



Sunrise Herald

August 2023 Volume 16 Number 8

Sunrise Division Officers

Superintendent.....William Boorman
 Asst. Superintendent.....Dennis Hagen
 Secretary.....Bob Hochstetter
 Treasurer.....Dave Clifford
 Program Chair.....Gary Myers
 Division AP Chair.....Gerry Meltzer
 Youth Coordinator.....Position open
 Education Chair.....Stewart Jones
 Modular Layout Chair.....Larry Stephens
 Herald Editor.....Bob Hochstetter



In the Herald

Layout of the Month.....	1
August Meeting Notes.....	2
Next Meeting.....	2
Video of the Month.....	2
Upcoming Tool Time.....	2
Upcoming Clinics.....	2
Upcoming Show 'n' Tell Themes for 2023.....	2
Module Report.....	2-3
Announcements.....	3
Tool Time.....	4-6
Show 'n' Tell.....	6-8
Clinic.....	8-17
2023 RMR Annual Convention Information and Registration.....	18-22
An invitation to Tom Wilcox's layout open house.....	23



Layout of the Month

This month's three photographs are from Barry Allison's layout. They were taken by the editor during the Sunrise Division's layout tours on July 22, 2023.



I need photographs for the Herald. If you have photographs of your layout that you would like to have included here, please send them to me. (ed.)

August Meeting Notes

The regular monthly meeting of the Sunrise Division of the National Model Railroad Association was held August 3, 2023, at Holy Love Lutheran Church. Superintendent William Boorman conducted the meeting over Zoom. He and several other Division members were in North Platte Nebraska to set up the Division's modular layout at North Platte Rail Days. William called the meeting to order at 7:00 p.m. Thirteen members attended in person and three joined on Zoom.

Introductions were the first order of business. Following those, William showed photos of the set-up of the modular layout and of the vendor booths at Rail Days which was scheduled to open on the next day.

Announcements, Tool Time, Show 'n' Tell, the Clinic and more followed the self-introductions. All of these are included in this issue of the Herald.

The meeting concluded at 9:03 p.m.

Next Meeting

The next meeting will be Thursday, September 7, 2023, in person at Holy Love Lutheran Church, 4210 S Chambers Road, Aurora, Colorado. The meeting will start at 7:00 p.m. The meeting will also be streamed on Zoom with sign-in between 6:30 and 7:00.

Video of the Month

This month's video features China's Mighty QJ 2-10-2 steam locomotives. There is no narration in this video but plenty of smoke and steam.

<https://www.youtube.com/watch?v=ruijXQ8sJWw>

Upcoming Tool Time

September – TBA

Upcoming Clinics for 2023

September – Surroundtraxx – Bob Hochstetter

October – Building Non-Flickering Passenger Car Lighting Circuits for DCC
(cont'd.)

and

Weathering Techniques for Locomotives—
Bill Botkin
December – My Life Riding the Rails—Rich
Flammini

Upcoming Show 'n' Tell Themes for 2023

September – Photos/Media

October – Streetcars/Trolleys

November – Anything Goes

December – Cabooses

Reminder

In an attempt to reduce problems, especially for those who join the meeting on Zoom, we continue to ask that Show 'n' Tell photos, Clinic presentations, and Tool Time photos be taken before the meeting and sent to Gary Myers (garymyers06@comcast.net) for presentation at the meeting and to the editor for inclusion in the Sunrise Herald (rlhoch422@gmail.com). (Ed.)

Module Report

The modules were at the North Platte Rail Days Train Show. Set up was normal without any unexpected problems. The track work we did took care of some issues we had in the past. Overall, we had a fun time running trains. Many of the visitors had not been to a train show before, so we had a refreshing number of new questions.

Thanks to Rich Flammini, Bill Johnson, John Keiss, Adam Crews and William Boorman for joining me at North Platte.

We had a prototypical operational glitch, a derailment of a tank car. A crane car was called out to upright the tank car.

Pictures follow.

Larry Stephens

Tool Time

Dave Clifford presented this month's tool time. His presentation is copied here.

Dave's Favorite Model Railroad and Hobby Tools

Presented August 3rd, 2023
at the Sunrise Division's monthly meeting.

My 10 Favorite Hobby Tools

Hobby Workbench(Home-Built)	Clamping Devices
Detail Work Lighting	Measuring Devices
Cart for Tool Storage	Templates
Screw Driver Sets	Storage Containers
Pliers	Project Organizers

Home-Built Hobby Workbench

- Located in the utility room in the basement
- Hangs on a wall behind the HVAC unit and water heater
 - 3 shelf (ELL) brackets mounted on the wall for support
 - 1- 24"x72"x1" butcher block slab with a customized cutout
 - Height is 29 1/2"
 - Tall enough for a comfortable office chair to fit under

Shelf Bracket



Shelf Bracket Specifications

- 19.5" long x 1.16" wide x 13" deep heavy duty gray shelf bracket
- Supports up to 1000 lbs. per pair when properly installed
- I used 3 brackets with nine 2 1/2" lag screws

Butcher Block Slab



Picture of My Modeler's Bench



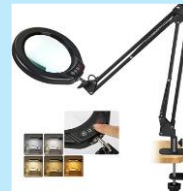
Detail Work Lighting

- 5" large magnifying glass with a light and stand
- Adjustable awing arm lamp
- LED tube lights

Detail Work Lighting



5" large magnifying glass with a light and stand



5" large magnifying glass with a light and stand

- ***** Hands-Free *****
- For example - Veemagni 5" large magnifying glass with a light and stand
- \$39.39 Amazon

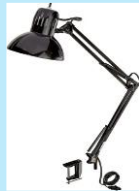
#90812 IGaging 8x/16x MicroMark \$59.95



Adjustable Swing Arm Lamp

- Globe Electric 56963 32" Multi-Joint Desk Lamp, Metal Clamp, Black, On/Off Rotary Switch on Shade, Partially Adjustable Swing Arm, Home Office Accessories, Lamp for Bedroom, Home Improvement
- \$19.93 Amazon

32" Multi-Joint Desk Lamp, Metal Clamp



Adeptus 6 Drawer Wide Roll Cart



Adeptus 6 Drawer Wide Roll Cart

- Adeptus Nr. 76152 \$132.99 Free Shipping
- Weight 30.2 lbs.
- Assembled Dimensions W x D x H (in) 20.75 x 15.35 x 25.43
- Inside Drawer Dimensions W x D (in) 17.20 x 12.32 x 2.67
- Drawer Front Dimension W x H (in) 18.43 X 3.62

Precision Screwdriver Set #1

- 60 in 1 Precision Screwdriver Set For Professional Electronic Devices Repairing, Hardware Screwdriver Kit for Automotive, PC, Game Console, Phone Repair Black 1
- Brand: Roadoor
- \$14.43 Amazon

Precision Screwdriver Set



Precision Screwdriver Set #2

- Wiha 26197 7 Piece Precision Slotted and Phillips Screwdriver Set
 - Phillips #00, #0, #1 and Slotted 1.5, 2.0, 2.5, 3.0mm
 - Amazon \$24.99 (list \$36.47)

Pliers

- Weller Xcelite NN7776VN Long Nose Plier, green
- \$26.99 Amazon

Long Nose Spring - Loaded Plier



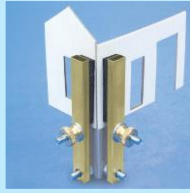
Plier Manufacturers

- Klein Tools
- Cooper Xcelite - Mid-Range - Built to Last
- Knipex - Expensive
- Xuron - Good and Sturdy

Clamping Devices

- Original Right Clamp- MicroMark \$39.95
- Small Trigger Clamp 4-1/2 Inch - DeWALT DWHT83191 Amazon \$4.49

Original Right Angle Clamp



Mini Clear Storage Containers with 10 Grid Dividers



Small Trigger Clamp 4-1/2 Inch – DeWALT DWHT83191



Project Organizers

- Multicraft Imports WS410 5-Piece Paintable Wooden Trays with Handles, 6-5/8 by 13-Inch to 10-1/8 by 16-1/8-Inch
- \$18.80 Amazon

Project Tray



Measuring Devices

- Mr. Pen - Machinist Ruler, SS Ruler 6 inch, 3 Pack, Inch/Millimeter Ruler,
 - (1/64, 1/32, mm and .5 mm), Metal Ruler 6 inch
 - Amazon \$4.99
- Digital Caliper – Amazon - \$20 and Up

Fin

- Be Safe!
- Make/Upgrade/Fix Something!!!
- Have Fun!!!!

Templates

- Template
 - a shaped piece of metal, wood, card, plastic, or other material used as a pattern for processes such as painting, cutting out, shaping, or drilling.
- Track Templates
- Switch Turnout Mounting Template
- Etc.....

Show 'n' Tell

This month's Show 'n' Tell subject was **Weathered.**

Rich Flammini's photo was the first presented. It shows two boxcars, the one on the right weathered and the one on the left right out of the box. That Santa Fe boxcar has seen a lot of use.



Storage Containers

- 12 Pack Mini Clear Storage Containers with 10 Grid Dividers, Small Plastic Tackle Boxes for Beads, Buttons, DIY Jewelry (2.5 x 5 in)
- Custom Compartments: The mini clear storage containers with 10 grid slots are entirely adjustable, except for the front 2 dividers, allowing you to customize the compartments to fit larger pieces
- \$13.99 Amazon

Presented next were Gary Myers' two refrigerator cars.



ART 22106 is an Athearn Reefer. The trucks and wheels were painted brown. The underside received a heavy dusting with Bragdon powders. Rust was streaked from the seams on the roof. Lastly, Dullcote was applied.



FBX 5301 is a Branchline Robin Hood Beer Reefer. The underframe, appliances, wheels, and trucks were painted dark brown. Bragdon powders were applied following a light coat of Dullcote. A light coat of dust was then applied to the sides and a heavier coat to the underframe, trucks and ends. Rust and dust powders were applied to the roof. All the powders were sealed with a very light spray of Dullcote.

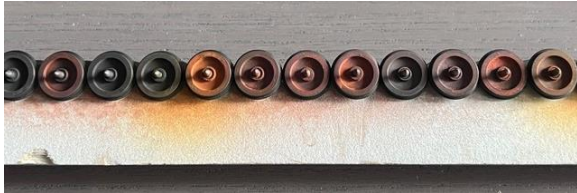
William Boorman showed this picture of the brass Shay locomotive that he received for his eighth birthday. (Some kids are just lucky.) It was weathered to show coal dust on the trucks.



And lastly, Adam Crews showed these pictures of his Amtrak P42 models. They are modified Athearn Blue Box AMD10s. Weathering consists of exhaust soot across the roofs and dust on the sides.



Additionally, Adam showed his technique for weathering wheels when you have a large number to do, as when changing all your wheels from plastic to metal. He used a 1/2" wide trim piece and double-sided tape to hold the wheels in place. Then he applied various rust colored paints, followed by various Monroe Models powders.

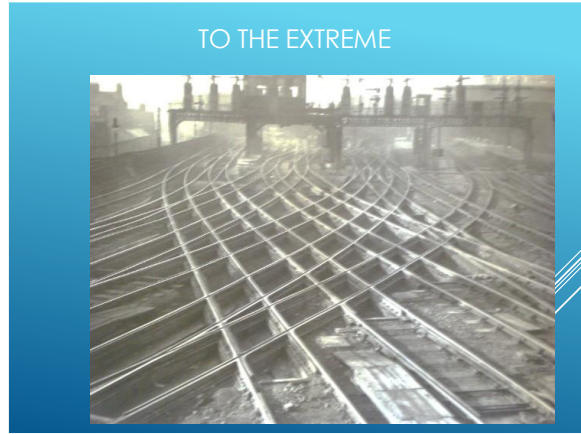
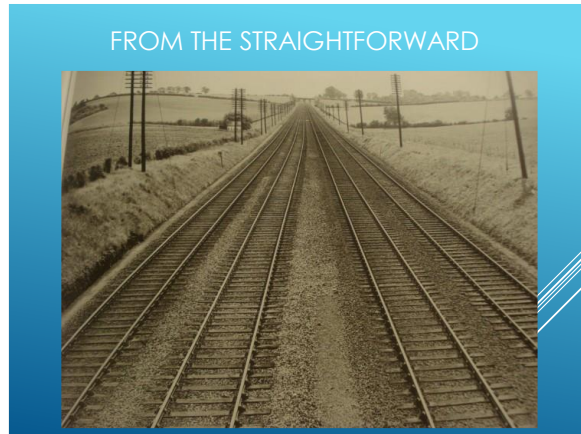


Clinic

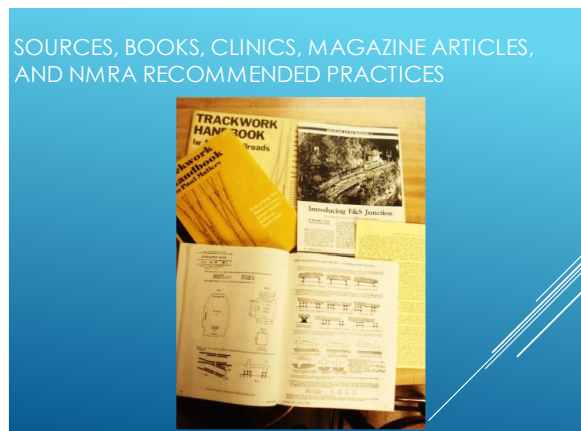
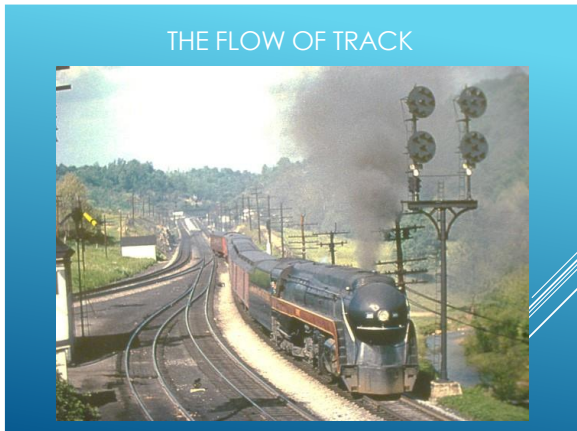
Bill Johnson presented the evening's clinic. He gave his rationale for hand laying track and turnouts and using numerous slides, gave detailed instructions.

HAND LAYING TRACK AND TURNOUTS

Some Different Ideas
Why hand laid track?



- ▶ This is by no means the only approach. It is just some techniques I have found that work for me.
- ▶ My hope is that you may pick up some small tip that would help you with your track work.
- ▶ Start simple, extend a spur track. Do not start with an "N" scale double slip switch.



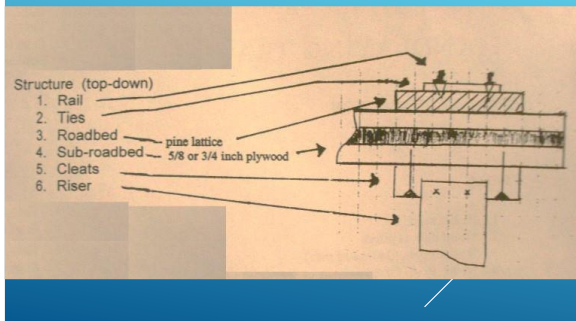
Materials



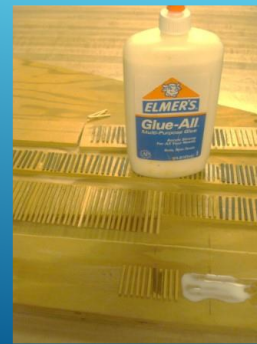
CENTER LINE USED



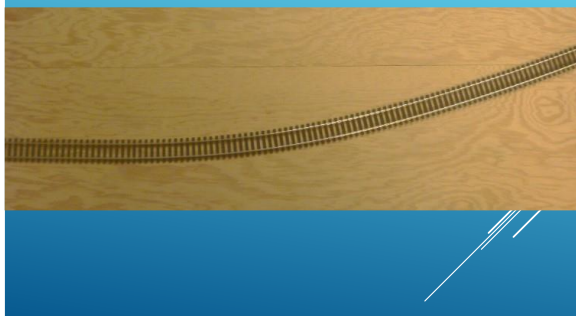
"SOLID" TRACK SUPPORTING STRUCTURE



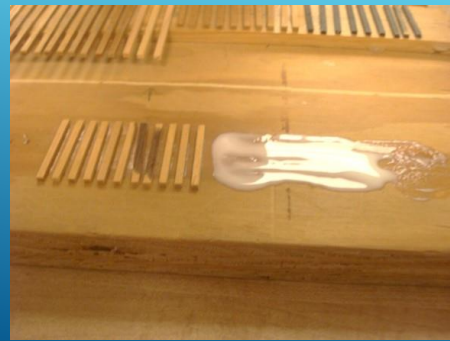
GLUING TIES



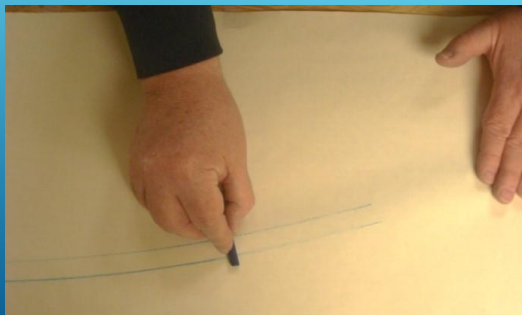
USING FLEX TRACK TO LAYOUT TRACK LOCATION



SPREAD GLUE ABOUT 9 TO 18 INCHES



WITH A SHEET OF CLEAR PAPER, TRACE TRACK LOCATION



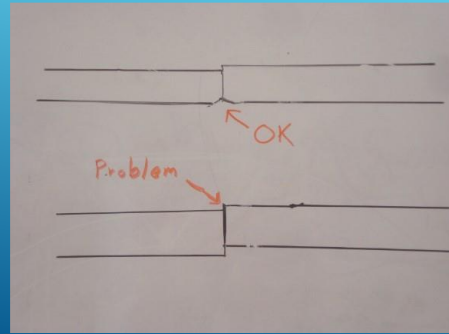
PLACE TIES



USE LEATHER DYE AND ALCOHOL TO STAIN TIES



BEVEL REMOVED HARD EDGE



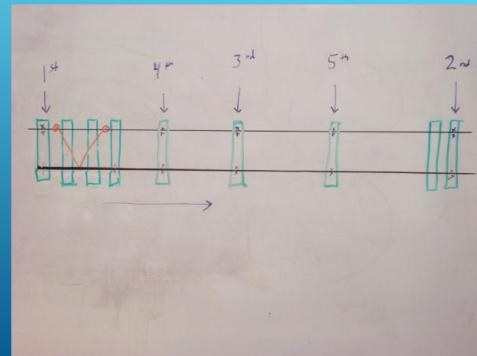
STAIN THE TIES ANY TIME



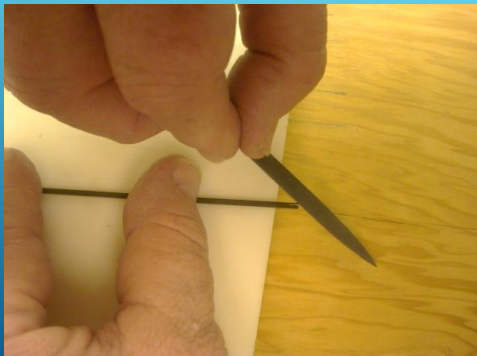
USE STRAIGHT EDGE



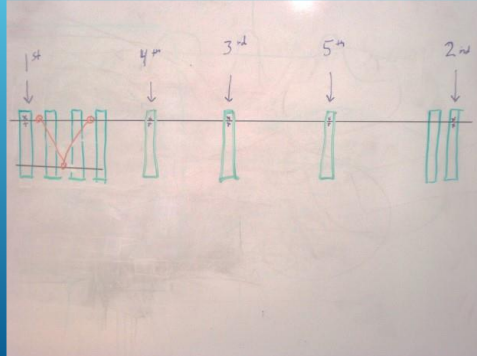
SPIKING OF SECOND RAIL



SLIGHT BEVEL ON INSIDE TOP OF RAIL



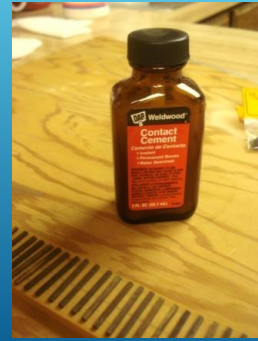
SPIKING STRAIGHT TRACK



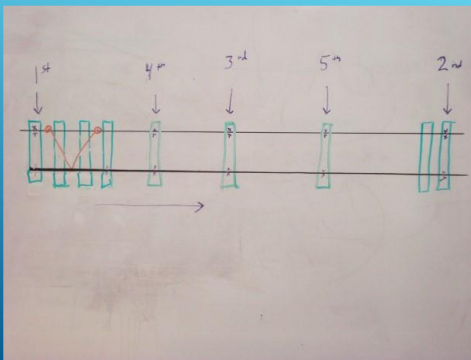
SPIKE FIRST TRACK



USE CONTACT CEMENT TO GLUE RAIL WORKS BEST ON CODE 83 OR SMALLER



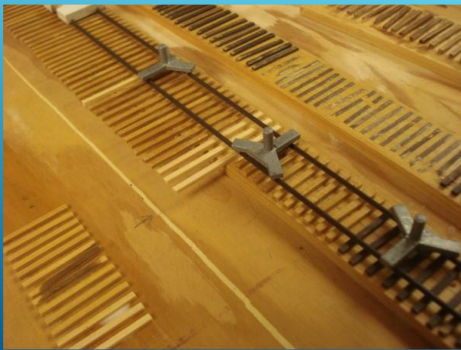
SPIKING OF SECOND RAIL



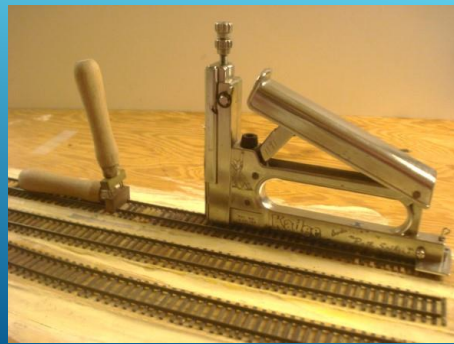
APPLY HEAT TO ATTACH RAIL TO TIES



GAUGE SECOND TRACK FROM FIRST



OTHER TRACK LAYING SYSTEMS



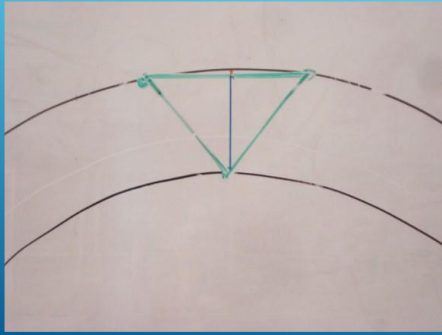
SOLDERING RAIL



HAND LAYING TRACK ON CURVES

- ▶ Hold both rails with 3-point gauge.
- ▶ Gauge from the center line (with easements).
- ▶ Spike continuously from one end to the next.
- ▶ Solder rails on curve together 9" to 10" before they are spiked down. This will prevent kinks at the joints.
- ▶ Important to use the 3-point gauge correctly on curves.
- ▶ Spike the second rail gauged off the first.

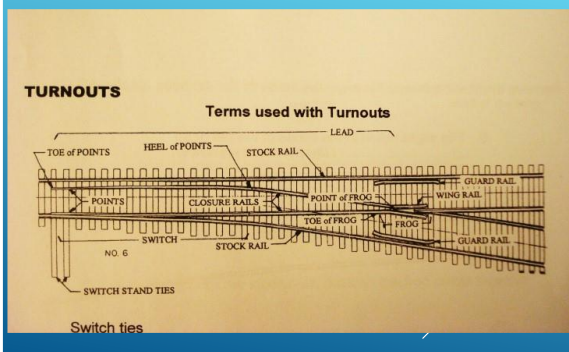
CORRECT USE OF THREE POINT GAUGE ON CURVE, ALWAYS POINT TOWARDS CENTER



NOTCH STOCK RAILS 2.5 INCHES



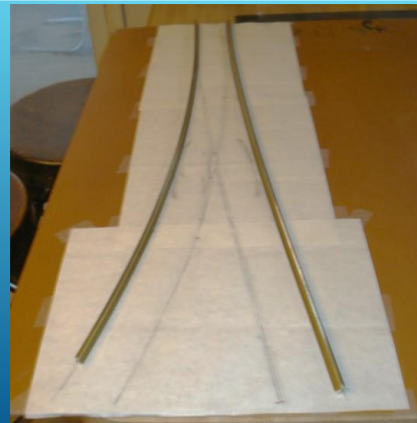
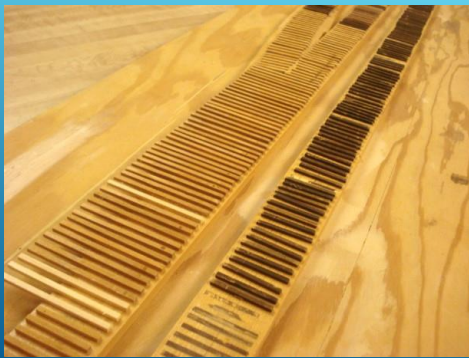
TURNOUTS



MARK WEATHERED RAIL



LAY SWITCH TIES



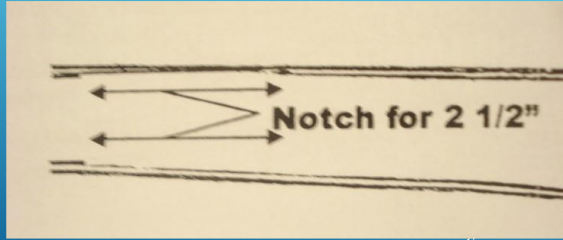
TEMPORARILY SPIKE BOTH STOCK RAILS



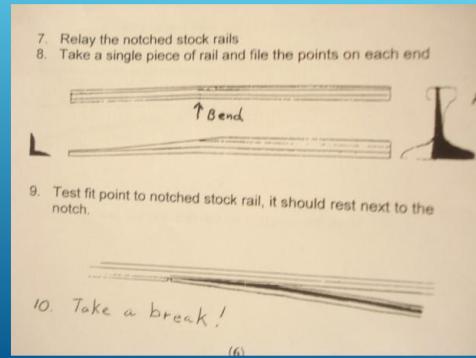
MARKING THE POINTS



NOTCH INSIDE OF STOCK RAILS. THIS IS WHERE THE POINTS WILL REST



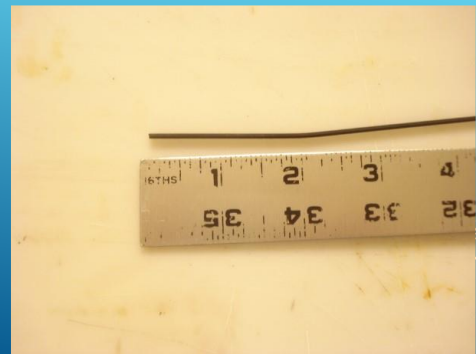
MAKING THE POINTS



NOTCHED STOCK RAILS



BEND RAIL TO START TO FORM POINT



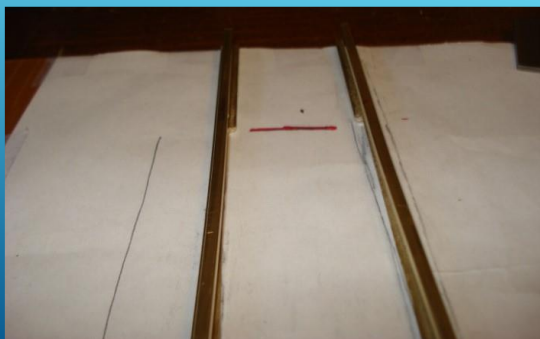
REMOVE BASE OF STOCK RAIL



FILING POINTS



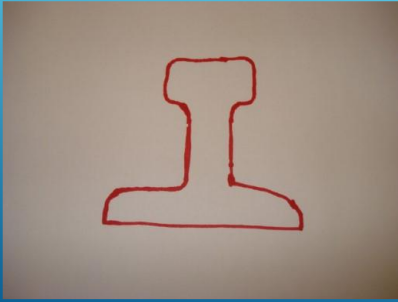
ANOTHER VIEW OF NOTCHED STOCK RAIL WHERE THE POINTS WILL REST



FILING POINT EDGE



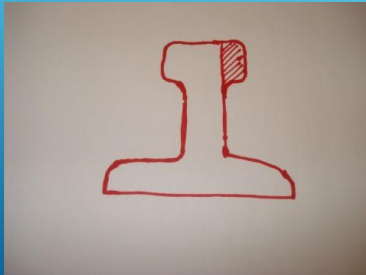
CROSS SECTION OF RAIL



USE EDGE OF BOARD TO HOLD RAIL WHILE FILING



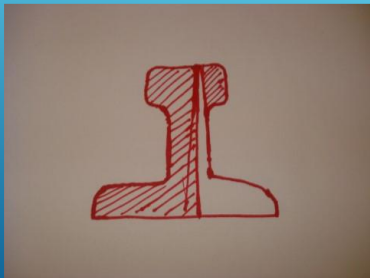
REMOVE ONLY SIDE OF RAIL HEAD ON ONE SIDE



NOTICE HOW BASE OF RAIL NESTS ON EDGE OF BOARD



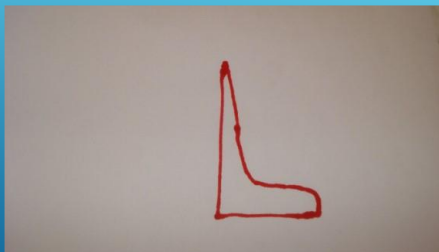
REMOVE HEAD, BASE, AND SIDE ON THE OTHER SIDE



FILED POINT



L SHAPE CROSS SECTION



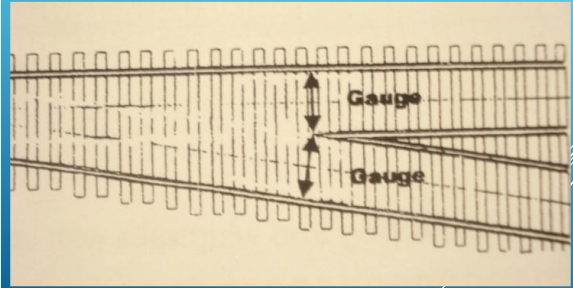
OTHER SIDE OF POINT RAIL



TEST FIT POINT TO STOCK RAIL



USING NMRA GAUGE LOCATE POINT OF FROG



TEST FIT POINT WITH STOCK RAIL



SLIDE POINT OF FROG

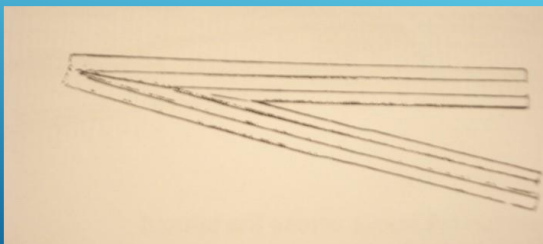


- ▶ When both point rails fit against the stock rail satisfactory, permanently spike down stock rails.

LOCATE CRITICAL POINT WHERE CLOSER RAIL BENDS TO BECOME WING RAIL



BUILD THE FROG POINTS



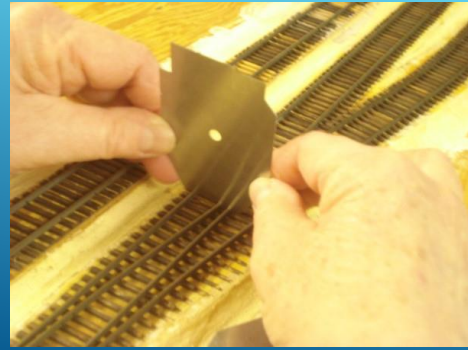
SPECIAL TOOL FOR LOCATING THE SPOT



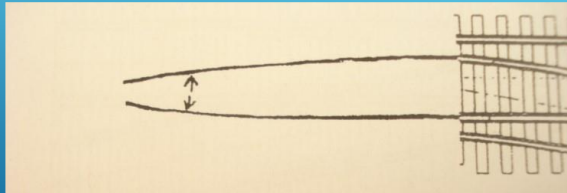
USING "SPECIAL TOOL" AND TRACK GAUGE TO LOCATE THE SPOT



USE NMRA GAUGE TO SCRAPE FROG FLANGE WAYS TO EXACT GAUGE



PRE-BEND POINTS



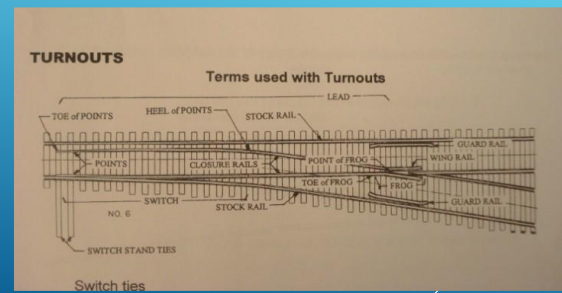
TEST TURNOUT WITH TEST TRUCKS



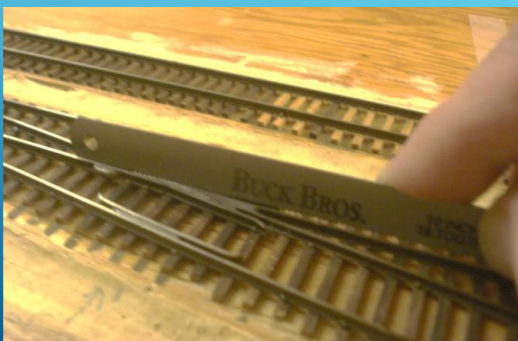
FILL THE FROG WITH SOLDER



ADD GUARD RAILS AND OTHER DETAIL



USE A HACK-SAW BLADE TO REMOVE INITIAL SOLDER



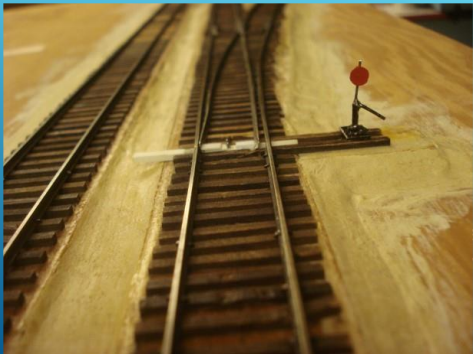
HOW MUCH TIME DOES IT TAKE?

- ▶ Good work takes time, there is no getting around that fact.
- ▶ However, practice makes for faster results.
- ▶ When two members of the Denver HO club, Erwin Chaim and Oren Whitwell, were building HOn3 turnouts. They reached a point where they could complete one every 30 minutes.

THE FINISHED SWITCH



THROUGH THE SWITCH FOR THE SIDING



"SLANSER" SWITCH STAND WITH CORRECT TARGET



2023 RMR Annual Convention

RAILS ALONG THE RIO GRANDE



**The 2023 Rocky Mountain Region Convention
Rails Along the Rio Grande, November 10-12, 2023
Albuquerque, New Mexico**

Convention Hotel

Marriott Pyramid North, Albuquerque, NM
505-821-333

<https://marriott.com/abqmc>

Convention Room Rate: \$131/Single

Hotel Link for Special Rate (Ctrl+Click):

<https://www.marriott.com/events/start.mi?id=1683843866138&key=GRP>

Hotel Virtual Tour Link (Ctrl+Click):

<https://www.weselfwalk.com/atrium-marriott-pyramid-albuquerque/virtual-tour>

IMPORTANT DATES

Early Registration	before June 15th
Normal Registration	after June 15th
Late Registration	after Sept 15 th
Convention Hotel Special Rate ends	before October 13th
Contest Forms 901 & 902	due by Nov 1 st
Contest Entry & paperwork for NMRA judging	due by Noon, Nov 11 th
Contest Entry for Popular Vote only	due by 4 PM, Nov 11 th

Convention Activities

Friday, November 10

8AM - 11AM	Set up	Gallery Room, Marriott
1PM – 4PM	Model Entry,	Gallery Room, Marriott
6PM – 9PM	Clinics, Model Entry, Refreshments	Gallery Room, Marriott

Saturday, November 11

7AM - 9AM	Breakfast Buffet	Gallery Room, Marriott
8AM – 12PM	Model Entry, Clinics	Gallery Room, Marriott
12PM-1PM	Lunch for Contest Judges	Gallery Room, Marriott
12PM – 4PM	NMRA Contest Judging	Gallery Room, Marriott
6PM – 9PM	Clinics, Model Popular Voting, Refreshments	Gallery Room, Marriott
9AM-5PM	Rails Along the Rio Grande Train Show	Balloon Fiesta Park

Sunday, November 12

7AM - 9AM	Breakfast Buffet	Gallery Room, Marriott
8AM – 9AM	Model Contest Awards	Gallery Room, Marriott
9AM-4PM	Rails Along the Rio Grande Train Show	Balloon Fiesta Park

Full Convention Registration:

Primary \$70 early / \$75 normal / \$80 late
 Household Family Member \$45
 Non-NMRA Primary Registrant Additional Fee: \$20
 includes Saturday & Sunday breakfast buffets
 includes Friday & Saturday evening refreshments

1 Day Convention Registration

Primary \$50 early / \$55 normal / \$60 late
 Household Family Member \$30
 Non-NMRA Primary Registrant Additional Fee: \$20
 includes one breakfast buffet includes one evening refreshments

RAILS ALONG THE RIO GRANDE

Albuquerque, NM November 10-12, 2023

Registration Form (Until September 15th)

ATTENDEE	1 Day*	All Days**
Primary	\$55	\$75
Each Household Family Member	\$30	\$45
Non-NMRA Member Primary Additional Fee	<u>\$20</u>	<u>\$20</u>
Total Registration	_____	_____

* includes one breakfast buffet, evening refreshments

** includes two breakfast buffets, two evenings refreshments

Primary + Family (household) members attending: _____

Names (to appear on badges): _____

Local Division: _____

Please circle: 1 Day or All Days

Dates:	Nov 9	Nov 10	Nov 11	Nov 12
Please Circle: Planned Arrival Date	Thurs	Fri	Sat	Sun
Please Circle: Planned Departure Date	Thurs	Fri	Sat	Sun

Please make checks payable to: **Rocky Mountain Region**

Print this page, fill out, and Mail form and check to:

Rocky Mountain Region Convention
c/o Denny Krausman
9609 Silver Hill Cir
Lone Tree, CO 80124-5420

Prices subject to change, registration cost increase after June 15th

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ALBUQUERQUE, NEW MEXICO



Old Town Albuquerque



AT&SF 2926 Restoration

ALBUQUERQUE, NEW MEXICO



Petroglyph National Monument



Museum of Nuclear Science & History



Sandia Peak Tram



San Felipe de Neri Church



Explora Science Center & Children's Museum

An Invitation

Saturday & Sunday, September 9 and 10, 2023

9:00am to 1:00pm

Tom Wilcox

23442 East Otero Drive

Aurora, Co 80016

land line: (303) 862-8491 cell: (978) 505-3024

Both an indoor and an outdoor layout will be open at this address, which is inside the gated community at the Heritage Eagle Bend Golf Course (HEBGC) in the southeast corner of the Denver metro area.

Directions:

These turn-by-turn directions start on S GARTRELL RD at the E-470 overpass in southeastern Aurora. E-470 is the fastest way to get to the overpass, but it is a *toll road*. Alternatively, find your way to E ARAPAHOE RD, the major east-west artery in the southeastern Denver metro area. The major north-south arteries I-25, PARKER RD, and SMOKY HILL RD all intersect with Arapahoe Rd. The intersection with S Gartrell Rd is 9 miles east of I-25, 4.5 miles east of PARKER RD, and 1.8 miles west of SMOKY HILL RD where they cross Arapahoe Rd. The overpass is 1 mile south of E Arapahoe Rd on S Gartrell Rd.

1. From the E-470 overpass, proceed south on Gartrell Rd through the light at E AURORA PKWY to the light at E HERITAGE PKWY (0.7 miles total).
2. Turn left onto E. Heritage Pkwy (AWAY from the HEBGC Clubhouse)
3. **STOP** at the keypad on the left side of the VISTOR lane in front of the gate and key in the 5-character code “#3442” to open the gate. (code is valid only on 9/9-10/23)
4. Continue 0.2 mi through the gate and down to the T-intersection at the bottom of the hill.
5. At the T, turn right onto S ADDISON WAY.
6. At the next T (700ft), turn right again onto E. OTERO DR.
7. The layouts are 350ft up Otero at the third house on the left (with a crossbuck in the driveway). You can park on either side of the roads near the house.

These layouts are not particularly HC-friendly.

The Outdoor Layout is a U-shaped loop-to-loop layout in the shrubbery surrounding three sides of the house with a branch line to a loop on the elevated patio. It has about 530' of mainline, 96' of passing sidings and 63' of stub sidings. It has one 1.5% grade connecting the garden level to the patio. All track not on the patio is mounted on 5/4 pressure-treated decking. (*The west side can be viewed from a concrete walkway. The south side is on the patio, two steps above the walkway. The east side can be viewed from the lawn, two steps down from the patio or slightly uphill from the front sidewalk.*)

The Indoor Layout (*down a flight of stairs to the basement*) is mounted on a flat table elevated 42" from the floor occupying about 522 sq. ft. in the unfinished basement utilities room. It has 276' of mainline, 65' of passing sidings and 181' of stub sidings. (This layout can accommodate about 15 viewers at any given time. The narrow viewing aisle has limited opportunities to pass going in and coming out.

Neither layout has a name, nor do they depict any discernible road name, location, or era. Buildings and rolling stock migrate between the layouts seasonally.

Most of the rolling stock is vintage LGB 1::22.5 narrow gauge equipment. All of the track is LGB sectional track.

Locomotives are track-powered and controlled using DCC. A TCS LWT-100 hand-held throttle talks over home WiFi to a WI Throttle Server provided by JMRI (Java Model Railroad Interface) software running on a Mac.

Although both layouts are physically and electrically independent and are each controlled by different instances of JMRI, they both have the same hardware and software architectures. DCC tasks are implemented by a DIY base station known to JMRI as DCC++. DCC++ software is in the public domain and runs on a 20-dollar Arduino micro-controller connected to JMRI via the home LAN.

Up to five trains can run autonomously on each layout. Each train is assigned a pre-defined route by a human “dispatcher”. The route defines not only where the train is to go on the layout, but also where it is to stop and how long it is to stop each time. Once a train is dispatched, a script running within JMRI controls all aspects of the train’s travel along its route, including throwing the proper turnouts, controlling the speed and direction of the train, generating sounds available on the locomotive’s sound card appropriate to each activity on the route, and, most importantly, always trying to enforce the rule that, at any given time, at most one train occupies a given section of track.