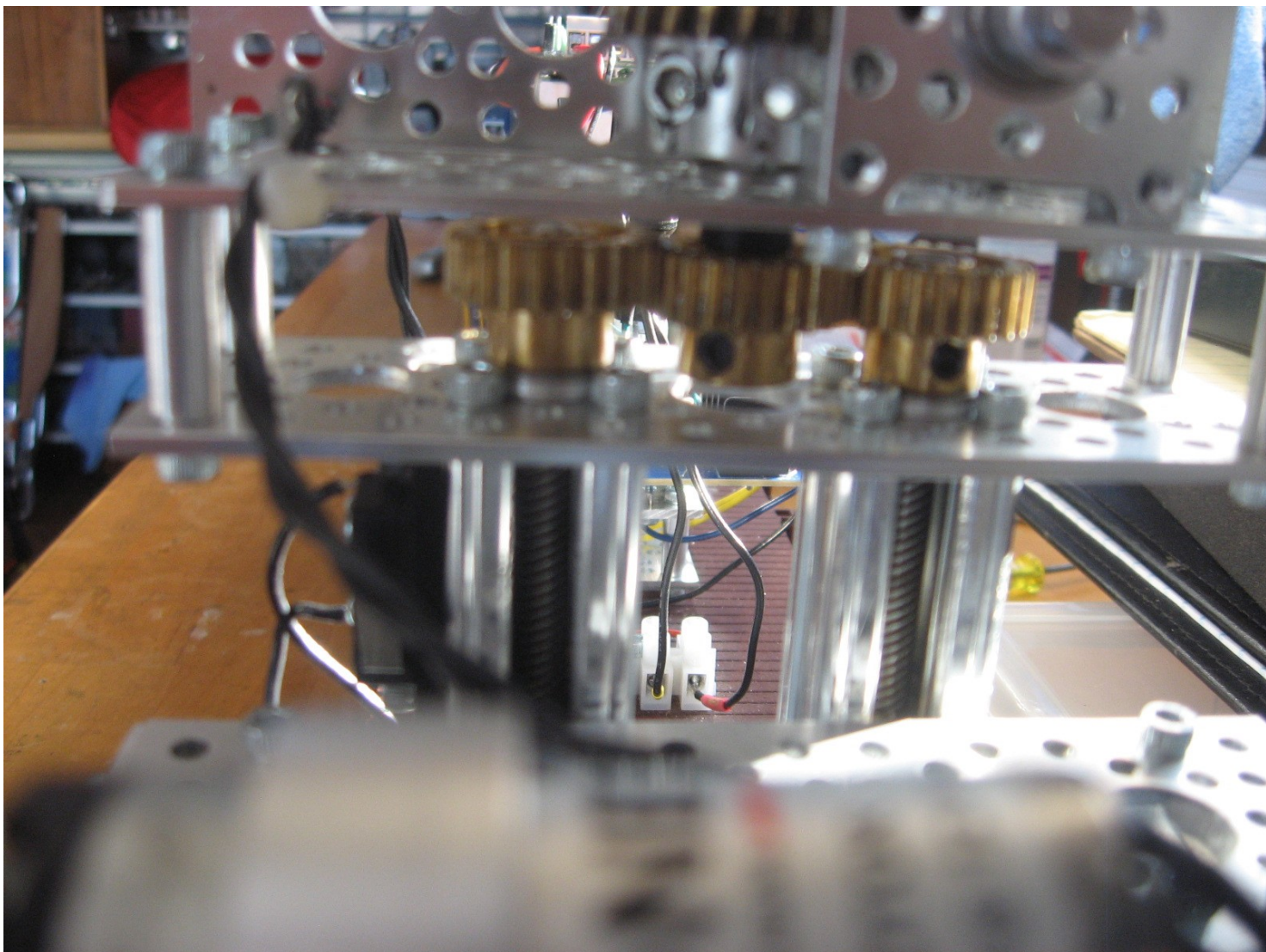


Here is the front view. The motor is held by a clamp that allows me to set the tension on the chain. Now your wondering what on earth are those other gears and motor. The brush housing sits on a movable frame which can raise or lower the brush (I know over kill) but you were warned at the beginning. There are two limit switches which you can see in the prior photo that stop the brush at the desired height. This is run by another planetary gear motor only this time I needed things to be very slow. The vertical movement is approximately  $0.3''/\text{second}$ . I built a gearbox that has a 27 to 1 output shaft ratio which turns the center gear at 59 RPM. The center gear turns two gears which are attached to jack screws at a 1 to 1 ratio. The jacks screws turn on a 3 to 1 ratio which gets me to  $.03''/\text{second}$ . The total distance traveled is  $7/8''$ .





Now with every piece of machinery you need to control it. I decided to make it completely radio controlled. There are three main components. I used an old G2 airwire that I had laying around, 2amp voltage regulator (12V), and a DPDT relay. Then add a battery, switch, and fuse and that wraps up the electronics. Here is how it all works. When the switch is turned on the board is powered up along with the 2amp voltage regulator. If the brush is in the lowered position it will raise up to the upper position. I wanted the brush in the up position upon starting. The only thing receiving full battery power is the airwire everything else is 12V. So I just used the latching option on the airwire to act like a switch. The airwire is programmed with the same engine number as the engine that is going to do the pushing. F0 operates the brush (on off) and F6 operates the vertical movement of the brush (up down).



Here is a close up view of the lower gear box. Above is the 27:1 worm gear box. The drive gear is in the middle which will turn each outer gear in the same direction. The two jack screws are clamped to the gear with set screws. There are bearings at both ends of each jack screw along with thrust bearings this keeps the jacks screws in their place when the screw turns. There is a shuttle nut that rides along the inner part of the jackscrew housing that is attached to the back of the brush housing. The jack screws moves the shuttle 1" every three revolutions. This complete gear box has a tremendous amount of torque that is why I have limit switches. If this was allowed to run pasts the limits it would destroy itself.

After this is all said and done I enjoyed the project. I know it was over kill. I truly needed some horsepower to remove stones off the tracks. A bottle brush attached to a motor with a rubber band wasn't going to cut it for me.

After showing Paul what I had done he asked a question does it clean the rails? The answer is no it does not. I am a battery guy and that was not in the plans. I am designing an attachment that you can clamp any type of material to it so you will have flexibility depending on the task at hand. I will feature the attachment in the next edition of the NL.

I can offer a track cleaning at any meet I attend for a nominal fee. LOL  
Below I have links to videos. Enjoy, questions are welcome.

Here is the bench tests of the sweeper.

<https://youtu.be/TvZe0qM6Htg>

This is a running test of stone removal. As you can see stuff can fly. I almost took out my camera.

<https://youtu.be/7QbmLs1O4NQ>

Here are two videos of the gear box in action.

<https://youtu.be/k7kX87MtNeo>

[https://youtu.be/8YYMguvvgM\\_k](https://youtu.be/8YYMguvvgM_k)

Here the sweeper is outside doing what it does best.

<https://youtu.be/LRr1vnjPjMU>

<https://youtu.be/3cWUM-MLmE8>

<https://youtu.be/bpWdrowskbnk>

<https://youtu.be/cIPyY4KmeeM>

<https://youtu.be/fgDYM1m3RCc>

# BATTERY TEST

## Throttle Battery Test Results – by Paul Wagner

Please note, that my article last month: “Airwire Throttle Battery Alert”, applies only to batteries for the Airwire T5000 throttle, not the locomotive batteries, or batteries for other throttles. (Remote Controls)

As promised, I ran a test of some of the popular alkaline batteries that can be used in this throttle. I set the timer in my T5000 throttle to 2 hours (120 minutes), and tabulated how many 2 – hour cycles one set of batteries would go before giving a low battery alert; or failing to restart. I set my throttle to ‘High Output’ Power Level – (10) which I found results in an amperage of 50 mA. At medium power (Default setting) the amperage is 25 mA, and you could expect a much longer run time. I purchased new batteries with expiration dates several years into the future.

Here are the results:

|                                 |                    |
|---------------------------------|--------------------|
| Energizer Standard Alkaline –   | 8 – 2 Hr sessions. |
| Energizer Alkaline “Max” -      | 8 – 2 Hr sessions. |
| Duracell standard “Coppertop” - | 8 – 2 Hr sessions  |
| Duracell “Quantum” -            | 9 – 2 Hr sessions  |

Approximate street price of batteries:

|                               |             |
|-------------------------------|-------------|
| Energizer Standard Alkaline   | \$.58 each  |
| Energizer Alkaline “Max” -    | \$ .53 each |
| Duracell standard “Coppertop” | \$.62 each; |
| Duracell Quantum cost         | \$.87 each  |

So in summary, the 12% increase in battery life of the Duracell Quantum over all the other brands would not nearly be worth the additional 64% cost; and getting only one additional 2 hr session would hardly justify the convenience. I would recommend buying the cheapest name brand batteries, and always remove them from your throttle at the end of the day. If the battery indicator on the T 5000 shows less than 20% life remaining, discard the battery before an extended operating session.

# FGRS Fun Runs

2019

**November 16 — 11AM to 4PM**

Fun Run at Corky's  
Corky and Wanda Eckman  
611 Via Cala  
Englewood, 34223  
RSVP via 612-850-4071  
or email [wcg611@gmail.com](mailto:wcg611@gmail.com)

Corky will provide drinks. Bring a picnic lunch, chairs, and a train to run. Corky uses mostly battery power, but has track power on some portions of the layout. The WC & GRR Railroad occupies this entire yard, running completely around the house, crossing the driveway in a molded concrete crossing. Photos of this layout have been featured several times in Garden Railways magazine, and it features extensive hardscape scenery, trestles, bridges, tunnels, scores of structures, mines and industries. Watch for many interesting trains to run, including a USA Bigboy.

WC & GRR Railroad was established in 2007 and still growing, including 650 feet of track and 25 switches. The switches are operated by a pneumatic system added last year. There are Scratch Built Mountains, Tunnels, Ponds, Bridges, Trestles and Buildings. The mountains were constructed by Corky himself using concrete and other cement products. He also hand built the 55 ft. long trestle and some of the bridges. Locomotive's include all Steam pulling Logging, Freight, and Passenger trains.



## **December 7th**

FGRS meet and Open House Fun Run @ The SILVER RIVER RAIL ROAD in Ocala at the home of Don and Lenojo Carter - 10:00 AM till dark thirty.

Friends: Make plans now!!

Bring a dish to share. We will provide the drinks, paper products and some chairs. Other friends and family may be in attendances so feel free to bring a guest.

The layout, track powered is out doors and covers 1,500' of track over 1/2 acre. There is a 30' oval pond 100' stream and 8' bog. The freight yard is in one bay of the two car barn garage. The town will be all decorated for Christmas. Feel free to bring something to run too – we have strong track power.

The address is:

6130 NE 3rd. Place Ocala, Fl.

Directions from Ocala: (I75)

Take SR 40 East to NE 7 Street, just past Ocala Golf Club. Turn right.

Go East on NE 7th Street to Baseline Rd, (SR 35).

Cross over Baseline and go one long block to NE 61 Terrace. (Green Ridge Acres)

Turn right off NE 7th Street onto NE 61 Terrace go to the top of the hill to NE 3 Place. Turn right on NE 3 Place. Go to the end of the street and park. (Short block dead end)

The trains are behind the white fence.

Look for the R/R sign's

Look forward to seeing you all -

Don & Lenojo Carter

352-207-5434

doncarter521@embarqmail.com

**2020**

**January 18th** – Fun Run Meet at Dave & Ruth Taisch's house.

**Rescheduled from October 19th.**

Dave and Ruth Taisch

11605 Lane Park Rd

Tavares, 32778

Phone 352-343-3196 or daveanruth@aol.com

The Lane Park & Wherever RR will start running trains at 11:00, with plans for lunch at 12:00. Please bring a dish to share. The LP&W has a thousand feet of track divided into four loops, with another ninety feet of storage track in the shed. We run NCE DCC track power. Twenty two wooden bridges cross two rivers connecting three ponds and two dry river beds. Two mountains with fifty feet of trestle complete the layout. I found a picture of the depot/warehouse that used to be just down the road from us and built a loose interpretation of it for the LP & W this year.

**Sunday May 3rd** — Meet at Charley Beall.

7839 Sloewood Dr.

Mount Dora Fl.

Noon till 4PM. Drinks and paperware provided,

A railroad inside of a driveway is easy to view. The photo scene is a bridge crossing a koi pond observed as you enter the property. There are four main lines and sidings with about 1200 feet of track. Since I am from Maryland I run B&O, C&O and Western Maryland consists. After the mergers, Chessie System and CSX. Track one is Aristo Craft stainless steel, tracks 2&3 are a French manufactured stainless steel track which comes in 10 foot sections. This track has been outside for 20 years and is good as new. Track 4 is LGB. The 10 switches are Aristo Craft stainless steel. I use Split Jaws to connect track. Much of the track is laid on cement board which prevents weeds. My power source is Bridge Werks. There are two 20 foot bridges. several tunnels, one under a waterfall. I have few buildings. Most of the railroad was



built in 2007. I have 20 locomotives and 111 cars. The railroad lights up for evening running. I do a lot of entertaining and my guests enjoy viewing it in the evening.

**if anyone else is interested in hosting a fun run at their house please send me an e-mail with all the details, date, time, address, length of main line, minimum diameter curves, what you will supply, and anything else you feel is pertinent to the event.**

**If you have requested to host an event with someone else you need to contact me to get onto the official schedule. Please do not contact any other board member. Things can get forgotten or lost in transition.**

# HALLOWEEN

Submitted by Tom Hite:

Just a few pictures of the kids at Halloween.

Every Halloween I run my train in the front yard with candy in the cars.

Each child gets to pick one candy from the assortment. Went through 240 candy bars.



Train cars all loaded and ready.

Our first batch of kids.



# TRAIN SHOWS

## 2019 & 2020 Toy Train & Toy Shows Schedule.

November 23, 2019 Dover  
Hillsborough County Fairgrounds  
215 Sydney Washer Road  
Dover, FL 33527

Saturday, November 23, 2019  
Train Collectors Association Show  
3800 St. Johns Bluff Road  
Jacksonville, FL 3222  
Open to TCA Members at 9:00am  
Open to the Public 10 am to 3 pm  
Admission \$5

**FGRS will exhibit**

December 7, 2019 Pinellas Park  
Lopez Hall  
7177 58th Street North  
Pinellas Park, FL 33781

December 7, Melbourne Train Show, 9am - 2pm  
Azan Shrine Center  
Melbourne, Florida 32935

December 22, 23, Tampa Train Show, Florida State Fairgrounds  
**"FGRS will exhibit, please contact Fred Weber if you can help"**

January 4, 2020 Englewood  
The Elks Lodge  
401 North Indiana Ave  
9AM to 2PM  
The ELKS club will serve food for lunch  
Englewood, FL 34423

January 18,2020 Brooksville  
Hernando County Fairgrounds  
6436 Broad Street  
Brooksville, FL 34601

**January 11,12 - 70th Florida Rail Fair, Deland, FL, Volusia County Fair-grounds (Model Train Show), "FGRS will exhibit, please contact Fred Weber if you can help"**

January 18,2020 Brooksville  
Hernando County Fairgrounds  
6436 Broad Street  
Brooksville, FL 34601

February 15, 2020 Kissimmee  
Columbia Club of Osceola  
2000 Neptune Rd  
Kissimmee, FL 34744

March 28,2020 Pinellas Park  
Lopez Hall  
7177 58th Street N  
Pinellas Park, FL 33770

April 18,2020 Crystal River  
US Army National Guard Armory  
8551 Venable Street  
Crystal River, FL 34429

Vendors- Running Train layout- Indoors- Food- Free Parking  
All Shows 9-2  
\$5.00 Adults Children under 12 free  
[www.regalrailways.com](http://www.regalrailways.com)

For a Complete list of Train Shows go to [http://www.railservice.com/events/train\\_shows.html](http://www.railservice.com/events/train_shows.html)

Save the above web address as it has a complete updated list of Train Shows Nationwide, along with a lot of other good information about the Hobby. You will be very surprised at how many train shows there are just in Florida year round and will find them listed here.

# TRAINS FOR SALE

## LGB / G SCALE For Sale

Contact **KEITH WOLFE** if interested:

(941) 447-2359 or email me at [kwolfe@bayareatech.com](mailto:kwolfe@bayareatech.com)

### P CANDY/SWEETS TRAIN: \$250

Lot of 7 cars, all with metal wheels and knuckle couplers.

Baby Ruth, York Peppermint Pattie, Tootsie Roll, Sugar Daddy, Denver & RG Cookie (2), Dads Root Beer Tanker – All we displayed on a shelf in a smoke free home.



**P STATE OF MAINE – 4067-K01 (2): \$80**

Set of 2 LGB State of Maine Boxcars, in original box with grey sleeve.



**14<sup>th</sup> NATIONAL GARDEN RAILWAY CONVENTION- Bay Area (2): \$100**

Set of 2 LGBMRRRC Passenger cars with original box and grey sleeve



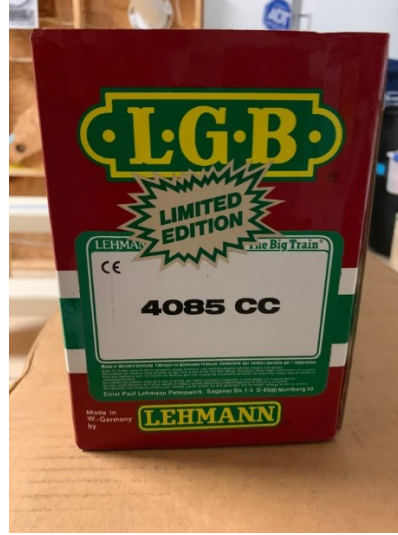
## CLUB TANKERS (3): \$130

LGB/BTO 25<sup>th</sup> Anniversary(2003) tankers, 1 Black and 1 Silver, 1 LGB Garden Rails Convention tanker 96' with original box and grey sleeve



## LGBMRC 13<sup>th</sup> ANNIVERSARY CAR (2): \$150

1 set of LGB Frankenmuth Michigan 1991 convention cars, 1 box signed by R.Richter (Son of Wolfgang Richter - the co-creator of LGB) with original box and grey sleeve



**DURANGO LGBMRRRC 21<sup>st</sup> CABOOSE: \$50**

1 LGB MRRRC 21<sup>st</sup> annual convention caboose from the Durango, Colorado convention in 1991 with original box and grey sleeve.





### **ARISTO Dash-9 CSX: \$225**

1 ARISTO Dash-9 CSX in the Box, has about 10 hours of run time.



### **4' Hand Made Wooden Trestle: \$50**

1- 4' custom built Trestle, 12" high



Monroe Kleiderman has a bunch of LGB track for sale.

He can be reached at [monroekle@gmail.com](mailto:monroekle@gmail.com) or 727-709-2950.

He also can deliver.



Straight. #10600. 29pcs@\$6  
Straight. #10610. 41pcs@\$12

Curve #15000. 15pcs@\$5  
Curve #16000. 7pcs@\$6  
Curve #18020. 56pcs@4  
Curve #18000. 22pcs@\$8  
Top curve not sure 12pcs@\$9



### FGRS Membership Application

The Florida Garden Railway Society (FGRS) invites you to join a group of people who share a common Interest in large scale trains, both indoors, outdoors, or modules. We are a group of individuals, Couples, and families who enjoy socializing with others and participating in train related activities. Dues

\$30/YR for single or family memberships. Annual dues include subscriptions to FGRS Newsletter. All renewals are due in January. If interested in joining FGRS or to renew your membership, please Complete this application and send a

check payable to Florida Garden Railway Society (FGRS),

**Attn: Jay Archer, Florida Garden Railway Society, P.O. BOX 2695, Dunedin, FL 34697-2695**

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone#: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Would you like your information shared with the club members only? Yes \_\_\_\_\_ No \_\_\_\_\_

Name badges are \$12 each. If mailed add \$1.00. They have two lines: One for your name and the other line can have the town where you live or the name of your railroad.

First Badge

Second Badge

Name: \_\_\_\_\_

Town or RR name: \_\_\_\_\_

# Please take note

**When submitting pictures and articles to the NL I need the articles written in Word and the pictures as .JPG attachments.**

**Imbedded pictures in an e-mail sometimes gets stripped off by my virus software.**

**A few sentences to be put in the NL is okay.**

**Copying word documents into the NL works great. Problems exist when I have to copy and paste. Imbedded pictures do not work well and sometimes come out weird and I have to do a lot of editing.**