

# THE BRASS POUNDER



Newsletter of the Carolina Southern Division 12, Mid-Eastern Region,  
National Model Railroad Association

Volume 19 Number 2

February 2019

## Superintendent's Corner

By Alan Hardee

### Division Coming Events

(See CSD Website for further details)

Wade's Train Town  
Open House  
Saturday Feb 9<sup>th</sup>  
10:00am – 2:00pm  
Brookford  
Community Bldg  
1700 S Center St.  
Hickory, NC

CSD Annual Meeting  
Saturday, Feb 16<sup>th</sup>  
9:30am – Noon  
West Concord  
Baptist Church  
225 Warren C  
Coleman Blvd  
(US 601 bypass)  
Concord, NC 28027

As January closes, so does another successful Railroad Modeling University, also known as RMU. I want to thank Doug Algire and his great team of volunteers and instructors for another great year. We even had attendees from our neighboring Divisions and Regions to brave the rain again. Our Membership improved a little as well with the signing up of 4 new NMRA members at RMU. Let us all welcome our new members and make them feel at home in our division.

As we continue into 2019, we will be very busy with planning the 2020 MER Convention. We can use everyone's help on the planning committees. Those with model railroads are encouraged to open their layouts for tours and / or Operating Sessions. I would like to schedule our monthly meetings this year at members' home layouts just for this purpose. Hopefully this can help with completing some work and shake down the operating scheme while adding to your AP Certificates.

Let me know when we can visit YOU.



Alan Hardee was reminiscing with Ed Gumphrey about his first edition of *The Brass Pounder* as editor last February. In that issue, Ed wrote an article about his cab ride at Cass. Alan recently got a cab ride on the GSMRR, and with help from PhotoShop, Alan even got a couple of cab rides in his HO scale locomotives.

**UPCOMING**  
**AREA TRAIN EVENTS**

Central Railway Model  
and Historical Assoc.

**2019 Model Train Expo**

Friday Feb 8<sup>th</sup>

1:00-7:00pm and

Saturday Feb 9<sup>th</sup>

10:00am – 4:00pm

Rock Springs Church –

Impact Center

207 Rock Springs Road

Easley, SC

**Asheville Train Show**

Friday March 1<sup>st</sup>

Noon to 7:00pm and

Saturday March 2<sup>nd</sup>

9:00am to 5:00pm

WNC Agricultural Center

761 Boylston Hwy,

Fletcher, NC 28732

**17<sup>th</sup> Annual NC Rail Expo**

Saturday April 6<sup>th</sup>

9:00am – 4:00pm

Hickory Metro Center

Hickory, NC

2nd Annual

**Charlotte Area Rail-  
Strava-Ganza**

June 8<sup>th</sup> and 9<sup>th</sup>

Gastonia Convention

Center

145 ML King Jr Way

Gastonia, NC

## Editor's Notes

By Ed Gumphrey

This month marks the first anniversary of my role as editor of *The Brass Pounder*. It's been a lot of fun, and I look forward to another year of meeting new friends and helping you get your railroad and projects into print for your fellow CSD members. One of the best parts of being editor is visiting other members to see their layouts. I recently had the pleasure of visiting Joe Skorch and enjoyed a first look at his Southern Pacific HO layout. Joe told me a story of how he had carefully set up with his camera and a tripod to capture a picture of Norfolk & Western #611 on her maiden trip out of Spencer. Alas, he didn't get the planned picture, but only succeeded in being covered in soot. Fortunately, Joe's wife was with him and managed to capture this great photo on her smartphone. I find even a simple story like this interesting. Tell me your stories. I need your inputs – my backlog is almost empty.



### **SUBMISSION GUIDELINES**

I target the 1<sup>st</sup> of each month for publication.  
Please submit articles for publication by the  
27<sup>th</sup> of each month.

The preferred format is MS Word, but I can  
convert most other formats.

For questions and help, email me at

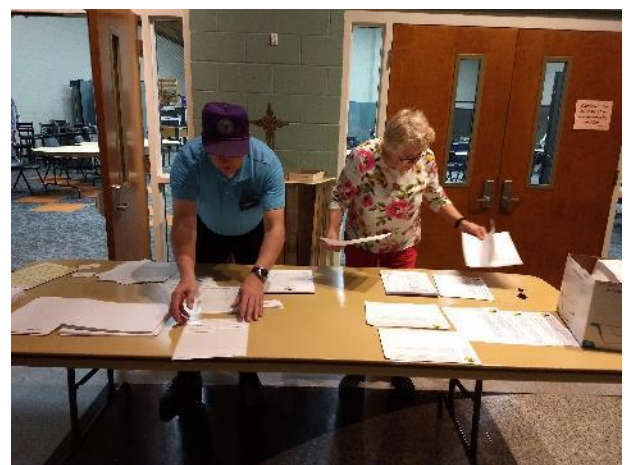
# DIVISION AND REGIONAL NEWS

As Alan noted in Superintendent's Corner, the big news in the new year was a highly successful RMU on January 19<sup>th</sup>. We'll have a full report on the event ready for next month's edition, but I will cover a few topics about the event here.

One thing I noticed right away this year was a GREAT turnout Friday night to help set up for the event. There were about a dozen volunteers, and setup was completed in less than an hour – about half the time it took in 2018.



Setting up chairs around the tables went quickly.



Setting up the registration table. Extensive background work went into preparing individual packages containing schedules, name tags and feedback forms.

Part of the RMU setups included getting ready for clinics. Instructors brought their props and materials for setup. Some even brought large flat screen TVs and digital projectors for their presentations. About a half dozen members from Central Carolina N-Scalers were setting up T-Trak modules. During RMU they taught classes about this innovative approach to modular

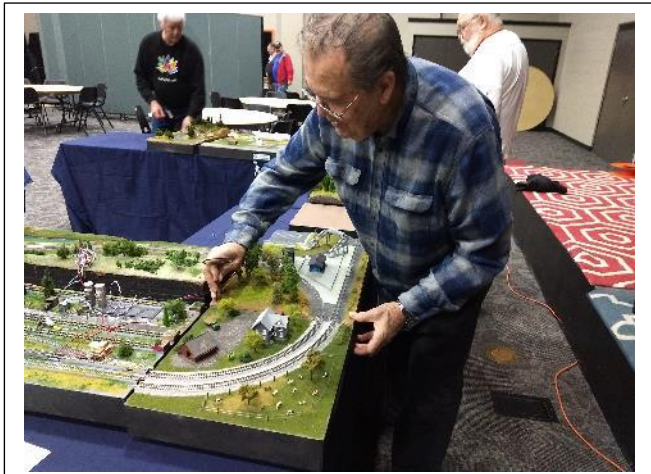


Jack Monette, MMR, chats with Ed Smith as he sets up for his clinic.. Jack's hands-on clinic for open car loads has become a favorite at RMU.



Larry Paffrath and other Central Carolina N-scalers work diligently to set up T-Trak modules. Love the NASA module.

railroading that uses modules that are easier to transport. The setup went well, and the quality of module construction and model-building skills is evident. Of particular note, each module includes set screw adjustments at the corners so they can be tweaked into perfect alignment with adjacent modules.



Adjusting a corner set screw to level a T-Trak corner module to match the adjacent module.



All hooked up. The level of detail is amazing, especially considering that it's N-scale.

During the lunch break at RMU, Alan Hardee, Neal Anderson, and Tim Rumph provided some update information about the 2020 MER Convention that CSD will host. As Alan said in Superintendent's Corner, we need volunteers for layout tours and operating sessions, a point that Tim Rumph emphasized. Neal Anderson gave us the news that hotel selection had been narrowed, and MER would be making a final selection in the coming weeks.

One of the other activities during RMU was model judging for the AP Program. Congratulations to Ed Smith for earning his first Merit Award in Structures for his scratchbuilt woodworking shop. I am told that Ed's model earned an amazing 114 points: If you missed it, see Ed's construction article in the [November Brass Pounder](#).



Neal Anderson, Convention Chairman, provides updates on 2020 Convention planning, including hotel selection by MER



Overall view of Ed's woodworking shop



Removable roof shows interior detail

Shifting to other Division news, here's an important headline:

## **CSD Annual Meeting Scheduled**

**Our Division's 2019 Annual Meeting will be held on February 16<sup>th</sup> – 9:30 am – noon**

**West Concord Baptist Church  
225 Warren C. Coleman Blvd. (US 601 bypass)  
Concord, NC 28027**

We hope to see you there. The agenda will include election of one expiring Board of Directors position as well as important information about Division planning for the year. The meeting will be followed by a Board of Directors meeting.

Many of you may notice that the above headline is copied from CSD's website. If you did, then you also have seen notice that a new website is under construction. Our webmaster, Gil Brauch, MMR, is working to upgrade the software behind what you see and to build a new website based on that new software. He is working hard to keep the impact to a minimum, but in the interim, only the Calendar can be updated. Here's a copy of the notice Gil has posted:

**We are currently rebuilding our website.**

**Please check back in a few weeks when we hope to have our new site up and running.**

**In the meantime, members are encouraged to keep up with our activities on our FaceBook page [at this link](#).**

**If you would like to see our old website, which has not been updated since last year, [you can do so at this link](#).**

**[Our calendar is still located here](#). Note that the activity descriptions are not current, but the events on the calendar are.**

A final note of Division News: I spoke with the Nancy Campbell, the Division's haberdasher about ordering CSD apparel. She will collect orders for shirts and hats from members who are interested and will submit them in March. The next page is a copy of the order form. I encourage you to print out this page, fill out your preferences and mail it to Nancy so you can update your wardrobe. Don't use the form on the old website, because it has an old address that is no longer valid for ordering apparel. I'm looking forward to my personalized CSD shirts! If you have any questions, you can email Nancy <mailto:nancylovestrains@gmail.com> or give her a call at 704-533-3351



---

## Achievement Program Annual Summary

By Neal Anderson, AP Chairman

We have had a very busy year with the awards that have been handed out in our Division during 2018. Here's a summary of the milestones:

- February: Gil Brauch earned his Certificate for Structures
- April: Bob Halsey earned his Certificate for Association Volunteer  
Neal Anderson earned his Certificate for Author
- May: Jack Monette earned his Certificate for Association Volunteer  
Jack Monette was certified as a **Master Model Railroader # 613**
- July: Joe Skorch earned a Golden Spike Award  
Alan Hardee earned his Certificate for Association Volunteer
- October: Michele Chance earned her Certificate for Association Official  
Gil Brauch earned his Certificate for Master Builder Motive Power  
Gil Brauch was certified as a **Master Model Railroader # 623**

2019 looks good too. Let me know what you're working on and any way I can help you participate in the Achievement Program.

Email: [Apchair@carolinasouthern.org](mailto:Apchair@carolinasouthern.org)

---



### My Southern S-Line Radio Control for the Southern Railway

By Tim Rumph

The Southern Ry. was an innovator in what is now called distributed power, but back in the 60's, it was called Locotrol.

Southern called trains using this radio system, but that's a tale for another time.

This month I'm talking about using radio equipped throttles to run trains on my model railroad. Digitrax and NCE both have systems for this. I'm using NCE, so I'll describe that system. NCE uses a radio base station called an RB02, which is connected to the NCE throttle buss. As with

most things involving radio, higher is usually better, so I decided to install my RB02 on the ceiling. I'm not the one who came up with this idea, but I'll describe how I did it.

The picture on the right shows the RB02 mounted on the ceiling. The RB02 has a dead spot in its coverage that is directly in line with the antenna. For a ceiling mounted unit, that's directly below the RB02. I placed it above the peninsula that includes the town of Statesville on the lower level and is between Hickory and Connelly Springs on the upper level. (See the January edition of *The Brass Pounder*). If I find one of my operators standing on top of the layout, poor radio performance will be the least of their worries 😊.

To install this, cut a hole in the drywall to fit a two-gang old work low voltage box. This is the type of box that has little flaps that swing out when you tighten the screws, clamping the drywall and holding it in place. Low voltage boxes are open frames with no backs, so it's easy to get the wires in. These are available at Lowe's or Home Depot and should not be used for 110V circuits.



To fasten the RB02 to the two-gang cover plate, take the back off the RB02. Hold that against the plate and mark the locations of the mounting screws. Drill 3/8" holes in these locations. Then drill the case and the plate with 3/16" holes and mount the case to the plate with machine screws, nuts, and washers. I used #6 screws. Now put the case back together, and you can access the case screws through the 3/8" holes. Drill a 1/2" hole for the cord.

To help me with the installation, David McClain came over. He's younger than I am and has better knees, so he's better on the ladder. The second picture on the right shows the overall installation. We used a stud finder to find the floor trusses and wall studs, so we could go between them. Two holes in the ceiling and two in the wall and we could run a fish tape from the middle of the ceiling to the hole near the wall. These are visible on the upper right in the picture. We pulled the flat 6 conductor cable from the hole near the wall and through the one in the middle. We then crimped a connector on it and pushed it through the cover plate and plugged it into the RB02.

We let the wire hang down to the floor and cut it off, leaving some extra. Then David ran the cable into the wall and dropped it down and I hooked it and pulled it out of the lower hole. The lower hole is for





a single gang box, the two in the corner are two-gang boxes with plain cover plates. The bottom one has a phone jack built into it. We ran a cable to the command station and tried it out by running an engine in the Gastonia staging yard. It worked fine, even though the staging is behind the stairs from the RB02. That part's ready to go.

I'll close this month's article by saying I'm still looking for a lot of good layouts. (Your layout is good, don't let anyone tell you otherwise!) Contact me and help us make the 2020 MER Convention fun for all our visitors.

Tim Rumph  
910-318-2676  
[tarumph@gmail.com](mailto:tarumph@gmail.com)



## FAST TRACKS Turnouts

By Ed Smith

There are many reasons I enjoy the NMRA National Conventions. But one that always stands out is the "Modeling with the Masters" clinics. These are usually 4 to 5 hours long, sometimes 2 periods are needed, and the instructors are MMRs. The participants get hands on direction and the finished project to take home. Over the years, I've attended clinics on styrene construction, laser kits, card stock construction, rock molds, making trees, different water effects, rubber mold construction, and building with wood products. But the most influential clinic was scratch building turnouts with Fast Tracks.

I attended this clinic at Grand Rapids, Michigan in 2012. At first, this concept of actually building a turnout using raw rail was just a novelty to me. I enjoyed the clinic so much that I purchased 2 kits at the week-ending Train Show for building #6 and #8 turnouts. On returning home, I spent the next 2 years selling my Walthers and Shinohara code 83 switches (more than 150). I was now committed to building turnouts. Building turnouts proved not only enjoyable, but I've learned the working concept of all the basic parts of a turnout. That knowledge is a great attribute when trouble-shooting a problem with a turnout.

This leads to my topic this month. I will try to describe with a condensed text and pictures how to build a code 83 #8 turnout using Fast Tracks devices.

First, the [Fast Tracks](#) products and tools needed: a Fast Tracks code 83 #8 turnout kit. This consists of an aluminum #8 fixture, point form tool, stock aid tool, PC ties, and Quicksticks laser cut ties. (fig 1) Next, code 83 Micro Engineering rail (this must be Micro Engineering because the fixture is milled to accept this rail; it won't accept other types), tape, Pliobond, ohm meter, an accurate wheel set, and a HO gauge. (fig 2) Finally, the tools. This is a personal preference and many of us have these in our tool boxes. A good 40 watt soldering iron with fine tip, solder, flux paste or liquid, assorted files, a burnishing tool or block, wire brush, Xuron Rail cutter, Xacto knife with #11 blade, wire strippers, jeweler saw, pin vise and drill bits and a Sharpie. (fig 3).

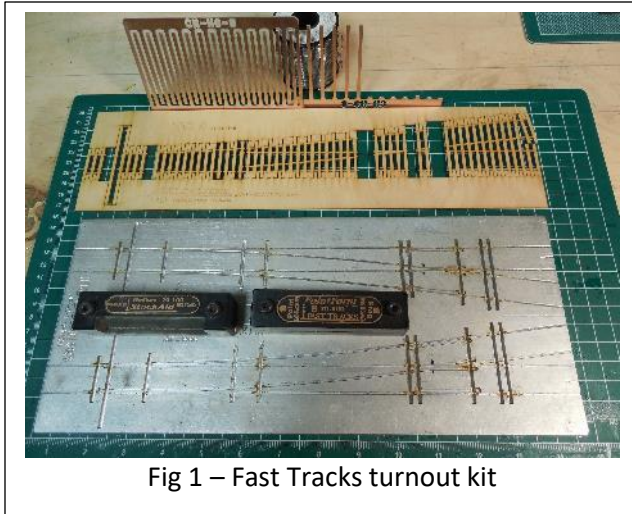


Fig 1 – Fast Tracks turnout kit



Fig 2 – Other materials and tools needed

I'm going to highlights the major steps and basics. If you're interested in doing this, you can download texts from Fast Tracks on each construction or purchase a DVD or printed text from them.

Let's start. Using the aluminum fixture as a guide, you can use the grooves to find all lengths of the ties and rail, that is necessary.

1. PC Board Ties. Cut the PC board (printed circuit) ties to fit into all the tie grooves on the fixture. (fig 4) Remove ties and use file to cut gaps, where needed, in all ties. (fig 5)



Fig 3 – Other tools from your toolbox

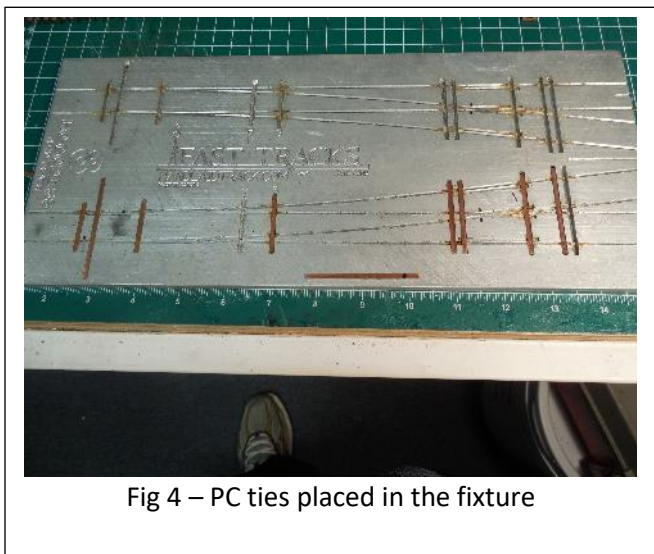


Fig 4 – PC ties placed in the fixture

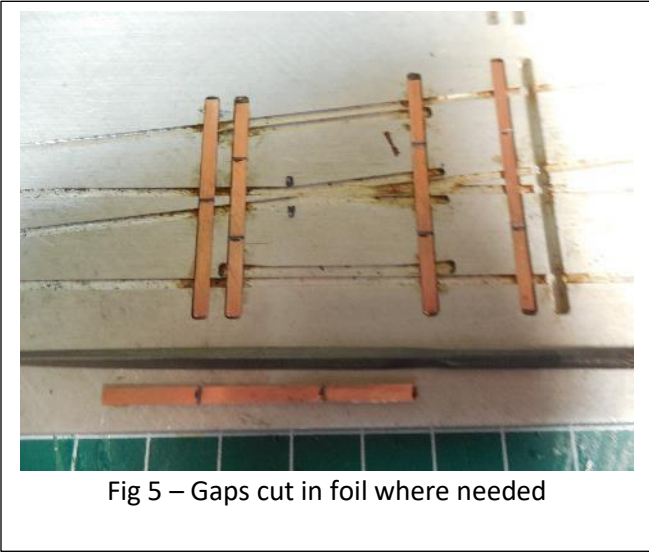


Fig 5 – Gaps cut in foil where needed

2. Guard Rails. Using fixture grooves for guards, cut and bend rail for guard rails (fig 6), test fit (fig 7), and set aside.

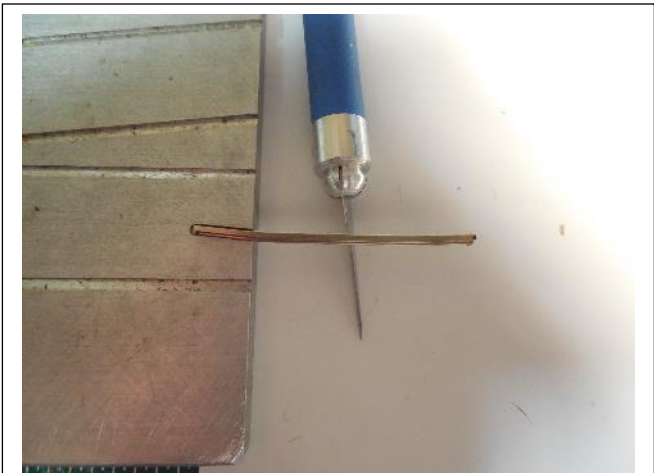


Fig 6 – Cut and bend rail

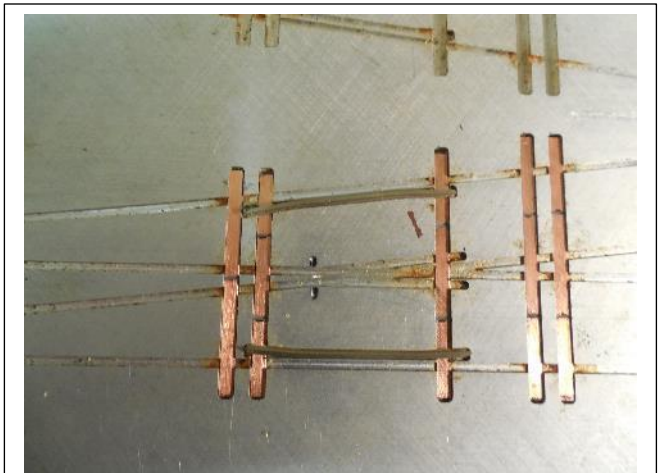


Fig 7 – Test fit guard rails in fixture

3. The Frog. Using 2 pieces of rail, place in Frog grooves, extending outside fixture. Place rail in Point Form tool (fig 8), file sharp points, place in Frog grooves, make a tight fit, tape and add weight, and solder Frog (fig 9), set aside.

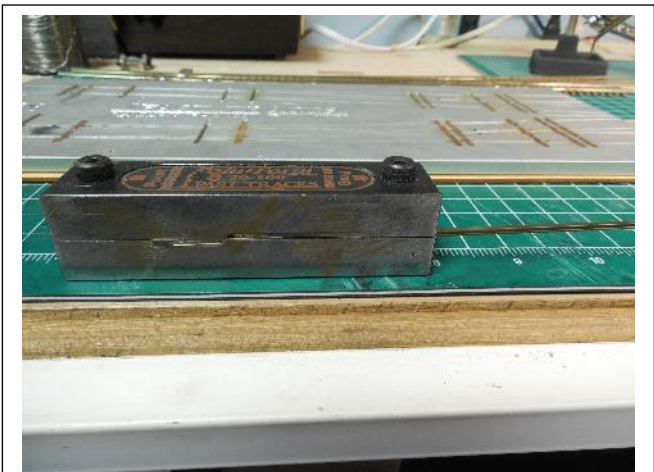


Fig 8 – Forming frog Point in filing jig

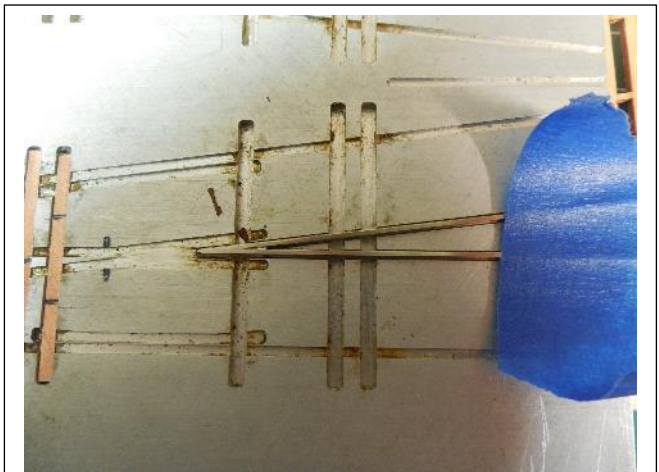


Fig 9 – Fit and solder frog rails

4. Stock Rail. Use outside stock rail groove and cut rail to length (fig 10). Mark the inside web where the points will meet stock rail, place in stock aid tool and file (fig 11). Place finished rails in proper grooves and solder to PC ties (fig 12).

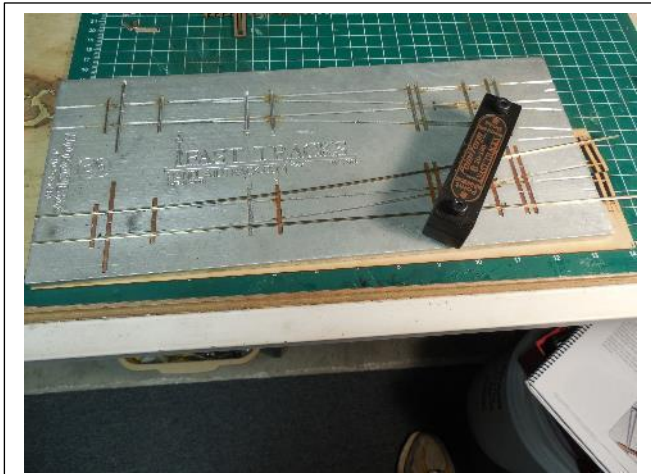


Fig 10 – Fit outside stock rails into fixture



Fig 11 – Filing stock rail for where points will meet

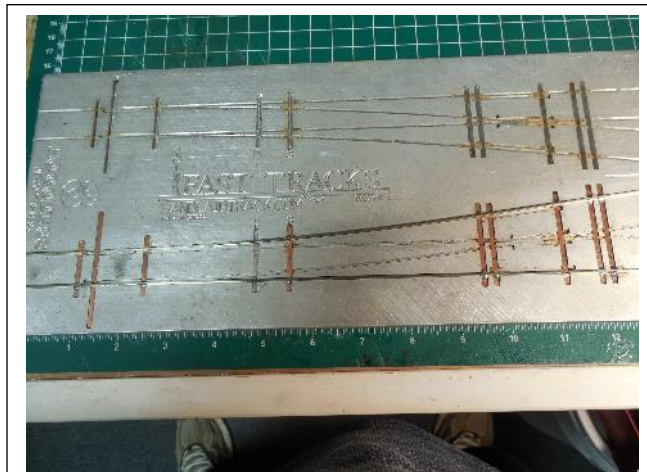


Fig 12 – Stock rails soldered to PC ties

5. Switch Points/Closure Rails. Using inside switch point/closure rail grooves, cut 2 pieces of rail to length, place in point form tool and file points. Next bend opposite end of rails to form guard where it will fit against frog (fig 13). Place in grooves and solder to ties (fig 14).



Fig 13 – Forming points/closure rails

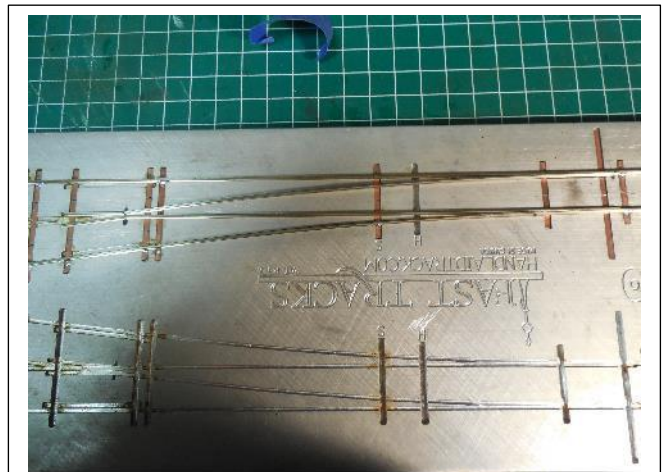


Fig 14 – Points/closure rails soldered to ties

6. Frog and Guard Rails. Now place these items, made earlier, in proper grooves. Using HO gauge and a wheelset, check clearance through Frog. When satisfied, solder to PC ties (fig 15).



Fig 15 – Guard rails, closure rails & guards and frog soldered after checking with gauge

7. Throw Bar. Insulate one point from stock rail (thin paper) and solder point to PC throw bar. Next space soldered point out from stock rail, and solder other point, as you did 1<sup>st</sup> (fig 16). Now, drill throw bar using #63 bit in center of throw bar, for turnout machine rod (fig 17). A small piece of PC tie's thickness can be used as a spacer to establish the distance between the points as you solder them to the throw bar.



Fig 16 – Soldering point rail to throw bar

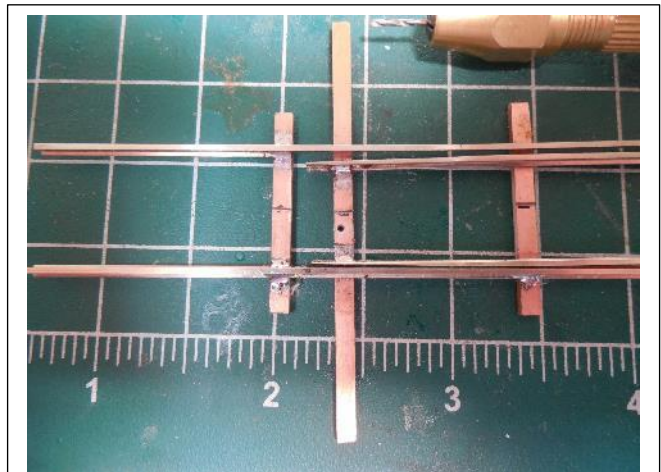


Fig 17 – Throw bar with both points soldered and center hole drilled #63

8. Congratulations, you now have a finished “raw turnout” (fig 18).

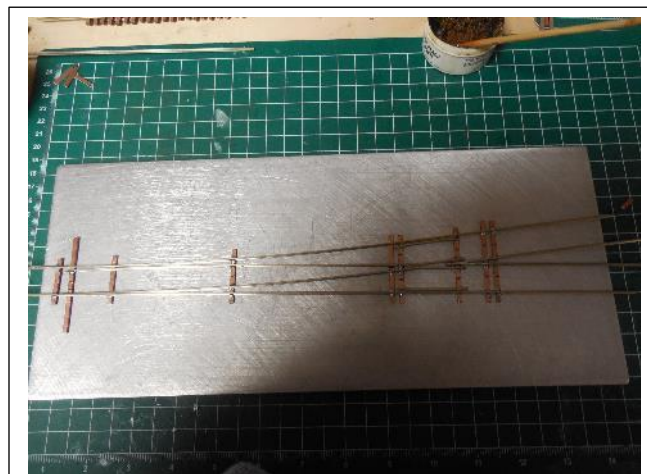


Fig 18 – Finished “raw turnout”

9. Stain Quicksticks. (fig 19).

10. Attaching Ties. After ties dry, spread a small bead of Pliobond on ties, where rail will sit, and on bottom of rail, excluding moving point rail (fig 20). Align turnout and place on ties, add weight (fig 21). After Pliobond is set, break off excess wood (fig 22).

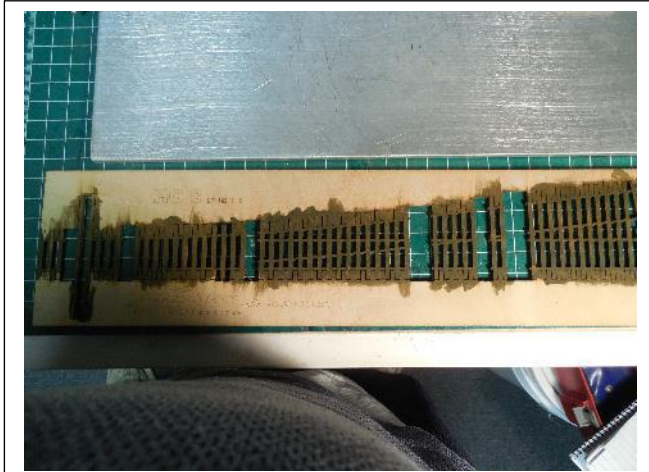


Fig 19 – Stained Quicksticks ties



Fig 20 – Pliobond applied to ties and rail



Fig 21 – Turnout on ties with weights while Pliobond sets



Fig 22 – Remove excess wood from laser-cut Quicksticks ties

11. Cutting Gaps. 2 insulation gaps are required on each side of Frog. Using jeweler saw, cut gaps (fig 23).

12. Wiring Frog. Turn turnout over and solder a wire on Frog for polarity control from switch motor (fig 24).

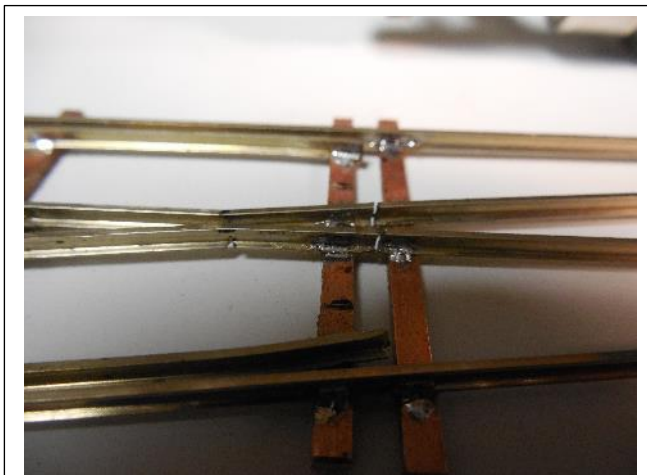


Fig 23 – Insulating gaps cut on both ends of the frog

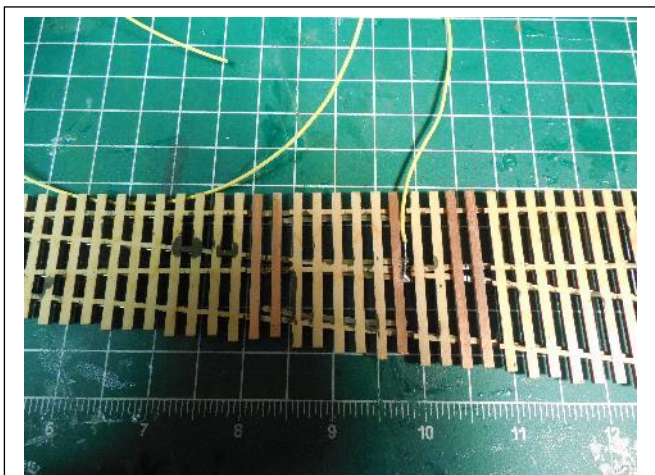


Fig 24 – Feed wire soldered to underside of frog

13. Gap Insulation. Place styrene (I use .005) in Frog gaps, glue with CA, trim and form to rail (fig 25). Use ohm meter to check for shorts.

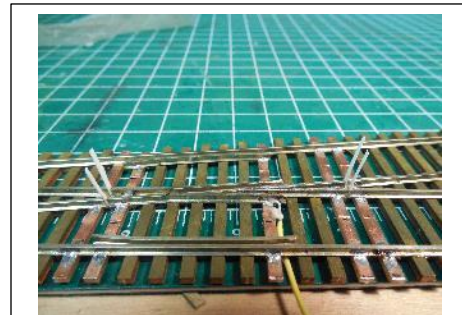


Fig 25 – Styrene inserted for insulation in gaps

We're done! (fig 26)

It's not as hard as it looks!

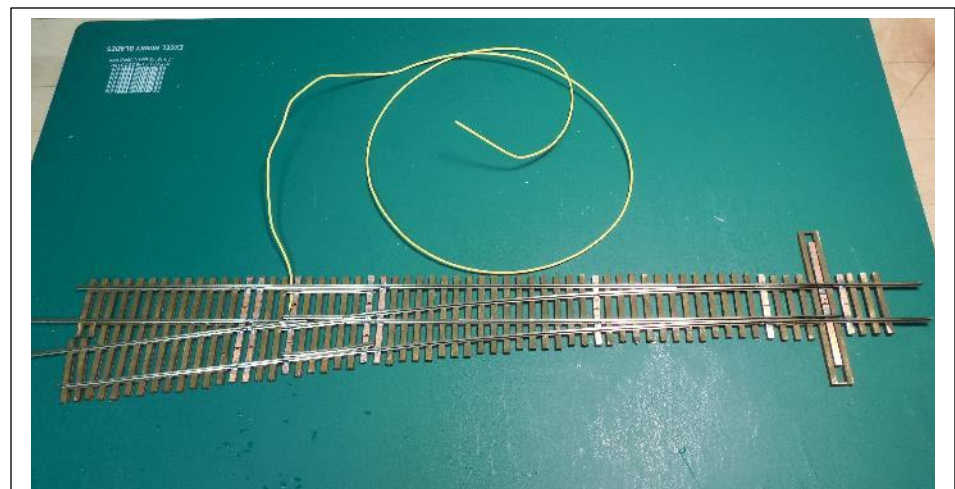


Fig 26 – Completed turnout

I've tried to condense this and still hit the important points. That said, I still think this article makes scratch building turnouts seem too labor intensive. Believe me, once you build a few and get used to the techniques, you can produce a quality turnout, crafted for your needs, in a couple of hours. Saying all this, I still compare this to riding on Amtrak. You have to want to do it, time is not a factor, and the cost is the same as flying, if not more. So the choice is yours. I would advise that if you need a relatively small number of turnouts, this may not be for you. But for someone



like me, who needs a couple of hundred turnouts, it may serve your needs. For me, the Amtrak comparison, I enjoy building them, time is relative when working on the layout, and I hope eventually I'll break even or save some money.

I've just purchased a Fast Track kit for a 19° crossing. I'm in the process of building a major yard, using Fast Tracks #6, #8, and the 19° kits and, hopefully, in the near future, I'll have some pictures for you.

Until the next time..... ED

### Division Brass

<u>Superintendent</u>	Alan Hardee	<a href="mailto:superintendent@carolinasouthern.org">superintendent@carolinasouthern.org</a>
<u>Asst. Superintendent</u>	Jack Monette	<a href="mailto:assistsuper@carolinasouthern.org">assistsuper@carolinasouthern.org</a>
<u>Clerk</u>	Ed Gumphrey	<a href="mailto:clerk@carolinasouthern.org">clerk@carolinasouthern.org</a>
<u>Paymaster</u>	John Stevens	<a href="mailto:Paymaster@carolinasouthern.org">Paymaster@carolinasouthern.org</a>
<u>Director 2019</u>	Blayne Olsen	<a href="mailto:director1@carolinasouthern.org">director1@carolinasouthern.org</a>
<u>Director 2020</u>	Roy Becker	<a href="mailto:director2@carolinasouthern.org">director2@carolinasouthern.org</a>
<u>Director 2021</u>	Larry Paffrath	<a href="mailto:director3@carolinasouthern.org">director3@carolinasouthern.org</a>
<u>AP Chairman</u>	Neal Anderson	<a href="mailto:Apchair@carolinasouthern.org">Apchair@carolinasouthern.org</a>
<u>Webmaster</u>	Gil Brauch	<a href="mailto:Webmaster@carolinasouthern.org">Webmaster@carolinasouthern.org</a>
<u>Newsletter Editor</u>	Ed Gumphrey	<a href="mailto:editor@carolinasouthern.org">editor@carolinasouthern.org</a>
<u>Program Chair</u>	Scott Perry	<a href="mailto:program@carolinasouthern.org">program@carolinasouthern.org</a>
<u>RMU Chair</u>	Doug Algire	<a href="mailto:RMUchair@carolinasouthern.org">RMUchair@carolinasouthern.org</a>
<u>Publicity Chair</u>	Marcus Neubacher	<a href="mailto:publicity@carolinasouthern.org">publicity@carolinasouthern.org</a>
<u>Membership</u>	Nancy Campbell	<a href="mailto:membership@carolinasouthern.org">membership@carolinasouthern.org</a>