The O Scale Resource

NEWS, REVIEWS, INFORMATION TO USE

Volume 3 No. 5
May/June 2016

Oddities
In Memoriam - Harmon Monk
What's On Your Workbench
Chicago O Scale Meet 2016
Bob and Elizabeth Jakl's Layout
Telegraph Poles - One Last Time
Scratch Building A Fuel Tank Pt 3
And much more...

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THE O RESOURCE
NEWS, REVIEWS, INFORMATION TO USE
SCALE

Published Bi Monthly

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May/June 2016
Volume 3 No. 5

Welcome to the online *O Scale Resource* magazine. The magazine is presented in an easy to use format. The blue bar above the magazine has commands for previewing all the pages, advancing the pages forward or back, searching to go to a specific page, enlarging pages, printing pages, enlarging the view to full screen, and downloading a copy to your computer.

Front Cover Photo

A Burlington "dinky" runs the three track main out of Chicago on Bob and Elizabeth Jakl's layout.
Photo by Bob Jakl

Rear Cover Photo

Telegraph poles span the mine area. See how Dan made these in this issue.
Photo by Dan Dawdy

Bill Of Lading

Page

From the Publisher's Desk

Met any new modelers lately? Dan and I definitely have. We recently hosted an open house/layout tour of the Richmond Danville & Southern in conjunction with the Chicago O Scale Meet, and while we had a slightly smaller turnout than year's past, we saw a lot of new faces. We had visitors from as far away as Germany and Switzerland. It was interesting to get their perspective on the hobby. We also met a lot of new people at the show this year, some who had heard of the magazine, and some who had not. Not only are we still spreading the word, it looks like the hobby is still attracting new modelers.

This month's issue features a recap of the Chicago O Scale Meet that was held April 1-3, along this year's model contest winners. We had some great entries, and encourage you to enter your models in contests for others in the hobby to enjoy. This issue also includes a Memoriam to Harmon Monk, last year's Best of Show Winner, who passed away this past February. He was a fixture at this annual show and was definitely missed.

The O Scale Resource also wants to showcase what you're working on, so please send us your photos for the "What's on your Workbench Today?" article in every magazine. Even if it's only a work in progress, we'd love to feature it. It's always fun to see what others are working on, plus you might just inspire someone! Send your photos and comments to daniel@modelrailroadresource.com.

Other highlights in this month's issue include the 25th anniversary of Bob & Elizabeth Jackl's layout. This "family affair" layout is unique in that the building is built into a California hillside, and it was made to be seen from a seated perspective. Glenn Guerra brings us Part 3 in the series on scratch building fuel tanks, There's also an article on telegraph poles by Dan. I know, not again right? Well, this is not the same old thing! Dan did a little research on the prototype, and brings you a more prototypical pole and insulator.

We hope to meet a lot of new people at O Scale West in Santa Clara, California May 5-7, not to mention seeing some layouts and enjoying the wineries. Who knows, I might even pick up another car for the Richmond Danville & Southern "wine train". There will be some good clinics featured at the show, one of which will be taught by Dan, "Getting Glassy – Glass Cutting for Modeling". If you'll be attending the show, make sure to stop in to the clinic. If you can't attend, Dan did an article in the September/October 2014 issue of *The O Scale Resource*, and there's also a "Video Extra" available. Be sure to stop by our table to say hello and pick up a free magnet.

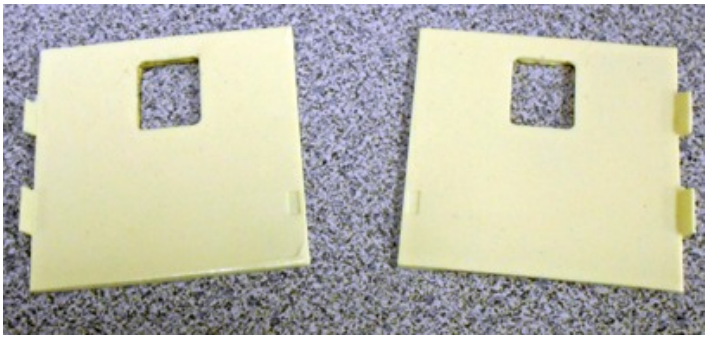
Happy Reading & Happy Modeling,

Amy Dawdy

NEWS YOU CAN USE

Red Cliffs Miniatures now has available the lighted version of our high level operating switch stand. The switch stands are $25 for the lighted version of the SS1 operating stand and $15 for the non-operating lighted New Century low level stand. Both are now listed on the website.

Delta Models has released 22 new parts since our last issue. The following new part numbers have been released DM 245 - 249, 251, 254 - 259, 272, 276 - 282. This totals 22 new releases with more on the way. There are now 243 parts available in Bill's product line.



If you are interested in a part being made, please contact Bill as he is always looking to add unique items.

The photos are DM 257 and DM 258 UP style Baggage RPO doors.

New products from Model Tech Studios.

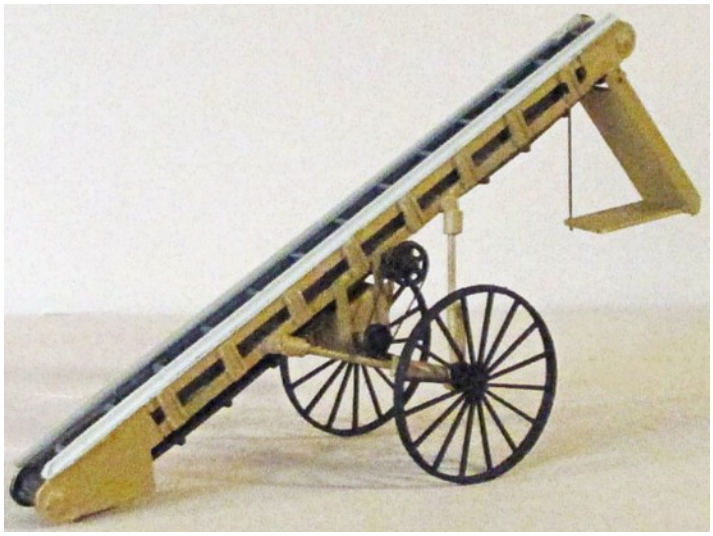
The Log Company Axe Grinder. He is busy at work to keep the feller's axes ready to go. His helper

cranks the grinding wheel as he is instructed. COMPLETE SET with 2 Finished Figures and Grinding Wheel.

Classic LOGGING BUCKER with his bow saw "In Action" sawing through a felled tree. He is positioned so you can have him actually posed sawing a tree just like you would see during a busy workday in the woods.

This LOGGING FELLER is "IN ACTION" striking the tree with his axe as he chops it down. Compliments our FELLER #1 in our series of "In Action" Scale Logging Scene Figures. Don't just have figures standing around with an axe but atually have them engaged chopping the tree down. Layout Modelers are modeling the busy workday. Our "Fellers" #1 and #2, for example, are in prototypical chopping positions as you would really see chopping down a tree in the backwoods. See these and all the great models and details at modeltechstudios.com

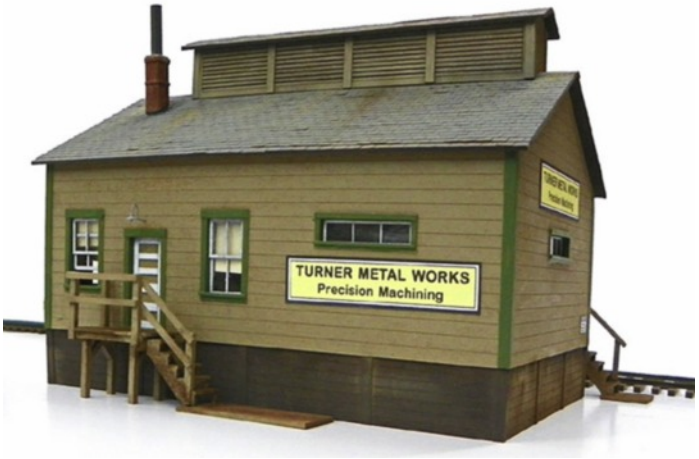
New from Crow River Products is a Portable Belt Conveyor, Kit 333 - $25.00 This type of conveyor was a common site for many years around coal yards and railroad properties. It was not only used for loading coal, but also used for most any bulk materials.



See their website crowriverproducts.com for more information on this and many more industrial kits, and details.

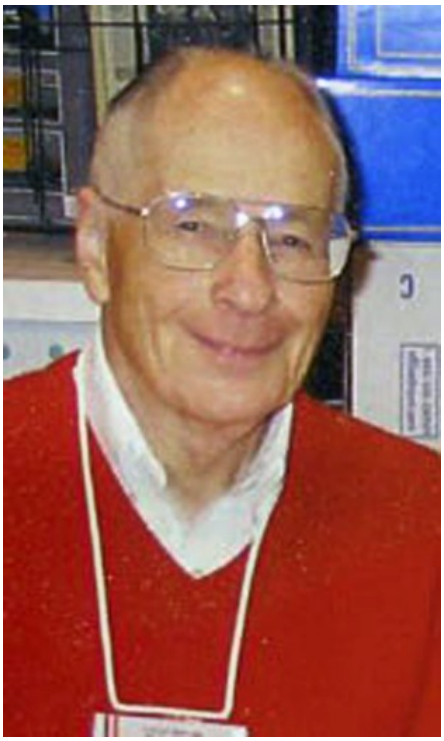
New from B.T.S.: Turner Metal Works. Mr. Turner started a small machine shop right before the start of WWII, and his government contracts during the war helped his business grow and remain strong. Small to medium machining is done here by Turner and his small crew. As with all B.T.S. kits, this kit is laser cut and engineered for easy construction. It features interior floor and walls, positionable doors and windows, peel and stick shingles, and several possible variations... the roof vent can be left off, and the loading dock can be

placed in an offset position to create space for a truck loading area.



Check their Website for this great kit!

A note from Jay Criswell concerning Lou Cross Estate Items:



Just a quick note to let you know, after many hours (months really) of preparation, we'll be able to begin the mostly sad task of selling the Louis R. Cross Collection. As you know, the probate laws in California required a 120 day waiting period before anything could be sold, given or thrown away, etc. and that requirement will be met just a few days prior this year's OSW. To that end, Bob Jakl, his family, Dennis & Kathy Mashburn, Bob Jarvis, Steve Neill, John Ford, and I will be bringing a very large part of the collection to this year's show with the intent of selling it. It is a sad affair, but we need to do it so we can fund Lou's last wishes.

Would you please let everyone that knew, or called Lou their friend, that we'll have a table (kindly donated by you) set up to honor and celebrate him and his life. There will be numerous mementos of his life and times including many really cool O Scale items. This will include the first diesel he built, his O Scale Hall of Fame Plaque, the Visitor Log from his layout, etc. We would really like for folks to stop by, say hi (if they're so inclined), look through the collection, share stories, sign the Log one last time, reflect upon our friend and how much he meant to us or really whatever they feel comfortable with doing.

News from Sunset Models and Golden Gate Depot: Coming April 2016…

At 22 inches tall, this is the biggest free standing, ready to use plastic coaling tower ever produced.

There were many OGLE coaling towers serving most railroads into the 1930s to 1950s. Included are 4 exterior and 2 interior lights, just plug into your existing track power. The coal chutes are adjustable in height and very realistic. The roof components are removable for access and detailing of the interior.

Announcing the Pullman Army Hospital Cars in “Life-Time” Brass. Sunset will be producing the Hospital, Surgery and Communication Cars. These cars ran on every railroad during WWII, carrying wounded to Army and civilian hospitals. Make your complete Hospital Train with these cars. Great with your “Troop Sleepers”. Built to your reservations. Reserve Today!!!

Other New Announcements:

- B&O 50' Baggage
- GGD GN Empire Builder 8 Car Set.See here.
- Great Dome Lounge + GN F7s.
- SF Great Dome Lounge with correct Fluting.
- GGD Silver Meteor 6 Car Set!
- GGD Sunset Limited 8 Car Set
- GGD Sleepers 12-1 and 8-1-2, Coming Soon.
- GGD Little People, Better Tooling, Better Painting
- GGD Modernized HW Coaches and PRR P70 FAR Coaches

See all the products on their Website!

Rick Galazzo from Tru-Color Paint says:
We always have new products (at least 2 new colors each month for 2016) to share with your readers. Here is the list of new colors for March through June of this year:

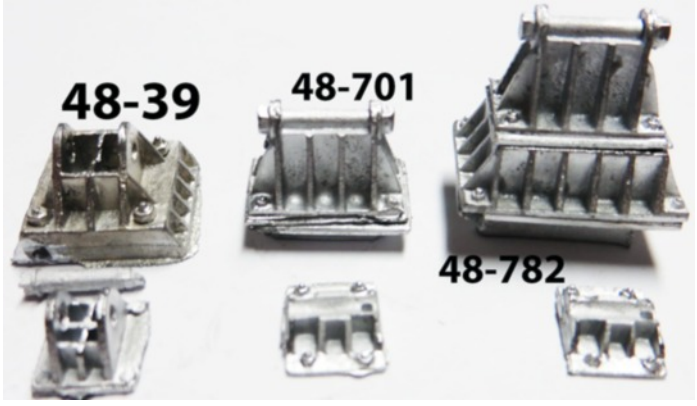
TCP-310 Retarder (to slow down the evaporation rate of Tru-Color Paint in warm areas) - released
TCP-311 Safety Yellow (Handrails, steps, side sills, etc.) - released
TCP-312 Union Pacific Maintenance of Way Green - released
TCP-313 Safety Orange (Bridges, steps of oil tanks, any marine warning areas) - released
TCP-314 Seaboard Coast Line Jolly Green - due May 1, 2016
TCP-315 Seaboard Coast Line Yellow - due May 1, 2016
TCP-316 Gulf, Mobile & Ohio Red - due June 1, 2016
TCP-317 Gulf, Mobile & Ohio Maroon - due June 1, 2016
TCP-329 Burlington Gray 1 (for all red/gray diesel locos) - released
TCP-840 Flesh - released

Ed Skuchas from The Berkshire Car Shop says:
We are announcing two new products. One will be a resin cast air electric PCC trolley car and the other will be a resin cast Canadian Light Rail Vehicle (CLRV). Both will be one-piece body shells and interior components/seats will be included with the kit. The air electric PCC was a universal car body type used by many US and foreign systems. The CLRV has been the mainstay of the Toronto street car system since 1977 with almost 200 cars in service. Some cars were also tested on the Boston system. These cars will be available shortly.

Jon Cagle from Southern Car and Foundry is doing a small rerun of the CP Minibox kit #301. (*The picture below is one that I built when the car was first released. - Dan)*

Jon will be issuing a new Boxcar kit, a 1932 ARA Car, Kit #304 early this summer. The car is going into production and we are working on instructions.

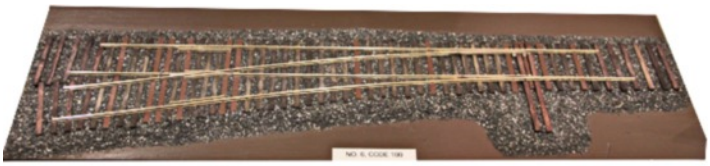
Scale City Designs has that extra bridge detail that's missing from your layout. While its not technically a "new" product, it was designed by John Keil of Keil-Line and we are proud to keep it available!



It has outstanding details and nice crisp castings. Check out their website scalecitydesigns.com for more detailed pictures, description, and to order. Priced at just $8/pair!

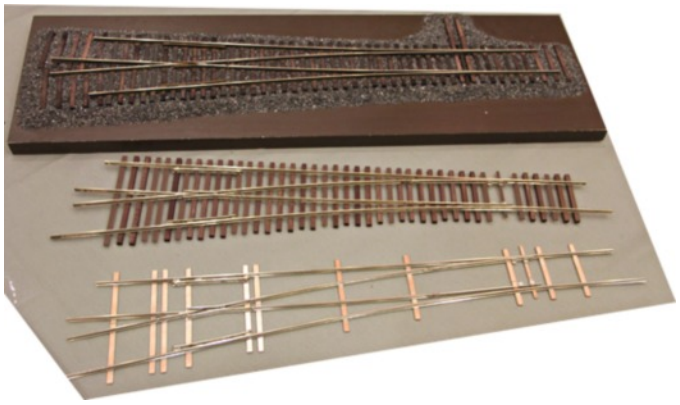
Oscale Turnouts showed some new products at the March Meet.

#6, code 100, turnout. The turnout uses Oscale Turnouts, Inc. prototypical profiled nickel silver rail. Price without ties - $95.00. Price with stained wood ties - $110.00



#6, code 100, turnout - P48. The turnout uses Oscale Turnouts, Inc. prototypical profiled nickel silver rail. Price without ties - $95.00. Price with stained wood ties - $110.00

#8 (7.15 degree), code 148, crossing with rail-bound center frog. The crossing will morph into a single/double slip. The crossing uses Oscale Turnouts, Inc. prototypical profiled nickel silver rail. Price without ties - $215.00. Price with stained wood ties - $240.00



#8 (7.15 degree), code 148, nickel silver, rail-bound frog. The prototypical looking frog includes nut and bolt details, a rail-bound insert and proper dimensioned flairs. The frog's flangeway width and depth dimensions are sized to the NMRA minimums to create a more realistic appearance. This is the first frog produced in-house at Oscale Turnouts, Inc. The frogs are sold in pairs and are priced at $42.00

Attention Advertisers:

If you now advertise with us, thank you. If not, consider what we can do for you. The average unique views of The O Scale Resource two months after publication is 3300. As of April 5, 2016, the January/February 2016 issue had 3128 unique views (as counted by IP address). That's over three times the subscribers of the other O Scale magazine**. In addition, over 2334 links were clicked directly to our advertisers, 1122 pages were printed by the reader and 561 complete PDF downloads were saved.

Now, we can't promise sales, no one can guarantee that; however, we can and do promise to deliver the reader directly to your Website. No print magazine can offer that. And, because all older issues stay on line, your advertising dollars continue to work for you. As an example, between January 1st, 2016 and April 5th, 2016, the September/October 2013 issue received 408 views with 65 advertiser links clicked and 54 PDF downloads. That's for an issue that was released almost three years ago! No print magazine can consistently deliver customers to you in this manner.

Call or Email Dan at 815-584-1577 for more information. We always offer full color and design assistance at no additional charge, plus discounts for multiple insertions.

** based on published subscriptions November/December issue 2015

In Memoriam - Harmon Monk

It is with a heavy heart that we pass along the news of the loss of a fellow modeler, Harmon Monk, of Ashkum, Illinois. Harmon was a superb brass modeler, having won Best of Show at the 2015 Chicago March Meet for his scratch built brass Chicago & Alton Harriman Heavy Pacific Steam Engine. Those of us who knew Harmon remember his quick wit and vast array of knowledge about many things besides modeling. He will be missed not only in the O Scale community, but also in his local community where he was very active within his church, tractor club and local government. Our thoughts and condolences go out to his wife, Marie, their children and grandchildren.

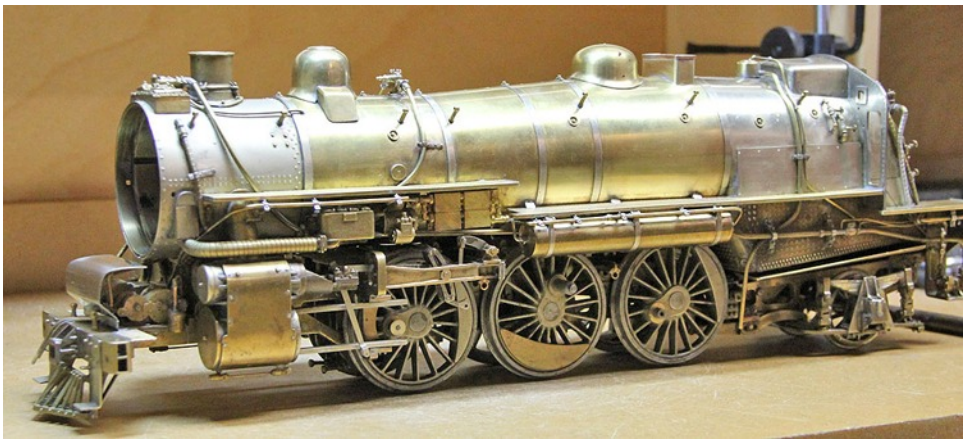
Harmon loved going to O Scale shows.

Harmon and Rich Yoder talking shop in Harmon's basement.

Harmon and Glenn Guerra talking about the history of everything.

Harmon and Bob Stevenson discussing the casting process in Bob's workshop.

Harmon had an insatiable appetite to know and understand how things worked. His interests were much wider than model railroading as Amy stated above. He has a great talker, sometimes carrying on two or three conversations at once, but he could also listen carefully and give advice.



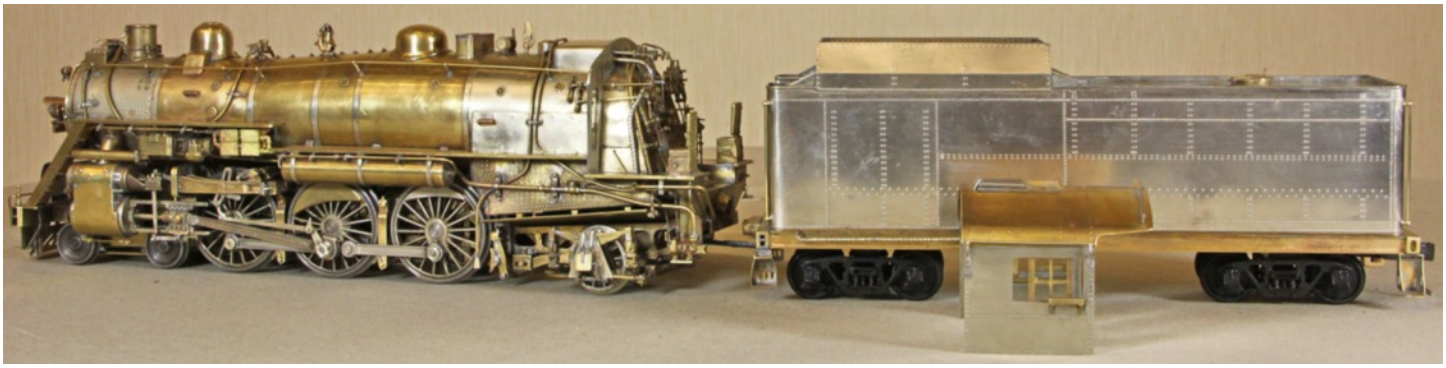
Harmon was a tremendous modeler. Being a full time farmer, modeling was mostly done in the winter, and while not prolific, his models were exceptional since he was a perfectionist. And, many of you know, being a perfectionist and prolific modeler do not normally go hand in hand.

The GM&O PA above was extensively reworked with many hours getting the windshield and side windows correct.

The totally scratch built Chicago & Alton Harriman Heavy Pacific above was photographed back in 2012, and was still a few years away from completion. Three years later, at the 2015 Chicago O Scale Show, Harmon won the people's choice award Best Of Show for his completed model below.

He and I had talked about DCC and lighting in the last few months and then having it painted. However, it was not meant to be and it will stay in the family as a testament to a fine man and model builder.

Dan Dawdy



This year's Chicago O Scale show was held on April 1st through 3rd. The change in dates, two weeks later then normal, was because of a conflict with the hotel. I thought that holding the show two weeks later would be met with beautiful weather, but it's Chicago. Horizontal sleet on Saturday, windy and 60ºF on Sunday! Actually, it was not so bad and the show was again sold out for vendors. Traffic was heavy on Saturday, and there were many new faces in attendance that I have not seen at shows before. I firmly believe 2 rail O Scale is alive and well.

The O Scale Resource once again sponsored the model contest. That article is featured elsewhere in this issue. Once again, the modelers did an outstanding job.

The ballot for the O Scale Hall of Fame was being circulated by the O Scale Kings. This year's three new inductees are:

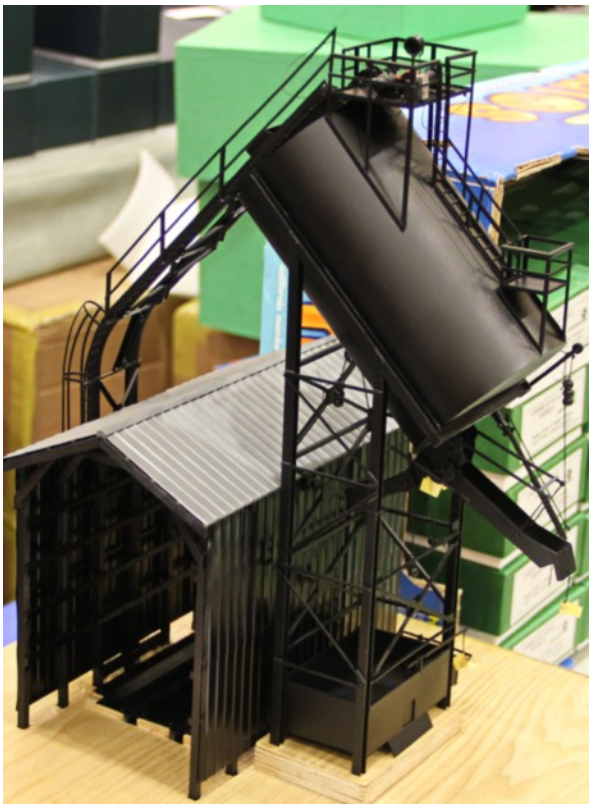
- John Keil, owner, with his wife Martha, of Keil Line Products, manufacturer of a vast array of O Scale parts and kits, allowing O Scalers to super detail their models and scenes on their Pikes. John was one of the truly great gentlemen in out O Scale Community.

- Kimpei Sofue is the most famous O Scaler nobody ever heard of. He headed KTM in Japan. Working with Max Gray, he designed and built over 14,000 O Scale brass engines which were imported and marketed by Max Gray, US Hobbies and Westside. His design principles and solid construction have shaped the entire brass model industry.

- Jim Harper ran the High Sierra Hobby shop in Reno, Nevada for several years. He has been a driving force behind Proto 48 and his home layout proves just what can be don in that growing part of the hobby, He is a master craftsman who frequently wind model contests. He currently own Red Cliff Miniatures providing Proto 48 detail parts and scale switch stands.

We, of course, were in attendance and Amy mans the tables showing off our new sign for The Model Railroad Resource.

Eric from Midwestern Model Works continues to take reservations for his new locomotives, along with showing his beautiful drives.



Bill Davis from American Scale Models was showing their coaling station and new Erie brass cars.

Ron and Sue Sebastian from Des Plaines Hobbies always have a large grouping of items for sale.

Scale City Designs was there with most all of the former Keil Line products, as well as, their own line of buildings. It's great to see the line of products that John and Martha Keil worked so hard on for so many years continue and be expanded by father and son, Marty Milner Sr. and Marty Milner Jr.

Atlas O had their display again this year along with Jerry Kimble and his wife. This year, Jerry did a clinic entitled "California Zephyr II" announcing the release of two different California Zephyr passenger sets along with pricing and order forms.

Auel Industries had their line of trucks and car parts at the show this year. No website as of yet, but you may request a catalog:
1 Wilson Drive
Herminie, PA 15637

Jack McGarry owner of Allegheny Scale Models had tables full of beautiful items from estates and collections. Check his Website for the latest listings.

Bob Spaulding was there from Altoona Model Works showcasing his beautiful roundhouse and other buildings, along with his casting line.

It was good to see Jon Cagle and Southern Car & Foundry back at the March Meet this year.

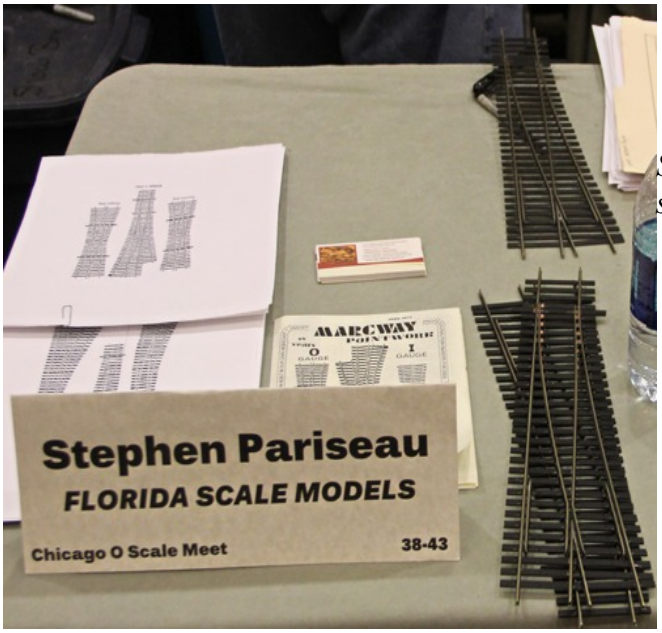
The ever happy, Karen Lavezzi, was manning the tables for All About Trains.

Mike Hill was working his tables this year. The Hill family continues to put on a great show year after year.

Now retired, and vowing no more hair cuts, Allen Pollock, was showing his line of scale figures. Check his website at http://scalefigures.com/

Cynthia Margaret Bye was at the show selling some of her late father's (Stanley Bye's) collection. Stan passed away November 22, 2015. He had a large collection, and many pieces stayed with the Neenah - Menasha Model Railroad, but there are many more to be sold.

Scott Mann of Sunset Models and and Rich Yoder of RY Models take some time to talk shop at the show.



Stephen Pariseau from Florida Scale Models was there showing their line of O Scale turnouts.

This new gondola from Glacier Park Models, as built by John Pautz of American Switch & Signal, was on display at John's table.

Brian Hung from Bloomington, IL was there with his portable layout. In fact, he was the only layout there this year. His ideas and how he built this portable layout will be covered in a future issue.

Below is an Atlas car with Brian's custom made decals for the Bloomer Line.

As we saw earlier, Rich Yoder was displaying his beautiful models. Rich is currently working on his Mather Car Project. [See his website for details.]

Here is just a sampling of the many pieces of rolling stock crossing a few eras of time, from the current day Atlas O back to the older 1980's Atlas and more.

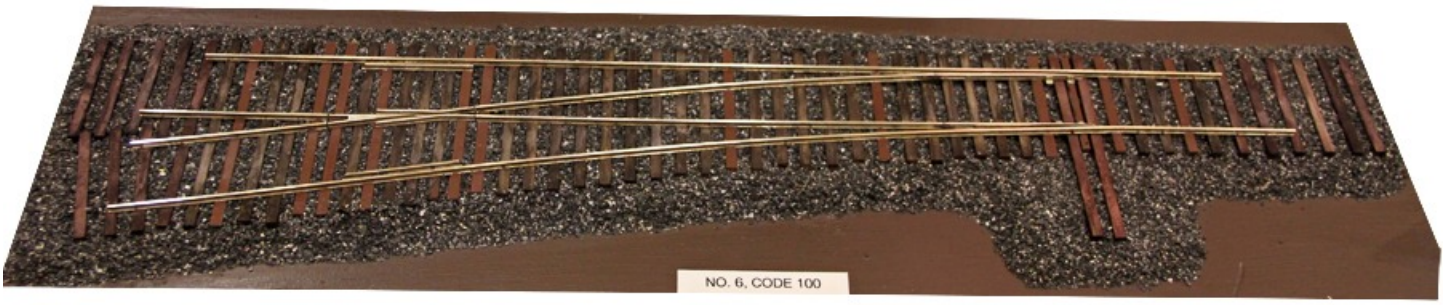
Robert Heil was representing Sunset Models with his great display. As you saw before, Scott Mann was also at the show.

Another table of nice locomotives, all at reasonable prices.

You just never know what you'll find at The March Meet, including new cars, older kits, tools and even some railroadiana.

A new company in attendance this year was Lee Marsh Model Company featuring beautiful ready to run English O Scale models .

Bob Stephenson from Stevenson Preservation Lines was back with his kits and many parts. See his website for a full catalog.



O Scale Turnouts now has code 100 turnouts and other new products. See the news section for more.

Ronda Taylor, Judy Hill, Ellen Leff and Barbara Dechert always work hard before and during the show.

25 Years And Counting

Bob and Elizabeth Jakl

By Glenn Guerra

Bob and Elizabeth Jakl grew up in the Chicago suburbs. Bob is from Hinsdale and Elizabeth is from La Grange. Both of these towns are on the Chicago Burlington & Quincy three track main line west from Chicago. This line was the route of numerous Zephyr trains, suburban trains, and freight trains. If you live in these suburbs, the railroad is part of your life. Many of the residents ride the train to work in Chicago, and there is always a train going by. The Zephyr trains would speed through town, and the shiny stainless steel Budd cars would sparkle as they went by. Even the Burlington suburban cars were made by Budd. Like many of us, the hometown railroad holds a special place in our memory no matter where we end up living – it is no different for Bob and Elizabeth.

This is just part of the layout during the 25 year celebration and party. The layout is built low so you can view it sitting down. Bill Leider painted the clouds and the scene of Yosemite that is on the back wall.

Bob and Elizabeth moved to California in 1968 for a while and then to Oklahoma, Arizona, and Georgia before Bob retired. They moved back to California in 1989 and started to build the layout in 1990. September of 2015 marked twenty-five years of the layout, and they had an open house for their model railroad friends with a special cake for the occasion. There were photos taken of the event and we wanted to show you some. While I was corresponding with Ed Jakl, one of their sons, I asked if he had any photos from the past. He was able to come up with some good photos of building the layout, so here we go. Twenty five-years of building a layout and still going.

Before we get too involved in the layout, let's go back in time to 1948. Bob was a kid in school in Hinsdale and was already interested in O Scale trains. When he could, he would go to the All Nation Hobby Shop in Chicago. Remember all those CB&Q suburban trains? Well, Bob would walk to the train and ride to downtown Chicago. Once off the train in Chicago, it was only a 3 block walk to the All Nation Hobby Shop. Remember those days when we would marvel over all the train models we could not afford? Soon, Bob Colson, owner of All Nation, took a liking to Bob and understood the financial situation of a teenager. Bob Jakl told me that Bob Colson would take him down into the basement of the store where they packaged the kits and would let him pick out car sides. Bob Jakl said he would be able to buy just the silk screened sides, not the whole kit, which saved him some money. He would make the wood parts at home. The ends and doors were made from tin cans that Bob would cut apart. He would make rivet impressions on them and glue them to his car bodies.

Guy Krivanek on the left, the late Lou Cross in the middle, and Bo Lilejeberg on the right were on hand during the 25 year celebration.

Bob graduated from High School in 1952, and went into the Navy. He started in electronics school in the Navy, but ended up in aircraft mechanics school. When he finished school, he wound up on the aircraft carrier USS Kearsarge, and was off to the Korean War. After the war, Bob was transferred to the aircraft carrier USS Wright and was back in electronics as a radar operator. Bob was telling me he was aboard the USS Wright when it participated in Operation Wigwam, which was one of the Atomic Bomb tests.

Bob met Elizabeth in the Chicago area when he was home on leave from the Navy. They dated until 1957 when they were married. Elizabeth was telling me she worked for the Chicago Burlington and Quincy Railroad in one of the downtown Chicago offices as a Dictaphone operator. As I mentioned, if you lived near the Burlington, railroads were a part of your life. Bob went to college on the GI bill at the American Institute of Technology in Chicago. After leaving school, the couple moved to New Mexico. Bob worked for the University of New Mexico at the White Sands missile test range while the Talos missile was being developed. After this, Bob went to work for Sperry on aircraft auto pilot flight systems that were being used on the airlines. This took them to Tulsa, Oklahoma. So what does this all have to do with the trains you ask? Well, it was the time spent in this part of the country when Bob became interested in the Santa Fe railroad. It was also the time when his son, Ed, became interested in the Missouri Kansas & Texas railroad. Both of these railroads are represented on the layout.

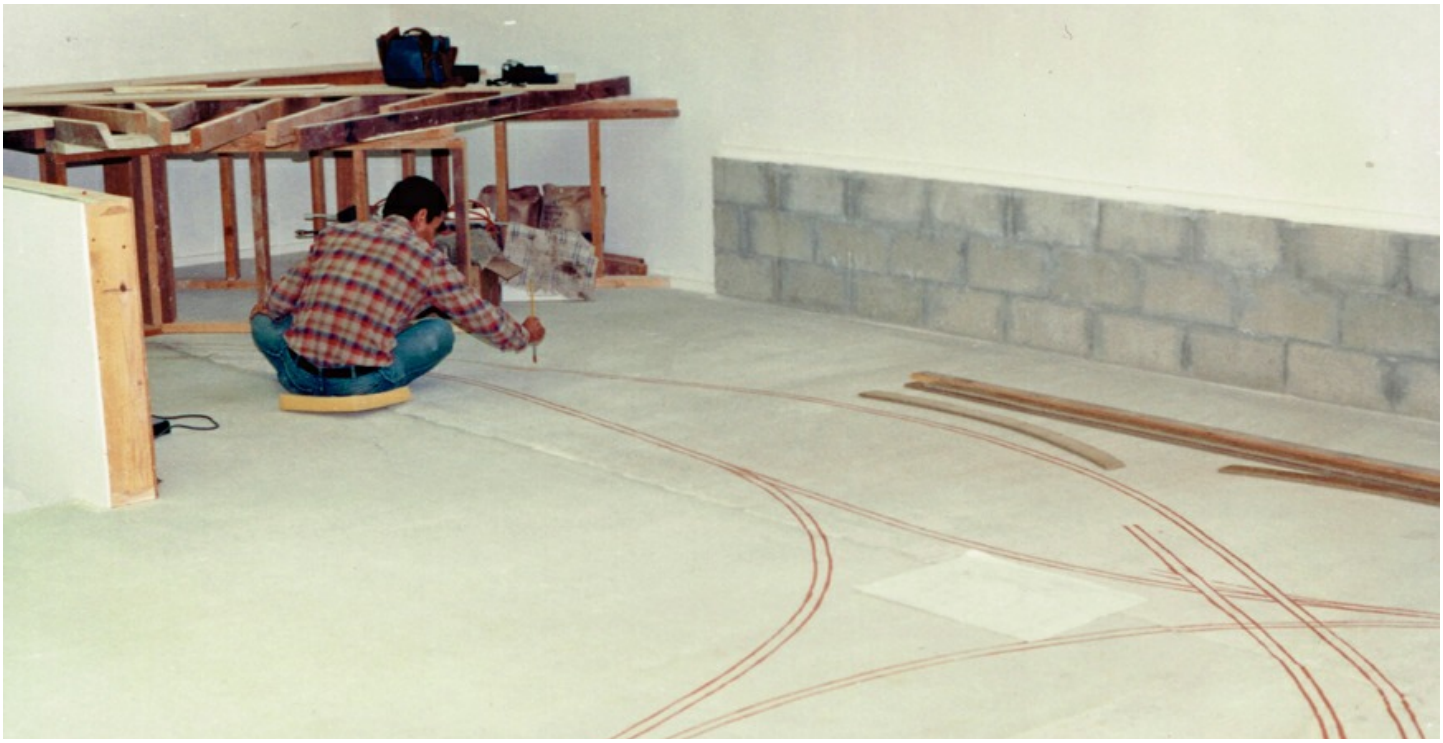
A view of the layout from the control tower. The guy in the blue shirt behind the engine house is coming up the stairs from the entry. No duck under here. You enter the building from the hillside and walk through a hallway under the layout and up the stairs into the middle of the layout. I really like the large buildings. Notice the curved yard. This looks like Chicago to me with the mainline running through the middle of the yard. One of the latest additions to the layout is a car card operating system. You can see the pockets for the car cards on the fascia of the layout in front of the vacant chair. The couch is a nice touch – I could spend some time there watching the trains.

Now, back to 1990. Bob is ready to start the layout. First he needed a place, and since this is California, there are no basements. So, you do what any other modeler who wants a big layout would do. You build an out building. You can see in the photos that this was a family affair. They live in the foothills of the Sierra Mountains, and there is not a lot of level ground, so the layout building is built into the hillside. This means that one side has about five feet of foundation showing. This was used to their advantage. The two entry doors to the building are on this side. You enter the building and into a hall. The hall goes under the layout and you come up the steps into the middle of the layout room. I have been there, and it is a great idea. No having to bend over to get under the layout. The layout itself is an around the walls layout, built low to the floor. When I first saw this, Bob told me his knees were bad and he knew the day would come when standing for long periods of time would be a problem. He built the layout so it could be viewed from sitting in a chair or the couch you see in the photos. When you look at the photos the first impression is, this cost a fortune. Well, it didn't. First off, look close and you will notice they did all the work. Once they had the main building up, a friend told them the Merced Mall in Merced, California was being remodeled. They went and talked to the contractor about buying some of the light fixtures. After the contractor heard what they were doing, he offered the old lumber and other building materials to them so he did not have to pay for them to go to the dump. Bob said he and his son, Tom, went in the evenings and loaded up the truck. They would spend time the next day pulling nails and removing pieces of drywall from the scrap lumber. All the layout lumber and wiring came from the shopping mall. Bob said even the carpeting in the layout room came from the shopping mall.

Ed Jakl checks the grade in 1990 when they started the layout.

Up go the walls. Bob and son, Tom, are raising the second wall section here.

This was no small undertaking, but the good California weather meant they had lots of good days to work.



Time to figure out the track plan. About this time, they met a contractor who was remodeling the Merced Mall. He sold them the light fixtures cheap, and when he found out they were building a model railroad, he told them they could have all the scrap wood and other materials that were coming out of the remodeling. Bob said they would go in the evenings after the workers went home and load up the truck with wood and scrap wire.

The top photo shows the control tower under construction. In the bottom photo, Tom Jarvis, on the left, Tom Jakl in the middle, and Perry Jakl on the right are running trains during the 25 year celebration.

Ed Jakl poses during some of the early track work.

Bob is checking the plans to see where they are at with the construction while Tom works on track. Look at how sturdy the bench work is. They got all this lumber free from a remodeling job at the Merced Mall. Definitely a much better use for it than in the dump, don't you think?

Bob and Tom laying track. All the track was hand laid and spiked. Bob has a sanding block for leveling the ties after they are glued down. Then the stain is touched up before the rail is put down. I was there for a few hours watching trains run, and not one derailed. Good work pays off.

Time for scenery. Bob is dipping paper towels in plaster to make a hard shell scenery base.

The layout is designed to remind them of things they remember. There is an outside loop that represents the CB&Q in Chicago. This loop has a three track main line around part of the room. On this, they modeled the Highland station from a kit. The La Grange and Hinsdale depots were scratch built. I got a big kick out of it when I first saw it. The three track main ducks behind a hill and out of view. When it disappears, the center track stops. Bob has a CB&Q suburban train running back and forth on this line automatically. Stopping and reversing at each end. These trains are push pull trains, and this is how they run on the Burlington. Since this center track train operates by itself, it comes and goes at irregular intervals and gives the impression of an express train running on the center track. It's a great effect. You will be watching a freight train when, all of a sudden, here comes the express train. There is another loop of track that has a lot of features of the Santa Fe on it, and that's where most of the Santa Fe engines run. There are some long yards, and Bob made them with a kink in them. I was watching as a mainline trailer train snaked through the center tracks of the yard. It reminded me of sitting on an overpass looking down on some area of Chicago that is six tracks wide with cars sitting on the outside tracks. Lastly, there is a section of the Katy. Take a look at the large elevators in the photos. This type of elevator is so typical of the Kansas and Oklahoma areas the Santa Fe and Katy run through. Layouts are never static, and things are always changing. One of the recent changes is a car card operating system. Ted Schnepf is big on operation and has a large layout designed for operation. Bob had been to Ted's layout and saw how a car card operating system worked. Bob and son, Tom, installed one on the Katy portion of the layout, and you can see the car card pockets on the fascia in a few spots.

Trains are running. This photo from the 25 year celebration shows some of the layout today. The station is Highlands, Illinois. This was a kit that someone produced and Bob built one. The actual station still exists and is a commuter stop on the CB&Q in the Chicago suburbs. The bridge over the Burlington GP is also an actual bridge that is by the Highlands station. The prototype bridge was made from an old turntable.

Bob did a little selective compression on the La Grange depot, but it looks like this. This was the depot that Elizabeth would use to ride the train to work in downtown Chicago. These days, Elizabeth likes to run this part of the layout.

The express train on the center track has just passed the local at La Grange while the local is stopped to let people off. Bob scratch built nine of these bi-level Budd cars. He made the bodies from styrene and used ICC passenger car roofs. The details came from Kiel Line and are now available through Scale City Designs.

Bob was quick to point out that this is not a one man show. You will notice in the photos that the track is all hand laid. This was done with Right O Way rail and hand spiked. Everyone helped with some of that. Bob and Elizabeth have three sons, and they all helped with the layout. Perry, who lives in Atlanta now, made a lot of the buildings. Tom worked a while in commercial art and has an eye for scenery. He did most of the backdrop. Ed's speciality is electronics and wiring. Notice the control tower they built for running the layout. Bob said there are a lot of cars and locomotives that came from other people. Some of them include George Bames, Lorell Joiner, and Ron Schofield. Bob also has some things from the Wichita Kansas O Scale Club. Remember those cars Bob made with All Nation sides and tin can ends? Some of them are still on the layout. Bill Leider and his wife were visiting Bob and Elizabeth one time and Bill got put to work. The Yosemite falls scene and the clouds were painted by Bill.

Ed Jakl made a website for the layout, and you can see it at http://oscale.homestead.com/. Tom Jakl has taken some movies of the layout, and they are on You Tube. You can find them by doing a search on Mytommy1962. The 25 year celebration and party was more than just about the layout. It's a lifetime of good times and good friends in the model railroad hobby. Many of the modelers in the central valley of California near where Bob and Elizabeth live come over to see the layout. Bob and Lou Cross were good friends, and Bob was one of the last people to see Lou before he passed away. They were working on Lou's layout on a Sunday, and Lou died in his sleep that Sunday night. Bob is handling Lou's estate and said the layout room is full, so he may not be open during the upcoming O Scale West meet. He will be at the show, and will be selling some of Lou's things at the show. When you see him at the show, check with him or check with the show schedule. If Bob and Elizabeth are open, try to get there and see the layout. This is what the comradery in the hobby is all about.

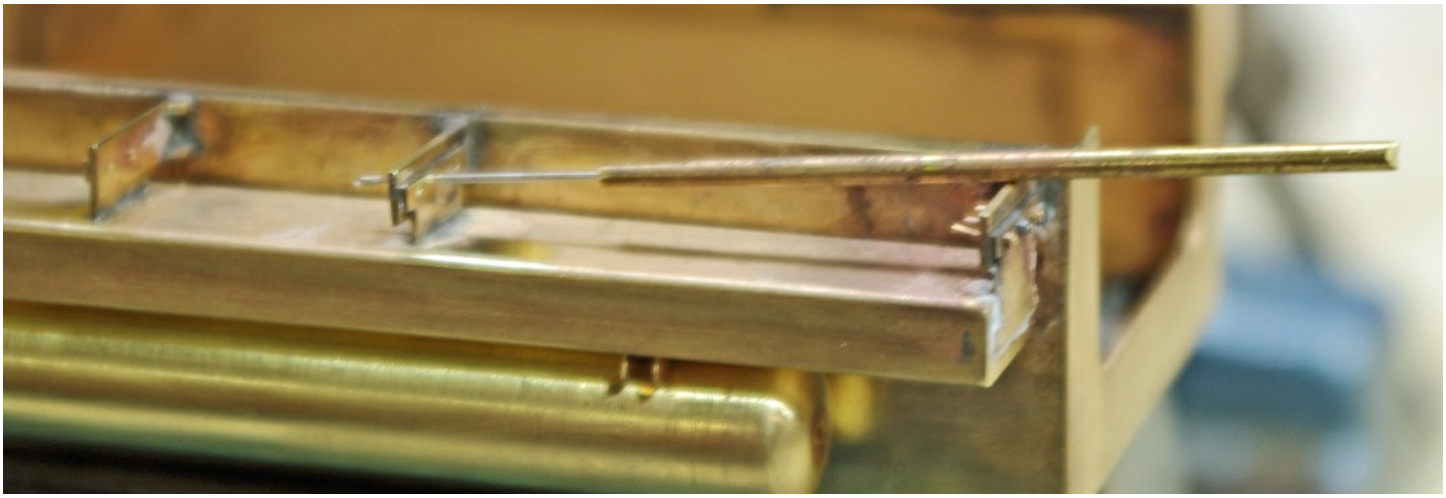
Scratch Building A Fuel Tank Pt 3

By Glenn Guerra

This article will cover the installation of the details on my RS 3 fuel tank. The photo above shows the model I am trying to make. The Chicago St. Paul Minneapolis & Omaha had three of these ALCO RS 3 diesel locomotives equipped for passenger service. They had steam boilers for train heat, and had different fuel tanks than the stock ALCO model. The photo was taken in the Des Plaines, Illinois coach yard of the Chicago and Northwestern when the #164 was brought to Chicago to be used in suburban service. I liked the look of the locomotive, and decided I wanted to modify my nephew's Weaver RS 3 to match the photo. I also decided to scratch build the fuel tank out of brass to see if I could do it, and to improve my brass working skills.

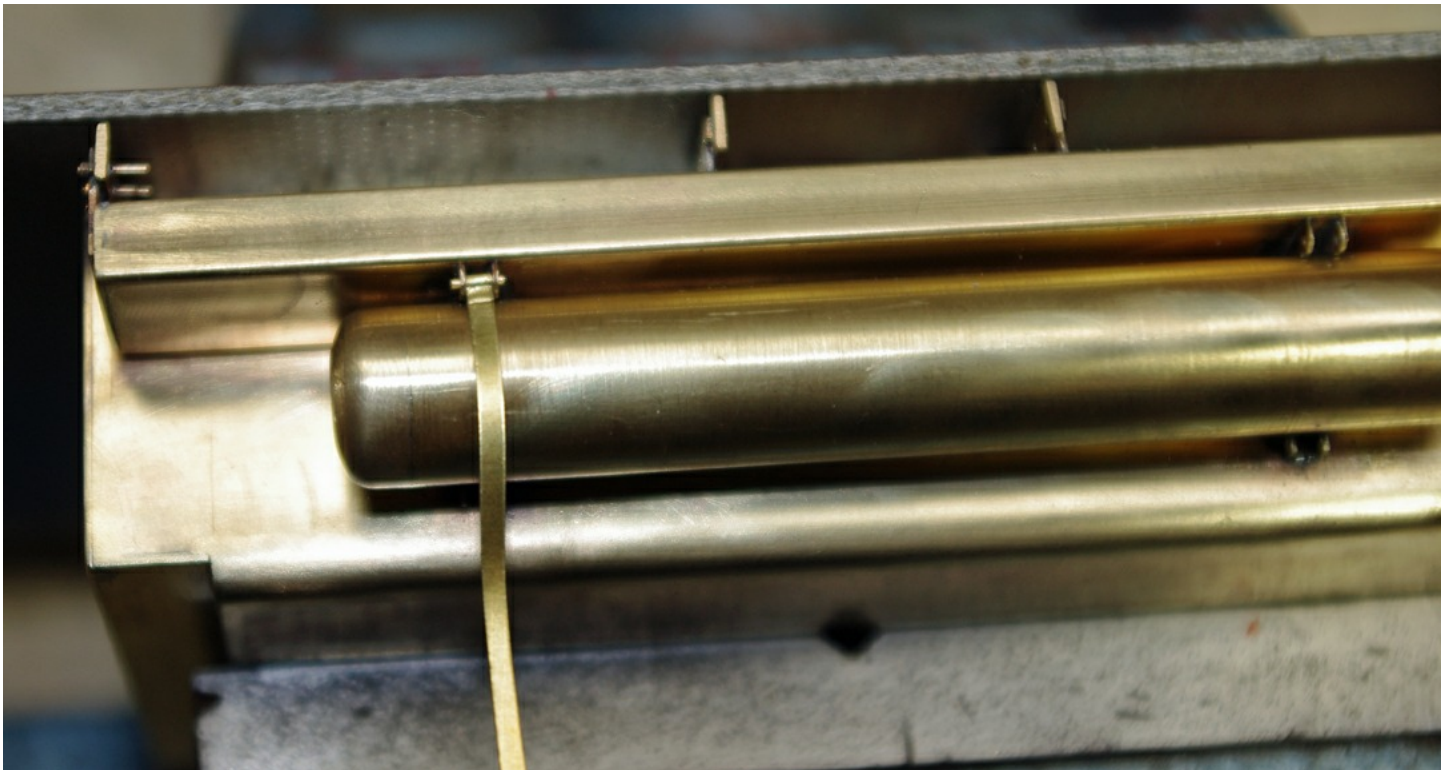
We started this series in the January/February 2016 issue of *THE O SCALE RESOURCE*. In that issue, I laid out how I made the basic tank. In the March/April 2016 issue of *THE O SCALE RESOURCE*, I installed the rectangle fuel oil tanks and the air tanks. In this issue, I will show how I made the details. As before, I will do this with photos explaining in the caption of the photos what is being done. At the recent Chicago O Scale show, many people told me they are reading this series. Thanks for reading – I hope it helps. I also talked to some other modelers and exchanged some ideas which is always a lot of fun at the shows. This is a great way to learn. As in most projects, there are a number of ways it can be done and it's good to hear how other people would do it. I will mention some of those ideas in this article.

I have a lathe, but do not have a milling machine, so a lot of my work needs to be done with hand tools. In the 1930's and 1940's, Mel Thornburg was writing articles for *Model Railroader*; and I would read these old articles and be amazed at the work he could do with simple hand tools. As far as I know, he never had a power tool of any kind. I guess being able to do something like he did has been a quest of mine. As I do more of this, I am finding out it is possible to learn how to do it. About 10 years ago I started buying good files with number grades and found there is a big difference between a #2 cut and a #4 cut. I was having to learn things we don't think about or use today. Don't be intimidated and feel like you can't do any of this. I stumbled through this, and was able to make something that looks nice on my model. It's not perfect, but it looks good, I learned a lot, and most of all, had some fun doing it. I have a lot more confidence for the next project.



This was the next step after I had the air tanks soldered in place. In the last issue, I made and soldered these center fuel oil tank hangers in place. The hangers were pre-drilled for the nut bolt detail, but the frame members were not. I could have pre-drilled the frame pieces and soldered the hangers to them first, but it seemed like too many things to keep lined up. By soldering the hanger to the frame first, the frame location would be dependant on that location. That would mean I would need to be very accurate in soldering the hanger to the frame so the top of the frame would be at the top of the tank assembly. I honestly thought that would be very difficult and probably beyond the degree of accuracy I could get with my tools. I knew it would be difficult to drill the holes for the nut bolt detail, but I went ahead anyway. As I thought, any pin vice I had was too big in diameter to get even close to perpendicular to the surface I wanted to drill. Here is what I did. I took a piece of .040" wire and drilled a .020" hole in the end. Drill it as deep as you can. Then, take the drill you just used and insert it into the hole you just made. Squeeze the wire in the vice to pinch the drill making a nice thin extension for your drill bit as shown. It worked even in the motor tool, and I was able to get the drill out when I was done. A production tool? No, but just good enough to get me through this operation.

The next step was to make the straps that hold the air tanks in place. I scribed some .005" thick brass with my dividers and cut off a strip with some scissors. The piece curled as shown, but I was able to straighten it by clamping and end in a vice and pulling the other end with a pliers. Pull just until you feel the brass give a little. When you reach this yield point, you will have straightened the brass.

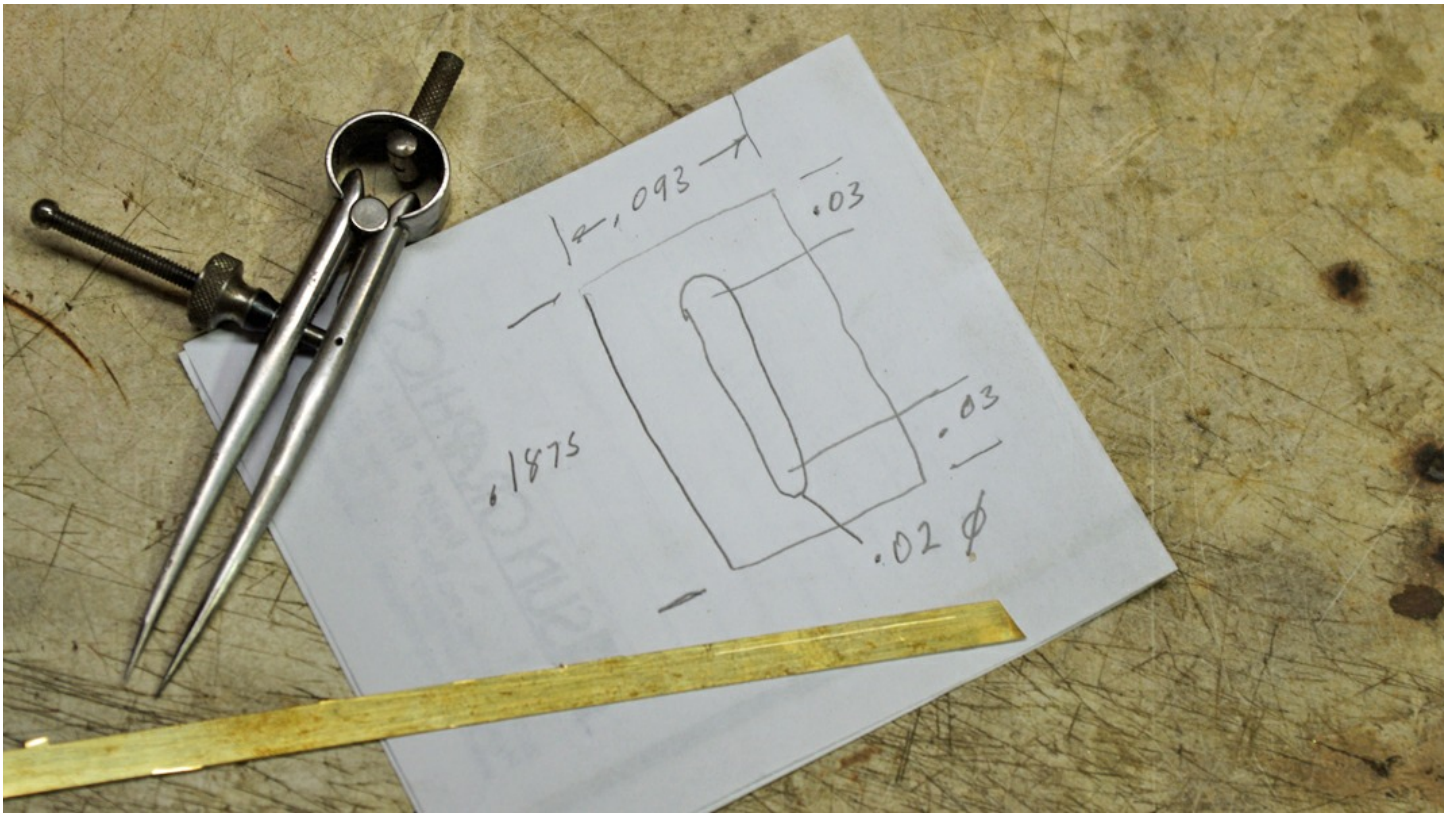


In this photo, I have bent over a part of the end of the strap around a piece of .020" wire. Do this first, and then put it in the bracket. Once it was in the bracket, I put a small piece of solder on it and quickly heated it with the resistance unit to set the solder. Then I pushed the strap, with a very small screw driver, into position for the other pin. I inserted the pin and pulled the strap tight. By having a bend in the strap at the pin, the strap will hold it's position. Then I trimmed it with some small cutters. I pushed it around with the small screw driver to finish the wrap around the pin, and then soldered as I did the top one.

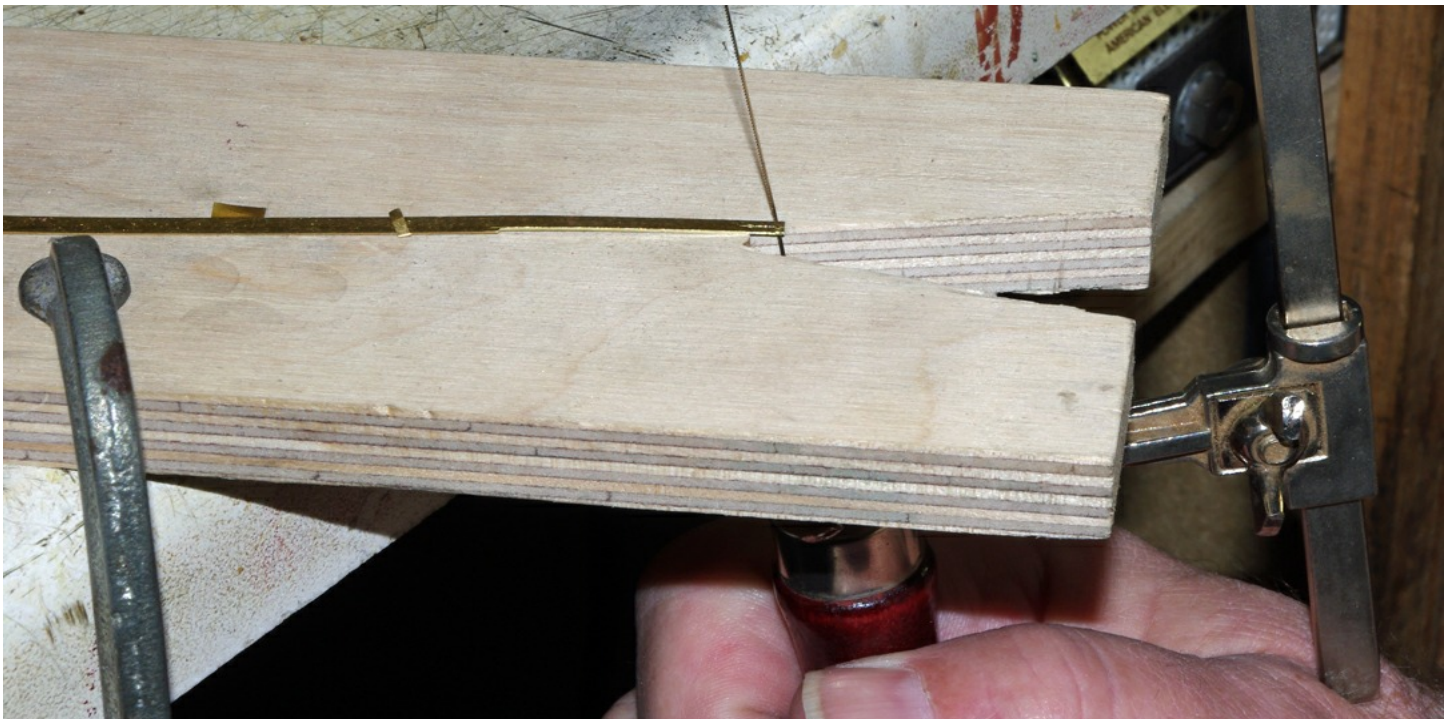
Here is what a finished strap looks like in place. This was not nearly as hard as I thought it would be, and I like the look. I did not try to solder the strap to the tank, just the pins. I though that trying to solder the strap to the tanks would just make a mess. When I first cut the strap I knew it would curl, but I was hoping not as bad as it did. Pulling it tight in the vice straightened it right out. As you pull you will feel it give just a little. This is when to quit. You have just realigned the grain structure in the brass and also work hardened the brass so it is stiff. Next time you need that special size of brass strip don't fret, it's right at your fingertips.

Here is a close up view of a tank strap in place. I am all excited that I figured out how to do this, and now want to try some other air tank mounts on other projects I have in mind.

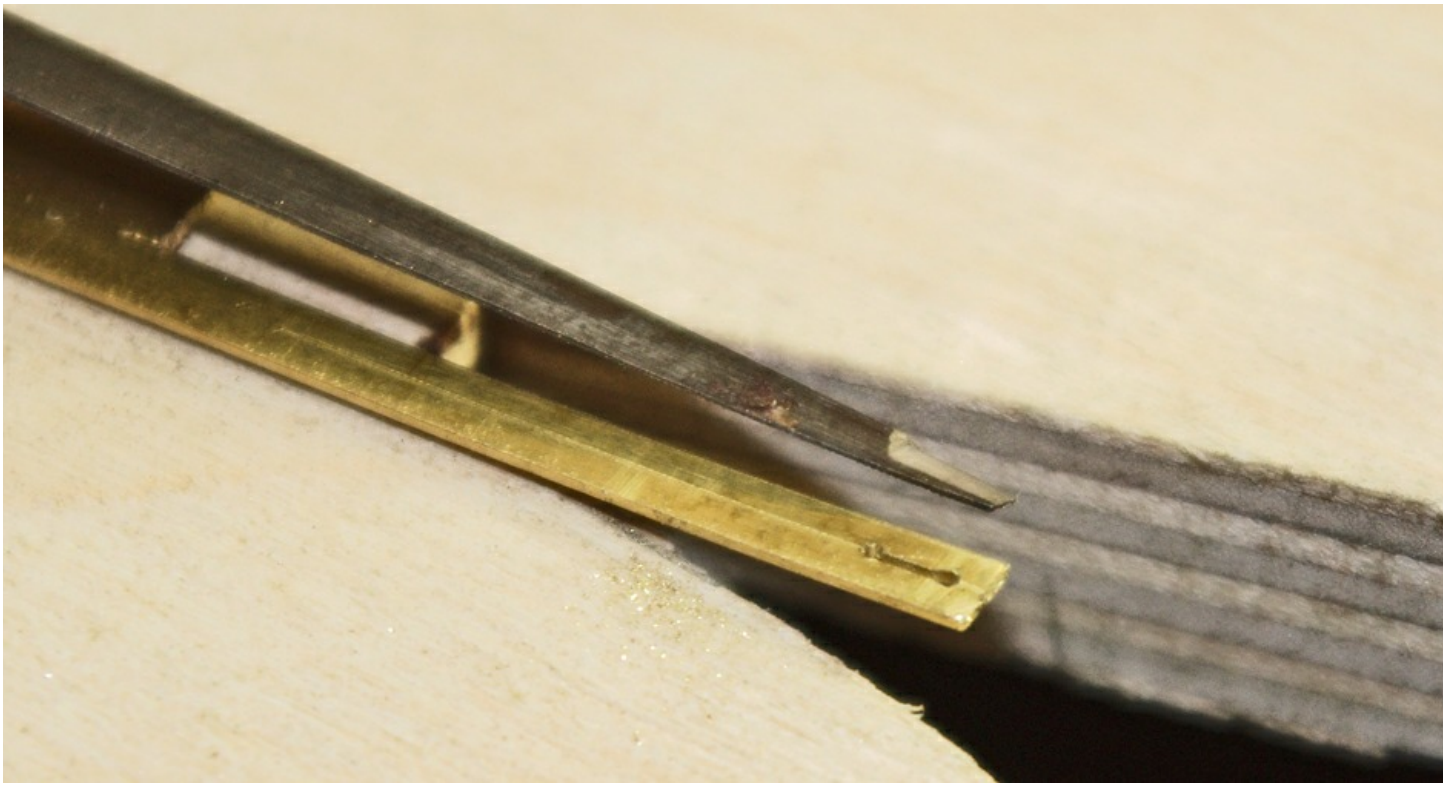
Mel Thornberg was a master craftsman building models in the 1930's through the 1950's. He wrote numerous construction articles for "Model Railroader" in these years, and I would recommend taking a look at some of his articles. Besides making outstanding models in very little time, he did it all with hand tools. I don't think he ever owned a tool that had an electric cord on it. He would make turnings by clamping a hand drill in a vice on the kitchen table. He or his wife would turn the crank while he shaped the part with a file. I did some of that here. I was too lazy to turn the hand crank and used my motor tool. I turned the tool on slow using a file to make the fuel filler cap and pipe for the fuel oil tanks. You can see it taking shape here. I cut it off with the razor saw when I was done. Low tech methods work well sometimes.



The next thing I wanted to make was the sight glass on the fuel oil tank. I made a sketch again and scribed a piece of .010" brass to the .093" dimension.

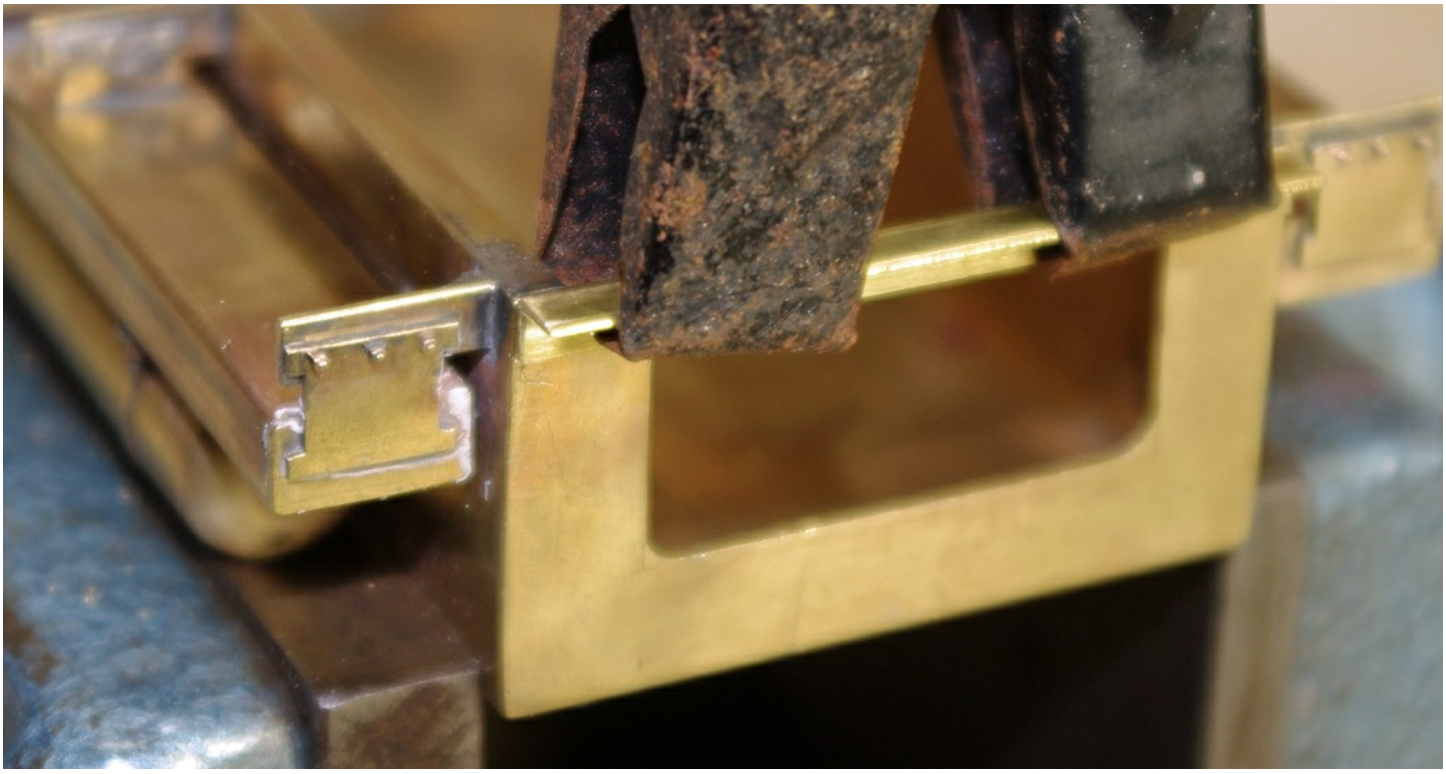


When I had a strip of brass cut to the .093" wide dimension, I drilled two .020" holes in it for the ends of the slot. These turned out to be a bit too small, so I drilled them out to .022" and then I was able to get the blade for my jewelers saw through the hole. I sawed a slot to connect each hole. Notice I am working with a whole strip here. My machinist friends call this "leaving a handle on the piece". You can imagine trying to hold just the sight glass and cut this slot in it at the same time. The notch in the piece of plywood is called a birds mouth and backs up your work when cutting things like this. Clamp the plywood to your workbench so it over hangs the edge. Set your saw blade to cut on the pull stroke and not the push stroke.

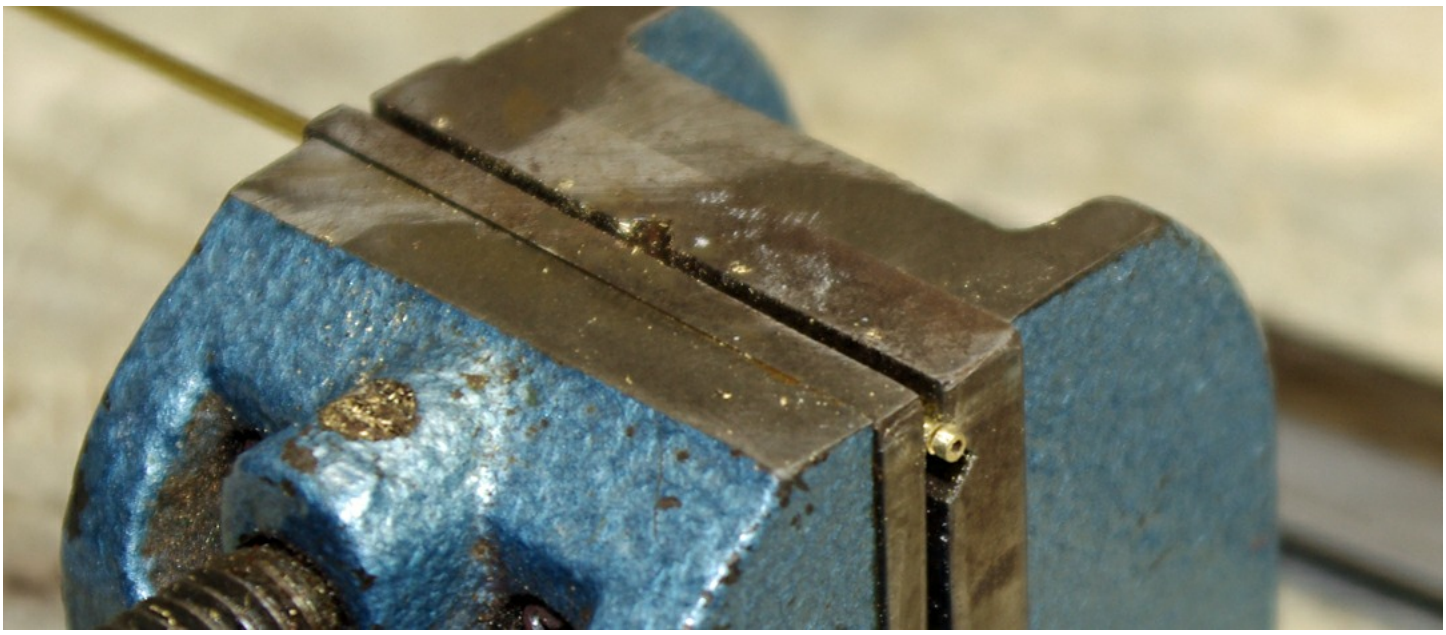


The saw blade cut a nice slot, but it was not the same width as the two end holes. I could not clean it out any with the saw blade because the blade was not stiff enough to cut on its sides. If I tried to use a drill bit as an end mill, I thought it would be too hard to control the direction and would probably break the drills. What I did was to take the tip of my barrette pattern jewelers file and grind off the back side as shown. I used the cut off wheel in my motor tool and worked slow to keep from heating the file to much. It just fit the slot, and I was able to clean out the slot to even it up.

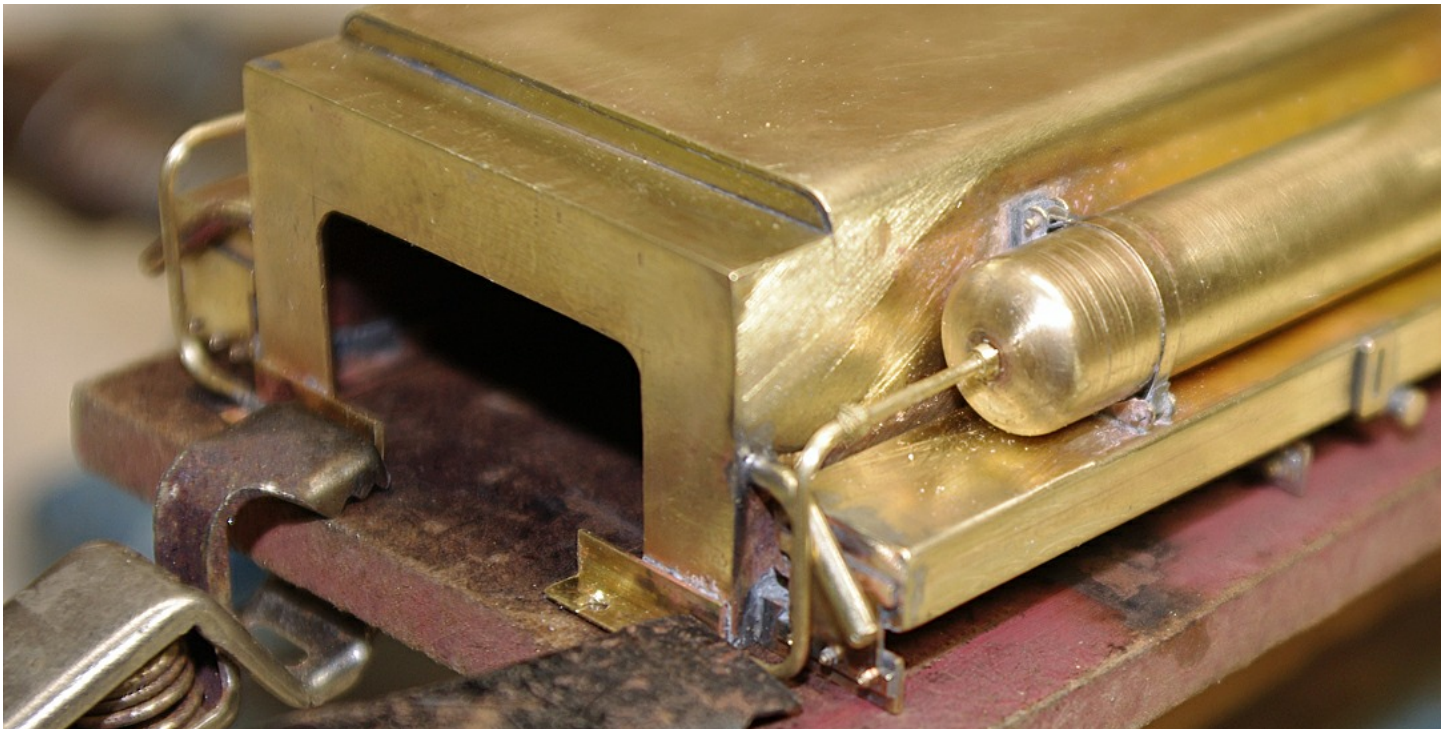
This is how my slot in the sight glass was coming along after cleaning up the saw cut with my modified barrette file. Once I had the slot the way I wanted, I cut the sight glass to shape and soldered it to the side of the rectangle fuel oil tank. Then, I made the second one on the piece of stock I had left. This took about an hour for the first one and 10 minutes for the second one.



I needed a flange on the top of the tank assembly so I could screw it to the bottom of the locomotive. I thought it would be hard to keep the flanges parallel if I made them one at a time, so I soldered a piece of angle across the top as shown. Then, I cut out a section in the middle with the cut off disc in the motor tool.



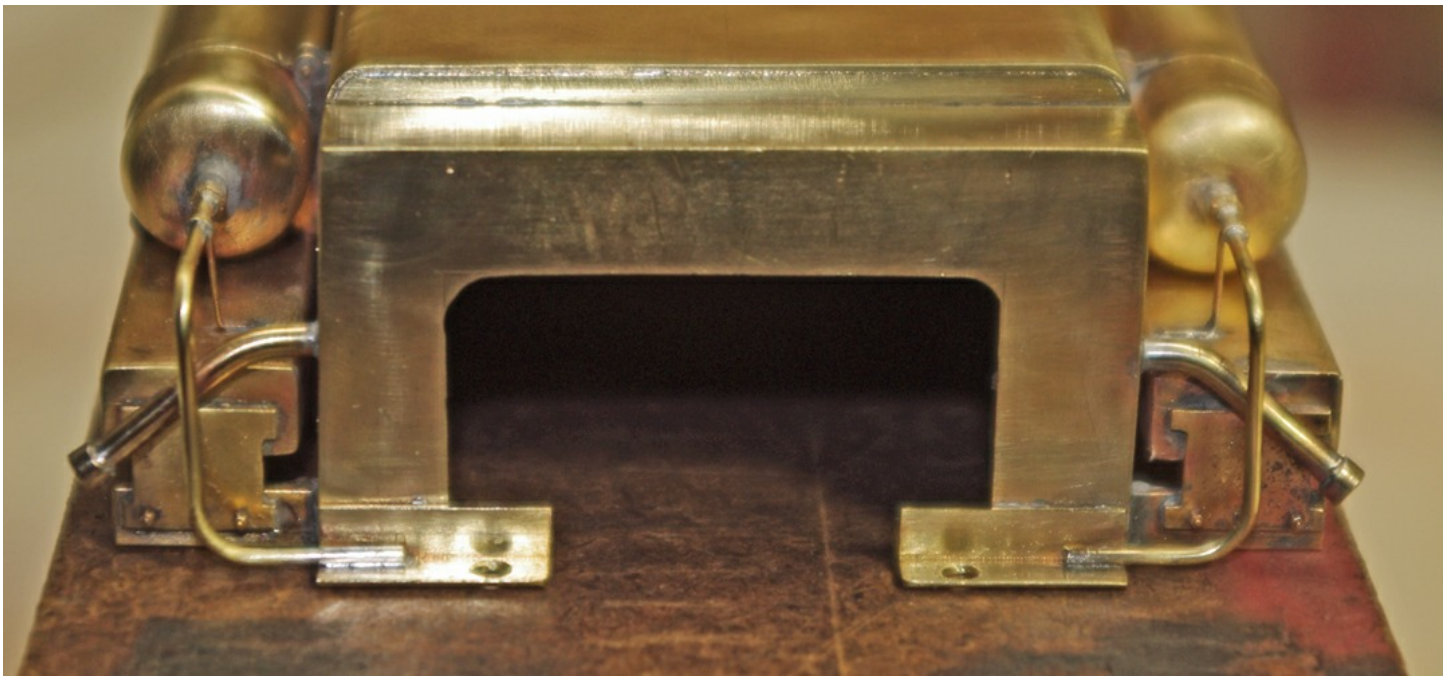
The ends of the air tanks have a short bung welded to them so the air line pipe can screw into it. I did this by cutting a short piece of micro tube and soldering it to the end of the tank with the wire air line going through it into the tank. This was a pain in the behind trying to cut these small pieces of tube. At the Chicago O Scale show, I was telling Lee Turner about this. I thought I should have made this bung as part of the turning when I made the tank end. Lee looked at it and said "Why didn't you just drill the hole in the end of the tank the same size as the OD of the tube?". He went on to say "You could have soldered the tube in and finished it to length with a file, then insert the wire air line.". It pays to tell others what you are doing. You will get a different look at your problems, and it may be a good idea like this was. Thanks for the idea Lee.



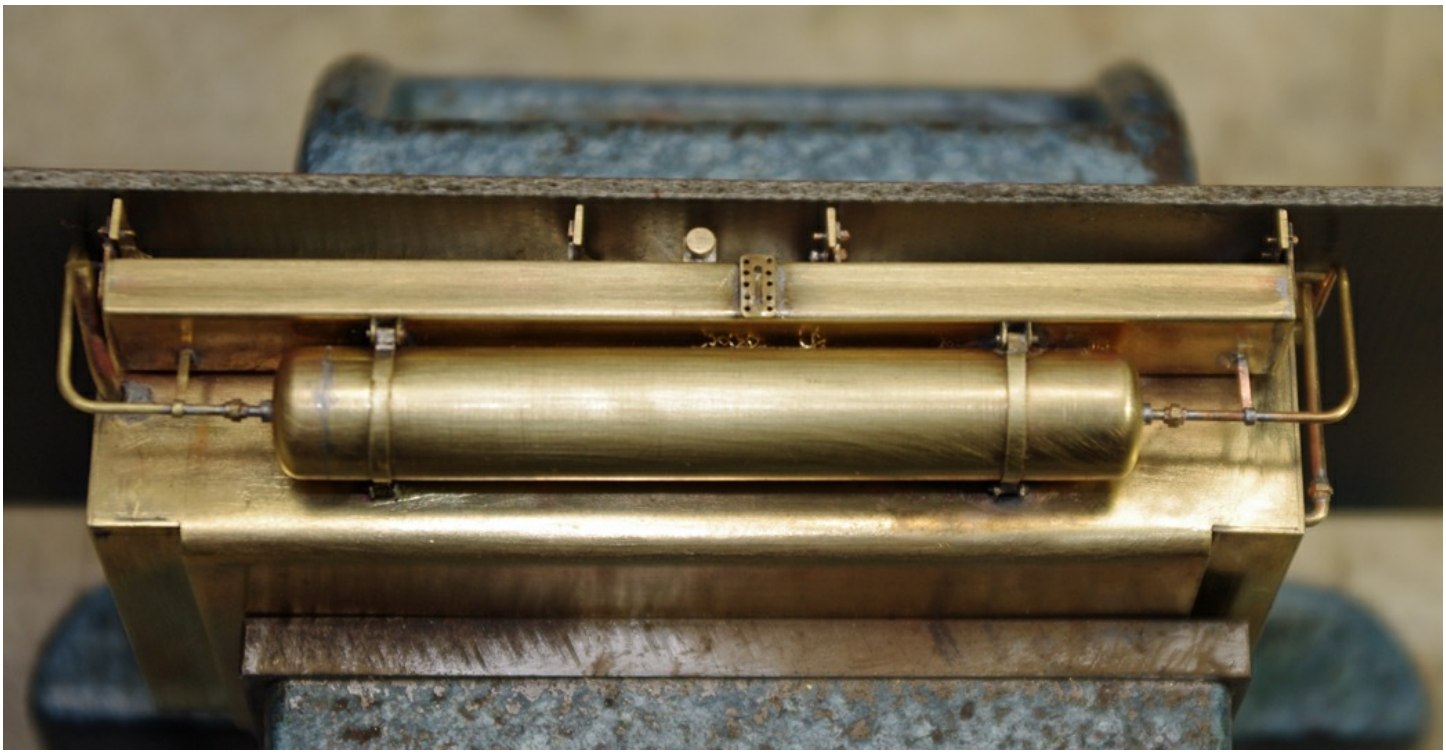
Here is my air line with the short piece of micro tube for a bung on the tank end. The pipe union is a casting and is loose at this point. Notice I put the fuel filler pipe on first because it went behind the air pipe. Also, notice how I cut the mounting angle. Because the RS has a narrow hood, I had to have the mounting angle like this so the mounting screws would go inside of the hood and not through the walkway on the out side of the hood. This arrangement also allows enough room for the drive shaft to move around. I clamped the air line with a spring clamp and soldered it to the air tank first. Then I soldered it to the mounting angle for extra strength.

Once I had the air line soldered in place, I slid the pipe union in place and soldered it. Then it was time to install the air line hangers. I bent a piece of flat brass wire and soldered it to the the bottom of the fuel oil tank as shown. Once it was firmly mounted, I bent it over the air line and trimmed it. I finished the bend and soldered it in place. This was much simpler than trying to make the whole hanger to the right size and solder it in place. Remember what the machinists say, "leave a handle on it".

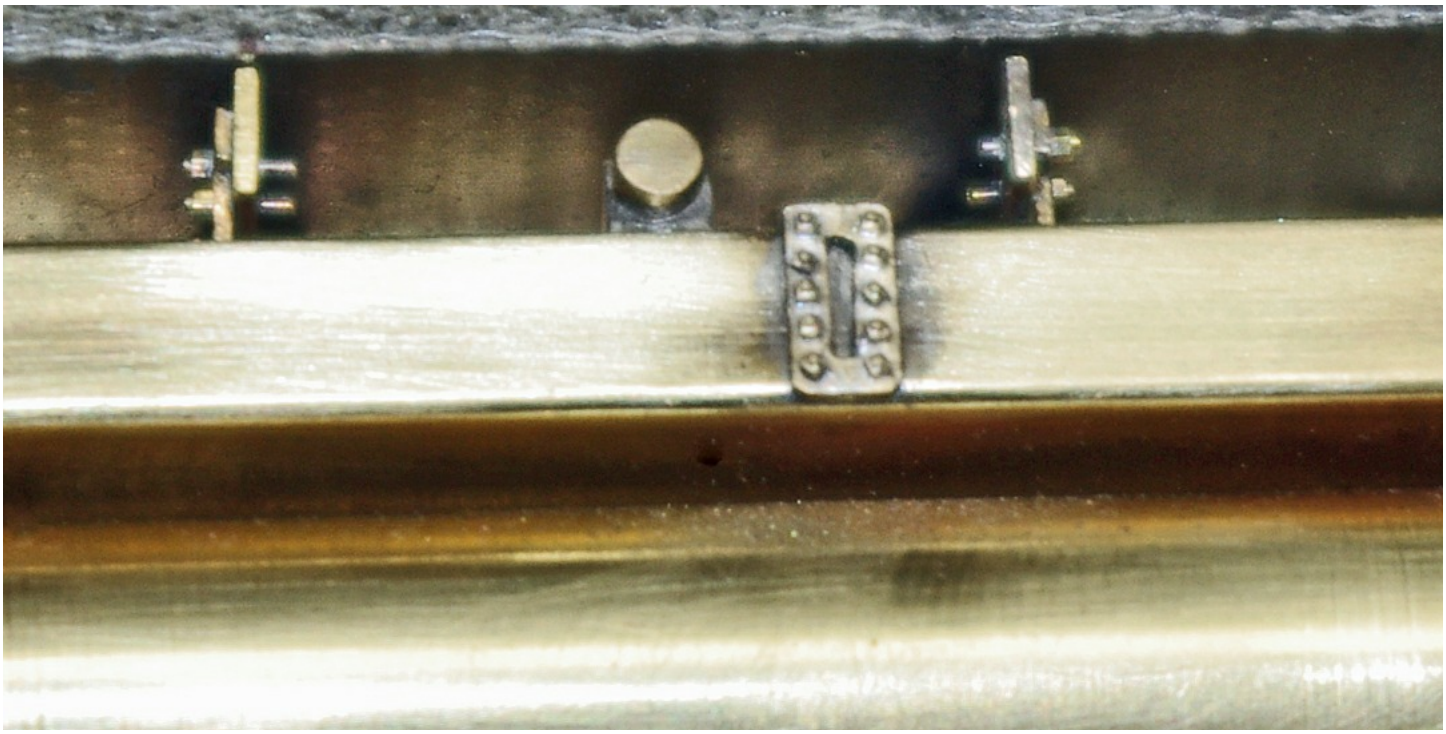
On one end of the main tank, there was a pipe running up to the locomotive from the bottom of the tank. You can see that installed here, as well as, the air line hanger. Once the air line hanger was soldered to the fuel oil tank, it was easy to bend around the air line wire.



This is what one end of the tank assemble looked like when it was finished and cleaned up a little. I made the caps for the fuel filler pipes on the lathe. I drilled a shallow hole the diameter of the filler wire into a piece of brass. I then turned it to the diameter I wanted and cut it off. By drilling the shallow hole in it, I had a way of locating it on the end of the filler wire. There is usually a fitting on the ends of these fillers so there can be some kind of a screw on cap for the filler. This looked like that. I cleaned this all up with a small wire brush in the motor tool. Be sure to run the motor tool slow making sure ***not*** *to force it into places where it will grab and bend up your work.*



In this view, you can see the fuel oil tank filler that I made in the motor tool. I soldered a piece of square brass on top of the fuel oil tank, and that looked like what I saw in the photo. Then I drilled a hole in the end and soldered in my motor tool turning. I was going to leave the sight glass plain, but it just looked too plain. In this photo, I have drilled it for some nut bolt detail.



Here is a close up of the sight glass with the nut bolt detail. The bolts are a bit big and scale out to around 1/2" bolts. I suspect the originals were more on the order if 3/8" bolts. I like the look of these, and even though they are larger than needed, they do show better on the model. Sometimes having things oversize so they show is not so bad. Your eye expects to see them and does not notice the oversize as much as not seeing them at all. Bernie Gallagher told me one time that he would just drill small holes and put pins in. You could not see that the flats of the nut were not there, but you could see that something was there to represent a bolt.

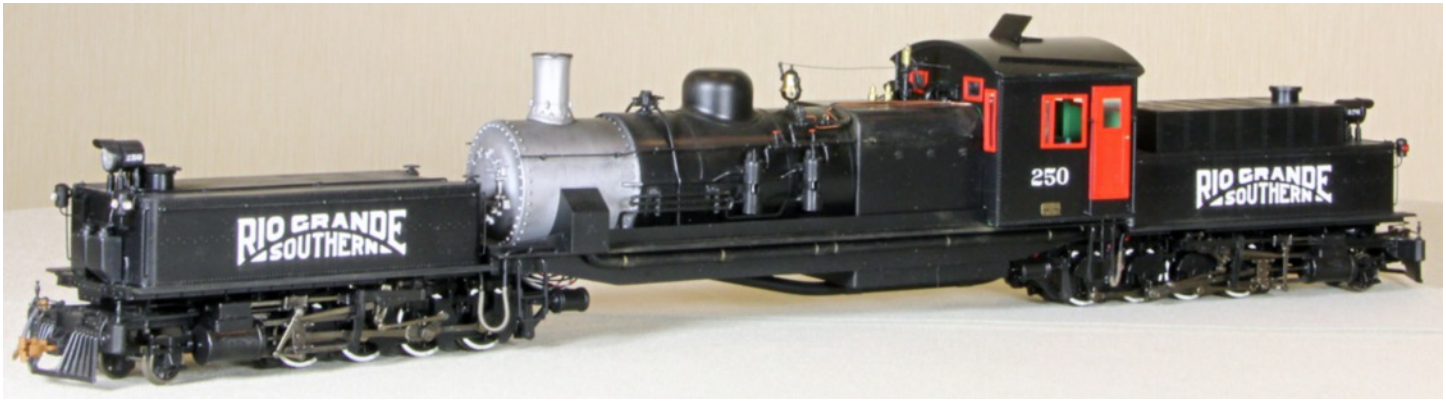
Here is a photo of how the model is coming along with the new fuel tank installed. I am painting and finishing it now, and will send in a photo when it is done. When I went to test it, I found it has a broken gear on one of the axles so I need to deal with that.

Chicago March Meet Model Contest Results

The *The O Scale Resource* was again proud to sponsor the Contest Room at this year's Chicago March Meet. There were not as many models this year, but those entered were very well done. Each model was reviewed by three judges on a point scale. In addition, there was popular vote for Best of Show. We continue to believe that by using a point system it is much more fair to the people who do their own building or modifying of their models.

We estimate that approximately 275 people came through the contest room this year, and over 100 popular votes were cast for Best of Show. So, let's sit back and have a look at all the models in this year's contest!

STEAM LOCOMOTIVE



First Place Steam: On3 Beyer Garratt #250 RGS
Entered by: Jim Allen

Jim also won first place in the Non-revenue category with his On3 Water Car which we'll see on the following pages.

STEAM LOCOMOTIVE

Second Place Steam: USH NYC Mohawk L-2a #2742
Entered by: Sam Shumaker

Third Place Steam: C&O Class T-1 2-10-4 #3018
Entered by: Bill Heaton

CABOOSE

Caboose Single Entry: Chicago Burlington & Quincy NE-12 #13547
Entered by: William Chambers

FREIGHT CAR

First Place Freight Car: P:48 Colorado Midland Reefer #1206 & #1202

Entered by: Robert Stears

Although Robert entered two cars, the judges only judged the top one because of it's paint job being more complicated. Two cars cannot be judged together on the same form unless they are prototypically meant to be together.

Second Place Freight Car: PLCX81 – Pullman Blue Ox
Entered by: Robert A.H. Schultz

Third Place Freight Car: Southern Pacific G50-23 GS Gon
#359071 with Extensions
Entered by: Scott Booth

DISPLAY DIORAMA

First Place Display/Diorama:
PRR MC Tower MP 30.9 Mon City, PA

Entered by:
Attalee S. Taylor

Second Place Display/Diorama: Lavender Cottage
Entered by: Jon Scofield

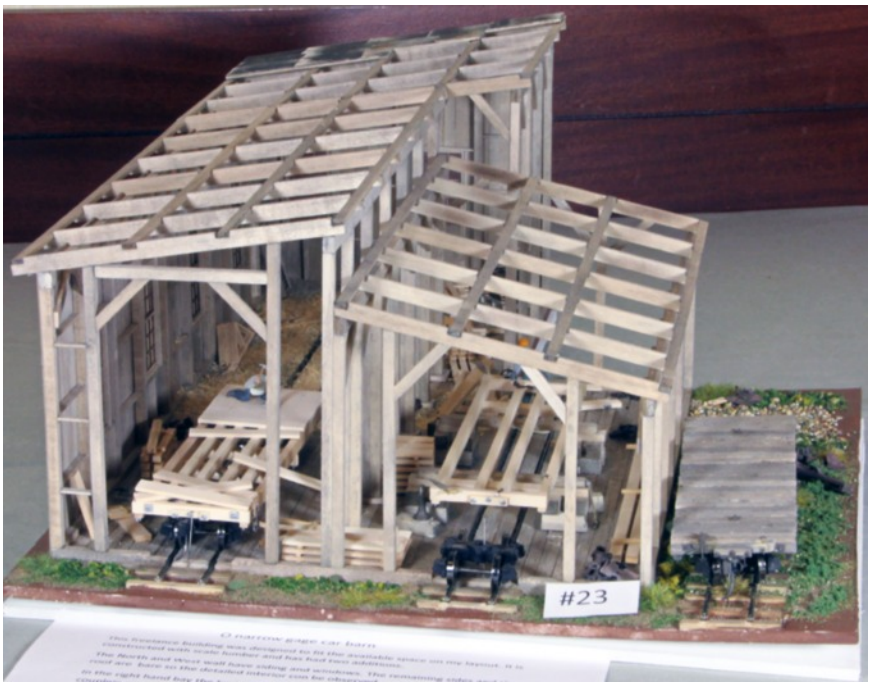
Third Place Display/Diorama: Small Town Multi Purpose Building
Entered by: Gregg Cygnar

SINGLE STRUCTURE

First Place Single Structure:
"Celebration" Storage Lineside Warehouse

Entered by: Gregg Cygnar

SINGLE STRUCTURE



Second Place Single Structure: On30 Car Barn

Entered by: John Drechsler

GAS POWERED

BEST IN SHOW

Single Entry Gas Powered: Delaware and Hudson #1000
&
Best In Show

Entered by: Ralph L. Nelson

NON-REVENUE

First Place Non-Revenue: On3 Water Car
Entered by: Jim Allen

Second Place Non-Revenue: On3 Golden Circle Dump Car
Entered by: Robert Stears

Third Place Non-Revenue: On30 Scratch Build Dining Car
Entered by: John Drechsler

PASSENGER CAR

First Place Passenger Car: On3 Colorado & Southern Business Car #912
Entered by: Robert Stears

Second Place Passenger Car: B&O 3068 “Cafe”
Entered by: Bruce Aikman

This year, there were no entries in the following categories:

Diesel, Traction/Trolley or Heavy Electric

The models below faced some stiff competition this year and did not place, but we always want to show their effort.

Built by Tim Daltry, entered by Mike Calvert

Entered by Attalee S. Taylor

Entered by James Lincoln

Entered by Gregg Cygnar

Entered by Art Midwood

Entered by Paul c. Nicholson
(Not judged - Stock Overland)

We would like to thank our three judges, Mark Preussler, Marvin Preussler and David Leider who donated their time to judge the contest. Also my wife, Amy, who was again nominated to man the contest area for the day.

It's not too early to start your planning for next year's contest in the following categories:

Diesel - Passenger Car - Steam - Single Structure
Display/Diorama - Traction/Trolley - Freight Car
Heavy Electric - Gas-powered - Caboose - Non-revenue

The next page is a sample of the form the judges use to give you an idea of what's included in the points total and what the judges are looking for. So, start (or finish) your projects, and we'll see you next year!

Chicago O Scale Meet 2017
Contest Judging Form

Entry No.

1. Construction (Maximum 40 points)

Points Awarded

Select the construction that best describes your model

___Scratch built complete model and details >90%
___Scratch built partial model and details <90%
___Modified commercial model >50% modified
___Kit bash commercial model not per the kit plan
___Kit built per the kit plan >90% some modification
___RTR model with some modification <20%

Name of kit or commercial model used as basis if applicable_____

Construction techniques–Select the methods and materials that apply to your model

___Drew own plans ___Followed construction article ___Cut & fit wood ___Soldered metal
___Used proto/com plans ___Cut & fit metal ___Cut & fit cardstock ___Made patterns
___Used kit plans ___Cut & fit plastic ___Cut & fit glass ___Made molds

Describe how model was built, complexity, and materials_____

2. Detail (Maximum 20 points)

Points Awarded

Describe complexity, difficulty, & quantity of detail parts added by you. Identify commercial parts.

3. Conformity (Maximum 25 points)

Points Awarded

Describe how your model conforms to a prototype. Include prototype documentation other than supplied with kit.

4. Finish & Lettering (Maximum 25 points)

Points Awarded

___Weathered ___Hand Lettered ___Decals ___Transfers ___Spray ___Airbrush ___Dry brush ___Stain
___Non weathered Describe methods and materials_____

5. Scratch built (Maximum 15 points)

Points Awarded

List all parts scratch built and note special refinements. _____

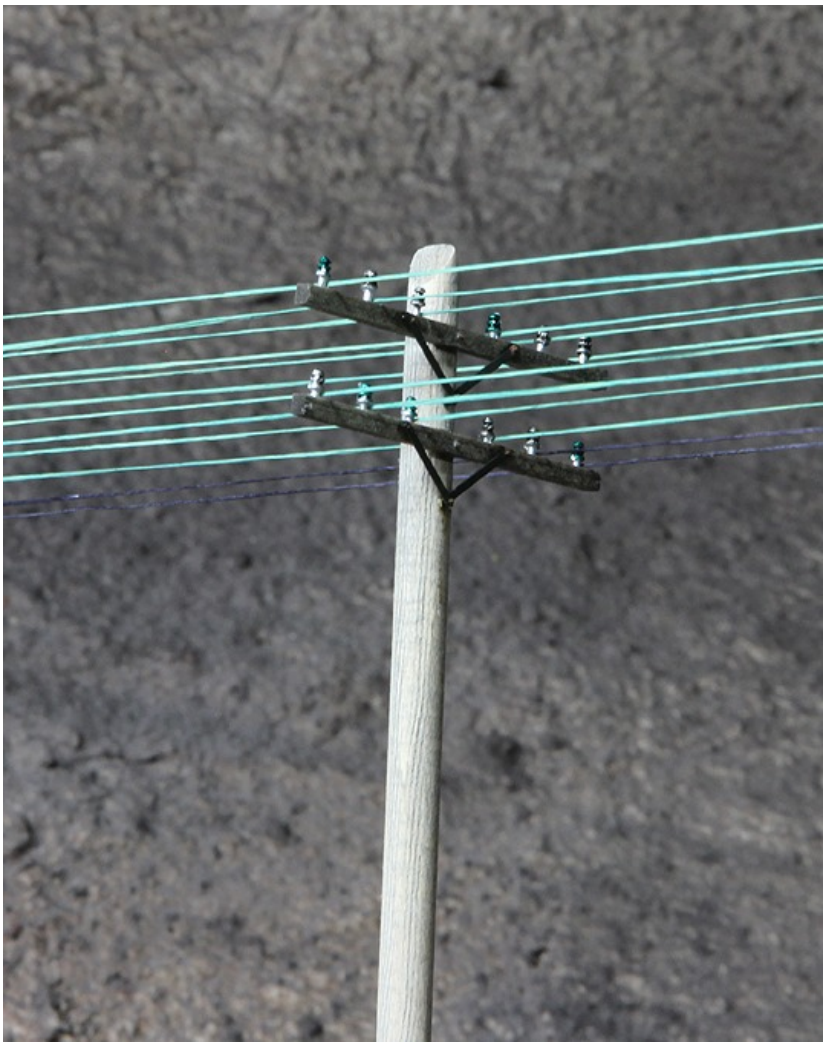
6. Total Points (Judges only here)

Total Points

Tabulated by_____Verified by_____

Telegraph Poles - One Last Time

By Daniel Dawdy



OK, I can hear it already, "Not another article on making telegraph poles!" Well, it surprised me too. I wanted something not too hard to build, but that looked as real as I could make it. Now that Weaver Models is gone, and DM&M Railroad Company is long gone, building seems like a better option than trying to modify something else. I have many pictures of telegraph/communications poles, but I wanted plans from the real thing to follow. After a little research, I found them in a book entitled International Library Of Technology, Telegraphy Volume 1 by International Textbook Company, copyright 1900. Since I model 1947, this book seemed as good as any to use for plans. You may download the entire book from Google Books here.

First, we'll take a look at some of the facts and specifications from the book, and then I'll describe how I tried to follow them.

Since I only wanted to build poles and not fully understand all the formulas for line resistance per mile or line sag weight, I concentrated on part 4, pages 1 through 23. And yes, you can just print those pages if you want from the book referenced above.

The first few sections I read for the history, but did not need for the build. This included such things as Selection Of Route, Selection Of Poles, Weight Of Poles, Treatment Of Poles and others. I also came across Size of pole. Now I was getting getting somewhere as I definitely needed this information. Direct quotes from the book are highlighted in italics. Tables from the book have also been reproduced in their entirety.

"*The best telegraph lines in this country use no poles that have tops less than 22 inches in circumference. If the poles taper at the usual rate, the specification that a pole shall have a top 22 inches in circumference, or, approximately, 7 inches in diameter, is usually sufficient, for the diameter at the butt will then be approximately correct, no matter what the length of the pole may be. As the taper of poles varies considerably, however, it is well in ordering poles to make the specifications conform to Table 2, taking one measurement at the top and one at a distance of 6 feet from the butt.*

Some engineers apply Table 1 to second-growth chestnut and require white (Michigan) cedar poles, because they are not so strong, to be from 3 inches larger in circumference for the smaller sizes to 6 inches larger for the larger sizes, at a distance of 6 feet from the butt, but about the same at the top as given in the able. Sometimes 25-foot poles with a circumference at the top of only 20 inches are used. The holes for such poles need be only 5 feet deep." §

Size of Poles
Table 1

Length of Pole in Feet	Circumference at Top Inches.	Circumference 6 Ft. from Butt. Inches.	Depth of Pole Set in Ground. Feet.
30	22	33	5 1/2
35	22	35	5 1/2
40	22	37	6
45	22	41	6 1/2
50	22	44	7
55	22	48	7
60	22	52	8
65	22	56	8

Probably more information than I needed was the fact that the poles are tapered, which I have not seen in commercially available model telegraph poles. I decided to use ¼ inch dowel (1 foot scale) cut to 8 inches (32 scale feet). As you can see from Table 1, you have a lot of freedom in selecting a pole height. Of course, that will very depending on terrain and other possible obstructions.

"Where a pole line is to carry but few wires, it is unnecessary to make the poles as heavy as those specified in the table, and, in some cases, poles with a 5-inch top will answer. Poles that are to carry (6 wires, or less, should be 6 1/2 inches in diameter at the top and 25 feet long. Poles at wagon crossings should be 30 feet long, and for crossing railroad tracks, about 50 feet. In determining the height of poles, several considerations must be borne in mind. The number of wires to be carried, and therefore the number of cross-arms, determines to some extent the general height of the pole to be used. A general rule to be followed in making this determination is to specify that at no point shall the wire be less than 18 feet from the ground. When crossing railroad tracks, the lowest wire must be at least 25 feet above the rails." §

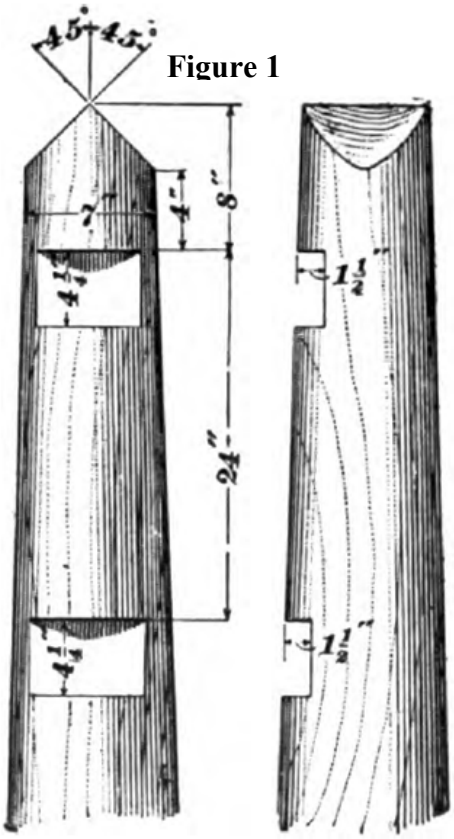


Figure 1

Spacing of poles in a model setting is problematic at best. It really depends on the length of the track run.

"As a general rule, which it is well to follow, in nearly all cases 35 or 40 poles to the mile should be used." §

So that works out to about 131 feet between poles. That may be way too far for many of us, so you will just have to see what looks good on your layout. There are a few more headings about Locating Guy Stubs, Marking With Stakes and more. OK, now on to the good stuff, Gaining and Trimming. Figure 1 shows the measurements we are interested in. The first thing I did not realize is that the top of the poles are cut to a double 45 degree angle off the sides. I have always seen a single 45 cut coming down in front not a double cut. You can also see the milled taper and then the spacing for the cross arms, what size and how long. So many choices, but all based on the number of pins (insulators).

"Size of Cross-Arms. — The size and length of cross-arms depend on the load they are to carry. Two regular sizes, however, are made, one termed the standard cross-arm, and the other the telephone cross-arm. The standard cross-arm is used for all heavy work and in constructing a line that is expected to last well. Standard cross-arms are 3 1/4 X 4 1/4

inches and vary in length from 3 to 10 feet. They are usually bored for 1/2 inch wood pins or for 1/2 inch steel pins and provided with holes for two 1/2 inch bolts, as shown in Fig. 2. The number of pins and the distance between them for the various lengths of standard cross-arms are given in Table 2. §

Standard Cross-Arms
Table 2

Length Feet	Number of Pins	Spacings		
		End. Inches	Center. Inches	Sides. Inches
3	2	4	28	
4	4	4	16	12
5	4	4	18	17
6	4	4	22	21
6	6	4	16	12
8	6	4	18	17 1/2
8	8	4	16	12 1/2
10	8	4	17 1/2	15 3/4
10	10	4	16 1/2	12 3/4

The best sizes to use are as follows:
For two wires, 3 1/4 x 4 1/4 x 3 feet
For four wires, 3 1/4 x 4 1/4 x 6 feet
For six wires, 3 1/4 x 4 1/4 x 8 feet
For eight wires, 3 1/4 x 4 1/4 x 10 feet

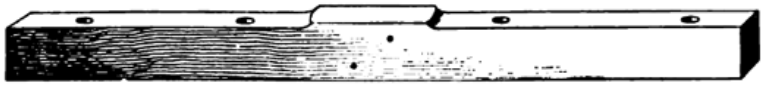


Figure 2

Skipping over the size of the lag screws and bolts, we move on to the cross-arm braces.

Figure 3

"In order to further secure the cross-arms, braces, called cross-arm braces, are used. All cross-arms over 6 feet long should be braced and 6-foot arms should also be braced on curves. They are made of galvanized iron from 20 to 30 inches long and usually 1 1/4 inches wide by 1 1/4 inch thick.)Figure 3) The method of attaching these to the pole and crossarm is shown in Fig. 4 next page, which represents a pole top equipped with three 6-pin standard arms." §

All this, along with Figure 4 on the next page, will give us just about all the information we need. Depth of Pole Holes, Digging Pole Holes, Number of Men Required are all great reading, and I would advise you to do so, but as far as building, we are finished reading at this point and ready to begin modeling.

I decided on an eight foot, two cross-arm set up with six pins. This is enough to be visually interesting, but not too fussy. And, when it comes time to string these, twelve wires are plenty to worry about. So, lets get started.

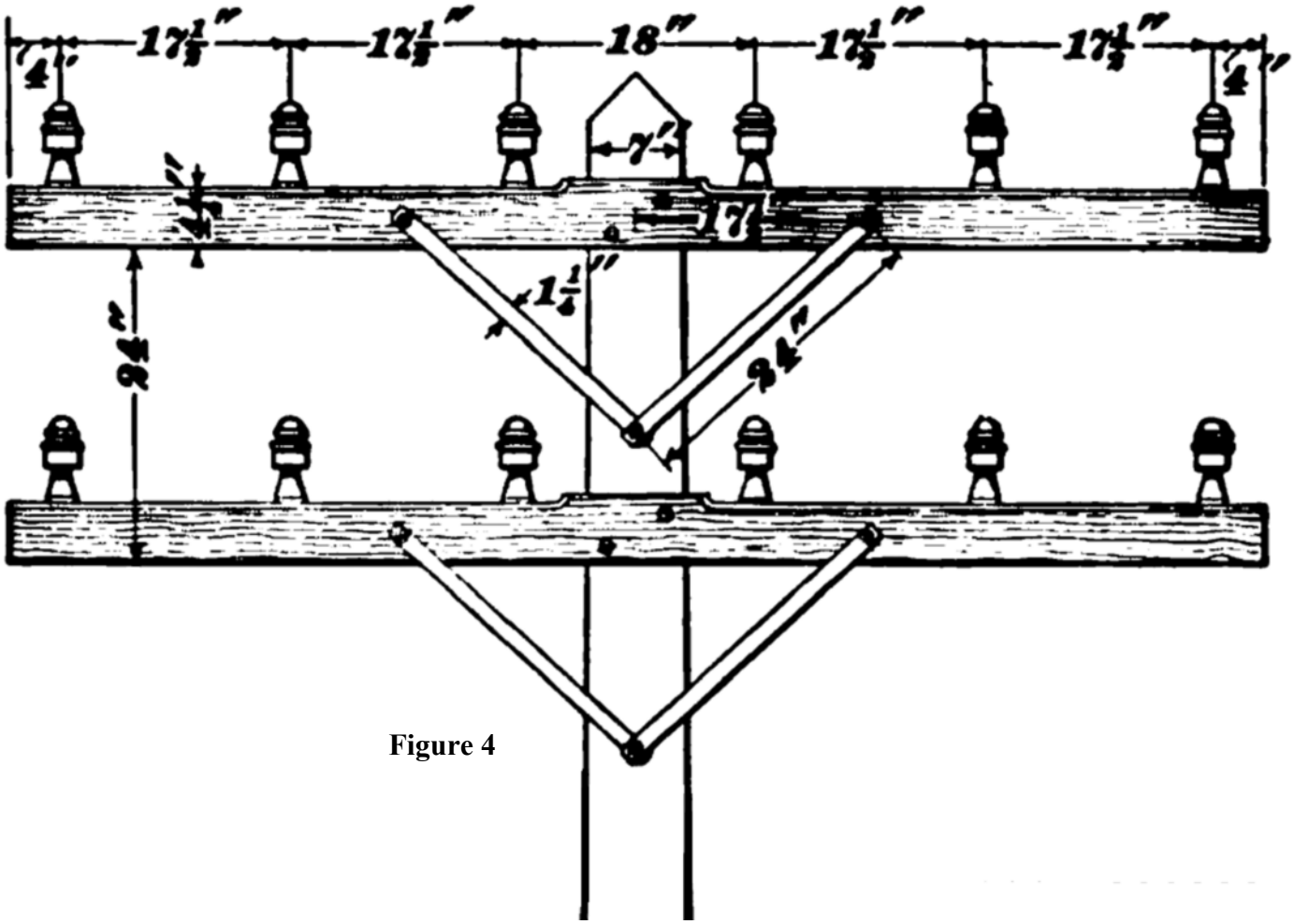
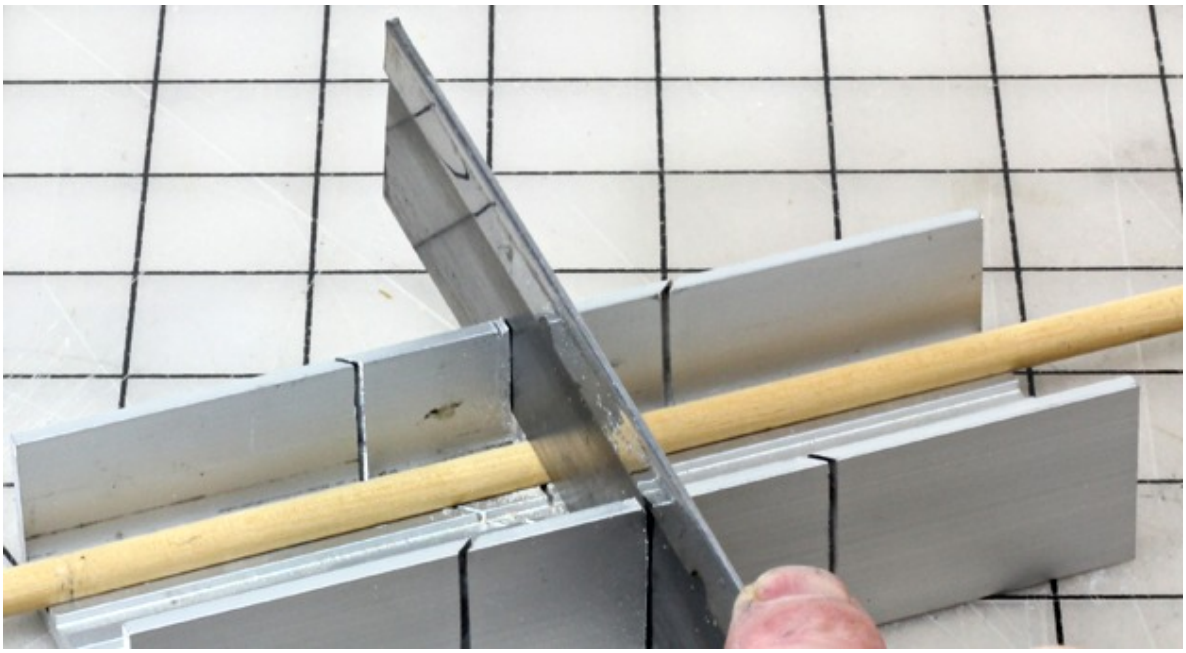
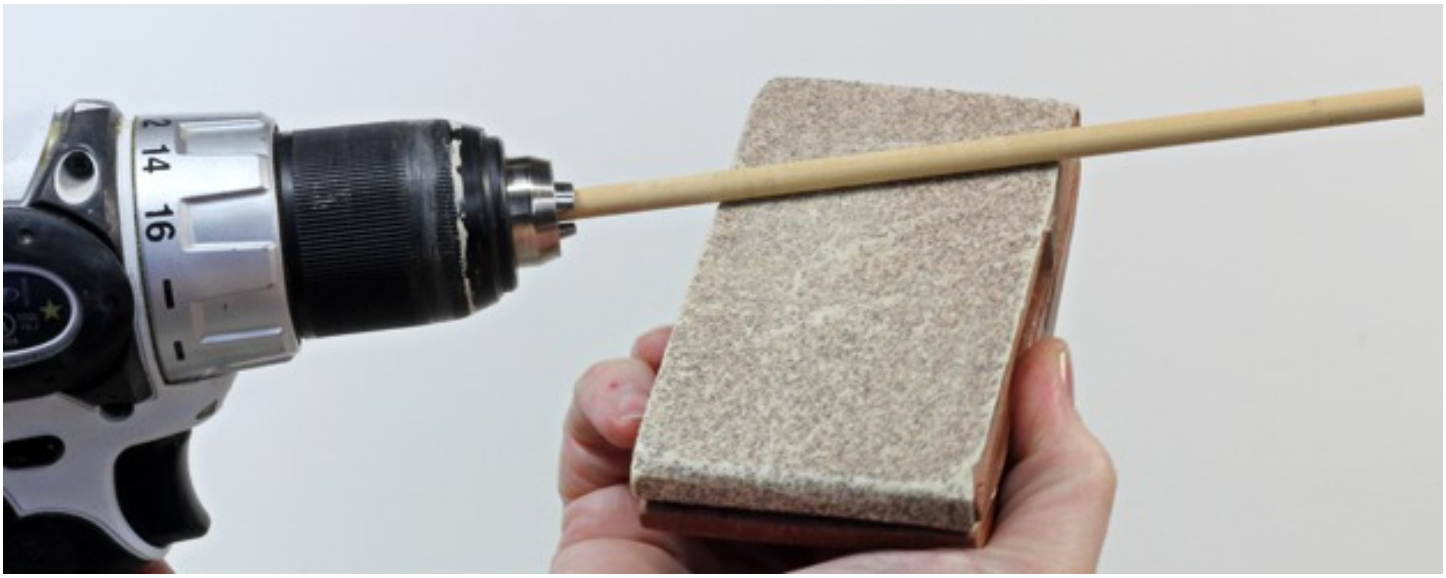


Figure 4

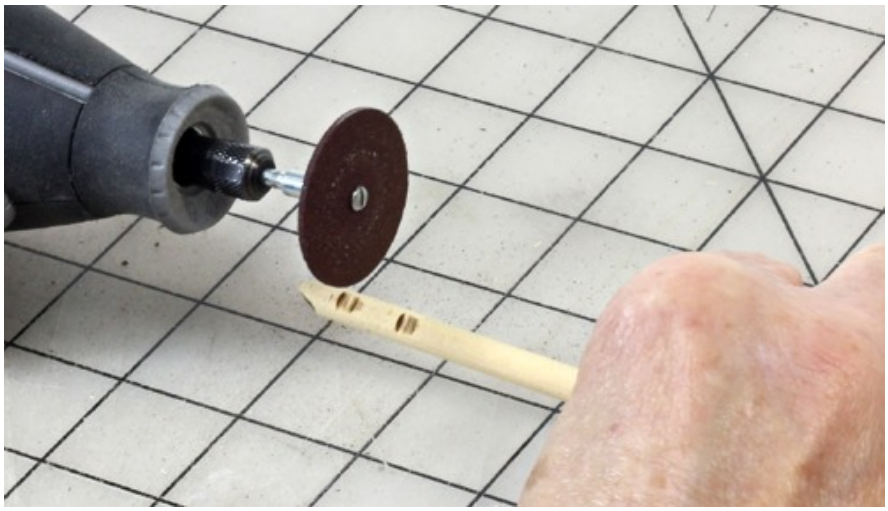


First we cut to size .

First, we need to decide on pole size. I'll use a ¼ inch dowel to represent a 12 inch diameter pole, 8 inches long for a scale 32 foot tall pole. Some dowels at big box hobby stores are made in China, who knew? They will warp after awhile – just ask me how I know. I bought some from the local hardware store and these have remained straight for years now.



The picture above is how I added the taper. Since I don't own a lathe, and after my wife, Amy, pointed out some homemade mini lathe's on You Tube, I opted for a cheap and dirty way. Set the drill as fast as it will go. Using heavy grit sandpaper, go back and forth toward the end of the pole. Now, I did not pull out my micrometer here. The idea is to give it enough of a taper so when someone looks at it, they will notice. Too much taper and I don't think it will look right. You might come up with a better solution, but hey, mine works.

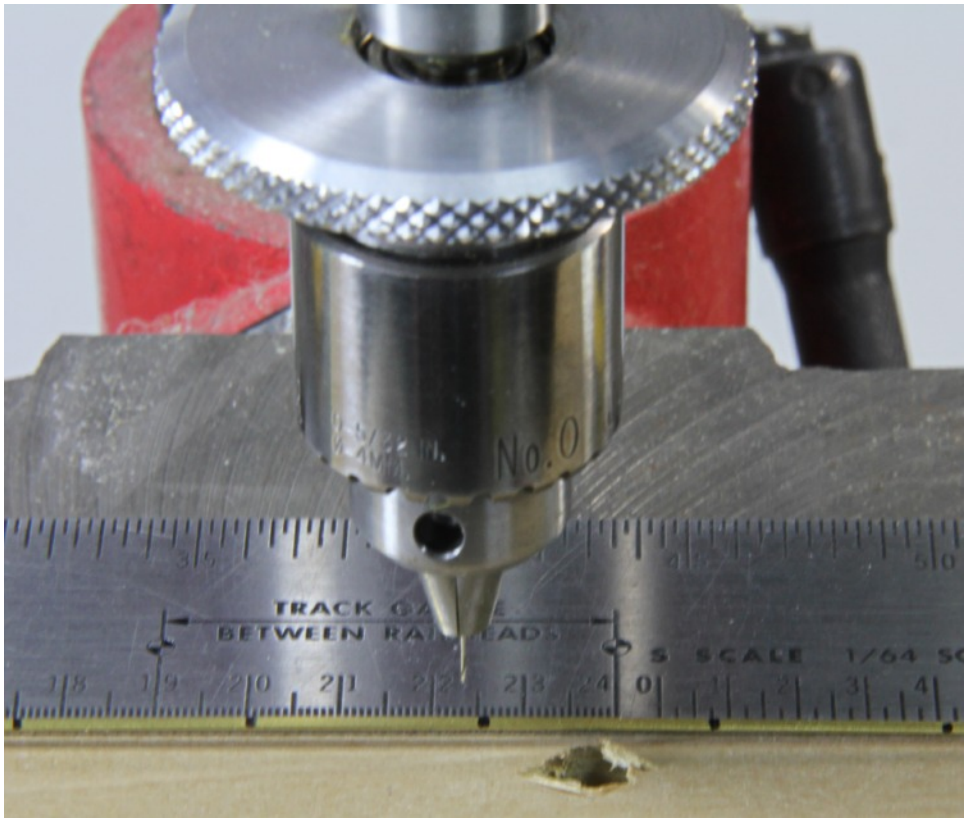


Using my trusty Dremel and sanding drum I made the 45 degree angle on opposite sides of the pole. Using a slower speed will not burn the wood. I then did the final taper with sandpaper. Next was notching for the cross-arms. Marking the measurements from from Figure 1, 4 inches down from the end of the 45 degree taper, and with the tapers now going side to side, I used a grinding stone attachment. It's just a bit smaller than a scale 4 x 4 which is what I ended up using for the cross-arms. A nice easy up and down will give you a good notch. There are 24 scale inches from the top of the first notch to the top of the second. I know there is probably an easier way, but this is what worked for me. If I were going into production, I think I would build a few jigs.

Next, I needed to add some grain on the dowel. Again, there are many ways to do this, but running a razor saw up the pole worked well. The more and harder you do this, the older looking the pole becomes.

Depending on the wood, you may have little fuzzies on the pole. If so, clean those off with fine sandpaper.

The cross-arms from the book were 3¼ x 4¼ . So my analness stopped here, and I just used a scale 4 x 4. Anything larger did not look right, it was just too heavy. Ye 'ol Chopper made quick work of these. So, now we have our wood parts and it's time to stain. Yes, stain. I don't like paint unless it's a real thin wash. If you do, go for it, I prefer stain. I use different amounts of India ink in containers of 91% Isopropyl alcohol that can be found that at most drug stores. The 70% works, but on thinner woods can cause warpage. I see now you that can also buy 99%, so that's even better. I wanted my poles to be sun worn and not new or heavily creosoted. Of course, that's up to you and that's where the mix of ink and alcohol come into play. One last word on staining, most dowels I have used are hardwood and not basswood so they don't take stain at the same rate. Just be careful. If they come out too dark a light sanding will tone them down.

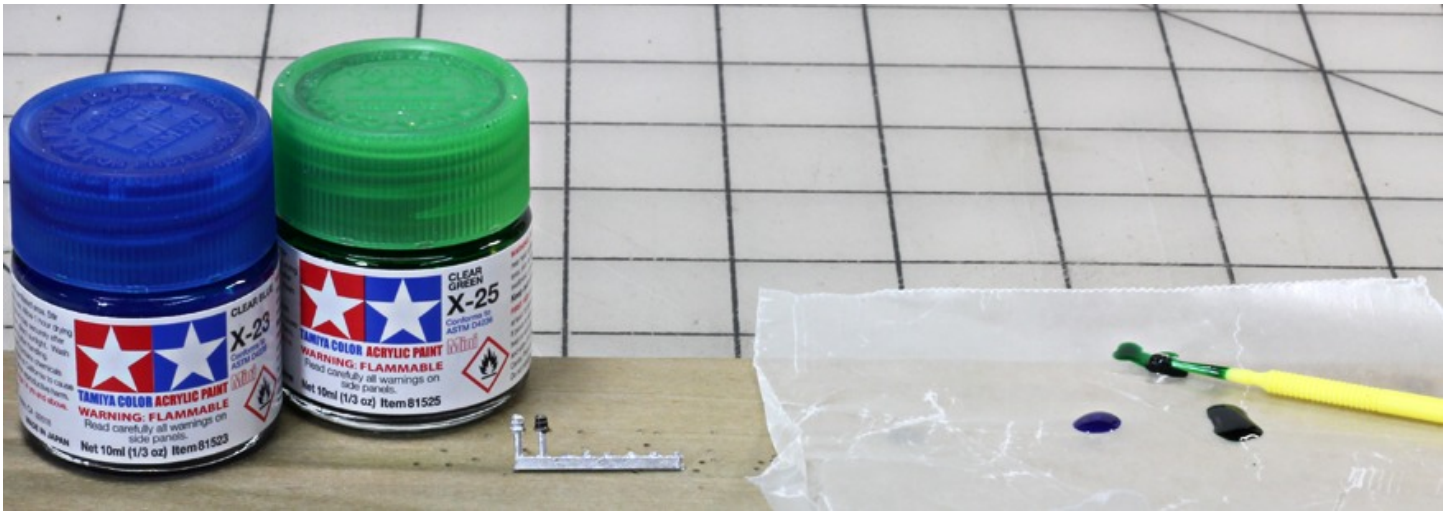


Now, on to the cross braces. No offense here, but I never liked the wire shaped like an upside down V and glued in place. So I decided to make the braces out of brass. I had some .040 wide brass stock, which is 2 scale inches and not the 1¼ called for in Figure 4. I could work with this since I needed to drill holes in it. The pictures above show the cheapie drill press I have. Fitted to its chuck is a mini chuck. I can lower the bit by holding the knurled knob and lightly pressing down. I measured out 2 scale feet sections on the brass strips, as you can see by the black marks. Then, taping a ruler on some wood and clamping it down to the drill press table, I drilled a number 80 hole just inside each mark and hit the center of the brass. Glenn Guerra told me about this chuck years ago. It's not cheap, but when you need it, it's fantastic. Here is a link in case anyone is interested. A nice jig would come in handy here, but I used what I had. After drilling, I simply cut the brass on the black lines into my 2 foot scale strips. I drilled 16 holes for 8 braces, two holes in each, and never broke the bit. Can't do that with a Pin Vise… at least I sure can't!

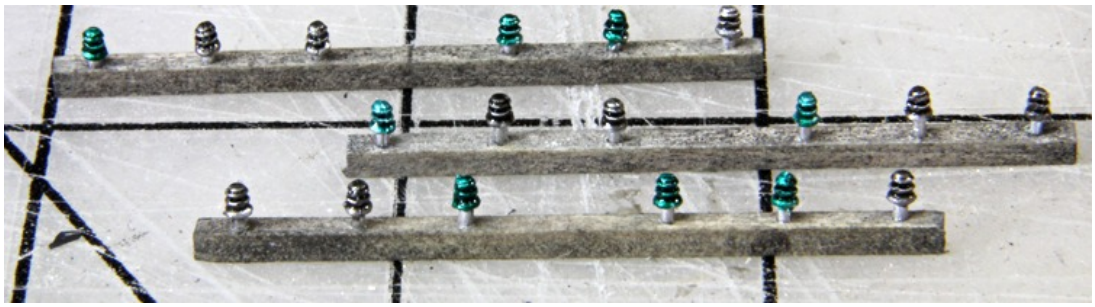
On the left is our pole and cross-arm before and after staining. Now, all we need do is drill a few more holes.

Following the measurements from Figure 4, the first hole is 4 scale inches from the end. Then 16 inches for the next and then the next. Same on the other end. To drill these pin holes, as they are called. I used a number 61 bit. Now, place the cross-arm on the pole with the holes you just drilled facing up and drill a hole (I used a number 76 as I had a lot of .018 wire to use) through the cross-arm and into the pole. Finally, at long last we can see why these will look so good. No beads for insulators. We'll use real cast insulators from Keil Line, now owned by Scale City Designs. Marty Milner, Sr. and Marty Milner, Jr .were at the Cleveland show and has some Keil products with them. I grabbed all six bags of insulators! There is enough to do four poles with 12 per pole like I am building. The current price for these is $6.00. And that brings us to about $1.50 a pole. OK, beads are cheaper, but these look so much better; and I'll show you how to even jack them up more.

Drilling pin holes above and the center hole for extra strength in the notch below.



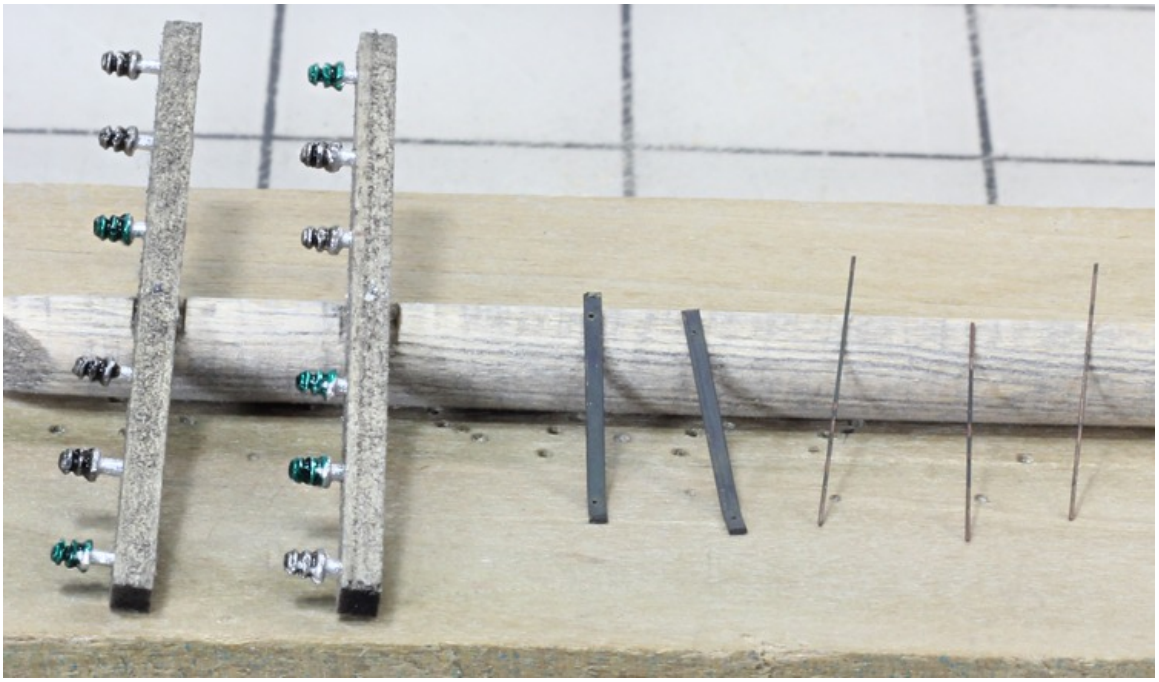
Next came painting. I have used Tamiya clear orange to knock down the bright blue cast on the 604 LEDs and give them a more natural tungsten look. So, Amy says, "What if you tried the Tamiya clear green and blue to lightly color the insulators?". Out of the mouth of babes… OK, off to the hobby shop we go. While there, I see some Tamiya X-19 smoke. The car and airplane people use that for tinted glass. I thought it might give the clear insulators a little sheen and shadow detail. Back in the basement I played with mixing a bit of blue to the green, or was it green to the blue? To my surprise, mostly because it was not my idea, it looked good. Even the smoke gave some pop to the castings (see photo on left).



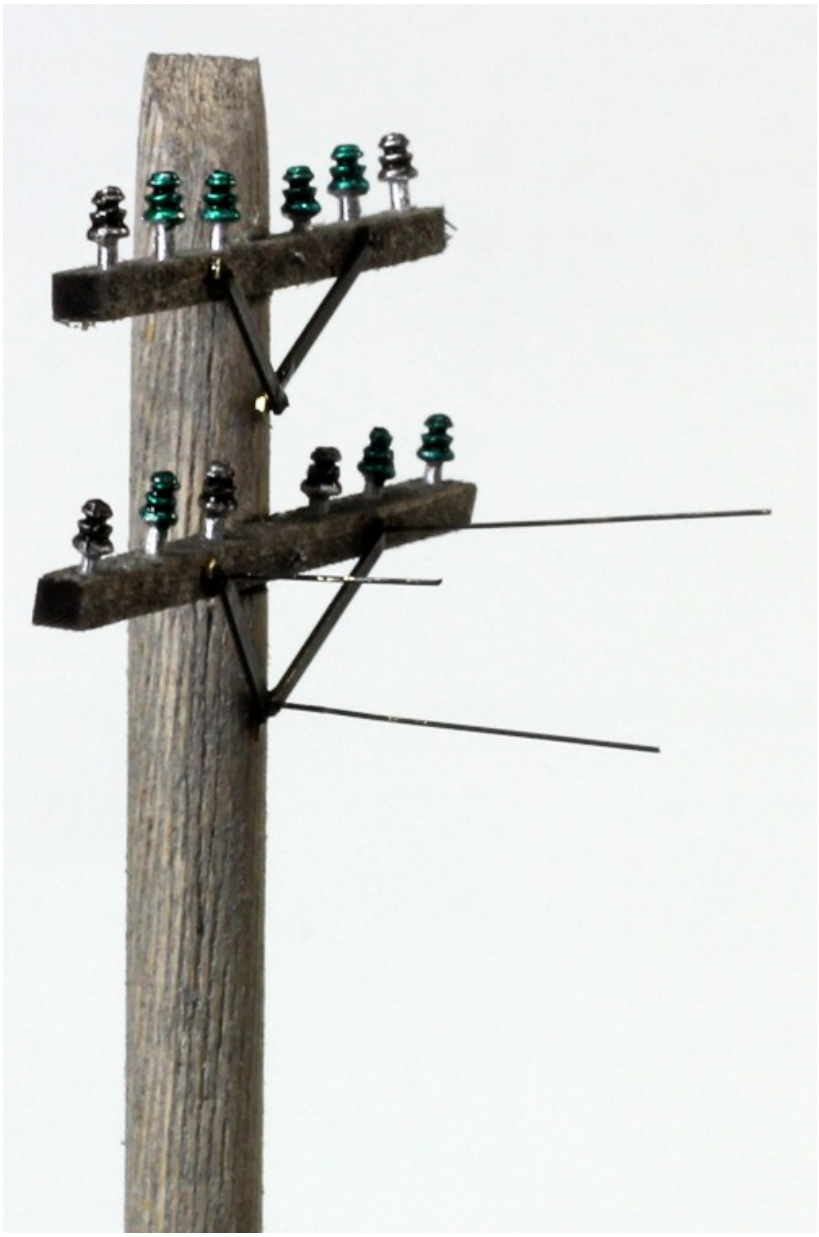
After carefully cutting insulators from the sprue and pushing them into the holes of the cross-arms, I painted them. After seeing these pictures, it looks like I need to do some touch up, but that is easy. Why were some insulators clear and other aqua/greenish? I'm sure many of you can fill me in… I have read that clear was thought to attract fewer bugs and heat up less. I also read that switching between aqua and clear helped the signalmen making the track circuits easier to identify. It's also the iron content of the glass where the greenish tint comes from. Many were made from recycled glass or "cullet" so there was no real quality control for color. It really did not matter. With most of the poles I have seen and photographed over the years, I have never seen any rhyme or reason for the colors.

OK, back to it, we're on the home stretch… Once the insulators are painted and installed, it's time to glue the cross-arms to the pole and insert our bit of wire for that extra strength. Just center and glue. I used a good wood glue here and set them aside to dry.

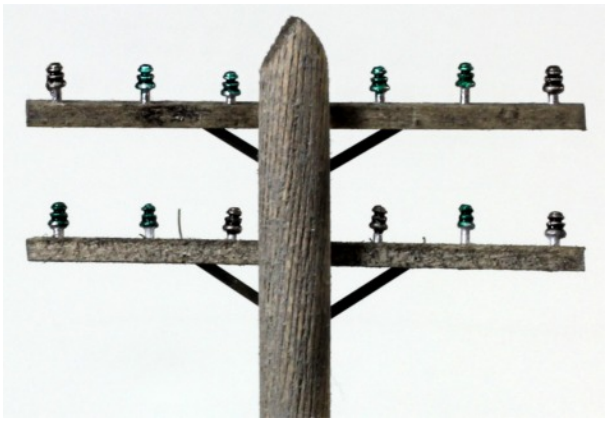
Now come the brass bits. I ordered the smallest wire I could find, .010 stright wire from Clover House. This is how we'll pin the braces through those tiny number 80 holes we drilled. I also clipped off the corners of the braces to give them a more rounded look. (Thank the lord for the MagniVisor™!)

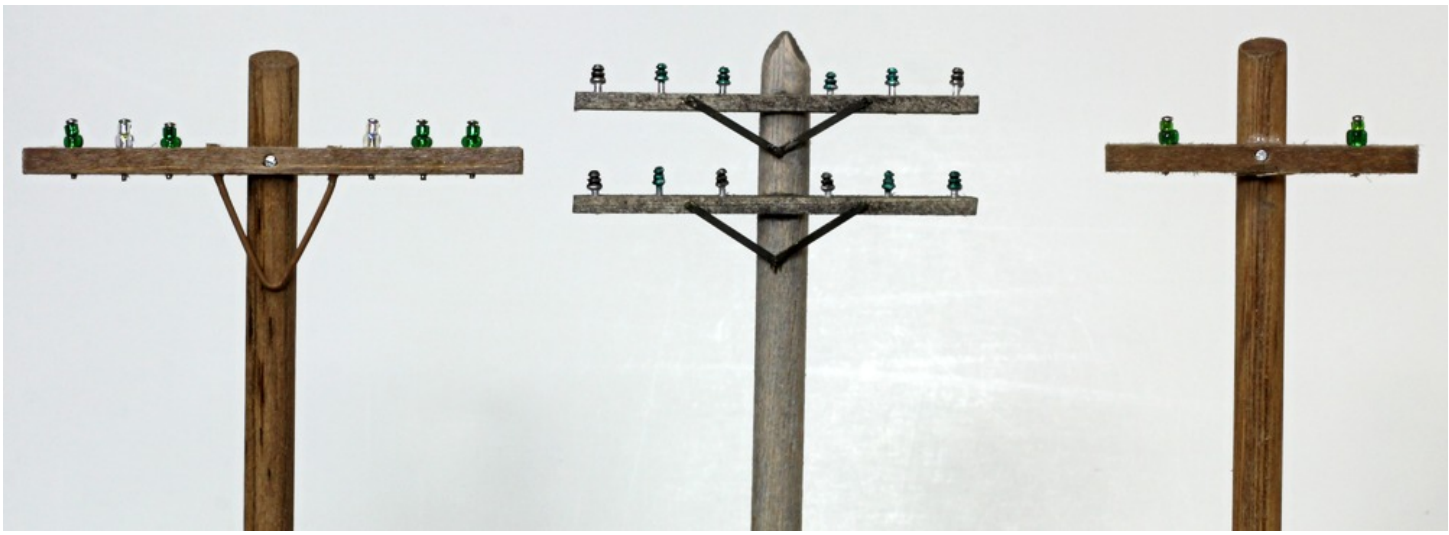


I used Blacken-It made by A-West to age the brass. Most larger hobby shops carry it. In a plastic container, I soaked the bits of wire and the braces for about 10 minutes. You should probably should wear gloves and use it in a ventilated area. I do this in my paint booth. Wash the parts in cold water to stop the reaction, and let them air dry. Now comes the fun part. I eyeballed between the second and third insulator and placed the brace there. Then, with a pin vice and number 80 bit, I went through the hole already drilled in the brace and into the wood. If you pop through the other side you will never see it. Place the small piece of wire through the hole and "pin" the brace. Now, do the same on the other side. Where the two braces meet at the bottom of the V on the pole, line up the holes and drill through the pole and the pin.



With the pins in place, you can gently lift a brace end and use a toothpick to dab some ACC on the pin (wire) and the brace. Do this for all three pin locations. The picture on the left shows the bottom braces pinned, waiting for the ACC to dry. Below, you can see the back of the pole and the wires barely visible still sticking out the front. Once the ACC has dried, clip the wires as close as you can using a good cutters like Xuron. On the larger pins used for the cross-arms, I gently filed down the pin and then placed a nut bolt washer casting on them. You really can't see it so I did not use them on the braces, but you could if you wanted.





The picture above shows a comparison of some other poles to mine in the center. The DM&M Railroad Company on the far left has been out of business for many years. The poles looked good, and for the price were hard to beat. The one on the right may also be theirs as John Albee gave these to me when he switched from O to S Scale. I could not find a picture of a Weaver pole, but know they were very good albeit made out of plastic.

This photo shows a train passing the mine area heading to the upper level on my layout. I used Berkshire Junction large green (Old copper) EZ Line for the communications lines, and although hard to see, the right bottom two wires are black for power transmission.

I finished off the poles with Berkshire Junction EZ heavy green copper line, as well as, two black lines to represent insolated power lines. You could also use green or black magnet wire, actually using the wires to deliver voltage to buildings. Just be sure to keep the cats and kids out of the layout room before attempting that!

I think these turned out better than I was hoping for. It looks complicated, but if you gang build them, that is, do all the poles in one session, the cross-ties the next session, and then the braces, etc. you could whip up 25 or 30 in a few night's work. They will still look great even if you decide not to string them.

Oddity

n. 1. One that is odd. 2. The state or quality of being odd; strangeness.

By Daniel Dawdy

Many people take photos of engines and even cars, but most stop at that. I, on the other hand, just love to shoot things that I may want to model in the future. I love to model details and have people say, "Must have made that up… never seen a real railroad do that.". That's when I whip out the picture to show them that indeed the real railroad did.

Caution: This tactic does not make many friends :-)

I was glad to see the flashers working; however, the chances of a train or car around this crossing are slim to none. This was shot in La Crosse, Wisconsin back in the 1970's.

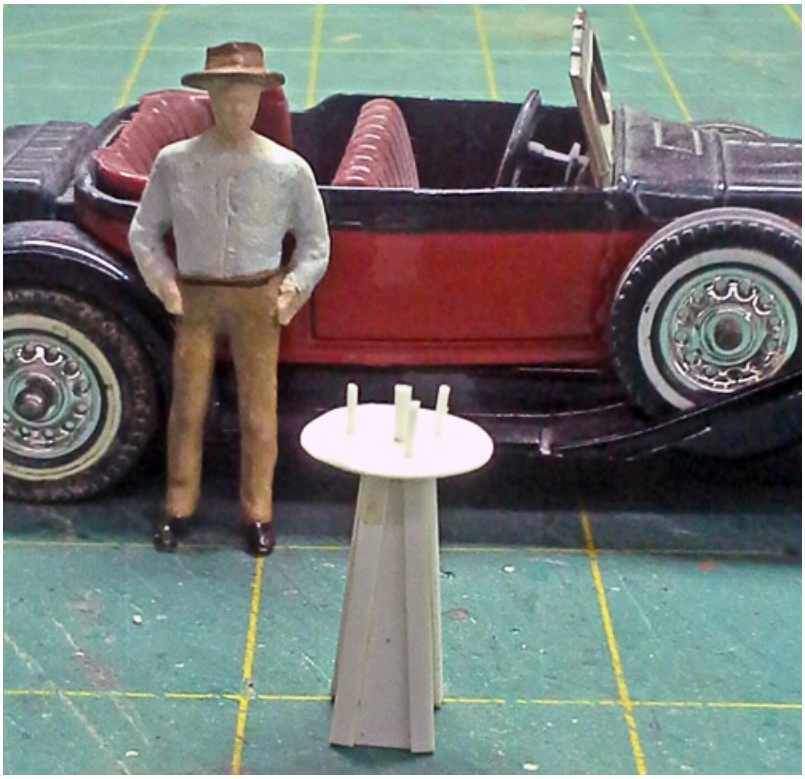
What's on your workbench today?

We are continuing our series to show our readers what other modelers are working on, and we need your help to make it successful. All that's needed is a simple snapshot of what your workbench looks like and the project on it. Send us a picture or two along with a short description of what you are working on so we can share it here. If it's a project under construction, send it in. Repair job, send it in. Completed project, send it in. Send your pictures and descriptions to daniel@modelrailroadresource.com

The following photos were sent in, along with the story behind the model.

By Art Carlton

The prototype was built sometime in the early 1920's, a few years before Coolidge, AZ was founded. It was located west of the present day City of Coolidge. The individual in the center of the black and white photo was Mr. Appel, flanked by his two sons. Mr. Appel built the structure to serve the local farms and the Native Americans from the Gila River Indian Community. After the construction of the Southern Pacific Railroad tracks from Picacho to Phoenix in 1925, Mr. Appel moved his operations to Coolidge adjacent to the railroad and state highway. The building then was occupied by Borree's Market, and the intersection came to be known as Borree's Corner.



As a kid, I was always fascinated with old buildings, and this one in particular. In my teen years the building was a bar. I never knew the name of the bar, but my step-grandfather and step-father would visit the place. While they were inside, I would explore and play outside.

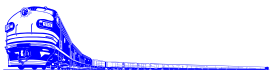
One afternoon a co-worker and I were discussing local history on the way to a meeting when we drove by the remains of this old building. I mentioned to him that I wish I knew the history of this building, because I think it was a service station at one time. He said it was and that is great grandfather built it. The next day he gave me a copy of the black and white photo, and I was on my way to construct another model.

I have scratch built about 97% of the items in the photo, which includes the gas pumps from washers, metal tapering pins, clear plastic tube, and miscellaneous brass and wire. I'm currently constructing the tire changing machine that is located on the right side of the building. As soon as the decal materials arrive, I will be making the permanent signs. I'm currently experimenting on an idea to replicate the signs as metal ceramic signs. If I'm successful I'll let you know.

O Scale Shows & Meets

The O Scale Resource Magazine will now be providing a free listing of upcoming events. This small, text only listing will include the Event, Date, Location, Type of Event, and Contact Information. Click here to go to the sign up form. This form will take your information, and we will publish it in our next issue. If it is an annual event, you will need to submit your information every year.

O Scale West
May 5 through 7th, 2016
Santa Clara, California
2-rail O scale swap meet, clinics, open layouts, videos, contests, company store
9:00 AM to 5:00 PM each day
Email: info@oscalewest.com
Web Address: oscalewest.com

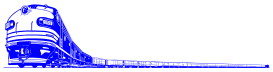


Western Pennsylvania Trolley Meet
May 13th thru 14th, 2016
Pennsylvania Trolley Museum Washington PA
Western PA Trolley Meet May 13 -15 2016. Model Trolley swap
meet-unlimited trolley rides and more
Contact Christina 1-724-228-9256
christina@patrolley.org

The Mass Transit & Trolley Modelers' Convention Spring 2016
June 3 through 4th, 2016
Rutgers University Student Center, 126 College Ave, New Brunswick, NJ
Featuring O scale traction, transit, and commuter rail modelling. Vendors offering traction models and supplies, books, photos, videos, and memoribilia. Model contests and clinics. Bring your favorite models to display or run on the many operating modular layouts.
Email: transitmeet@yahoo.com
Web Address: nycmodeltransit.org/2016details.htm

Southern New England O Scale Model Train Show and Open
House
October 1st, 2016
161 Chestnut Street Gardner MA 01440
Dealers, Displays, 2-rail, P48, 3-rail scale for sale. The Club's O
Scale layout with its 850' double track main line opens at 10 AM.
Free Parking and lots of great homemade food. Contact Maynard
Stowe, Phone: 413-369-6010 or sneshowchairman@snemrr.org
godfreys78@aol.com
www.snemrr.org

Cleveland 2 Rail O Scale Meet
November 5th, 2016
Lakeland Community College Auxiliary Gym 7700 Clocktower
Drive Kirtland, Ohio
Email: J1d464@yahoo.com



Chicago March Meet
March, 17, 18 and 19th, 2017
Weston Lombard Hotel
Lombard, Illinois
Email : info@marchmeet.net
Web Address: marchmeet.net

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