THE SIGNAL BRIDGE

NEWSLETTER OF THE MOUNTAIN EMPIRE MODEL RAILROADERS CLUB
MARCH 2015 - MEMBERS EDITION
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LOCATION
ETSU Campus
George L. Carter
Railroad Museum
HOURS
Business Meetings are held the 3rd Tuesday of each month. Meetings start at 6:30 PM in:

Brown Hall
Room 312
ETSU Campus,
Johnson City, TN.
Open House for viewing every Saturday from 10:00 am until 3:00 pm.

Work Nights are held each Thursday from 4:00 pm until ??

NORFOLK SOUTHERN #8439 – GE DASH 8-40CW

NORTH BOUND MANIFEST ROLLS THROUGH JONESBOROUGH, TN

Photos courtesy of Ted Bleck-Doran

THE PURE OIL SERVICE STATION PROJECT – PART 2

ROOFING THE STRUCTURE AND PAINTING GUIDELINES

By Ted Bleck-Doran

In Part 1 of this construction series the Pure Oil Service Station had been finished to the stage seen in the picture above. The walls, doors and windows for the office and repair bay sections had been fashioned and glued together forming the basic structure. In Part 2 we will add the roof and interior walls

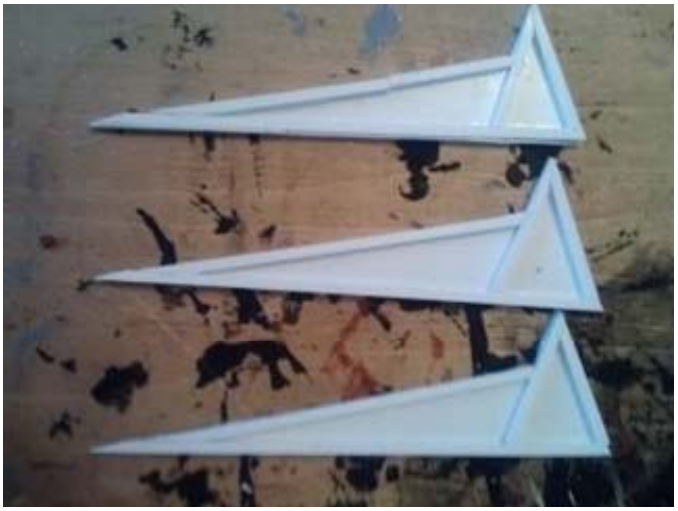
STEP 11:
Since the roof sections are to be removable to allow for interior lighting, a lip was made with .080" x .080" square styrene stock. This provides not only support for the roof pieces but also addition structural support for the wall sections.

STEP 12:
Ceiling pieces would serve as bases for the roof sections The repair bay piece was a simple square cut slightly undersized to fit inside the walls of the scale 28' x 28' section. The office ceiling piece was a bit trickier requiring it to be notched for the chimney which was run along the interior of the wall.

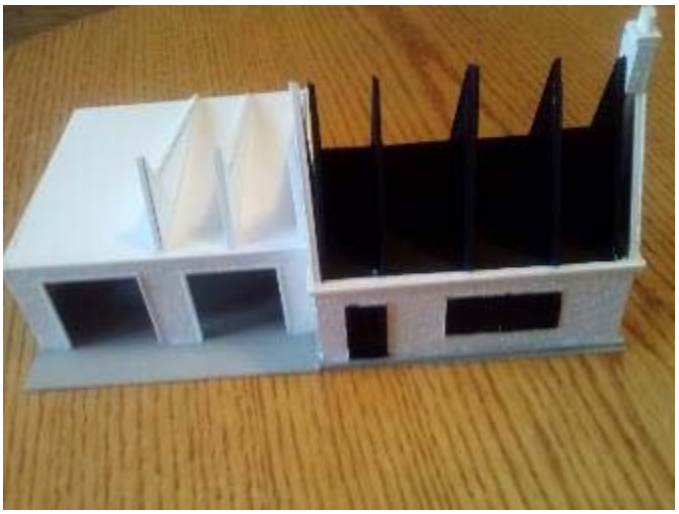
NOTE:
I eventually trimmed the notched flanges away to make the roof removal a tad easier since the flanges snagged on the chimney and wall when the roof was removed.

STEP 13:
Since the roof pieces would be solid units, I fashioned support from sheet styrene and square bracing. The office roof supports were simple triangle shapes patterned after the pitch of the end piece along the wall adjoining the repair bays and office. Care was taken to cut the profile as close to the end-wall dimensions as possible since the actual roof would be glued to the removable base and "float" along the end wall pieces.

The photo above shows the supports glues in place. I made 5 triangles and added spacers between each for added stiffness.



STEP 14:
The repair bay roof supports were a bit more complicated. The roof lines had varying heights and pitches with the addition of a high steep-pitched section over the lift equipped bay and a lower steep-pitched section facing the building front with a partial steep-pitched section adjoining a more gradual pitched roof section to the rear of the building. I decided to keep the more complex roof lines for the interesting variation and appearance they gave the building. Three supports for the low rook were made and four supports for the high peak roof section were prepared.



STEP 15:
The supports were then installed making sure that the bottom edges were set back slightly to insure a proper overhang of the roof pieces flush to the top of the wall edge.

I test fit the supports for the high peak roof before gluing the low roof supports.

STEP 16:
Once the roof supports were in place I painted the roof bases a flat black. This was to eliminate any bleed through from the lighting when finally installed. The service station is really beginning to take shape.

STEP 17:
Evergreen "HO Asphalt Shingle" styrene sheets were used to cover the roof supports. The sheets are nicely detailed and have a tight shingle appearance when painted and weathered. I wanted the roof to look fairly new since the building would represent a well maintained service station prior to the onset of The Depression when the nation experienced a time of relative prosperity.

First, the high peak roof sections were cut to size and glued in place. The pieces were cut a tad larger than needed to

insure a tight fit along the ridge and a snug fit along the eaves.

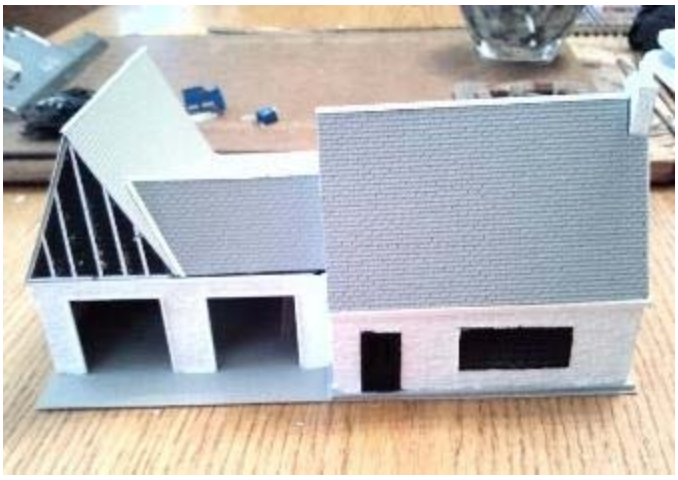
Next, the repair bay roof section was placed over the bays and measurements were made for the steep sloped sections of roofing. Again they were cut slightly over size to insure a tight fit between the high peaked section and the edge along the common wall between the office and bays.

Finally, the gentle sloping section was cut and fit to the bay area of the building. Again care was taken to insure a tight fit all around the eaves, ridge line and wall edges.

NOTE:
Care must be taken to insure that the roof pieces are cut with the proper lay of the shingle pattern. The lower edge of the shingles is slightly fatter than the top of the shingle to give the appearance that the upper course of shingle lays atop the lower course.

STEP 18:
Once the roof panels were in place, and everything fit tightly together, "L" styrene structural shaped pieces were added to the ridges and valleys of the roof sections for a more finished appearance. The photo shows how the pieces fit together.

STEP 19:
Detailing the ends of the repair bay high peaked roof was the final step before painting the structure. The ***Survival Outfitters*** building had 5 vertical members on the front and rear facings on the high peak roof. I used HO scale 1" x 4" styrene strips to simulate this effect. With this finished the Pure Oil Service Station was ready for painting.



STEP 20:
I started painting by applying the base colors to the structure. For the roof I used a medium dark grey to simulate slightly faded asphalt shingles. The brick surfaced received several coats of white. The window and door trim got a coat of black while the concrete foundation and pad received light grey. The pad behind the building received a coat of Sienna which will ultimately be covered by scenic materials. The chimney tiles got a coat of brown.

- - OFFICIAL NOTICE - –

A SPECIAL MEETING WILL BE HELD ON MARCH 17, 2015 AT WHICH PROPOSED CHANGES TO THE BY-LAWS WILL BE PRESENTED AND VOTED UPON.

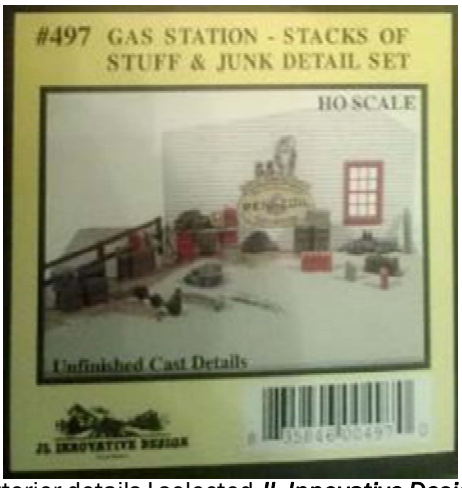
A COPY OF THE MARKED UP BY-LAWS IS PRESENTED ELSEWHERE IN THIS ISSUE OF *THE SIGNAL BRIDGE*

THE PURE OIL SERVICE STATION PROJECT – PART 3

SMALL DETAILS

By Ted Bleck-Doran

Small details make a modeled scene come alive. I decided early on to provide interior scenes and some exterior details to the Pure Oil Service Station model. I ordered parts from JL Innovative Designs.



For the exterior details I selected ***JL Innovative Designs #497 – Gas Station – Stacks of Stuff & Junk Detail Set***. The pack comes with 18 white metal castings depicting oil drums, tire stacks, oxygen tanks, transmission, gas cans, a front suspension, assorted oil cans, engine parts, a stack of batteries and tool boxes. To this selection, other left over parts from ***Woodland Scenics Junk Set***, ***Jordan Miniature*** vehicle kits and the scrap box can be added if more clutter is desired.

STEP 1:

The first step is inspect the casting and familiarize yourself with what they depict. This will help with the selection of paint colors you'll want to use.

STEP 2:

Dress up the mold lines by removing excess flashing from the castings with a jeweler's file. You'll find that the JL Innovative Design set is relatively free of substantial flashing but the mold lines can be quite visible on several of the larger castings.

STEP 3:

Wash the casting with tap water and a drop of detergent to remove any oils left over from the casting process. This will allow the paint to adhere better and eliminate any finger prints from marring the final appearance.

STEP 4:

Apply a primer coat to all surfaces. This will provide a surface with some bite for the paint to stick to. I like to use acrylics and will thin the paint to flow better. A primer coat allows for thinner applications of color.

STEP 5:
After allowing the primer coat to dry for 24 hours, it's time to apply the various colors you've selected to bring out the details of the castings. Don't worry if the colors appear too bright or unrealistic. These colors will be muted in the weathering steps to follow.

STEP 6:
Admittedly the first layer of color is toy-like and appears quite stark. However a single weathering wash of Burnt Umber begins to tone down the toy-ish look and feel. Use a soft brush to apply the wash. Dip the brush in water and use the brush to dilute a small bead of paint. The paint should be watery and flow onto the casting. Make sure to work the wash into the nooks and crevasses. If the paint is too thick upon application, work some of the paint off of the brush and, after dipping the brush back into the water, apply the water over the casting to thin the previously applied paint. The trick here is to build up the wash tones gradually until you achieve the desired intensity of color.

STEP 7:
This step begins to really "pop" the details of the castings into view. Find a stiff bristle brush – the technique you'll be using will highlight the ridges in the castings. Take a small bead of paint. Dip the brush into the bead. Now work most of the paint off the brush on a paper towel. Use a dabbing or istreaking stroke to apply what paint remains on the brush to catch the highlights. This will tone down the intensity of the primary colors and simulate accumulated dust and grime. This weathering technique is called **dry brushing.**

STEP 8:
Continue to use the dry brush technique using Burnt Sienna paint. As in **STEP 7** build the weathering layer up gradually. You can never really use too little paint on the brush when dry brushing. The Burnt Sienna represents rust so using a streaking stroke work the paint starting at the top of the casting, brushing downwards. Rust collects at the tops of items, flows downwards, and settles in flat spots, nooks and crevasses.

STEP 9:
Touchup - a glossy shine can be added to one or more items that have been recently added to the pile. An inexpensive source for a glossy or semi-gloss shine is ***Future Floor War.*** The floor is water based acrylic. A single coat will leave a semi-gloss appearance while several coats will increase the glossy look.

HINT:
Future Floor Wax can be thinned for use with a spray brush when decaling a freight or passenger car. It will provide a smooth surface for the decal making it easier to position the decal and helping it set against the car side. A final over spray will seal the decal and prevent curling or lifting over time. Decals will dry and peal over time if not given a sealing coat of gloss or matte finish.

STEP 10:
Installation on the model makes the scene. Standard scenery products (e.g. - scenery glue, ground foam, dry dirt, clusters of hemp threads, etc.) can be used to provide a natural looking base for the additional details outside the building. DON'T get too neat and orderly when placing the castings; remember they represent piles and stacks of junk that have accumulated over time.

RAILFANNING THE EAST TENNESSEE
PHOTOS OF THE ET Ry IN ACTION

The EAST TENNESSEE switcher shoves some high side gondolas across the grade crossing by the Tweetsie Trail head – photo by Paul Haynes 02-02-2015

CO-ORDINATORS MEETING
FEBRUARY 12, 2015

The meeting was brought to order by club president Fred Alsop at 6:05 p.m.

Geoff Stunkard opened the meeting with a discussion regarding the re-design of the club and museum pamphlet.

Gary Emmert requested a list of all past members.
Fred Alsop then gave a brief update on the Jonesborough museum project. Currently the legal paperwork is being crafted by the legal department at ETSU.

John Edwards reported that the membership by-laws committee has met and are currently working on the membership section of the by-laws. The committee suggests that a checklist be created for certifying that all members know how to operate all areas of the museum.

Mike Baker reported that the "G" and "N" scale layouts are running fine. He has tested 1 of 2 engines that Jonathan Gilliam donated to the club for the "G" scale layout.

John Carter reported that work has begun on the roll out module.

The meeting was adjourned at 8:00 p.m. by Fred Alsop.

Submitted by:
Debbi Edwards, Secretary

BIG BLACK DIAMONDS AND MOUNTAIN RAILROADS ARE MOVING THIS MONTH AT THE GEORGE L. CARTER RAILROAD MUSEUM'S HERITAGE DAY

FEBRUARY 28 EVENT SHOWCASES APPALACHIAN CONQUEST: COAL AND MOUNTAIN RAILROADS ON THE BLUE RIDGE AT FREE ETSU ATTRACTION

The George L. Carter Railroad Museum located in the Campus Center Building of East Tennessee State University will spend a 'day in the mountains' by highlighting coal operations on their layouts and displays on February 28. Part of the facility's popular Heritage Days programs held each month 'Appalachian Conquest: Coal and Mountain Railroads on the Blue Ridge' was created specifically with the region's past and present rail carriers in mind.

"How railroading came into the Appalachian region was related directly to the coal business," says Geoff Stunkard, Heritage Day coordinator for the event. "This material was vital to the nation's economy and industrial might, and was

also a big export commodity. However, our regional geography meant that companies needed both large amounts of capital and innovative engineering to access and transport it from here."

The carbon deposits of the mid-Atlantic region were large, and featured grades of coal suitable for everything from home heating to steel manufacture. As a result, railroads built branchlines and even mainlines that clung to mountainsides and wound along waterways, with long tunnels and soaring bridges to get the coal from the mines to the mills or out to tidewater ports for water-based movement. They also innovated locomotives of increasingly greater sizes to do the work. The notable operations in the area, such as the Clinchfield, the Chesapeake & Ohio, the Norfolk & Western, Louisville & Nashville, and others were constructed in large part to access the minerals. That the large locomotives used in the area burned it as well makes it a highlight of railroad history.

Model trains representing this equipment will be operating on the MEMRR club's large 24x44 1:87 HO scale layout that is housed in the museum. This layout features a model of a mine, plus other coal-oriented industries. Some modern equipment may be in operation as well, as the coal business remains part of today's railroad operations on CSX and Norfolk Southern.

The Carter Railroad Museum is open on Saturdays from 10:00 AM to 3:00 PM, and includes model railroad layouts, a special child's activity room, and ongoing programs. There is no admission fee but donations are welcome for its upkeep. The museum is also seeking artifacts for display, including the newest addition dedicated to the long-defunct, but well-remembered 'Tweetsie' line, the East Tennessee & Western North Carolina Railroad; this room, still under construction, again will be open for guided tours during event days.

In addition to the displays, there is also a growing research library, the National Railway Historical Society chapter, membership opportunities, and an oral history archive being established as part of the museum's programs. Info can be found online at

http://etsu
or
http://johnsonsdepot.com/glcarter/cartermuseum.htm

The Mountain Empire Model Railroaders (MEMRR) works in conjunction with the museum to demonstrate and maintain the model layouts, museum exhibits and other projects. More info can be found at

http://www.memrr.org.

Membership opportunities are available to adults, and include special benefits and model railroading enjoyment.

The George L. Carter Railroad Museum is located on the campus of East Tennessee State University, Campus Center Building, 176 Ross Drive. The entrance door is adjacent to the flashing RR crossbuck; for more information contact the Museum Director, Dr. Fred Alsop, at telephone 423/439-6838 or by email at

alsopf@mail.etsu.edu.

2015 DATES TO REMEMBER:
GEORGE L CARTER RAILROAD MUSEUM

February 28:	Appalachian Conquest: Coal and Mountain Railroads on the Blue Ridge
March 28:	5th Annual STEAM-UP
April 25:	Song of the South: Southern Railway Heritage
May 30:	Modern Railroads: Moving Mass in the 21st Century
June 26-28:	ET&WNC RR Historical Society National Convention
June 27:	For Power and Glory: Passenger Trains of Yesterday and Today

SPECIAL:
Second section of Walker china collection debuts

July 25:	Go West, Young Man – Big Country Railroading west of the Mississippi
August 29:	Little Engines that Could: Industrial and Shortline Rail Operations
September 26:	ChiTown – Midwestern Lines and the Windy City
October 31:	George L Carter's Fabulous Clinchfield Lines

HARVESTFEST FOR LITTLE ENGINEERS

November 14:	Homecoming at Carter's Place – 8th Anniversary
November 28:	Precision Transportation: N&W and NS Glory
December 19:	Home For Christmas: Railroading in the Cold Weather States

Norfolk Southern 9414 heads a freight through Jonesborough following the second snow storm in a week February 26th.

By pure chance (pun intended) this former Pure Oil Service Station was spotted on Haywood Ave in Asheville NC

THE VIEW FROM THE ENGINEER'S SIDE OF THE CAB
MEMRR PRESIDENT'S COLUMN

Finally after weeks of snow, ice, cold and university closings (the latter a rare event) it seems that Winter's grip is broken and spring is just around the corner. We will celebrate the longer days ahead with our Second Annual Spring Fling at the Black Olive Restaurant in Jonesborough on Friday night, March 20th. **Jim Pahris** has been in charge of selling tickets for the event and there is still time to get yours for a night of good food (Dutch treat) and socializing with our friends and their spouses, or significant others, as Carter Museum, the MEMRR and the Carter Chapter NRHS welcome the end of winter.

Garrison"s Garage at Shell Creek

On Thursday, 12 February, the museum hosted a mini-bus of special guests who are residents at Appalachian Christian Village. The group of 15 or so had a great time watching the trains operate on the layouts, seeing the exhibits and touring all of the museum. They were most complimentary of our members who hosted them for this special weekday event and made their visit not only enjoyable, but educational as well. Several had railroad stories to tell and we need to follow up with them to see if we can capture interviews for our Tales of the Rails program. I hope I remember everyone who volunteered to come to the museum to greet these fine folks and forgive me if I fail to do so, but special thanks to **Debbi** and **John Edwards, Jonathan** and **Gary Gilliam, Roger Teinert, Mike Baker, Gary Emmert** and whomever I may have overlooked. You all did a great job for our senior citizens.

The Church in Shell Creek as modeled by Fred Alsop

We have had an *ad hoc* Bylaws Committee working on updating our club bylaws that have not been changed since September 2012. **Ted Bleck- Doran, Paul Haynes** and **Gary Emmert,** with input from other club members, have been meeting on several Monday mornings and working on changes needed in the document to more closely reflect the club as it is operating today. They are publishing their final draft for review elsewhere in this newsletter. Please read in carefully and be prepared to vote on it at our regularly scheduled March business meeting. Gentlemen, thank you for all the thought and effort you have put into upgrading this critical operating document for the MEMRR.

A ground level view of the Brinkley building at Shell Creek

On March 21st **Taylor Jessee,** our Little Engineer's Room Station Master, and her most capable assistant, **Danielle,** are planning a Circus Day for the children. Watch for the press release and check it out on their Facebook page. If you have circus-related items you can bring to exhibit that day please do so.

Our Heritage Day Event Coordinator, **Geoff Stunkard,** has a popular event planned for the museum for March 28th when we create the ***5th Annual Steam-Up***. This is the day that premiers those iron horses that were once the icons of all railroads, big and small, from the earliest days of railroading well into the middle of the 20th century. Bring your favorite steam locomotives from tiny to behemoth size and your favorite consists for them to pull and let's make a big day of steam with all the chuffing sounds that signal a great locomotive is coming down the tracks. If you have railroad memorabilia for Geoff to display please bring that in the Thursday night before the event so we can get it properly displayed. This Heritage Day always draws a big crowd and we will need plenty of trains and volunteers in the museum on that Saturday.

Main Street at Shell Creek on the ET&WNC layout

Our treasurer, **Gary Emmert**, reports that all but approximately 20 members from 2014 have not renewed their memberships, and that our current membership for 2015 exceeds 120 model railroaders. With adherence to our bylaws that only full members have unlimited access to the museum via its key lockbox, several former Associate Members have become Full Members.

A station and freight house on the Rabetoy layout

John Edwards, with the assistance of several others, is putting together a tutorial checklist that will greatly facilitate everyone's operation on the club's layout. As we have increased the technology of the HO scale layout we have also made it a little more difficult to operate without some supervised instructions on how to do so. Additionally, when some of the more seasoned members are not able to be at the museum during operational hours on Saturdays, some of the rest of us suffer as we lack the critical knowledge, and the confidence that comes with it, to always operate our trains and the layout successfully. The proposal is that if we create a guide that is a check list for how to start up the layout, run our trains successfully on it, and be able to shut it down at the end of operations we have a win-win-win situation. To be able to do this successfully we plan to have every member who operates on the layout, or who wishes to do so, be tutored through this checklist with a sign-off upon successful "graduation". This is analogous to the kind of checklist I was trained to preform when I was flying private airplanes. You had a mandatory checklist of inspections for a walk around the plane before you got inside the pilot's seat, another for starting the engine and checking the control surfaces, another for taxing, one for takeoff, etc., etc. It was the best way to insure that your plane was flightworthy and that each flight should be successful. If we do the same thing in a much simpler way (and without the risk of crashing and burning) with our layout everyone will gain a lot of personal knowledge about its operation and all of us will feel better about every member's ability to operate the layout. I personally think this is a great idea and cannot wait to be tutored on all the ins-and-outs of our MEMRR layout.

A Coal tipple in the Rabetoy Layout in the Tweetsie gallery

We also have members who are about to finish a project called the ***MEMRR East Tennessee Division Time Table.*** It will be a most handy booklet made available to every full member with sections on Horn and Whistle Signals, Use of Bell, End of Train Designation, Radio Communications, Point-to-Point Operating instructions to get your train around the HO layout, a Dispatcher/Yardmaster Train Sheet, and much, much more. It will allow the HO operators to work the layout like a prototypical railroad and should facilitate ease of train movements, provide train work schedules and increase the realism and fun of Saturday operations and for other times as well. You will truly enjoy having a copy of this time table and find it extremely useful for you club operations.

I have copies of the ***HOn3 Annual, 6th Edition*** that features the ET&WNC Railroad and our Railroad Museum's Tweetsie Layout. If you don't have a personal copy that should be a collector's edition for the club you can get one the next time you are at the Carter Railroad Museum. Just ask and we will couple you to your own copy for transport to your home station. It is truly a beautiful article written and largely photographed by **Geoff Stunkard.**

Engine facilities on the Rabetoy HO layout now incorporated into the Tweetsie room

At the February Coordinator's Meeting it was brought to the group's attention that we are out of our brochure advertising our club, our sister chapter of the NRHS and the museum. Many of our new members have come from visitors picking up one of these brochures and filling out the membership application form that is a part of it. It was recommended that the MEMRR create its own brochure, that the Carter Chapter NRHS also create a brochure of its own, and that the museum, and other club, be mentioned in each of these brochures as cross-referencing. That will provide membership information and applications for each organization. Both the MEMRR and the Carter Chapter NRHS now have members working to design these brochures for review by their respective memberships. Additionally, we will also display application materials for the ET&WNC RR Historical Society at the Railroad Museum.

The N-Scale layout, and its trouble-shooting and maintenance, that was created the Tupelo Honey Café in the old CCO (Clinchfield RR) station has now been turned over to the management of Tupelo Honey Café. Thanks again to all

our members who worked to create it and to make it the outstanding example of our model railroading skills that it is. Thousands of patrons to the restaurant have already enjoyed seeing it and we have received many compliments on the layout.

Progress towards a possible satellite railroad museum of the Carter RR Museum in Jonesborough is still slowly being made. Currently ETSU's legal staff is creating a document that would be an agreement for the establishment of such a museum by the university and the Town of Jonesborough. If it is approved by the university president it will then be sent to Jonesborough city administrators for their review. If both sides sign the agreement we will have a green signal to proceed. I will keep everyone informed as I am made aware of what is taking place.

The Carter Chapter NRHS is planning a rail excursion to Knoxville on June 13th. Buses from Premier Transportation (formerly Greene Coach Lines) will transport rail fans from the ETSU campus to visit the Steam Shops of Knoxville Locomotive Works, ride the 3 Rivers Rambler Railroad behind a steam locomotive, and dine on a paddlewheel boat operated by the Tennessee Riverboat Co. on the Tennessee River for a two hour cruise before we return to Johnson City. Cost for adults will be $95 and for children $80. Publicity and signup will begin in April, but you can reserve your space early by contacting **Charlene** or **Dan McLeod** who are in charge of reservations. This is a popular trip and we sold out the entire train (160 seats) last year, so please mark it on your calendars and plan to join us this year for a great day trip.

These are busy times for the MEMRR and for the Carter Railroad Museum. We have a great organization and a wonderful facility to call its home. Plan a trip to the museum soon if you have not visited the club lately, or operated your favorite locomotives (or one of the club's) on a Saturday. Lots of terrific things are going on and operations on the layout have become a lot more fun and challenging. You will enjoy the changes and we will enjoy your company. Members are always welcome and it is a great place to spend a Saturday or a Thursday evening. And if these times and days don't work for you, Full Members have access to the museum any time they want to visit and pursue their hobby.

Listen to the sound of the whistle of the train at night and dream of all the destinations yet to come.

Fred J. Alsop III
President, Mountain Empire Model Railroaders
Director, George L. Carter Railroad Museum, ETSU

MOUNTAIN EMPRIE MODEL RAILROADERS
BUSINESS MEETING MINTURES
FEBRUARY 24, 2015

The meeting was called to order with 15 members in attendance at 6:30 by Fred Alsop, club president.

Officers' Reports:
The secretary report and newsletter were accepted as printed.

Treasurer Gary Emmert reported that we have over 100 paid members.

Web master John Edwards reported that everything has been going smoothly. He requested that if members personal information (ie: phone #, email address, etc) has changed to please send updated info to Gary Emmert or John Edwards. Web master Bob Jones stated that he will be removing the monthly minutes from the website.

Vice President reported that the March meeting will not have a program. At the end of the meeting we will be going over the possible bylaw changes regarding Article IV revisions regarding membership.

Fred Alsop thanked the volunteers who opened the museum for the visitors from Appalachian Christian Village.
Volunteers are needed to help the ladies in the little engineers room with birthday party set up etc. An email will be sent out with the information.

Old Business:
Steps towards the Jonesborough satalite museum are coming along nicely. The legal dept. at ETSU has put together a draft and is awaiting review and approval.

On March 12 Jim Hoit will be doing a workshop on RIP track. Our April workshop will be rocks.

The bylaws committee reported that they have been meeting and the revisions will be discussed at the April meeting. There will be no program after next month's meeting. We will use that time to go over the changes to the bylaws regarding Article IV.

Spring Fling is March 20 at the Black Olive Restaurant in Jonesborough at 6:00. If you would like to attend, contact Jim Pahris by the morning of March 16th.

This year's rail excursion will be on June 13th. This year's trip will be to the Loco Works Steam Shop, 3 Rivers Rambler train ride and the Tennessee Riverboat 2 hour cruise and meal.

Ticket prices are $80 for children 3 – 12 yrs old and $95 for adults. Transportation is included in the ticket price.

New Business:
Heritage Day this month is Appalachian Conquest- Coal and Mountain Railroad of Blue Ridge.

John Edwards discussed having a operating system check list for the museum. A tutorial will be made so that all full members will feel confident in opening the museum, getting the layouts up and running and proper closing procedures.

Geoff Stunkard will be designing a new club brochure. When it is finished it will be presented to the club.

Jim Pahris made the motion to make GLCRR Museum the only procurer of retail items, motion passed. Also the motion was made and passed to sell current in stock merchandise to the museum – prices to be establish.

The call for volunteers was followed by a brief presentation of the proposed timetable by John Edwards and Gary Emmerit.

Meeting adjourned at 7:20

Respectfully submitted,
Debi Edwards,
MEMRR Secretary

A BRIEF HISTORY OF THE CENTRAL OF GEORGIA RAILROAD

A PREVIEW OF GEORGIA RAILFANNING AT SAVANAH, GA

Part 1

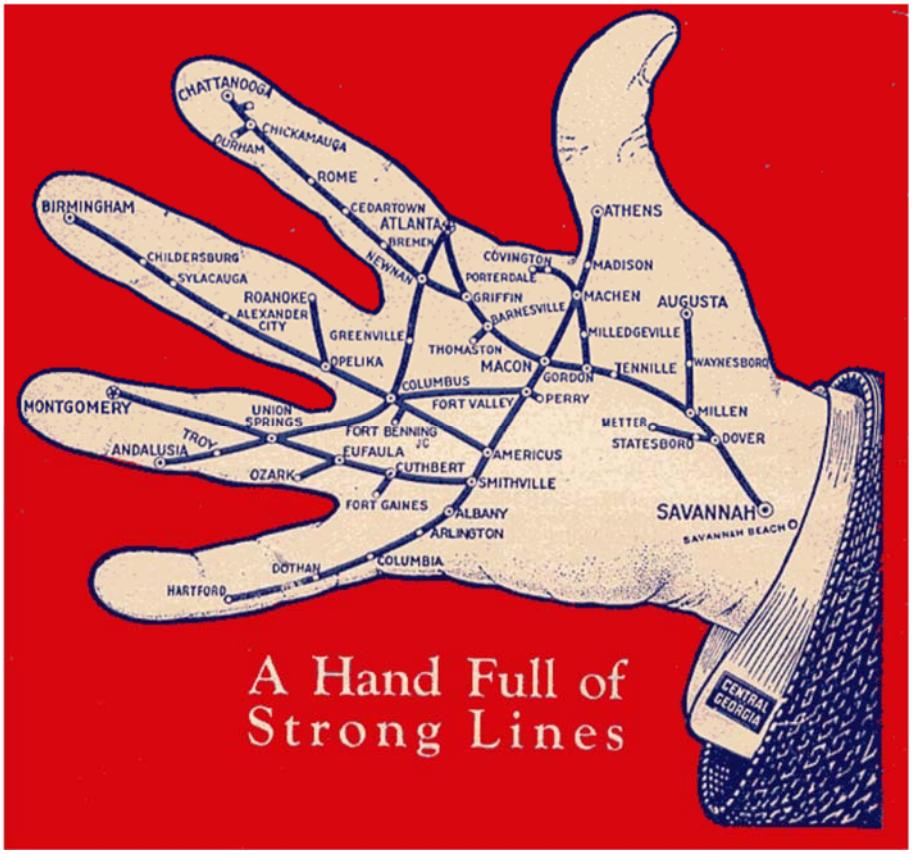
(John A. Caramia, Jr. – 2013)

Since the early 1800s commercial activity in Savannah centered on its port. Cotton was shipped down the Savannah River from Augusta for export to overseas markets. However, when the South Carolina Railroad, connecting Hamburg (directly across the Savannah River from Augusta) to Charleston (Savannah's rival port), was completed in 1830 the shipments of cotton through Savannah began to diminish. To combat this economic decline a group of Savannah officials obtained a state charter (December 20, 1833) for the Central Rail Road and Canal Company with the intent of building either a railroad or canal link to Macon, 190 miles inland from Savannah. It proved to be difficult to raise the money needed to build the railroad so the idea of a canal was soon abandoned and the company petitioned the state to change its charter and name. This was granted and in 1836 company changed its name to Central Railroad & Banking Company. Construction of a railroad line began in 1835 and by 1843, the line to Macon had been completed, a distance of 190 miles making it, at that time, the longest continuous railroad line under one management in the world. While the railroad was growing, so too were the new Savannah rail yards and shops. Construction of the first shops complex began in 1836.

The first President of the Central of Georgia was William Washington Gordon, who oversaw the building of the rail lines to Macon and the initial construction of a shop complex, and passenger station at Savannah. Before becoming President of the railroad he had served as the Mayor of Savannah. He was also the grandfather of Juliet Gordon Low, the founder of the Girl Scouts. With the death of William Washington Gordon in March 1842, Richard R. Cuyler became President. Beginning in 1851, he oversaw the construction of a larger facility at Savannah for the maintenance, repair and construction of locomotives and rail cars. The Superintendent of the Railroad, William Wadley, supervised the construction of the Savannah shops which included a roundhouse with 39 stalls, a turntable, machine shop, a blacksmith shop, carpentry shop, boiler/engine house, tender frame shop, smokestack, and other smaller shops and storage areas. The Central, like most railroads, was organized around four main departments: Maintenance of Way (building and repairing track, switches, bridges, turnouts, etc), Maintenance of Motive Power (purchasing, building and repair of locomotives and rail cars), Transportation/Operations (movement of freight and passengers), and Administration.

The first full year of operation for the Central was 1840. Revenues were generated by freight, passengers, and mail. The majority of revenue was generated from freight (70%) and most of that was from shipping cotton from the plantations in the interior to Savannah to be exported. Passenger revenues for that first year accounted for 27% and mail just 3% of the total revenues. In 1841 rail operations were greatly affected by a succession of freshets, which destroyed track and bridges, and a prevalence of fever among workers, which made it difficult to make the necessary repairs. By 1842 the Central had made the necessary repairs and was running full time. Between 1842 and the Civil War most of Central's business was transporting freight. The percent of freight for this period

ranged from a low of 68% to a high of 86%. Passenger revenues for this period ranged from a low of 11% to a high of 23%. Mail ranged from a high of 9% to a low of 2%. During each of the years leading up to the Civil War the Central was able to make a profit.

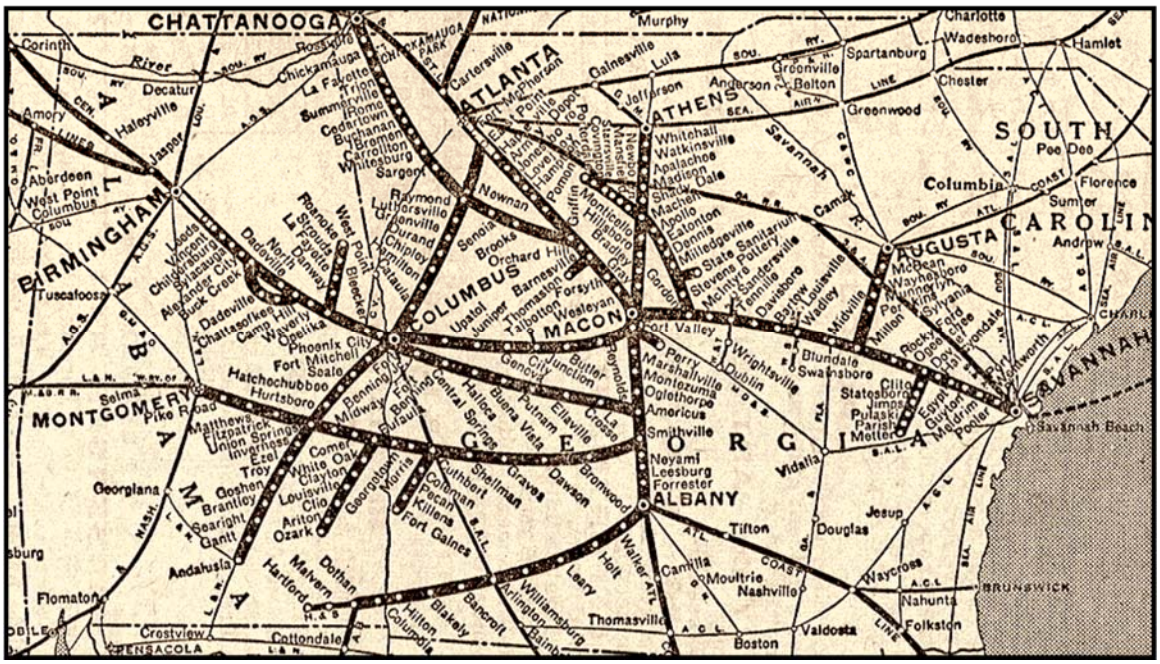


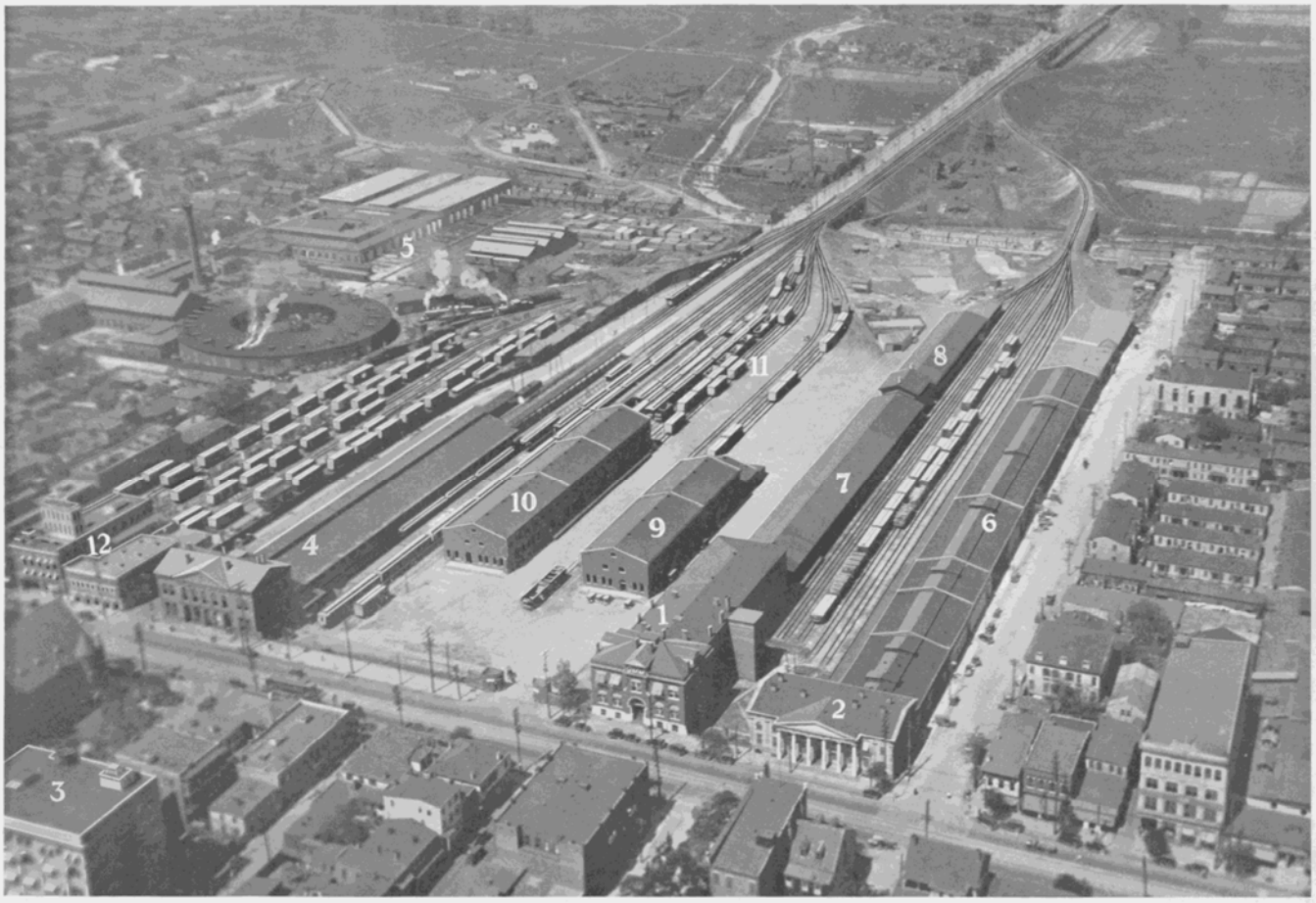
Although the Savannah Shops complex was spared during the Civil War, the war years were difficult for the Central. At the beginning of the Civil War, the Central controlled 229 miles of track out of the 1,420 miles of track throughout the state of Georgia. With 59 locomotives and 729 cars, the Central had the second largest holding of rolling stock in the South. This changed drastically however when the Confederate Government ordered railroads to release rolling stock to those railroads carrying the most military traffic. The Central's Savannah shops were also put to work producing gun carriages and other military equipment. Maintenance of locomotives was mostly shifted to Macon for the remainder of the war. Between 1861 and 1863 the Central was able to continue to make a profit but passenger service became more important than freight. In fact, in 1862 and 1863 the revenues from passenger service were more than from freight. Much of this was due to the difficulty of exporting cotton byway of Savannah due to the Union Blockade and the need for more civilian and military passenger service. During the war the Central could not do any repairs on its tracks which were being worn out due to heavy train traffic and a number of their locomotives and cars were being used by other railroad throughout the south. Another blow to the Central came from Sherman's March to the Sea in which Union troops destroyed track, bridges, and other railroad facilities. As a result of the Civil War and Sherman's March the Central lost 140 miles of track, 14 locomotives, and 97 cars.

At the close of the War, the Central had lost much of its greatness. William Wadley became President of the Central in January 1866 and continued as President until 1882. He built the company into a great railroad. By June 1866 rail service was restored to Macon from Savannah and by 1867 the Central was again making a profit with most of the revenue coming from their freight business. The Savannah complex continued to be the headquarters for the Central of Georgia throughout its expansion into Georgia. This post-war expansion saw the replacement of all destroyed rail connections and the addition of 1500 miles of new track. The company also diversified by purchasing, in 1872, the Savannah Steamship Line and forming the Ocean Steamship Company of Savannah, a wholly owned subsidiary of the Central. Two years earlier William Wadley had purchased the 273 acre Vale Royal Plantation which fronted the Savannah River. Here the Central built docks and warehouse facilities which they used until they sold the property to the State of Georgia in 1958.

In 1887 The Central of Georgia was purchased by the Richmond Terminal Company. The new company began issuing greatly over-valued bonds based on the good credit of the Central resulting in huge debts for the company. In 1890 the Central purchased the Tybee Railroad which had been built in 1887 by the Savannah and Atlantic Railroad. This 17.7 mile road from Savannah to Tybee Island was run by the Central until July 31, 1933 when it ceased operations. In 1892 the Central was put under receivership with Hugh Moss Comer named Receiver. At that time the Central had almost 2,700 miles of track. In October 1895 all the asset of the Central were sold to the New York City investment banking firm of Thomas & Ryan. By November 1st they created a new company: The Central of Georgia Railway with Hugh Moss Comer as President. This resulted in a new logo and advertising slogan: *A Handful of Strong Lines.* The Central of Georgia Railway Company was purchased in 1907 by investment banker E. H. Harriman of New York City who two years later sold the company to the Illinois Central Railroad. They contained control of the Central of Georgia until the Great Depression in 1932. The Central reached its peak in the 1920s. For over 100 years it was the largest employer in Savannah. Below is a view of the Savannah complex in 1923.

During the Great Depression, the Central went into bankruptcy, but continued operations. In the 1940s, the Central of Georgia began switching to diesel locomotives as steam locomotives were retired. Following World War II, the Central introduced new streamlined passenger trains, The Nancy Hanks II and the Man O' War that used diesel locomotives instead of steam locomotives. This signaled the beginning of the slow decline of the





VIEW OF CENTRAL OF GEORGIA RAILWAY GENERAL OFFICE BUILDINGS, PASSENGER STATION, SHOPS, WEST BROAD STREET YARDS AND WAREHOUSES: *1, 2* and *3*—General Offices. *4*—Passenger Station. *5*—Shops. *6*—New Street Warehouse occupied by Ballard & Ballard, J. G. Butler Builders Supply Company, Carlyle Provision Company, Haas-Guthman Company, M. S. Herman & Bro., S. A. Kantziper, W. L. Poythress, and Unity Grocery Company. *7*—Central of Georgia Railway storage warehouse 12. *8*—Warehouses of Burns & Harmon, W. F. Cardinal, I. D. Hirsch and Frank Palmer. *9*—Warehouse of R. C. Williams Georgia Corporation. *10*—Warehouse of Semmes Hardware Company. *11*—West Broad Street Team Tracks. *12*—Plants of Armour & Company, Cudahy Packing Company, Morris & Company, Swift & Company and Wilson & Company.

Savannah Shops. As diesel locomotives began to replace steam locomotives on American railroads, shop complexes designed to service steam locomotives were found to be ill-suited for the maintenance of diesel and were slowly phased out. For a period diesels were serviced at Savannah, but that work was soon shifted to the Macon shops reducing the number of employees needed at Savannah. The last railroad to be purchased by the Central was the Savannah & Atlanta Railway in 1951. The Southern Railway acquired the Central of Georgia in 1963 and closed down the Savannah shops, ending over 100 years of railroad activity at the site.

UNDER THE CATENARY

THE ELECTRONICS SHOP

Frank Fezzie

Proper wiring connections to the rails are critical to providing reliable electrical power to the trains running on our model railroad layouts. Electrical problems most often crop up in our turnouts. Many modelers try to use commercial turnouts directly out of the box on their layouts. Over time, problems will often start to crop up. Some of these problems are mechanical on nature and are addressed in other forums. More commonly, electrical problems occur, usually in the form of dead rails, which are rails that are not receiving electrical power. Engines crossing turnouts with dead rails can hesitate or stall completely, detracting from our enjoyment of running trains. I have little tolerance for dead rails as they are almost completely preventable. We are going to address these electrical problems in this column.

We use the term **turnout** instead of **switch** for this piece of track in order to avoid confusion with an **electrical switch** that turns equipment on and off. Let us cover the terminology describing parts of a turnout. Please refer to Fig A. The two **stock rails** are the outside rails of the turnout and are continuous from end to end of the turnout. The **switch rails** are the two rails that move when the turnout is **closed**, selecting the straight or **through** route, or **thrown**, selecting the curving or **diverging** route. The **points** are the ends of the **switch rails** that contact the **stock rails** when the turnout is **thrown or closed**. The **points** are connected together with a **throw bar.** The other end of the switch rails connect to the **closure rails** with pivots or hinges. The **closure rails** run from the **switch rails** to the **toe** of the **frog**, and normally do not move. The **frog** is the section where the rails cross between the **through** and **diverging** routes. The **heel** of the **frog** is made up of the two rails that come together at a point within the **frog**.

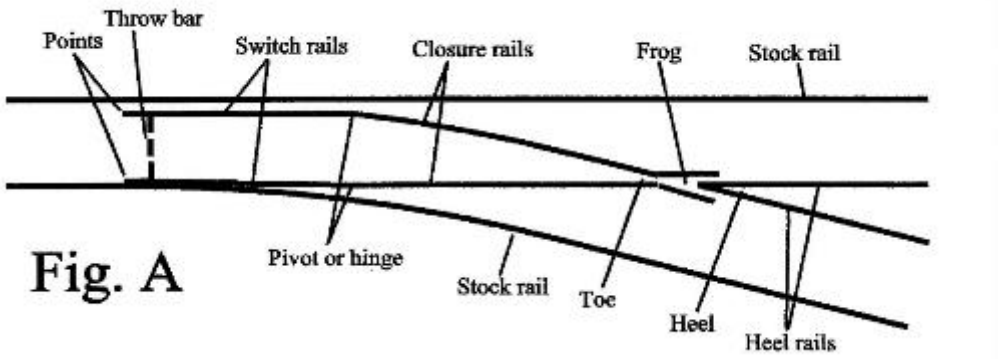


Fig. A

In most commercial turnouts, the entire middle portion consisting of the **switch rails, closure rails, frog,** and **heel,** receive electrical power from the contact of the **points** with the stock rail. This middle portion has to change polarity depending on which way the turnout is thrown, and using the **points** will accomplish this. The problem is that this connection is not reliable, especially in the long run. Oil, dirt, lint, ballast, ballast glue, and oxidation can all accumulate in this area over time. This makes the electrical connection unreliable, leading to dead rails within the turnout, and ongoing maintenance problems to try and keep the points and stock rails clean for good electrical contact. Not every turnout will give problems, but nearly every layout with more than a few turnouts will experience this problem over time.

There are a variety of solutions to this problem. Which one is best depends upon a number of factors. Is the **throw bar** metal or plastic? Is the **frog** metal or plastic? Is there a set of electrical switch contacts available on the switch machine (Tortoise machine, for example)? Today I will address our MEMRR and TWEETSIE layouts. We have both metal and plastic **throw bars** on the turnouts. Our **frogs** are metal. In most cases we have electrical contacts available on Tortoise machines.

The simplest situation is shown in Fig B. In this case the turnouts have a plastic throw bar. This type of turnout is what we have in the main yard on the MEMRR layout. The first step is to electrically isolate the frog by cutting gaps into both **closure rails** and both **heel rails**. This is normally done within an inch or so of either end of the **frog**. Note that some brands of turnouts, such as Atlas, already have the **metal frog** isolated, so no gaps need be cut. Also note that normally the two closure rails and the two heel rails are all electrically connected together at the frog. Additional feeders may be necessary if this is not true for your turnout.

A feeder is connected to a rail on the frog. The other end of the feeder goes to the common terminal of a switch on the Tortoise machine. The other two terminals of the switch go to the RAIL A and RAIL B buses that feed power to the track in the area of the turnout. Now the entire frog area between the gaps that we cut is connected to the appropriate rail power bus by the Tortoise machine based upon which way the turnout is thrown. Finally, we connect each **closure rail** to the adjacent **stock rail** with a jumper wire as shown. This assures proper electrical power to the **closure** rails.

Only the **switch rails** remain to be addressed. If the turnout is not yet installed, it is a simple matter to connect a small flexible wire, such as decoder wire, from the underside of each **switch rail** to the underside of the **closure rail** that it is attached to, thereby guaranteeing that the **switch rails** have power. However, if the turnout is already installed, then it is best to do nothing. The **switch rail** will have power coming to it from contact with the **stock rail** and also through the hinge or pivot connecting it to the **closure rail**. Under these conditions I have rarely seen an electrically dead **switch rail**. This does illustrate the importance of being very careful when ballasting a turnout, especially from the **points** and **throw bar** to the hinge at the **closure rails**. Keep glue and ballast out of the **points** and **hinges**.

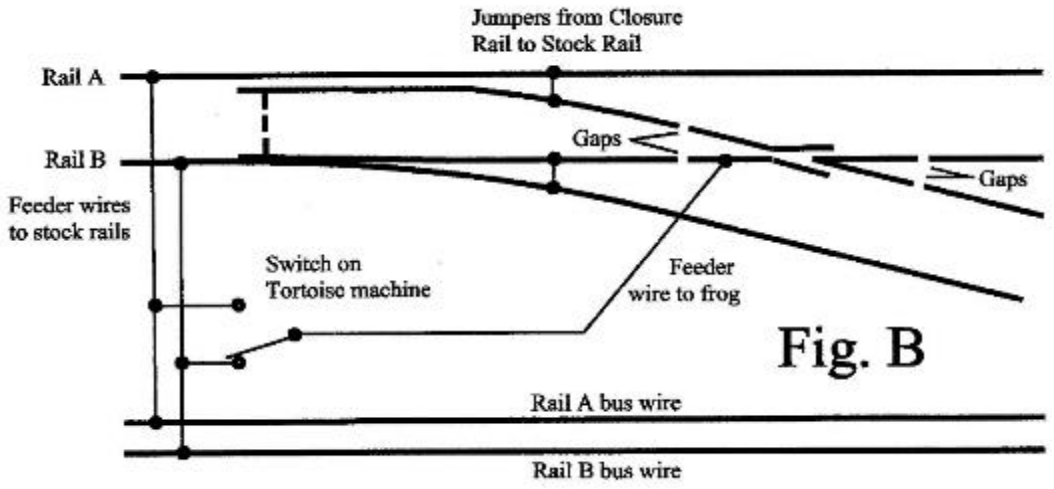


Fig. B

A nice feature of the wiring described above is that should a train approach the turnout from the **frog** end and the turnout is set against that route, as soon as the engine hits the frog it will create a short circuit, shutting down power, and stopping the train before it can hit the points and derail. Throwing the turnout to the correct position clears the short circuit and permits the train to continue.

Our second scenario is shown in Fig C. Here, our turnouts have a metal **throw bar** that electrically connects the two **switch rails** together. This prevents us from being able to connect the **closure rails** to the adjacent **stock rails** as we did above because that would create a short circuit through the metal **throw bar**. So, here we cut the required gaps in the two **heel rails**, and then connect a feeder from the frog to the Tortoise machine switch. However, a problem can occur. Due to the flexibility of the coupling between the Tortoise machine and the **throw bar**, it is possible that for brief periods of time during the cycle of changing the turnout position, the turnout **points** may have a connection to one stock rail while the Tortoise machine switch is connecting the frog to the opposite rail bus. This can cause a brief short circuit which would then cause the power district to shut down for a second or so. This situation has occurred in turnouts on the MEMRR layout. Furthermore, this situation may not happen consistently to a turnout. Due to variations in the amount of temperature, humidity, dirt and debris that can bind the **throw bar** over time, a turnout may not short out for some period of time, and then starting shorting out later.

The well-accepted fix for this problem is to connect the frog to the switch on the Tortoise machine through a #93 automotive light bulb, as shown in the diagram. When cold, the light bulb has a very low resistance. Nearly all of the track voltage will be applied to the frog through the Tortoise switch, even if an engine is on the turnout and pulling it's power through the light bulb. But should a brief short-circuit occur when the turnout is being thrown, the light bulb will illuminate and limit the current through the Tortoise

machine to a safe value, such that the circuit breaker for the section does not trip and track power will remain on. When the **points** and the Tortoise machine at again in sync and both are connecting the frog to the same rail bus, the bulb will go out and full power will be available to the **frog** of the turnout.

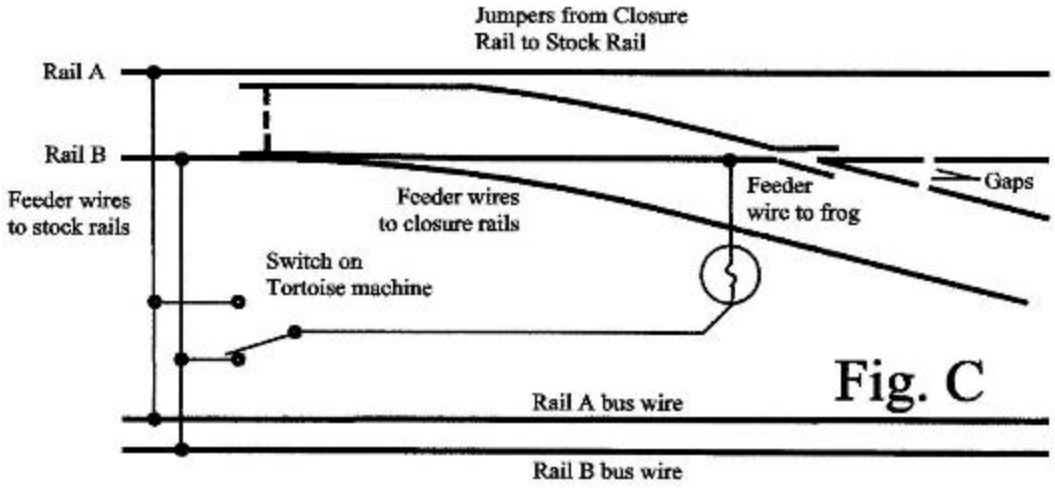


Fig. C

One short-coming of the solution above is that we lose the protection of Fig B where a train approaches a turnout that is set against it. There will be no short-circuit to stop the train and it can run through the turnout and derail. But especially in turnouts like the dual-gage turnouts on the Tweetsie, where there is very little room to work in the area of the frogs, the fix in Fig C is the best that we can do.

For turnouts with metal **throw bars**, the good news is that we can incorporate the train protection of Fig B with the current limiting action of Fig C into our wiring. Looking at Fig D, you will see that we have isolated the **frog** completely by cutting gaps in both rails on both ends of the **frog**. Because the **frog** will only have one source of power, a short-circuit is not possible and the **frog** can be wired directly to the Tortoise machine switch. We add feeder wires to both closure rails and connect those through a #93 light bulb to the Tortoise machine switch, thereby protecting against the short-circuit situation as described above.

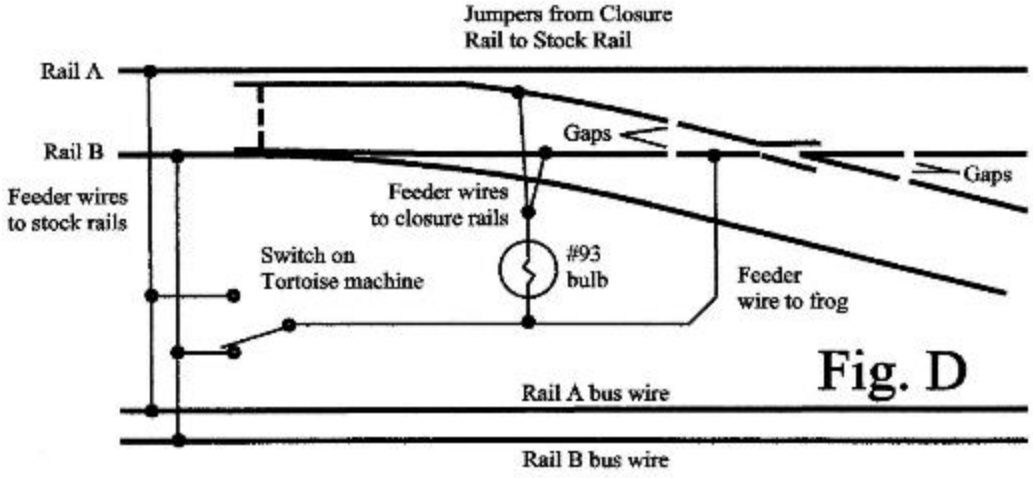


Fig. D

We will be installing this fix in all of the turnouts on club modules in the MEMRR layout. We will also install them on member-owned modules with permission of the owner. Both turnouts in crossover #16 have already been modified per Fig D and are working well.

Next month I will outline a fix for this problem in turnouts that do not have a switch machine with electrical switch contacts, such as manually operated Peco turnouts. A future column will address questions about bus and feeder wire size and spacing.

If you have a question about electronics in model railroading, please send it to me via e-mail at frank@ffweb.info and I will do my best to answer it for you, either directly or in this column.

MOUNTAIN EMPIRE MODEL RAILROADERS
BYLAWS
~~Adopted Date 18 September, 2012~~
Draft 03-09-2015

Article I.
The name of this organization shall hereafter be known as, **MOUNTAIN EMPIRE MODEL RAILROADERS (MEMRR).**

Article II.
The officers of this organization shall be elected by popular vote of the membership at the November business meeting each year and retain that office for one calendar year. The officers shall consist of a President, Vice President, Secretary, Treasurer, Newsletter Editor, and Webmaster. ~~The duties of each officer are enumerated in the Appendix to the Bylaws.~~ Officers shall performed their duties and responsibilities according to those enumerated in **APPENDIX A: Duties of the Officers of the Organization**

Article III.
Committees shall be drawn from the general membership with appointments made by the president based on interest of the individual members and needs of the club. Committee Chairpersons shall be appointed from among Full and adult Household members. Committee membership may include persons from all membership classifications.

Article IV.
Membership is open to any individual with a sincere interest in model railroading and shall be governed by the duties, rights, responsibilities and obligations as described in Appendix B: Table of Membership Classifications, Dues, Rights, Responsibilities and Obligations**. All membership levels include a digitally available copy of the club newsletter known as** *The Signal Bridge.*

FULL ~~ADULT~~ MEMBER is defined as one who is 18 years of age or older and pays "full member" dues as set by the club in Article VIII and is willing to construct or assist with the building and/or operation of one or more modules or layouts which meets the club specifications. **ONLY PAID UP FULL MEMBERS** will have access to the museum key box. ~~This will include a digitally available copy of the club newsletter known as *The Signal Bridge.*~~ **HOUSEHOLD** is defined as a **FULL MEMBER** and any youth 14 to 17 years of age and/or person 18 years of age or older residing in a single residence. **HOUSEHOLD MEMBERS** should be interested in model railroading and who will support club activities. **HOUSEHOLD MEMBERS** will have one vote per adult ~~over~~ 18 years of age or older.

YOUTH MEMBER is a non-voting member ~~between 14 and to~~ 17 ~~18~~ years of age or younger and will be accepted if sponsored by a **FULL ~~ADULT~~ MEMBER**. The **ADULT MEMBER** will accept full responsibility, financial and otherwise, for their sponsored youth.

~~**FAMILY MEMBER** is part of a full adult member's household, interested in model railroading and who will support club activities.~~

STUDENT MEMBER is a voting member who is a full-time student enrolled in any private or public community college, ttrade school or college, college or university. Proof of student status ~~may be~~ is required to establish and maintain student membership. ~~This will include a digitally available copy of the club newsletter known as *The Signal Bridge.*~~

~~An associate member is one who would like to receive the club newsletter ("The Signal Bridge") by a digitally available copy, supports the club, and will be nonvoting.~~

SENIOR MEMBER **must be 65 years of age or older and have been a** FULL MEMBER **continuously for the five years immediately preceding application for** SENIOR MEMBERSHIP**.**

The Signal Bridge **newsletter. Free via digital format to eligible members in good standing. For those who prefer hard copies, there will be an additional ~~$15.00~~ yearly fee ~~for basic~~** DISTANT/REMOTE MEMBER **resides 100 miles or more from Johnson City and intends to occasionally participate in MEMRR meetings and activities.**

EMERITUS MEMBER is one who has been a long time active member who is voted to this lifetime ~~non~~ voting status by 2/3's vote of the membership present. ~~This will include a digitally available copy of the club newsletter known as "The~~

~~Signal Bridge".~~

HONORARY MEMBER is one who has been awarded special non-voting membership for outstanding contribution by a non-member. To be established by 2/3's vote and renewed by similar vote at each November meeting. ~~This will include a digitally available copy of the club newsletter known as "The Signal Bridge".~~

Article V.
Election of officers and changes to the constitution or bylaws must be announced to the membership no less than one month in advance. Membership will consist of all individuals listed on the official roll kept by the treasurer. Changes to the aforementioned documents of the club will require a vote "in the affirmative" of one more than half the ~~voting~~ membership voting. Passage of regular business items will require a majority vote of the members present at the meeting when the item is on the floor. Members must be sent notice by email (surface mail should the member not have email access) of special called meetings no less than one week in advance of the proposed "called meeting" date.

Article VI.
The regularly scheduled business meeting of this organization shall be the third Tuesday evening of each month.

Article VII.
These bylaws may be amended by the membership, as deemed necessary, by the process set forth in Article V.

Article VIII.
Each member will pay his or her dues to the treasurer no later than January 31st. At that time non-paid members will be removed from the distribution of the newsletter (herein known as ***The Signal Bridge***) with the February edition. An extension may be granted upon approval by the President and the Treasurer. The key box code to the George L. Carter Railroad Museum door is to be changed each ~~January~~ February. The dues will be fixed for the next year at the November meeting and published in the minutes of that meeting.

Article IX.
The President may appoint an Audit Committee once a year to audit the books and physical assets of the Treasurer and to count the "cash on hand" kept by the Treasurer. The audit report will take place after the ~~November~~ January business meeting and thereby present the incoming administration an accurate and verified base for the new fiscal year to run January 1st to December 31st).

Article X.
All club funds will be kept and maintained by the Treasurer. All expenditures must be submitted to the Treasurer for reimbursement upon receipt of appropriate receipts. All club funds will be maintained by the Treasurer. Upon termination of this club, all funds remaining will be used to pay outstanding debts. Any club-owned property will be sold and the proceeds, along with any remaining cash funds, will be donated to a 501C3 organization.

Article XI.
This club has been organized and will operate exclusively for the pleasure, education, and recreation of its members. No part of the club's income and/or contributions will accumulate for the benefit of any member.

Article XII.
~~Unfinished~~ Modules owners shall submit an annual plan for improvements and show substantial improvements in a timely manner. If ~~recommended~~ the proposed improvements are not implemented ~~on schedule after advisement~~ in a timely manner following approval from the Executive Committee (officers of the MEMRR), the disposition of the module or modules will be brought to a vote by the membership.

Article XIII.
Each **FULL MEMBER** is encouraged to work the equivalent of one full Saturday, or two half-day Saturdays, at the current club display venue per month. Each member is to sign up for scheduled operating days and/or special events in advance so adjustments can be made to schedule. Showing up unscheduled with staffing already scheduled is encouraged but will not count towards fulfillment of this commitment.

Article XIV.

Approved expenditures shall not exceed original estimates by more than 10% unless prior approval by the Treasurer and one other executive officer. (Executive officers are: President and Vice President). No expenditures will be reimbursed without receipt and all receipts must be signed and dated by the purchaser.

Article XV.

~~section and additional $15.00 for bonus additions.~~

~~Basic section $15.00 yearly~~

~~Basic section plus bonus pages $30.00 yearly~~ as specified in **Appendix B.**

Article XVI.

Pro-rated dues rates for new members who sign up during the year.

Jan. thru Mar. 100%
Apr. thru June 75% (for balance of the current year)
July thru Oct. 50% (for balance of the current year)
Nov. and Dec. 100% (this will include the following year's dues)

APPENDIX A
Duties of the Officers of the Organization

President:

1 Prepare meeting agenda and preside over the Monthly Business Meeting.
2 Appoint Committees for various tasks as necessary.
3 Maintain contact with Train Show operators.
4 Prepare a monthly column on club activities and news and submit it to the Newsletter Editor for publication in the *"Signal Bridge"*. ~~monthly "Train News Report".~~
5 Assign individuals to specific tasks, i.e., Program Director, Recording Secretary, Specification Librarian, etc.
6 Provide contact point for local media, civic organizations and political leaders.
7 Is responsible for promotional aspects of the club, i.e., club logo, club brochures, media news releases, etc.

Vice President:

1 Preside at monthly business meeting in the absence of the President.
2 Is responsible for monthly club programs.
3 Maintain club archives in conjunction with the Librarian and Webmaster.

Secretary:

1 Take minutes at Monthly Business Meeting (a Recording Secretary may be appointed by the President to perform this function).
2 Send copies of minutes to newsletter editor.
3 ~~Maintain club archives in conjunction with the Librarian and Webmaster.~~
4 Originates official club correspondence (i.e.: thank you cards/letters, condolences/etc.)

Treasurer:

1 Maintain club funds and account for same in writing.
2 Collect annual club funds due from members and associate members.
~~3~~ Prepare monthly financial report (income and expenditures) ~~and submit it to Newsletter Editor for publication in the monthly Newsletter~~.
4 Prepare Annual Financial Report.
5 Maintain current Active Membership Roll.
~~6 Compile and keep a roll of inactive and former members.~~
7 Order club shirts, caps, patches and other club items

Newsletter Editor:

1 Publish and distribute monthly newsletter, *"The Signal Bridge"*.
2 E-mail *"The Signal Bridge"* club newsletter to ~~all members who have elected to receive it electronically.~~ the Webmaster for distribution in digital format to the membership.

Webmaster:

1 Secure and maintain a suitable web host for the MEMRR web site.
(Insure that yearly host fees are paid)
2 Design and create MEMRR and George L. Carter Railroad Museum web pages.
3 Maintain and update web pages in a timely manner.
4 Maintain an E-mail list of all members with computer access.
5 Notify all members with computer access of important upcoming club events.
6 Once all versions (extra and/or bonus) of *"The Signal Bridge"* club newsletter are released they will be combined into one monthly edition and then posted on the MEMRR Website in a timely manner.
7 Maintain MEMRR E-mail server.

Communications Coordinator
1. Mails out copies of *"The Signal Bridge"* and other pertinent communications to members lacking email capabilities. Club to provide the coordinator with duplication services or reimbursement for duplication and mailing).
2. Establish a call list to facilitate short notification of club activities or needs. (this is in conjunction with the Webmaster's email distribution of event notification).
3. Make welcoming contacts with new members to ensure contact information is accurate, administer a New Member Interest Survey, and periodically report to the membership (through the Coordinators Meeting, General Business Meeting or "*The Signal Bridge*") on the results of the Member Interest Survey.
4. Compile and keep a roll of inactive and former members.

RIP Track-Bad Order Coordinator
1 Repairs rolling stock to put back into operation
2 Maintains inventory of club owned property (to include rolling stock and motive power) & location of such

Librarian
(The following duties shall be performed ~~Duties~~ under the auspices of MEMRR and the George L. Carter Railroad Museum ETSU)
1 Receives, inventories, and catalogues all club books, pamphlets and visual media(i.e., video tapes, CDs, DVD, posters, prints, photographs, etc.)
2. Shelves, stores, displays and otherwise properly maintains club library collections.
3. circulation and check-out/check-in system for member use of the library collections

APPENDIX B
Table of Membership Classifications, Dues, Rights, Responsibilities and Obligations

MEMBER CLASS	FULL (WITH HOUSEHOLD)	STUDENT	YOUTH	SENIOR	DISTANT REMOTE	EMERITUS	HONORARY
DEFINITIONS	Full membership with rights, privileges and obligations as per below; 18 of age or older; ***(others residing in the same Household may be enrolled as members for an additional fee for each with FULL member privilege if adult or Youth privileges if under 18 years of age)***	College student with proof of enrollment	Ages 17 and younger with Full member providing sponsorship ***(may be enrolled as part of a Full membership with Household option)***	Adult 65 or older with 5 yrs prior continuous Full Membership	Limited membership; must live more than 100 miles from Johnson City to be eligible	Life time honorary membership upon 2/3 vote of membership	1 yr Honorary membership upon majority vote of membership
DUES	**$30 (+ $6 each adult/youth)**	**$18**	**$12**	**$24**	**$12**	**Free**	**Free**
PRIVILEGES							
Signal Bridge *(electronic edition)*	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Signal Bridge *(hard copy edition)*	**$24** ($2/MONTH)	**$24** ($2/MONTH)	**$24** ($2/MONTH)	**$24** ($2/MONTH)	**$24** ($2/MONTH)	**$24** ($2/MONTH)	**$24** ($2/MONTH)
Key box code (24/7 access)	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Module ownership	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Hold Office	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Voting rights	**YES** Voice and Vote	**YES** Voice and Vote	**NO** Voice only	**YES** Voice and Vote	**NO** Voice only	**YES** Voice and Vote	**NO** Voice only
Running rights (General)	**YES**	**YES**	**YES*** With Supervision	**YES**	**YES*** With Supervision	**YES*** With Supervision	**YES*** With Supervision
Running rights (1st Preference)	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Supervised access	**N/A**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Use of work rooms	**YES**	**YES**	**YES*** With Supervision	**YES**	**YES**	**YES**	**YES**
Social Functions	**YES**	**YES**	**YES*** Youth when invited	**YES**	**YES**	**YES**	**YES**
Committee Membership	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**
Coordinator Council	**YES**	**YES**	**NO**	**YES**	**NO**	**NO**	**NO**
RESPONSINILITIES							
Saturday Obligation 1/month -or- 6 hrs/month at special events	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
NOTES							
	Remains the same	Dues increase	Remains the same	New category for retired members interested primarily in social aspects	Replaces family/household member	Life time membership for longstanding member with special contribution	1 yr membership to non-member making special contribution

APPENDIX C
History of Amendment and Ratification of Changes

Amended by the general membership 02/20/2001.
Updated 3/21/06 to include approved Amendments of 02/20/2001 and voted changes to bylaws in 2004 by the general membership.
Amended by the general membership 05/16/2006.
Amended to its present form by the general membership 03/18/2008.
Amended to its present form by the general membership 09/18/2012.