The O Scale Resource

NEWS, REVIEWS, INFORMATION TO USE

Volume 5 No. 1
September/October 2017

Building an Ice House
Model Railroad Design
Thomas Six Dome Wine Car
Kit Building - Dueling Shacks
Colored Indicator Switch Lamps
Workbench, Oddities, Scene Around the Layout,
Shows, Meets and so much more...

Indianapolis O Scale Show

S Scale Midwest Show

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September 21-23, 2017

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until 8/20/17
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DEALER SETUP
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Dwight, IL 60420
Or register and pay online at:

Registration (Both days included) $25.00 **$25.00**
(Table holders must pay the $25.00 registration fee)

 # Of 6 ft. Tables ____ $50.00 ea/$60 after 8/1/17 **$_____**

O Scale vendor ◯ S Scale vendor ◯ No preference ◯

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(Please list below/Use back if needed/Children 15 and under free)

Name: _____

Name: _____

Spouse's Name:_____
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TOTAL AMOUNT ENCLOSED: **$_____**
(No refunds after 8/1/17)

Electrical needed? **Yes** ◯
(Subject to availability)

IndyOscaleShow.com or SscaleMidwest.com

Contact info@indyoscaleshow.com or call 815-584-1577 with any questions

The parties, whose names appear on this registration form, have agreed to hold harmless all of the organizers, sponsors, Model Railroad Resource, LLC, The Wyndham Indianapolis West, and others, single and collectively, for any injury, harm, loss, damage, misadventure, or other inconvenience suffered or sustained as a result of participating in the Indianapolis O Scale Show and S Scale Midwest Show 2017, or in connection with any activity related to this event, whether of negligence by agents under their employ or otherwise.

THE O RESOURCE
NEWS, REVIEWS, INFORMATION TO USE
SCALE

Published Bi Monthly

The Model Railroad Resource LLC
Dwight, Illinois

Owner / Publisher
Amy Dawdy

Managing Editor / Advertising Executive
Daniel Dawdy

September/October 2017
Volume 5 No. 1

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

RD&S No. 827, showing the completed Thomas wine car, is working the late evening local mixed switching cars in Athens, Tennessee.
Photo by Daniel Dawdy

Rear Cover Photo

Still switching in Athens as it gets later in the evening. Don takes a snooze break while ol' man Ledbetter can't contain himself as he stares at a full wine car.
Photo by Daniel Dawdy

Bill Of Lading

From the Publisher's Desk

This issue comes out as we are putting together the final plans for the Indianapolis O Scale Show and S Scale Midwest Show to be held September 22-23, 2017. If you haven't signed up yet to attend Indianapolis, be sure to do so – we'd love to see you there. There will be a lot of great exhibitors, along with clinics and modular layouts. Check out the website for a current list of vendors and the clinic schedule. There won't be a model contest, but there will be a display area for modelers to "show off their work". Plus, if you display something, it will probably show up in a future issue of this magazine. And, of course, we have lined up some layout tours as well, but the only way to see them is to attend the show. We are looking forward to a great event, and hope to meet all of you and "talk trains" at the complimentary hors d'oeuvres reception Friday night from 5:00 p.m. - 6:30 p.m.

This is our 4th Anniversary issue and it's is all about building! We are proud to feature some great articles on building structures and rolling stock. We don't have a layout featured, but we do have another layout planning article from Pete Mottershead. Even if you already have a track plan or layout, this article may give you some additional ideas you can incorporate into your current plans or existing layout. At the end of the article, he makes a rather convincing argument for island type layouts. We'd love to hear your pros and cons and publish them in a future issue, so send us your thoughts about island vs. wall railroad layouts to:

amy@modelrailroadresource.com or daniel@modelrailroadresource.com.

We also have a short article about inspiration. After all, that's what modeling is all about – being inspired by not only the "real thing", but other modelers that have the same passion as ourselves. *The O Scale Resource* is always looking for those modelers that want to share their talents and expertise, not only to inspire others to expand their horizons, but also to show and teach others what can be done in this great hobby.

Dan & are are planning a trip to Cleveland again this year to attend the 2 Rail "'O" Scale Train Meet being held on November 4th. This is a great one day show, and Dan always finds something to take home and add to the layout.

In mid-December, we will be once again visiting family in Phoenix. Last year we saw some great S Scale layouts, but there has got to be some O Scalers in and around Phoenix! We don't mind traveling, and if you're within 100 miles of Phoenix, we'd love to take photos and feature your layout in a future issue. Remember, it does not have to be finished to be featured in *The O Scale Resource*! As evidenced by this issue, we enjoy the construction aspect of model railroading as much as the final product. Email Dan or me directly or call us at 815-584-1577 so we can arrange a visit.

Thanks to you, our readers, authors, and advertisers for your support over the past four years. Without you, we could not be a success!

Happy Reading & Happy Modeling,

Amy Dawdy

NEWS YOU CAN USE

New from Woodland Scenics: Coming soon to the line of Built-&-Ready Landmark Structures is Double Decker Trailer, available in N, HO, and O scales. Building details include a window A/C unit, multiple doors and windows, cinder blocks and a trailer hitch. There is a TV antenna on the roof, and a flickering TV indicates someone is home. This multi-level trailer also features an unattached picnic table, trashcan and propane tank for custom placement. See photos for footprint.

This Built-&-Ready® Landmark Structure® comes with a printed interior and pre-installed LED lights. The installed LED lighting was made for use with the Just Plug® Lighting System. O Scale MSRP—$94.99 See woodlandscenics.com for all their fine products.

Twin Whistle Sign & Kit Company has a new release in O Scale. Welcome to the 1887 Chicago Engine NOW in O and S scales. This firehouse comes built, as a kit, or just as a facade. S Scale for the Code 3 collectors and other hobbyists and model railroaders. O scale is for the 1/43 to 1/50th hobbyist, and will be released on July 29, 2017. The detail on this model is remarkable.

Wooden and Styrene Body
Cast Resin Cornice
Removable Roof
Instructions with Photos
Beginner to Moderate Skills Required

See their Website for full details.

Ted Schnepf from Rails Unlimited has just reprinted FOUR NEW Shippers Guides. This time the emphasis is on the eastern railroads. There are now a total of 15 shippers guides to chose from covering coast to coast.

These guides have two uses. First is an aid for historical research, both for locations and industries, and their railroads. The books also can be used for preparing accurate prototype waybills for model railroaders. All of the books have a comb binding allowing them to be opened flat, for easy use. A protective clear front cover and heavy leatherette rear cover protect the inside pages. A big thank you to various individuals sharing these original materials. There are plans for more guides in the future.

See his Website for all these great books.

From Bill Davis: Now In Stock from American Scale Models: Southern Pacific Rose Oil Column. All brass, factory painted. Pivots 360 degrees, sprung working oil catch-pan. $145 each plus shipping. Order direct at americanscalemodels.com or by phone 262-560-1619.

Steve Nelson of Korber Models and Mr. Muffin's Trains has completed the move of all of the Korber tooling to Atlanta, Indiana.

Virtually all of the O Gauge kits are back in production. Korber Models has been a leader in model railroading structures since 1979, making great looking, unique and easy to build models that bring your railroad to life.

Now in house, and being readied, is the Pecos River Modular Railroad Structures line that is now owned by Korber.

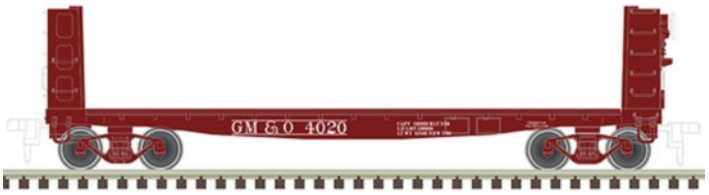
Also new is Korber Komplete. A service that provides layout ready structures, delivered to your doorstep. Simply place on your layout and enjoy the

Customer built Korber Kit.

detail and excitement a well-crafted structure can add to your layout.

See their Website for all their great models.

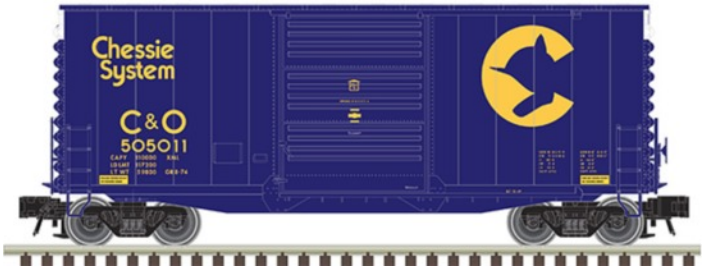
Atlas O, LLC has announced new road numbers for their Atlas Master® Pulpwood Flat Car.



Pulpwood is not a specific type of wood, but actually tree limbs that are cut to a specified length, then turned into wood pulp and used in the paper industry. Early paper making had the trees near the paper plant. As timber resources were diminished, the need for transporting pulpwood began to rise. Railroads were seen as an efficient method of transporting pulpwood. Pulpwood in the Southeast and Northeast is generally cut into four-foot or less lengths and loaded onto "V-deck" bulkhead flat cars. The Atlas pulpwood flat is a reproduction of an early 1950s General Steel Castings "V-deck" design.

Click here to see more information on these cars.

Also announced are new paint schemes for their Atlas Trainman® Hy-Cube Box cars.



Introduced by Pullman Standard in the mid-1960s, these mini hy-cubes were designed for the carriage of appliances. The height allowed the appliances to be stacked three high in the cars. The cars were considered novel at the time and a number of large rail lines from the West and Midwest acquired small fleets.

Click here to see more information on these cars.

Chooch Enterprises has released a new line of translucent acrylic paints. "Rainbow First Coats" Includes five primary colors. From these five colors you can mix to create any color in any shade, dark or light. "Weathering First Coats" Includes five special colors for first stage weathering, and "Weathering Earthtones"Includes five colors for weathering and aging. See their Website for full details.

David Thompson of Harbor Belt Lines sent out this release: To all our loyal customers and all the enjoyable train trade shows that we have attended: There's a time where changes take place and adjustments must be made and we all move on. In our world today, it seems that so many things are changing rapidly, and as opportunities come our way, we need to make decisions to take advantage of these situations. At my side job from doing my full time work at Harbor Belt Lines developing products, generating e-bay & Internet sales and attending train shows; what was once just a part time side job has turned into full time-part time and now full time salary position with benefits that involves many more hours per week with a high percentage of hours on holidays and weekends. It has gotten to the point that we no longer can schedule and attend the many train shows that we have so enjoyed in the north eastern part of the country.

We are currently in the process of selling off all our inventory. You will still be able to place orders by phone, or the best way e-mail / the Internet over the next few months on all our product lines that you may have an interest in, but we will not be restocking our inventory or attending future train shows. If anybody is interested in a lot quantity of products such as Testers Model Master Paints, it is best to contact me by e-mail to receive a quote on what's available on hand to be shipped.

As for seeing our fellow train enthusiasts at future train shows, I do plan on attending shows for the day here and there with my son, Jon, and continue our model railroading interest. We wish you all the very best as we continue to enjoy this great hobby of model railroading.

We wish Dave the best in the future.

Rusty Rails has some new products for us.

RRSP-O-31 bulk oil tank this item is from the days when you did not get your oil in a can (I still remember these as a kid).

You had to hand pump the oil from the bulk oil tank at the gas station or maybe someone would do it for you (some of us still remember full service). The bulk oil tank was made on the 3D printer. You get two tanks for the price and some minor assembly is required.

RRCB-0-04 - Went back and redid the large shop shelf casting and brought it down to size. This casting has a lot of detail on the shelves. You can see the fine detail on each shelf. This one will be a eye magnet in any model it is placed in. The castings of course come unpainted and is a one piece resin castings.

See their Website for these and other great items.

Bill & Diane Wade from B.T.S. sent us the following: Well, it took over a year, but the conversion to O Scale of the Hyde Pulp Mill is finally complete!!

The complex is intense and is available in seven kits so you can build it as your budget and time allows. And, all of the kits can also be used stand-alone as other industries or tied-in with other structures. Lots of variety here.

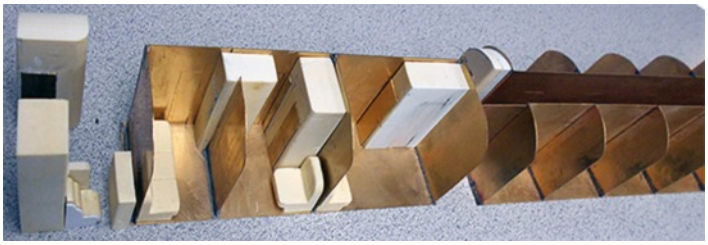
Take a look at the complex and the individual kits starting at the Hyde complex home page at http://www.btsrr.com/bts4095.htm

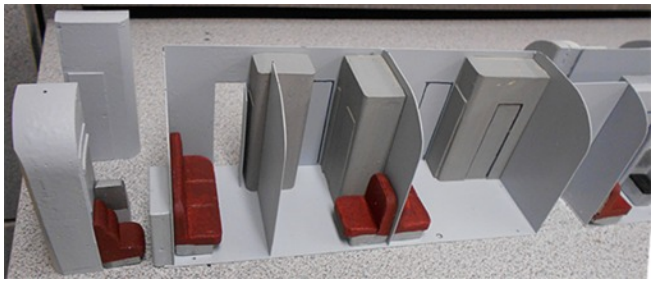
If building the entire complex, start with the Dock (#14095.6) and Shipping/Storage Building (#14095.3) as these are critical for setting the track positions that are key to the rest of the complex.

Now I can get back to finishing some other things like unpacking the Babbitt Loco parts (Ugh - what a mess!), some C&O structures, and American Civil War stuff.

Bill Basden from Delta Models has some new products coming soon. The Part DM 275 one piece Streamline Pullman roof thin wall is now finally in the works. I finally went to a second source vendor to do these for me. They should be in house 30-60 days. This is sorely needed in O scale. Once I have these, they will be available in orders of 4.

Also in the works is revamped interior sets in the 50 series part #. We used to supply .030" styrene walls and partitions, but we found over time they came loose and would fall out. We now use .016" sheet brass for walls and partitions hand fabricated and silver soldered together. 90 % of the work is now done for you, all you do is paint the components and mount to your floor. Shown below are the interiors for the 14 1 2 .





From our friends at SoundTraxx: Updated Tsunami2, Baldwin and Others Diesel Digital Sound Decoders will be available through your local hobby shop or online retailer Fall 2017.

Updated decoders have all of the cutting-edge features that Tsunami2 has to offer and more. This fall, Tsunami2 Baldwin and Other Diesels Digital Sound Decoders will come equipped with **NEW** Cummins QSK19C x3 GenSet sounds and **NEW** Gas Turbine Electric (GTEL) features.

GenSet features include dynamic braking support for "GenSet II" type models, electronic air dryer selection, correct blower motor fan sounds, and adjustable prime mover tuning. Unique volume and alternate mixer controls for each prime mover allow for dual or triple power plant locomotive configuration.

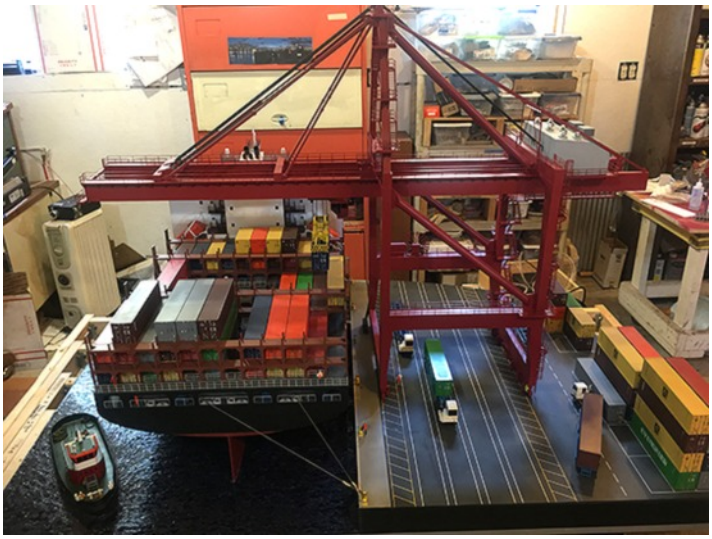
GTEL features are easily configurable for "Slab Slide", "Veranda" and "Big Blow" (A and B units) locomotives. With an industry exclusive "backfire" sound effect, you can faithfully replicate the amazing spectacle of starting the massive turbine locomotives.

All Tsunami2 formats also have Hyperdrive2™ advanced motor control, simplified function mapping using Flex-Map technology, Dynamic Digital Exhaust™, and more.

Description	**MSRP**
TSU-1100 Baldwin & Other Diesels	$129.95
TSU-2200 Baldwin & Other Diesels	$124.95
TSU-21PNEM Baldwin & Other Diesels	$109.95
TSU-PNP Baldwin & Other Diesels	$109.95
TSU-4400 Baldwin & Other Diesels	$179.95

Check their Website for all the details.

Sue and Terry Wellman of St. Charles Model Works, Inc. sent us a note about an interesting project. We don't have a new product announcement, but do have an O scale diorama to share. We were hired by the Museum of Science and Industry - Chicago to create a 5' x 7' diorama scene depicting the stern portion of a modern container ship with a crane unloading containers onto a wharf, with a container yard to the side of the wharf. A tugboat is also included. We will have much more on this project in an upcoming issue.



Bob Spaulding from Altoona Model Works has a new product. Union Pacific Type Oil Storage Tank: 8" long 4.5" wide 9" tall Kit contains all material to build model as pictured. Tank is cast urethane w/rivet details. Legs 1/4" basswood, mix of laser cut wood, Tichy bolts, plastic & brass angle material. parts to build brass ladder. Full size drawings, truss template and complete assembly instructions. List price $150.00. Free shipping month of Sept & October.

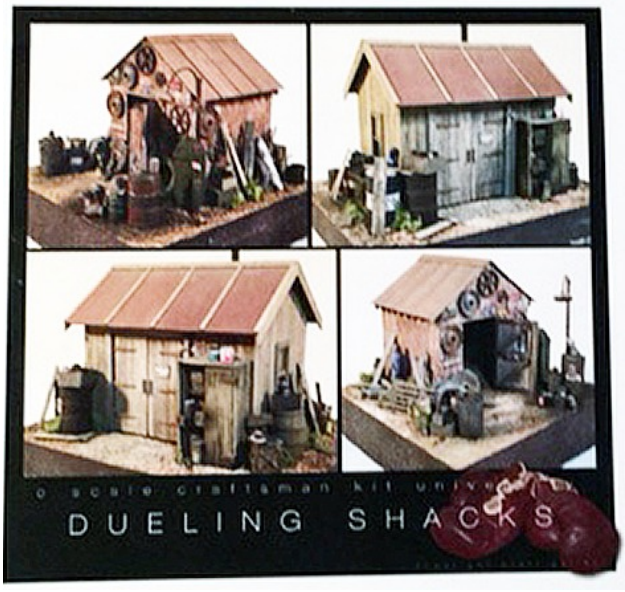
See his Website for more great products.

O SCALE DUELING SHACKS
Part One: The Wood Shack

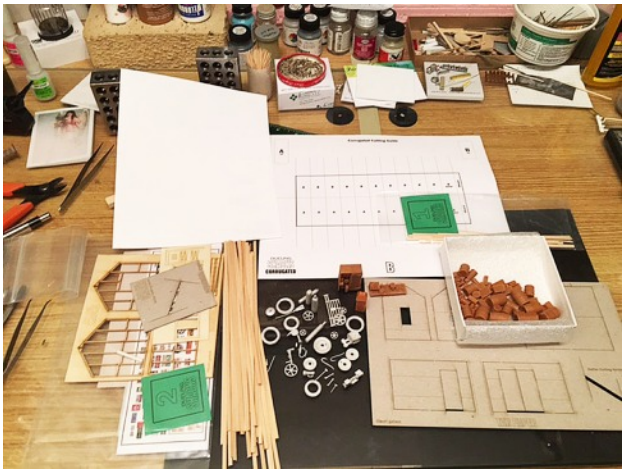
By Kevin Gibbons

Tool list:
Pastel Chalks (Rembrandt soft pastels: 408.3,408.5,408.9, 234.2, 409.7, 411.3, 411.5, 411.7, 231.2, 704.5, 700.5 and 100.5)
Fresh blades: #11, 16, 24, keyhole, and single edge
NWSL Chopper
NWSL True Sander
Files
Fine pointed tweezers
Metal rulers
Squares
Razor saw and miter box
Card file
Steel bristled brush (don't get brass)

For the past seven or eight years, I've been hanging out at the RR-lines Forum, specifically the Mike Chambers Craftsman's Corner Forum, reading posts and looking at build threads from some of the finest modelers in the world. Many of these great modelers raved about the kits and custom details from Sierra West Scale Models, owned and operated by Brett Gallant. After so many years reading about these kits, I had to suck it up and buy one, just for the experience. I had been modeling N scale for 10 years, and this was an O scale kit. I had to see what all the fuss was about, so I ordered the Dueling Shacks kit; marketed basically as a training kit for all scales, just teaching the SWSM way of building a model. When the kit arrived, I couldn't wait to open it and have a look at all those details. His kits go over and above the normal kit. The construction manuals are incredibly detailed and specific, and if you can read, you can build a SWSM kit. The materials are first rate, and the templates that come with the kits make it easy to follow the manual. Cutting jigs are included in the kit so you can make accurate cuts all the time. And the best part, the thing that Brett is most famous for, are the



Here's a picture of the box.



Enough parts for two shacks.

myriad details that he includes in his kits. His details, as you will see, are the best in the business, and his kits come with plenty of details; both white metal (pewter) and resin castings.

And the contents of the box (keep in mind this is two kits): Notice how many details are included? Yeah, there's a lot of 'em. From hand tools to workbenches (more on them later) and beer bottles; these kits are loaded with details.

Anyway, let's get started.

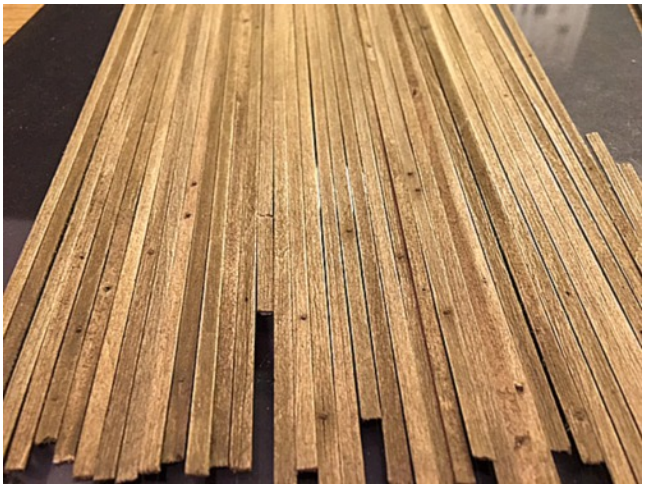
For this article, we're going to build the wood sided shack. The SWSM construction manual identifies the materials you need to build it just like the pilot model, so after an Internet trip to Dick Blick to purchase some Rembrandt pastels in specific colors and some pewter blackening agent, we're ready to roll up the sleeves and get at it.

The construction manual calls for distressing the wood, so after returning from Ace Hardware with three new wire brushes in my hands, I started to impart grain into the boards, then knot holes, worn edges and ends, etc. Each board is a model in and of itself, and the same with the castings.

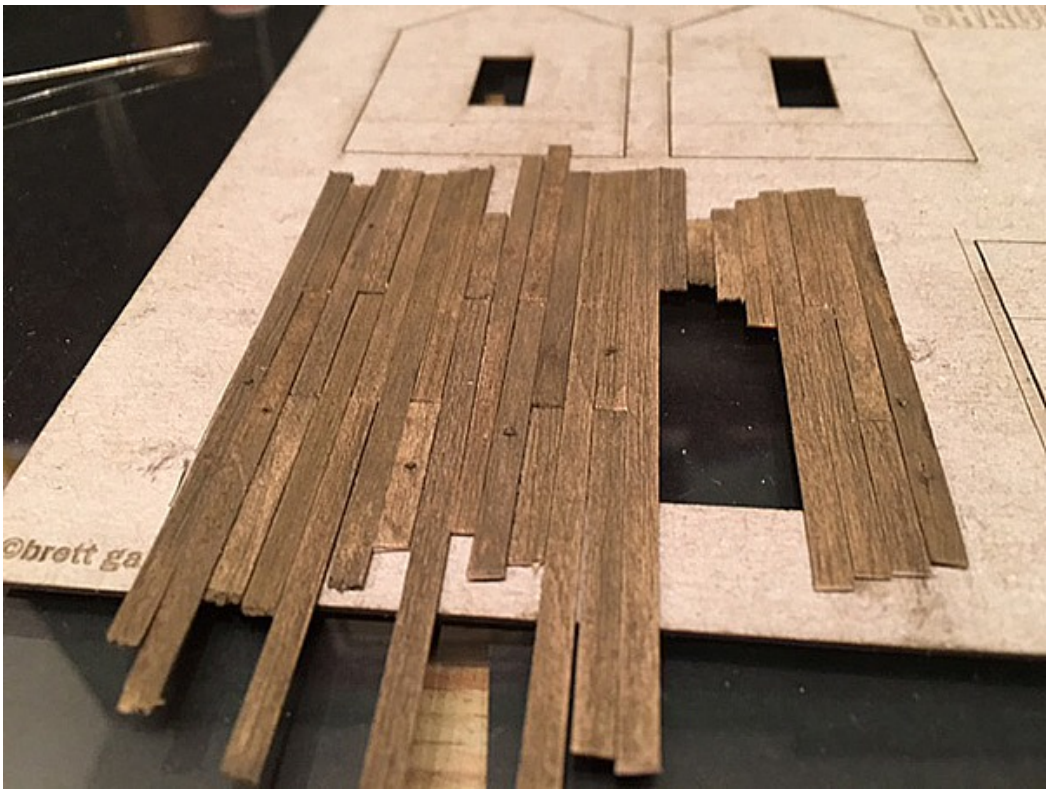
After you detail the boards to your liking, it's time to color them. The only paint on the finished model are some of the details. Everything else is colored with the chalks.

Now that the boards are colored, it's time to side the walls. For this shack, the sub walls came as laser cut chipboard, so siding the walls was a simple task. As you can see, you can apply the boards to the sub walls without taking them out of the carrier sheet.

A selection of wire brushes is a must.



Here's a shot of the first set of boards I detailed and colored.

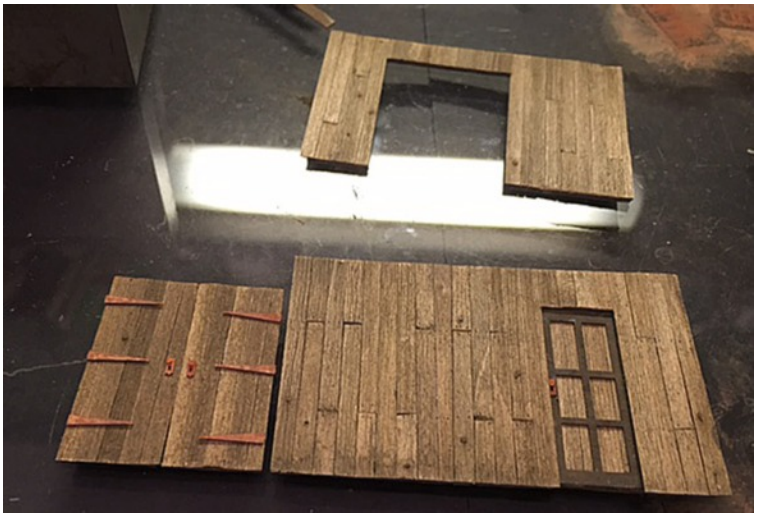


Here are the walls all sided.

Once the walls are all boarded, the windows are installed. The SWSM windows come laser cut. I apologize for not having any pictures of the window assembly, but the windows are double hung, and the assembly goes as follows: Color the windows the color of your choice. (I chose to stay with the basic siding color.) Each window has a front and a back. Lay the back down on the work top and carefully locate the precut acetate over the back window frame. Then carefully glue the top half of the window frame over that, and that window is finished. Do the same with the bottom window. The SWSM windows can be functioning or non-functioning; it's up to the modeler. Carefully glue the completed window into the rough opening in the wall. When all the windows are glued in place, you trim them out per the instructions.

The doors are then constructed and installed. The front door has been installed in the wall; the freight doors are ready to be installed. Note the laser cut hinges and doorknobs. The door that is already installed has a chipboard backing and 6-panel overlay, over boards installed by the modeler. The freight doors are also installed.

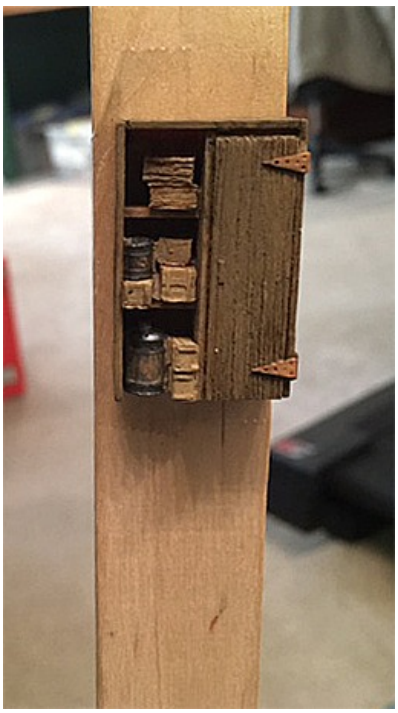
Now it's time to glue the four walls together. SWSM has a unique corner system for this kit: the siding on the front and rear walls calls for a board to overhang the edge of the sub wall approximately 1/16", and the sidewalls fit right into this little "trap" and it's amazingly strong. I thought it was ingenious because I had never seen it done before. The four walls are glued. Note the pinup calendar on the left. Nice touch.

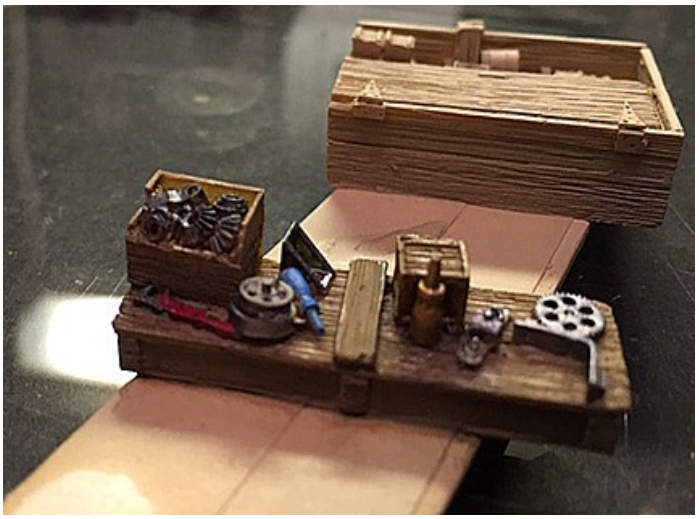


The roof is next. The very first step in the construction of this kit, was to take a 4" x 6" piece of tarpaper material (included) and spray paint one side of it a Flat Red Primer. Let it dry and do the same to the other side. Then set it aside while you do the walls. When it's time for the roof, you remove the roof panels from the carrier sheet and paint the underside dark brown. When that's dry, the tarpaper material you painted earlier gets applied to the sub-roof panels. Add the ridge boards and battens when the roof is mounted on the structure.

The next step is to finish the trim. The gable ends of the shack need some fascia, and you cut the boards for the fascia using the included jig, and it makes for a nice cut. Now that the structure is completed, it's show time. The moment I'd waited for since I first opened the box. The DETAILS!!

Resin castings ready to be primed. I used oversized craft sticks and double sided tape for this step (top picture on the next page). I taped a second craft stick on the end of each one to give me a longer handle, grabbed a Krylon® Camo rattle can and headed to the garage to paint them. Any resin castings representing wood items are primed with the tan Camo color, and if there are resin castings representing metal objects (steel drums, oil tanks, etc.), they are primed flat black.





After the primer has cured, the fun begins. First up, the cabinet:

I hit the outside of the cabinet with the pastels/alcohol method. I used Reaper® Paints for the items on the shelves along with the pastels. This is the first pass at the cabinet.

For this kit, those are the two major castings, but there are approximately another 38-40 resin cast and white metal details. The best way to detail the castings is to drill a small hole in the bottom of the casting and force a pointed toothpick into the hole so you have a handle for the detail. Then apply your coloring, which can all be done with the pastels, or you can use the paint of your choice. Have a supply of fine-tipped paint brushes on hand for the details.

Brett Gallant has excellent tutorials for his methods on his web site. Take a look at the UNIVERSITY tab. That's where the tutorials are. While you're there you should consider purchasing one of the several HO or O scale kits. You won't be sorry. http://www.sierrawestscalemodels.com/index.html

When coloring the castings representing wood, no paint is used. Using a single edged razor blade, you scrape the pastel stick leaving a pile of very fine pastel powder on the glass top. You can easily experiment by adding other colors to the pile. Once you've got a pile of your desired colors, you dip a paint brush in isopropyl alcohol and swirl it into the pile of powder on the glass work top. Paint it on the detail, when alcohol evaporates the color is "set" on the item. There is also a significant number of white metal castings (the most flash-free I've ever seen) included in the kit, and these are treated differently.

Middle: Finished cabinet

Bottom: Workbench mounted on the front wall of the shed after painting it and before applying any weathering:

Brett recommends immersing the details in a blackening agent (A-West Blacken It, JAX Pewter Black) for a few seconds, swirling the solution around the casting with a disposable brush to remove air bubbles. Remove the casting from the solution when it is all black and you don't see any air bubbles, put it in a cup of water for a bit, then take it out and put it on a paper towel to dry. I suggest not doing more than six castings at a time in the blackening agent. If you forget a casting in the solution, it ***WILL*** dissolve completely. Make sure you follow the manufacturer's instructions. This is acid we're dealing with here. (Rubbermaid containers are SAFE to use with this solution.)

Once the castings are dry, (I wear Nitrile gloves for this task) I take a buffing disc from a Dremel kit, cut it in half and buff the blackened detail with the half disc until you see a nice patina that isn't possible to replicate with paints.

For tools like axes, hammers and sledges, the working end of the tool is the perfect color due to the buffing. You can use an acrylic craft paint in a camel or khaki color for the handles, and when dry, dip your fingers into the chalk and roll the handle in your fingers to dirty it up.

The best thing about a Sierra West Scale Model kit is the customer support you receive from Brett, and the many members on his forum. There are some world class modelers that frequent his Forums because they all love his kits. I strongly urge everyone to visit the website and take a look at all of the information available there. I promise you will want one of those magnificent kits!


NO
TRESPASSING
PLEASE
KEEP OUT


DANGER
NO SMOKING


NO
SMOKING


DANGER
GASOLINE

Model Railroad Design

The Two Rail Runner with Options O Scale Plan

By Pete Mottershead

Overview and Qualifications: Starts easy and gets more and more complex.

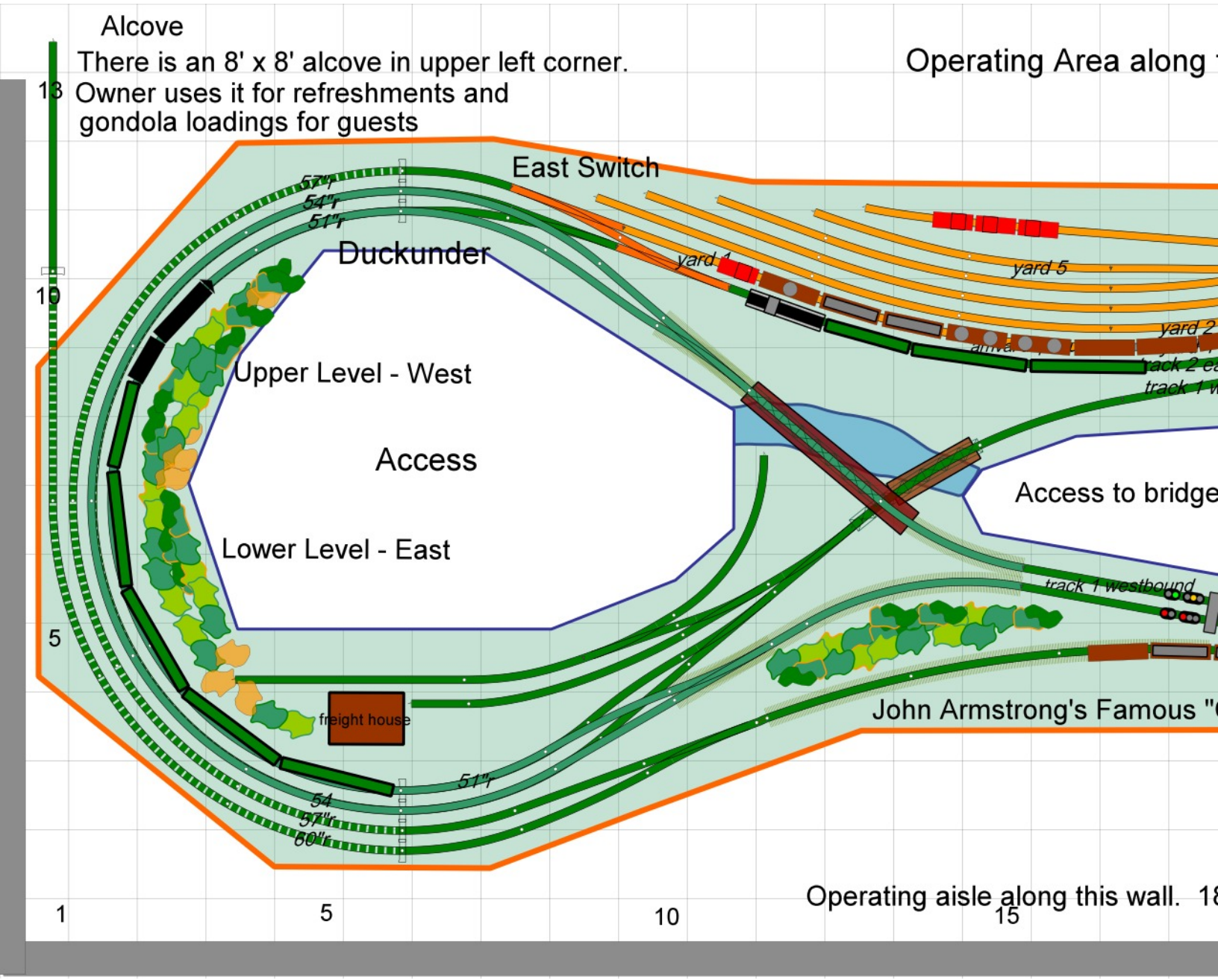
The Two Rail Runner with Options O Scale Plan has two levels and the minimum radius is 51". In essence, this thing is simply an inner loop and an outer loop. The inner is really a folded dogbone, waterwings, whatever, so there is a 2% grade between upper and lower. The outer is a simple loop that includes the switch lead (track 3), yard track 1 and the cosmetic curve. The inner loop has 51" and 54" radii while the outer has 57" and 60" radii. The owner has an OMI heavy mike that just will not traverse the 54" curve, so he is restricted to the outer loop and climbing the eastbound curve uphill to Pacific Junction. At least we can run him without having to pack up and move. The loops themselves are joined at three locations. Combined with layover tracks, we have a plan that makes sense, offers the need to actually engineer or drive the trains, and is just plain fun to operate.

With this track plan we are going to introduce some concepts that are not normally seen in model railroad plans or even on model railroads – complex switches and signals. They almost go hand in hand. The signals shown are only the most spectacular; the less complex are not shown. This description will include them as controls for the movement of the trains. Of course, anyone who wants to build this plan can do what they want, but the description does seem to benefit from knowing where to slow down and where to stop. Signals are an undertaking in and of themselves, but they make a sensational impression on visitors and are fun to watch. This plan has a lot to offer without signals! If the track for them is in place, they can be added later with much less hassle and effort. Finally, a note on that 51" minimum radius. In my opinion, the Island type layout, given the 35' x 13' restriction, packs the most operation into that square footage, but only if we give up something in the curves. More on that later.

Operational Notes: This plan leans towards the 'Runner' type of operation where you can set up two consists at the same time and just "let 'em run". With a minimum amount of intervention, you can run three. Sort of a set it and forget it kind of thing. It's great fun to just step into the train room, have a seat, watch a consist traverse the right of way, admire your handiwork and hopefully relax.

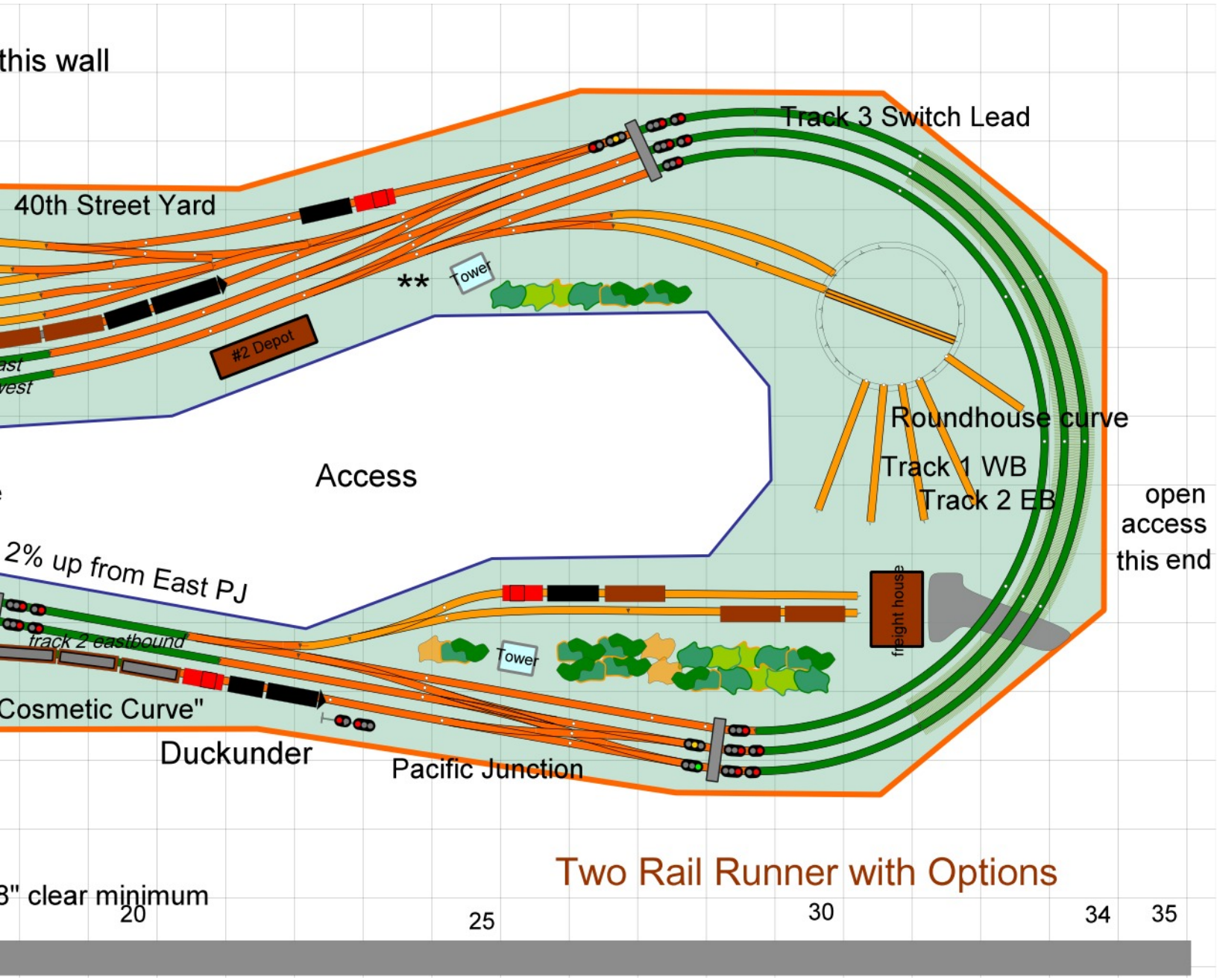
But this plan does not stop there, not by a long shot. The right of way passes three interchanges. Each one is a place where trains can transfer back and forth between loops. The main yard is 40th Street. The outside set is a of a pair of left hand crossovers (**) allowing movement between inner and outer, also Pacific Junction, and East Switch. I am a lifelong C&NW fan, so from time to time, you will see names I have picked from their operations. The idea is basically one man operation, but two could have a lot of fun and even three.

So let's begin, assuming right hand operation. I know, I know, C&NW was left handed, unfortunately I am right handed and that turned out to be important in keeping track of everything. Besides, this is a single track railroad. Yep. Folded dogbones just look double tracked. Each consist and spotted cars are from the last operating session, so there is no real "starting point". You can see three trains actually on the main and another sitting on the departure track waiting for clearance to leave. Take a look at yard track 1; it is the only yard track that is double ended. Yard track 2 and the others are all stub end tracks. Track 1 is really the departure track for both west and east bound. Arrival on track 1 is no problem as long as nothing is sitting there. We'll get back to this in a moment. I want to make a point right now.



I am describing an operating "session" so to speak so readers can see where switches are placed, why track is where it is, and how to make it useful and sensible. In no way is this hard core operation. No clocks, no time tables, and no penalties for not knowing what a car card is. The idea is to show what the prototypes did, how they might have run their trains, but mostly for us 2 rail O Scalers to have fun.

Our train is sitting where it has been made up: on the departure track, yard track 1, westbound. Ever heard the phrase **"things get complex all by themselves"?** Well, get ready: In addition to being a full time departure track, and a part time arrival track, yard 1 is also a passing siding. Several tracks on this layout serve double duty. We will point them out as we go along. The hostler has coupled up the engine and the conductor has hung out the markers so we have a full-fledged bona fide consist ready to get underway. At the top of the hill, hidden from view is the varnish. Pacific hauled 80' coaches and a sleeper plus a 60' baggage. He is facing east, as he must be since he's at the extreme west end of the modeled RR. Each end, west and east is considered the last modeled portion of the pike. The **Two Rail Runner** continues on in both directions. In this case, the heavyweight consist is aimed so he will pull out onto track 1 not track 2. Also out on the main is a three car passenger local pulled by one of the new GP7's. He is eastbound at the east end and is about to disappear into the hinterland, where he will take the inside track and wait.



Finally, we have a 2-8-0 consolidation parked at an absolute stop just west of Pacific Junction. He has been making his rounds, but all that's coming back today are 4 empty gondolas and a caboose in the wrong place. Up next to the engine is unconventional, but the crew needed to get off the main – its 3:30 PM and time for the evening commuter rush. He is waiting for clearance, which could still be a few minutes off. If they got caught ,they would not get back to the yard until well after dark. When he gets clearance, he will simply pull straight ahead into the yard.

Let's follow our consist westbound as it heads towards Pacific Junction on the switch lead. We will pass through one side of a pair of #7 LH crossovers that, in this case, delimit the yard lead which is also a passing siding. What we are doing here is greatly increasing complexity for the sake of flexibility, but keep in mind, the owner can run very simple operation if he chooses. An awful lot of model railroaders are eager to get their layout into operation just to watch them roll. And they do! Then reality hits. If they had just added a little more thought, their RR could have kept them interested a whole lot longer.

To make this journey more interesting we have given some specifics to our trains so we can understand "classes". Without going into a big dissertation on what trains have priority over other trains, and where, let's

keep it simple for the moment. The railroad's fastest, longest (most expensive) passenger train is numero uno, priority one. Everybody gets out of his way. The short, small engined freight is priority last. Nobody gets out of his way. This is the guy most likely to be seen sitting on a siding waiting for all molecular motion to stop. So, does a high speed, high priority freight have precedence over say, a local passenger? Depends. For our little illustration all passengers travel ahead of all freight.

We are at the helm of a 2-8-4 Berkshire pulling a typical sized freight that would rate 60,000 lb. tractive effort on a 2% grade. (In O scale, read that as 9 cars plus a caboose). As we get underway, we see a yellow over red telling us to pull up and hold at the next signal. We climb the 0.5% grade of Roundhouse curve and drift to a stop just east of the Pacific Junction signal bridge.

The varnish is moving slowly as it comes into view. It will be on track 1 as mentioned. He is coming down the hill eastbound with a **yellow over green** giving him priority at medium speed through the interlocking. The green on the lower signal head tells the engineer he is cleared for a diverging route, but because of the downhill, AND the fact that the second to the next signal is **red**, he gets what amounts to **a medium – medium** or caution, caution. And then… something a little unusual here: Two yellows in a row on each side of PJ. Yellow means proceed with caution prepared to stop. So here it means proceed with caution, prepare to proceed with caution prepared to stop. Pacific Junction is on a grade, and as such presents a braking problem. Normally, he would get a Red over Green: medium – clear.

The signal system, as mentioned, is incomplete, but the ones you do see are correct in their placement and application; it's just that this plan fully signaled would have quite a few more. The goal for now is to control movement and add some color. It would be fun to do a full plan showing all signals and the tasks expected of them.

The heavyweight will crossover via the slip switch onto the middle track, which in this case is track 2 and he will be 'right handed'. The engineer may be thinking he usually gets a green at the next signal – just outside 40th Street, but at this moment that is not the case. In fact, he will get a stop. Remember that Geep and his string of coaches? He's in the way and we have to do something about that, but let's get back to our guy. At this moment, we have four trains either on or getting on the main line. Obviously, we have the capability for a bottleneck here, but advanced operators (like the real dispatchers on the real railroads) have to deal with this. So why not us?

At the PJ signal, we see a red over red meaning stop, period. When the dispatcher gives us the go, we would see the upper red stay red, but the lower light goes green. Its purpose is to mark this location as an interlocking. Here's a note that might help with understanding basic signaling. On masts that have two heads, the upper signal determines overall speed. The lower signal tells the engineer he is at an interlocking. Green over red is as fast as you can go. Red over green means you will take the diverging route. (The ultimate speed is determined by the employee's timetable for a given location and a given class of train – that is another story). So what constitutes an interlocking? Any place your train can change tracks. Double track mains have a full complement of signals even at crossovers. In the coal country of Nebraska and Wyoming, the BNSF track speed is 50. If the train is being routed onto the left hand track, the engineer MUST know to reduce speed because even a #20 crossover has a speed limit of 40 mph. This is much different than just giving him a yellow which means slow down and prepare to stop. Final comment here, our system does not provide for yellow on the lower signal, just to keep from overdoing it and make this project manageable. So we use green.

What's kind of cool for us here is not just waiting for that varnish to pass, but also the fact we are face to face with the local opposite us at PJ. Lots of action.

Now we get permission to proceed and we ease through the double crossover which is on the 2% grade and continue straight across the slip to track 1, the westbound main. For the engineer, this is demanding work. He has to somehow build up speed for the hill, but can't notch forward until the last car clears the junction; and

he does all this from a standing start. As an owner/operator, you will find out quickly which locos are your real luggers. (I have a tiny little Sunset GE 44 Tonner, heavy as a cinder block – really does seem to weigh 44 tons and will pull the house down, but just not prototypical to put out on the main). Now, our freight has cleared the junction, climbed the hill, disappears behind the view block on the upper level, and pulls into the passing track. You will see why shortly. At the very same time, we have to get that local passenger that has been sitting on the main just behind east switch into the hole on the lower level because the Pacific with his high class sleeper is headed our way. This would be a great argument for another operator – located at East Switch. A lesser passenger stabbing a higher passenger is a real problem for the operating department. Recall all hidden area is in motion, with trains trundling toward the extreme ends of the RR. We pull our local into the siding underneath. The big passenger train who has now watched 4 straight yellows in a row, barrels by the yard which is approximately midpoint on the railroad, into the underneath, around the curve, under the bridge and up the hill towards the depot at 40th street and on to PJ on track 1.

Our little peddler freight pulled by an old Baldwin 2-8-0 consolidation has 5 cars and a caboose. He's been sitting in the opposite direction of the freight we are on. As the big passenger swings around Roundhouse curve, both he and the local freight see their respective signals go green over red. This is safe interlocking procedure because neither train can interfere with the other. The peddler will crawl his way back into the yard and call it a day, while the passenger will storm the hill. As through trains, especially passenger trains reverse direction, say from eastbound to westbound their train number changes. If, for example, eastbound was 401, then westbound will be 400.

OK, let's catch our breath and see what we have and where? Our fast freight is now Eastbound out and away from the modeled area (sitting on the upper siding) **following** the varnish that passed us there (in reality he's sitting next to us on the main hiding behind some trees). The local freight has gone to the house. His cars are on yard track 5 waiting to being switched. Finally, the local passenger with that shiny new Geep is physically under our freight and now is headed west as he pulls clear of the siding.

Summary

All this is a brief sample of what a railroad like the Two Rail Runner can do to keep interest up. Since the entire main line is clear right now, this brings up one of my favorite features of this plan. I enjoy watching a yard goat shuffling cars around the yards while main line trains roll off the miles. That switch lead is available for runarounds as is the pocket track, so the owner/operator/chief cook/bottle washer gets himself some coffee and takes his time disassembling consists and putting others together. He could fire up that varnish and let it run. If you are over-concentrating on switching, a passing train can actually startle you. Especially in 2 rail O Scale! Great Fun. I heartily recommend it.

Comments

If somehow you have enough space, I personally suggest pulling the whole thing away from the wall and making an island of it. I know islands are unpopular but I have my arguments.

> First of all, access. You just have to get to every square inch of the RR. I mean its Murphy's Law.
>
> Second, if you build along a wall, you can't see the other side of what you built. That limitation for buildings, water towers, etc., is obvious. What's not so obvious is being able to watch that slow moving drag freight pull out of the 40th street yard from the top of the hill. If you were railfanning and the freight was doing say 10 mph, we would have plenty of time to jump in the car and get far enough ahead to watch the train several times from several places. Places you could not get to if the track was up against a wall.

Third, there is one aspect of model railroading that doesn't seem to get too much press, but I think it should: Being able to walk alongside your train as it rolls over the miles. For me this brings back floods of memories. The kind of memories that have bitten some of us so deep we scribble track plans in our note books while we sit in the back of a college class. I had a management professor say "This is the question and answer part of the class otherwise known as long periods of boredom interspersed with short periods of sheer terror. You there in the back, what's your understanding of ….." "Who me? Oh no".

Good Luck and Happy Modeling!
Pete Mottershead
fmcdonald1856@gmail.com

One Custom Builder Inspires Another

Joe Fischer & Dan Pantera

By Glenn Guerra

Over the fourth of July holiday, Rosemarie Quintero (Joe Fischer's oldest daughter) came to the Chicago area to see her daughter and grandson. I went to Chicago on Monday, July 3rd to pick her up and we went to see Dan Pantera. Rose and Dan have been talking about her dad, and she is really enjoying hearing from modelers about her dad. Dan was telling us that it was Joe Fischer who inspired him to take up O Scale modeling.

Dan and his brother were doing custom model work in HO scale at the time, and were so impressed by Joe Fischer's work that they made the switch to O Scale. Dan and Joe talked on the phone, but they never met face to face. Joe was winding down his career and Dan was just starting his. They would exchange ideas and parts. During our visit, Dan was telling Rose how good Joe's models were with the materials he had to work with.

As we were talking, Dan said he had a special model to show Rose. He came back with a box and pulled out a Pullman car named Lucca. The model was delivered to Dan in October of 1995. It was to be a present to his brother and is named after a town in Italy. It was only a few months later that Joe Fischer had a stroke that ended his modeling career. Joe modeled from around 1939 to 1995. Dan was telling us the story and said this may have been the last model ever made by Joe Fischer. I had to get a photo of Rose holding the model at the table with Dan.

Colored Indicator Switch Lamps for Turnout Ground Throws

by

Brady McGuire

Intro by Daniel Dawdy & Photos by Nelson Cain

At the last Chicago O Scale Show, Brady dropped by to see my layout. He noticed a few switches that were heading into the upper tunnel. This whole section was over the washer and dryer so an operator under 5'5" (Amy comes to mind) would have a hard time telling which way the switches were thrown. Although only used to switch the small mine, it's possible for an operator to leave the mine area and forgot to line the switch back up for the main. (Ask me how I know.) Brady told me about how he solved this problem, and offered to send me a few. Well, one thing led to another and this article came about.

Like many others, I have painted red and green spots on these, but up here, no one would be tall enough to see that without standing on a stool. Brady got me started with two of what he uses, and now I'll make some more to finish out this area. A few shots below show where I used them. Now let's let Brady tell you how he makes them.

No way can most operators see the direction these switches are thrown without Brady's modifications. Even from this distance, it's easy to see we are set straight.

Close up of the two Brady sent me.

I have used Caboose Industries Ground Throws for over thirty years. They are as universal on most model railroads as Kadee couplers. As good as they are, there is always room for improvements. One drawback is being molded in a jet black color. For me, as my eyes have gotten older, the little black switch handles are harder and harder to see. For years, operators, including myself, have put dabs of paint on the handle to indicate the switch points positions. Green indicator (normal route) and red indicator (reverse route) for mainline turnouts and green (normal route and amber (reverse route) for secondary and yard track turnouts. Unfortunately, normal paint doesn't stick too well so the dab of paint usually flicks off under regular use.

I was looking for a better way for my old eyes to quickly see the ground throw handles when reaching for them; and also a way to easily indicate the position of the switch points from a distance. I needed something larger than a dab of paint. I wanted something that looked like a switch lamp, and I wanted to see my new indicators from several feet away. i.e. My main yard lead track turnout is about seven feet distance. Now, a quick glance at my added colored "switch lamp" assures me the points are aligned as needed. Green for the siding or amber for the yard lead. On my yards, the running track needs three turnouts properly aligned. I can now quickly look from 4-5 feet away and see that their three green "lamps" are pointing upward assuring me the turnouts are properly aligned for the running track.

I like to use the O scale #208 S with the internal spring. As good as the Caboose Industries Ground Throw is from the package, a little "tune up" makes it better. I like my throws to operate exceptionally freely with no rotational resistance before installing them. In operation on the railroad, if an operator notices resistance with throwing the switch points, I want to stop and look for the problem, not force it. After my "tune up", I know it's not the ground throw at fault so the problem might be a piece of ballast or other debris blocking the points from moving freely or setting properly.

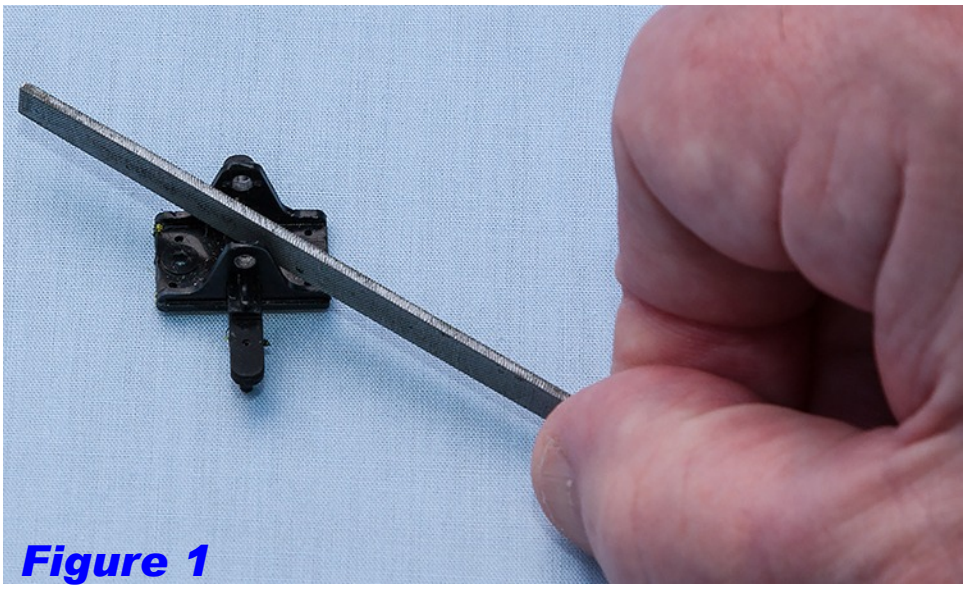


Figure 1

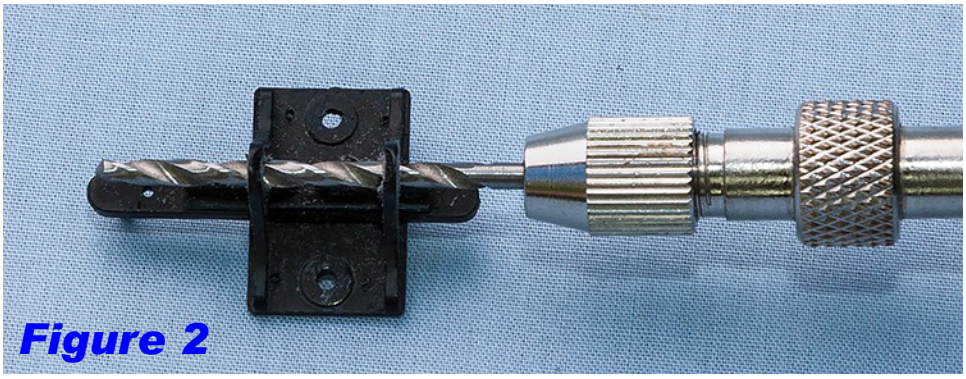


Figure 2

Ground Throw Tune Up Tips: Spread the support frame with your fingernail and pop out the handle - barrel cam. Be careful, don't let the lower draw bar slide move too much or the internal spring may drop out. On the draw bar slide top, there is a gap that the barrel cam rides in. Take the edge of a small flat file and deburr and open up this gap slightly. **(Figure 1)** Now, test fit the trunnion shafts on the ends of the barrel cam into the pivot holes on the support frame. If tight, open up the holes with a 1/16 inch drill bit or larger until the barrel cam's trunnion shafts rotate freely in the frame. **(Figure 2)** Test it. You want the cam-handle to rotate very freely when in use.

I don't use the large center holes on the base plate for mounting my ground throws to my turnout ties. I drill a #72 drill in each corner of the support frame base plate about a 1/32 inch inside the

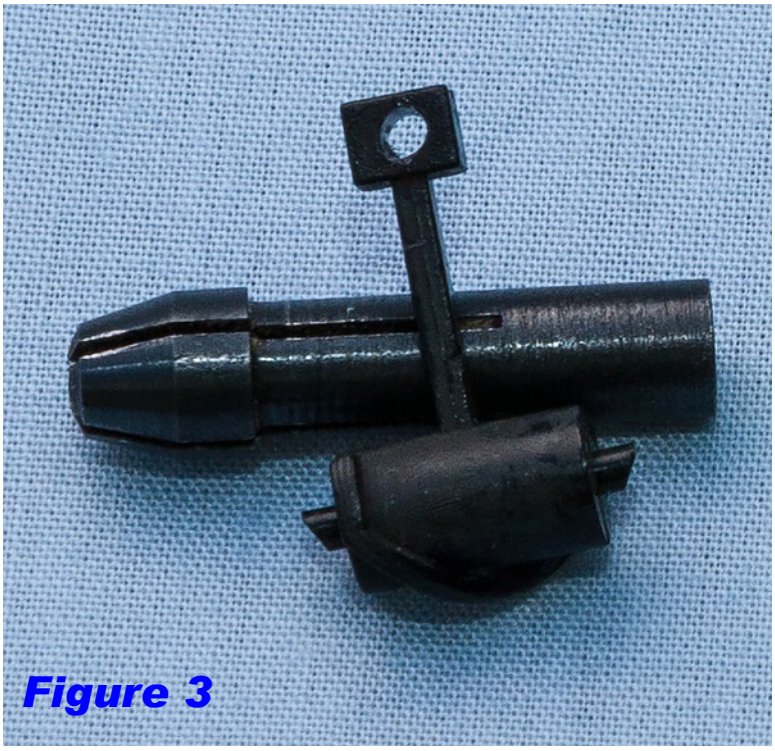


Figure 3

frame and 1/16 inch from the edge. I then spike the ground throws in place to the switch ties.

Add the colored indicator "Lamps" to the Cam Handle: First prepare the cam-handle for the new colored indicator "lamps". Again, pop the cam-handle out of the frame. **(Figure 3)** With a sharp awl, locate the center of the flat part at the top of the handle. I use a three step procedure to put a 1/16 diameter hole through this flat part on the handle. You have minimal material to work with so you must be careful. I first drill a 1/32 inch diameter pilot hole through using my drill press. Hold the handle flat and firmly on a block of wood with the barrel cam hanging over the edge, and carefully drill through the flat part. We want this first drilled pilot hole to be as square and centered as possible. Then, take a 3/64 drill and open up the pilot hole. You can do this by hand or on the drill press. Next, open up the hole again to 1/16 diameter. We are now ready to prepare the new colored indicator "lamps".

Figure 4

Colored Indicator Switch Lamps: For my colored indicator switch lamps, I use the colored faceted heads from plastic pins available from Hobby Lobby – Mayberry Street Miniatures #859439. **(Figure 4)** I found them in the Dollhouse section of the store. The blister package contains a mixture of 200 red, green, amber, blue and clear plastic pins for $2.00. Use your weekly 40 percent off coupon for even more savings. You will use the green ones the most, then the amber and then the red pins.

Pin Head Lamp Modifications: Each of your ground throws will need a set of two colored lamps. One lamp with a short shank and one with a concentric hole drilled into it. I always insert the shank into the darker lamp. i.e. When I'm doing a set for a mainline ground throw, green and red, I drill the red one and modify the shank on the green one. When I doing a set for a yard track ground throw, green and amber, I drill the green one and modify the shank on the amber one. I do this so that you will hardly notice the drilled hole and inserted shank into the darker lamp. Ask me how I know this. I did one in reverse once and didn't like seeing the shadow of the hole and shank inserted into the lighter colored lamp.

The plastic pins have a 3/4 inch long shank. On your set of colored pins, cut off the shanks to about 5/16 inch. Final length will be trimmed later. Notice the shank is not round, but slightly oval. Round the shank by taking a short length of brass tubing with a 1/16 inside dimension and slowly twist and shave the shank. Remove the high edge lines so the shank rotates inside the brass tube. **(Figure 5)** If you want to practice, practice on the blue or clear pins. We will not be using the blue or clear pins for this project.

On the second colored lamp in our set, we must drill a true concentric 1/16 diameter hole into its center. **(Figure 6)** This takes care and practice. Again, practice on a blue or clear faceted pin head. I again use a three step procedure to drill this hole. This is how I do it, and you may find a better method to locate the center and


Figure 5

drill your pilot hole. I slightly clamp the colored lamp (pin head) in a wooden figure with its modified shank sticking up vertically. I insert a short length of 1/16 inside diameter brass tubing into the drill press. I lower the drill press, engaging the modified shank. This locates the true vertical center on the future lamp. Tighten the clamp on the pin head and fix the figure to the drill press table. Raise up the drill press and replace the brass tubing with a new sharp 1/32 drill bit. You can also use a slightly larger diameter drill if you wish. Take your sharp flush cutters and remove the shank without disturbing the lamp in your clamp. Take a fine flat file and carefully smooth the cut area if needed. Again, don't let the lamp head move in your clamp. Now lower the drill into the lamp's center and drill a pilot hole about 90 percent of the depth, about 1/8 inch deep or so. Do not drill through. This first pilot hole should now be square and true within the lamp's center. Open up this pilot hole with a 3/64 drill and then a 1/16 drill, but first check for accuracy. Place the drilled pin head lamp onto a 1/32 drill bit held in your hand. Slowly rotate and eyeball the concentricity. If your pilot hole is off a little, you can manipulate the hole with the 3/64 drill bit by hand and bring it back into center. Then clean up the hole with the 1/16 drill bit.

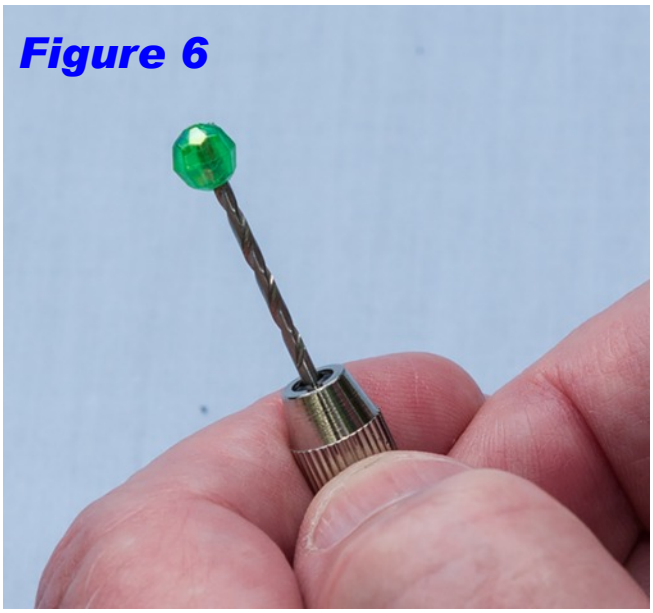
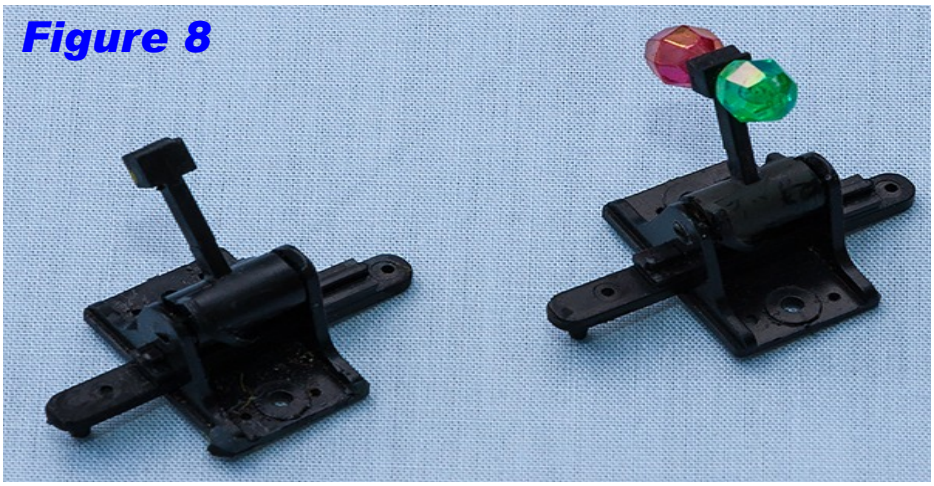


Figure 6

Now to test fit our two new colored indicator switch lamps to the barrel cam handle. **(Figure 7)** Take the lamp with the shank and fit it through the new hole in the handle. It should be just snug. A light press fit. Not too tight to damage the handle and not too loose. Now, add the drilled lamp to the shank end sticking out of the handle. Eyeball the lamp next to the shank. If the shank looks too long, trim it a bit. Twist the lamp onto the shank. Again, a snug fit is best. Both lamps should be tight against the handle. If not. take a little more off the end of the shank until both lamps fit tightly against the handle. Usually, no glue is necessary if the fit is just right. If loose, add a drop of liquid styrene cement on the shank and twist on the lamp. Now pop the cam-handle with our new colored indicator lamps back into the support frame. It's now ready to be installed on your railroad. **(Figure 8)** If once installed the indicated colors are backward for the position of the switch points, just pop the cam-handle out, flip it over and pop it back in.


Figure 7

It is easier to make the ground throw tune up tips at your workbench, but not necessary. You



can pop out the barrel cam on a ground throw already installed on your railroad and file the gap in the slide. You can also check the cam trunnion holes for free rotation and drill out as needed.

I have had my colored indicator lamps added to my ground throws for about 3 years now.

Modified ground throws being used on Brady's layout.

Ice House for the Mountain Electric Railway

By George Paxon

Many railroads had ice houses in the "good old days". Ice was essential for reefers up until the 1950s when mechanical reefers finally became dominant. It is interesting to note that traction had mechanical reefers in the 1920s. The Chicago North Shore & Milwaukee had a small fleet of reefers that had trolley poles and used overhead power to run their mechanical ice plants while en route. These cars did not have traction motors, but were pulled by locomotives or freight motors even though they looked like powered cars. These traction mechanical refrigerator cars preceded those on the steam roads by twenty years.

In many cases, particularly in the early days, ice was harvested from lakes in the winter, moved to the ice houses along the rail line in reefers, and stored in specially insulated buildings until needed.

Moving ice to the ice houses in the winter months helped increase the utilization of reefers. In early days, the use of many reefers was seasonal and heaviest during harvest and when slaughtering. Instead of just storing the reefers, moving ice gave them work to do.

These ice houses were generally only cooled by the frozen ice stored therein, but were quite efficient with summer time losses from the hot outside temperature of only 5% or so. Pacific Fruit Express (PFE), a large owner and operator of reefers, built artificial ponds in Northern California and Nevada to produce natural ice for their ice houses.

Other larger facilities had mechanical ice making equipment that was essential for the great demand that thousands of reefers placed on icing services on transcontinental lines. The PFE facility at Roseville, California was once considered the world's largest refrigeration plant. There was space for 254 cars, and a train headed east could be re-iced in one minute.

Reefers moved between most points on the rail network. But, the majority of loaded reefers tended to move from Florida citrus and vegetable growing areas to the northeast, from California to the east, from the Midwest meat processing facilities to the northeast, and from Gulf ports to the north. The ice houses were usually associated with an icing platform that provided access to the roof of cars so that block or chipped ice could be efficiently transferred from storage to the ice hatches of reefers. Blocks of ice were often scooted along duck boards from the icing platform to the refer ice hatch. Men often worked in teams of two, with one pushing the ice block along the duck board and the second man catching the block and guiding it into the reefer hatch.

Reefers were generally iced before loading to allow them to cool first, and were usually iced along the way to their destination. Railroads that originated traffic requiring iced cars operated ice houses as did the railroads over which the reefer traffic traveled. Even the roads at the destination ends of long reefer runs such as the Pennsy and New York Central had extensive icing facilities. Photos 1, 2, and 3 show some prototype ice houses at work. Photos 1 and 2 are from the Union Pacific Collection and used with permission. The source and photographer of Photo 3 are unknown.

Note that photos 1 and 2 show the duck boards used between the icing platform and the reefer roof. And in the other photo, the facility seems to have a flip down extension on the edge of the platform. We'll talk more about these features later.

Photo 1

Photo 2

Photo 3

There is a brilliant book, *The Great Yellow Fleet*, by John White, of the Smithsonian Institution, that deals with reefers and icing them. It is well worth a look if you are interested in this part of rail history. I found much useful information from that source.

My Mountain Electric Railway has a small fleet of reefers that are used to move fresh produce from on line packing houses and deliver produce to an IGA warehouse, as well as accommodate the essential delivery of cold beer to coal mining towns in southwestern Pennsylvania. Steam road reefers also visit ME Ry tracks. Jacobs Creek, a town on the ME Ry, has a dairy. Milk from local farms is collected by freight motors daily when they stop at farm gate platforms and pick up the common steel 10 gallon milk cans. The milk is delivered to the local dairy and processed there before it is sent on to larger milk product manufacturing and distribution firms by rail elsewhere is the area. Reefers for loading at the local dairy company will require icing before they are moved to the dairy for loading.

So, as a by-product of the constant search for viable industries to generate switching opportunities, I said to myself, "Why not an ice house?". Such a fleeting thought was the stimulus for yet another project and another Mountain Electric industry.

Prototype ice houses were often big structures with long platforms that could service many reefers simultaneously or even an entire train at one spotting. Due to space limitations, as well as the small amount of icing that needed to be done on the ME Ry, our facility was designed to service just one reefer at a time.

Usually the prototype icing facilities were owned by the railroad or a rail related industry. But, on the ME Ry, the facility is a private firm named Crystal Ice Company which provides icing services to the Railway on a fee basis. Crystal Ice Company also provides ice to residential and commercial customers along the lines of the ME Ry. One of my near term projects is to build a reefer, lettered for the Crystal Ice Company, and this car will be used to distribute ice along the line. In days before electric refrigerators became common, the ice man would go from house to house, and business to business, carrying a block of ice in tongs to his customers. On my layout, this ice will come to towns along the line via the ME Ry from the Crystal Ice Company facility in Jacobs Creek.

And, as you can see from the faded paint work on the front of the ice house, the Crystal Ice Company probably had a previous name which was painted over by the new sign on the building. By the way, this was the first multi-color decal I have designed and made; and it proved to be an interesting project in its own right. You never stop learning new skills in this hobby of ours. Such tasks help keep old grey matter from turning to mush any sooner than necessary.

Building the Ice Storage House

The drawings in Figure 1 show the plan and elevations, as well as, construction details of our ice house. Photo 4 is the finished structure ready for mounting on the layout. It will be located in the industrial area of Jacobs Creek. Just need to finish some track work in the Jacobs Creek freight yard and the ice house can be installed. Hope the ice does not melt in the meantime!

As stated previously, our ice house is on the small size. If you feel the need for a larger one, or if you plan to ice a block of reefers, you can grow this design. The ice house can be made longer, as can the platform. Photo 5 is of an O scale ice house produced by Atlas. It is quite nicely detailed. If you like the idea of having an ice service on your layout, but don't want to build one, you might have a look at this structure. The ice house and icing platform are Atlas part numbers 6905 and 6906 respectively. The photo is used with permission from Atlas.

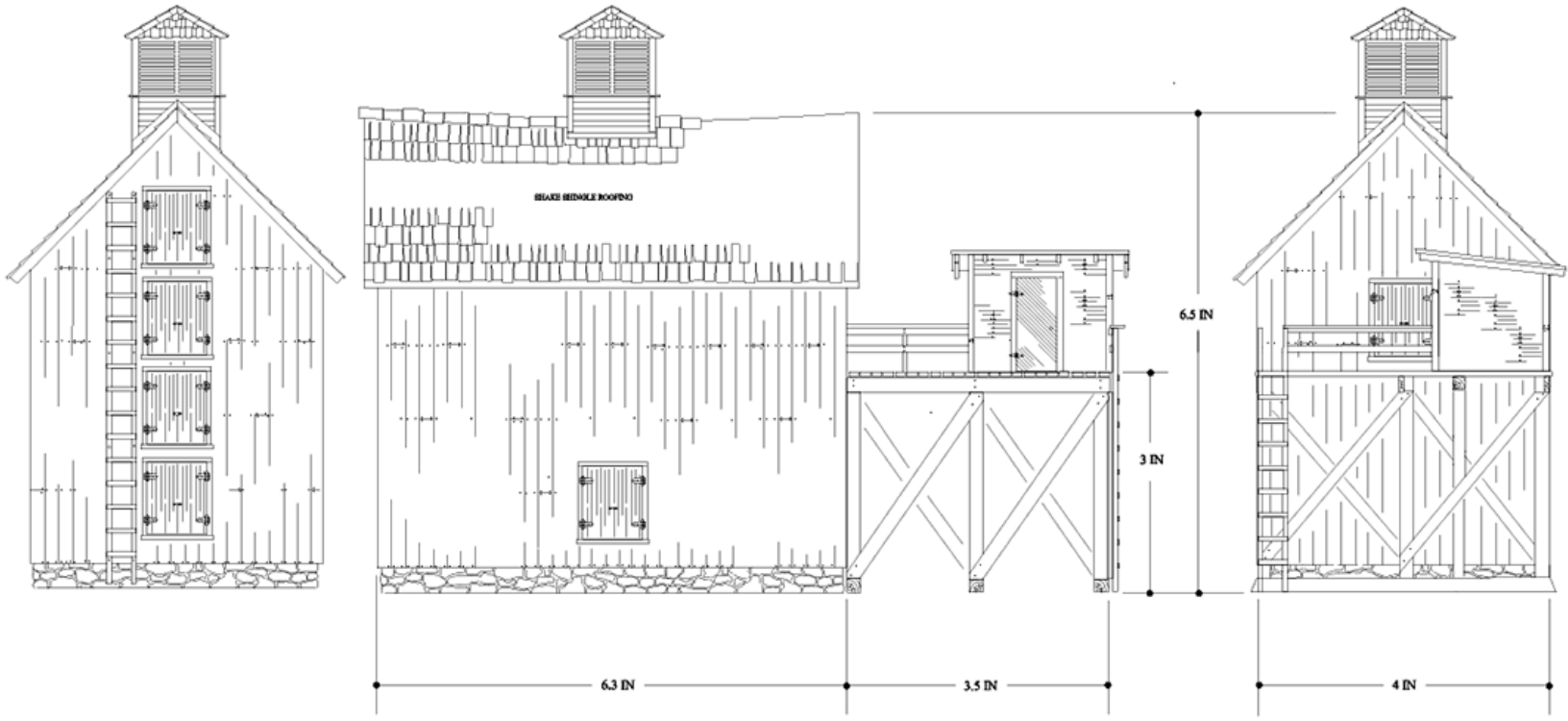


Figure 1

Photo 4

One thing to work out quite early is the colors for you ice house. Mine was to be a very weathered green with white trim. If your ice house is to belong to your railway, the color would probably be the same as your other railway buildings.

To achieve the sort of age I was striving for, I pre-stained my wood with black shoe dye diluted in metho alcohol. Basically, same stuff I use for tie stain. The nice thing about this stain is that you can still use white glue. I model the depths of the depression and have a soft spot for lots of weathering. You might not be so inclined. I worked the green and white over the stained wood to yield a very weathered look. The green was applied to finished walls, but the white was mostly dry brushed onto the stained stripwood before it was cut and fitted to the structure.

Photo 5

Atlas O Ice Dock. Used with permission of Atlas O LLC

Most ice houses were very plain structures with small wooden doors through which ice was added and withdrawn from the building.

I started by cutting a carcass from 1/8 inch thick MDF for my building. This included walls and roof. I installed a scale 18 inch high foundation made of field stone around the bottom of the carcass. I used some printed stone sheet that was in my materials repository. This will allow the building to be planted in the ground while keeping the wood siding up out of the dirt.

Many ice house photos I have seen show the vertical row of doors on one end. I assume this was to permit the ice to be stacked higher and higher in the building. I did mine the same. A ladder runs up along these vertical doors to access them. I have seen this feature in photos as well. From what I understand, the ice blocks were moved into the building using a portable conveyor via the vertical row of doors.

The six doors for the building were cut from some scrap styrene scribed siding, pre-painted grey and then streaked with white, and glued in place. The doors were framed with 0.02 x 1/16 inch stripwood that had been pre-stained and dry brushed with white. Transoms below the doors were made of 1/16 x 1/16 stripwood pre-colored black. I found some old reefer hinges in my junk box and used them for the doors. These were pre-painted rust brown. Latches were junk box finds also and are Grandt Line ones made for D&RGW box cars. I added handles to the door that leads to the icing platform as it will be opened and closed more than the other doors.

With the doors all in place, I covered the sides with scale 1 x 9 pre-stained board siding. I did not add boards to the back of the building since it will be out of view and life is too short to model things that cannot be seen. I have a train friend down here that is quite an advocate of not modeling what cannot be seen. He actually has little labels on the back of models that are “out of view”. These labels suggest that anyone reading them is seriously sick.

When the siding was on, I worked the pullman green paint over the pre-stained wood. Basically, on such a very weather beaten building, the paint would retain its color under the roof eves where is was protected from

sun and rain. Also some boards would retain their color longer than others. I planned the large decal "sign" for the front of the building so I extended the color down the front as the "sign" painted over the green would protect it somewhat from the weathering experienced elsewhere. I added the green with an almost dry brush working from top of walls down randomly.

Nail holes are a nice detail that are easy to do and quite noticeable in O scale. I make mine using a machinist's scribe. A building such as this one with very thick and multiple walls to insulate the ice contents would not necessarily follow any standard framing protocol. I place a row of nail heads every scale 4 feet horizontally oriented on the siding.

The roof was designed with a sag. The two sides of the roof were of 1/8 MDF as well. I cut grooves into the inside surface, and then pre-bent the roof a bit to help it assume the sag. I painted the edge of the underside of the roof, the eve overhang, with some pullman green paint. Then I glued the roof pieces to the building one at a time and weighted them to keep the sag in place while the white glue dried.

The plan was to include some scale 1 x 7.5 inch stripwood to forma fascia all around the roof edge. This plan slipped my mind and roofing began before I noticed I had forgotten the fascia. So, I just dry brushed some white around the edges of the MDF roof.

An Easy (and cheap) Shake Shingle Roof

There are several sources of commercial shake shingles, and many are very nice products. But, as many are machine made, the shakes tend to be exactly the same size and can yield a rather monotonous roof. And, since I am a long way from sources of supply, I tend to roll my own for many items that you fellows up north can more readily obtain at your corner hobby shop. One such item is shake shingles. To make them, I use file folders. You can now get the file folders in grey at larger office supply firms which is very good. A good quality of hard faced grey card would also work. Avoid the fuzzy faced craft type paper though. With the grey card, any missed areas or damage is grey rather than the customary manila folder tan.

I start by marking pencil lines ¼ inch apart beginning at one edge of the file folder and working my way up. Using a pair of sharp scissors, I then cut individual shakes to the first ¼ inch pencil line taking care to make the width of the shakes random. In the early days, prototype shakes were hand cut from shingle bolts and ranged in width from 3 to 12 inches. Later on the process was more mechanized, shingles were sawn, and they probably were more consistent in width. Each cut forms the bottom, exposed part, of a shake. By not cutting much beyond the first pencil line, the top portion of the shingle row will keep it as one long strip. When the entire row has been so cut to the ¼ inch pencil line, I cut along the second ¼ inch pencil line to separate the row from the rest of the file folder. To help give shakes an old, well used look, I snip bits from them there and make angle cuts between them here and there. Then you start the next row by cutting the shake widths to the next ¼ inch pencil line. I do this until I have a goodly pile of shingle rows.

I find this a good project while my wife watches TV since there is nothing on the bloody thing that interests me. This all sounds like a lot more work than it really is. It takes surprisingly little time to cut all the shakes needed for even a good sized roof.

For a graphic explanation, see photo 6. At the top of this photo the file folder is marked at ¼ inch and lined off. At the bottom edge of the file folder, you can see a row with the cuts to the first ¼ inch line in work. Below this is a row that has all the cuts to the first ¼ inch line added and the entire row has been cut from the file folder. And, at the bottom of the photo, is another row that has been "weathered" by cutting the bottom edge of some shakes shorter and sometimes a bit crooked. Also note that the bottom row has been turned over so the pencil line does not show and therefore does not need to be painted out. It is ready to apply to the roof in this orientation.

To apply the shakes, trim a row to length to fit the roof width at the bottom along the eave. Put a fine line of white glue along the roof where the shingle row will go. Keep the glue to the top of the area to be covered by each shingle row and free of the little shake leaves. Position the first row such that the shake leaves hang over the eave just a little. Press the shingle row in place. You do not want glue to squeeze out onto the face of the shingles so you need to be sparing with the glue. Now add a second row above the first covering the uncut portion of the first row with the shake leaves of the second row. And add a third, and fourth row, etc., working your way up to the ridge of the roof. Progress is fast and the effect is quite good. By keeping the glue

Photo 6

under the top solid half of each shingle row, the bottom half, the exposed shakes leaves if you will, are free to lift a little and this lifting gives a rather convincing depth to the roof texture.

When building the carcass for such a building I usually add pencil lines to the roof about ¼ inch apart and these help keep everything straight when applying the shingle rows to the roof. See photo 7 where the shake shingle rows have been applied to the ice house roof. When approaching the ridge of a building with a sagging roof such as this ice house, you need to fudge the alignment just a little so the top row is parallel with the sag.

Add a ridge cap. This could either be from shakes or tar paper. Both approaches were used. For a shake ridge cap, you could cut individual shakes from one of your rows as there always seems to be a bit left over. But your life will be much easier if you make your ridge cap shakes the same width. On the grey card I measure off a few 3/16 inch wide rows, cut them off and then cut these into 3/8 inch long individual shakes. Add them perpendicular to the previously applied shingles overlapping each by half the length of the shake. Work your way across on both sides of the ridge from one side to the other. Since I was going to have a cupola on mine, I worked from both ends of the ridge toward the middle of the building.

I think prototype shakes were often applied such that the overlap was one third the length of a shake. This would provide three layers to help avoid leaks. For a model, having two layers I think is sufficient.

For a tar paper ridge cap, cut black tar paper material to a width of about scale 18 inches, Fold the strip down the center so that a scale 9 inches of width will be available on each side of the ridge. Apply the ridge cap with some white glue.

Next, color and weather the shake roof. In the old days (before grey folders) I would paint the entire roof grey, except the tar paper ridge cap, of course. Now, I just use several different shades of grey to streak the roof to get away from the single grey folder color. Use a close to dry brush, and with short downward strokes, work the shades of grey onto the shakes. I tend to do this in a few sessions. After a painting session, I let the roof dry and then go back and have another look at it. I tend to go over the roof a few times using the same variety of greys until I am happy with the effect.

When the roof is done, and good and dry, say after a day, or more if damp outside; I give the roof a wash with my black india ink diluted in metho alcohol taking care to keep each brush stroke vertical. The black runs into the cracks and when dry really accentuates them. Make sure the roof is good and dry or the black wash will remove, or at least blend, the previously applied grey paints!

When the wash is dry, I use a very dry brush and a light grey to highlight the bottoms of the shakes.

Chalks in black, dark grey, green for moss, and brown for dirt, are worked into the roof here and there. And when all finished, I overspray with a flat to seal the chalk and cover any shiny spots caused by glue. Photos 8-10 are of the finished model. Photo 4 show the progress after the several weathering steps and should help you see how the method works. In photo 8, the shades of grey have been applied to the roof. In 9, the black wash has been applied. In 10, the light grey has been dry brushed over the wash. And in Photo 4, the chalk has been applied. There is a substantial change between Photo 7 and 8, but after that, the changes become more subtle. All I am trying to do is add depth and a weathered effect in each step. I like the aged silver-grey look, and that is what I modeled.

Shake roofs, like unpainted timber in general, weather differently in different areas of the US. In Colorado, they tend to weather to a brown. On the west coast, they tend to be silver grey. I think the weathered color is a function of many things to include the type of wood used to make the shakes, the dampness in the area, the temperature and other factors.

Photo 8

Photo 9

Platform to Service Reefers

I made my small platform 3 inches high from the rail head and as shown in the drawing. Most ice house platforms were long affairs that could accommodate many reefers simultaneously. Ice often was scooted along the platform by a chain conveyor and pulled off when needed for a car. But, our platform was designed to service one end of one car at a time. The platform was made of 6 x 6 scale inch vertical posts, Floor joists are scale 3 x 9. And the floor is scale 2 x 6 stripwood. Criss-cross braces are 2 x 8 and 3 x 9 stripwood. Since the little shack would have been a later add, and the platform is actually quite flimsy structurally, I added another brace under it with 9 inch diameter posts and a 9 x 9 inch cap/floor joist under the shack. This was also crisscross braced with 3 x 9 stripwood. A ladder extends from ground to the platform. A guard railing covers the back and side of the platform, but not the front as this is the working edge and is un-guarded. The guard rail posts were made of scale 3 inch square and railings of scale 1 x 3 and 1 x 4 stripwood. All wood was pre-stained.

In the good old days, there almost always seemed to be a supervisor of some sort in charge of every working man. Our supervisor could sit in the little shack so he did not need to stand out in the hot sun all day like the workers. I did not include windows as the workmen did not want the supervisor to see them loafing. The shack is nothing more than a block of wood cut to size and covered with styrene clapboard siding. Edges of the walls have vertical trim. The door is a Grandt Line one. I painted the little shed white, then dry brushed it with some light grey weathering. The white provides some variety to the drabness of the rest of the structure. The shack roof was modeled as weathered tar paper.

The Cupola

Most ice houses seemed to have cupolas on the roof with vents to exhaust warm air, so we had to have one. When getting ready to knock up the cupola, I remembered I had a kit by Banta for the Strong, Maine depot on the Maine two footer. In a weak moment, I had bought this kit some time ago as I liked the look of the building. But, I had planned to not use the cupola that came with the kit. So, I scrounged the cupola from the Banta kit and used it on my ice house. I put the Banta cupola together and sat it on the ice house roof. The ice house now looked more like an abandoned church from a horror movie. The Strong depot cupola had a high pointed top – almost a steeple. It just did not work for me. I took the tall pointed top off the cupola and made

one with a much flatter taper. Much better that way, and something that could have been. The cupola roof was then covered with shakes as well and weathered in the same fashion as the main roof. You can see the finished cupola on the ice house in Photo 4. Still looks a bit churchy according to my wife, but certainly better than before.

Ice blocks, Tools, and Duck Boards

Photos of ice houses at work seem to always include blocks of ice lying about melting so I felt this an important detail. To make my ice blocks I cut some ¼ inch thick clear acrylic I had in the scrap box into strips approximately ¼ inch wide. From these strips, I cut individual blocks approximately ½ inch long. The saw marks clouded the acrylic and provided a rough finish that looked very much like the frosty prototype ice blocks I have seen so I left them that way. Where the acrylic was shiny and smooth, I sanded it to give it an all-over frosty look.

Now ice melts quite quickly during the warm fall harvest season in southwestern Pennsylvania. I wanted to model this melting water. After playing with the idea for a spell, I came up with an approach. I cut irregular shapes, puddles, from very thin clear glossy plastic sheet. The size of these puddles was random and somewhat larger than the footprint of the ice blocks. First I scribed the clear puddles with straight lines at the same spacing as the wood deck of the icing platform. The ice blocks were glued to the puddles. The plan was to then glue the ice blocks with the puddle underneath to the platform with the scribe lines lining up with the cracks between the deck boards. Due to the helter-skelter nature of my platform planks, this was not all that effective as the scribed lines did not always line up with the cracks between the boards. Finally, rather than scribe, I cut the plastic puddles into strips of clear the width of the boards. Each of these strips was individually glued down onto a board lining up the rough outline of the puddle. Then the ice block was glued to the strips. This resulted in a more convincing arrangement. The effect was as if the melting water was draining between the deck boards. It looked all right to me after a few glasses of red wine. Funny the things you can come up with when challenged. See sketch in Figure 2.

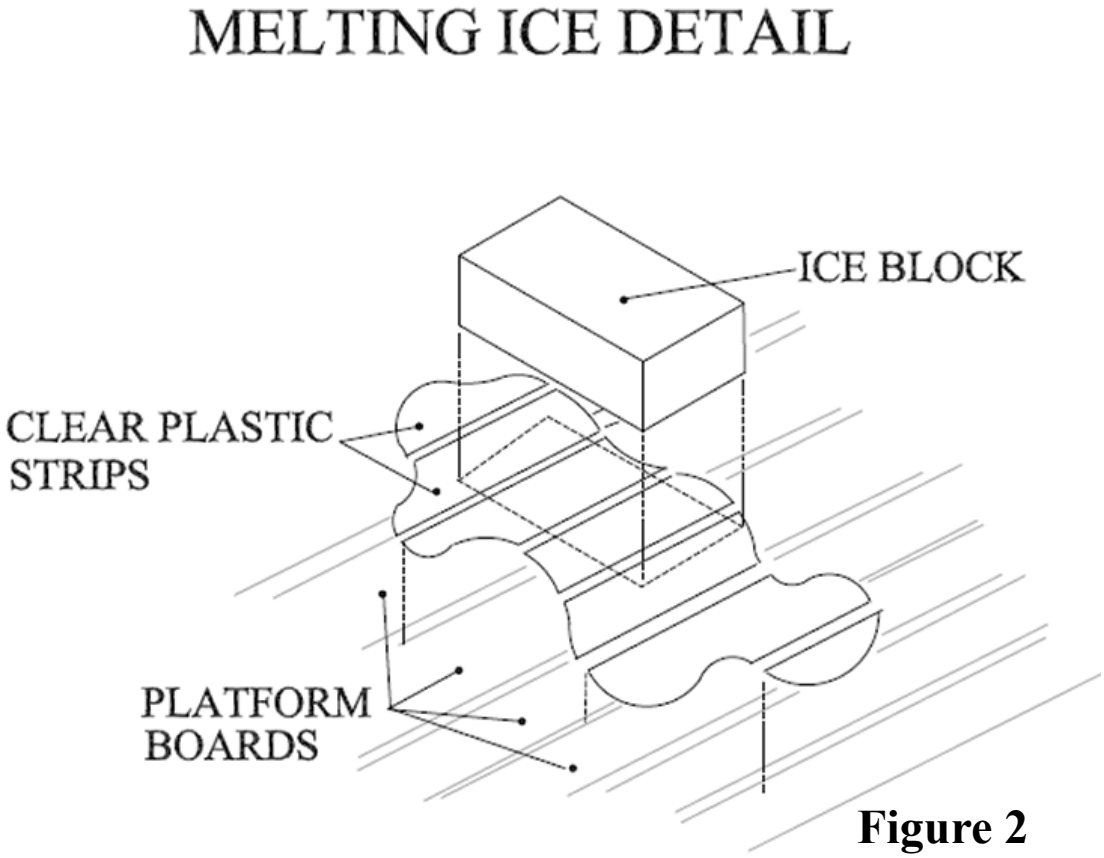


Figure 2

Photo 12 is intended to show the melting ice block, but the "water" on the boards is not as noticeable as it is in person as the shine of the glossy clear plastic does not seem to be evident in the photo. Since I am not a great photographer, when one of my train mates, who is an excellent photographer, came around, I had him shoot the melting ice on the platform. Even with a photographer that knows what he is doing, the shine of the water is not as apparent as it is in person.

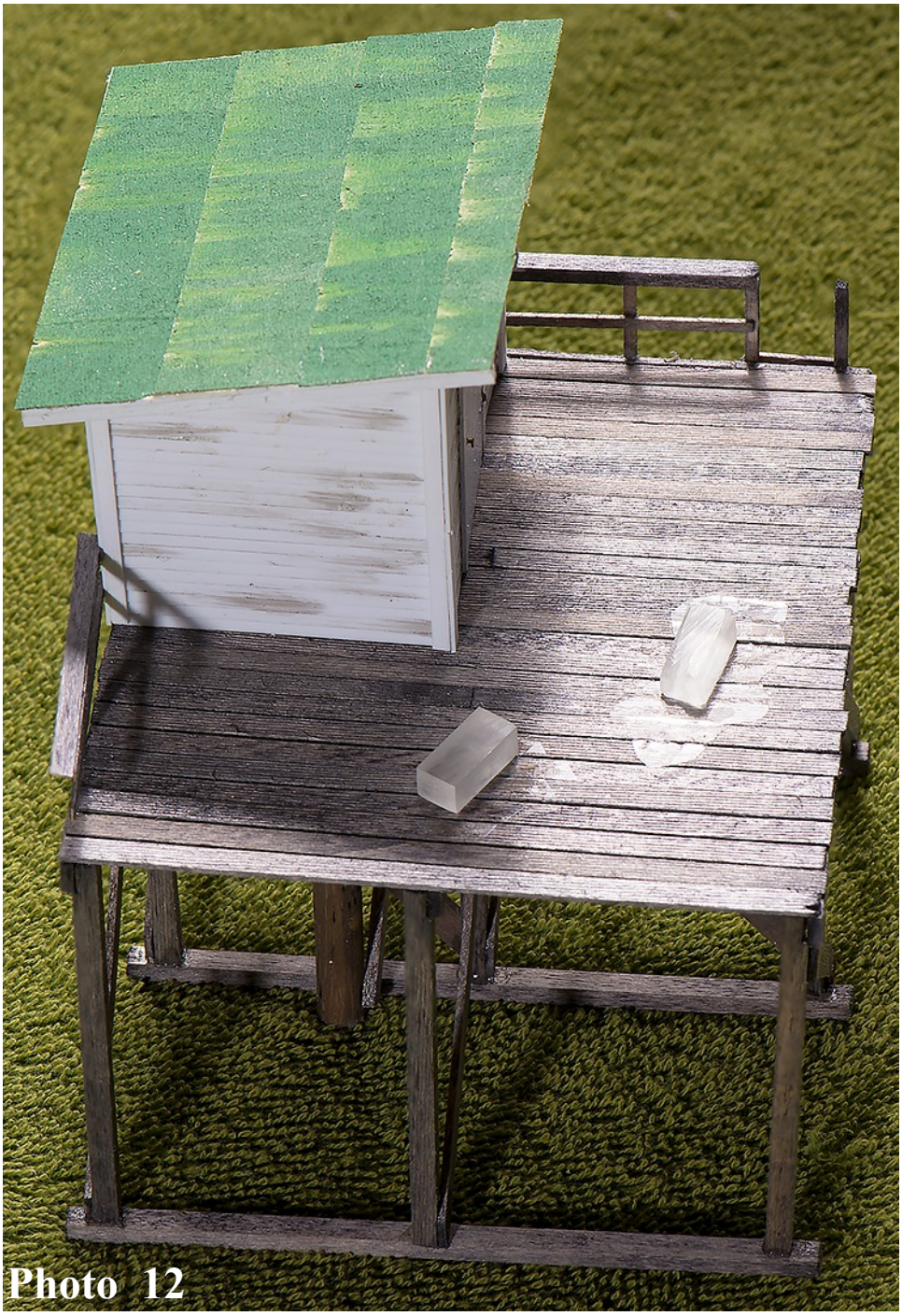


Photo 12

Certain tools are used on the icing platform. Long handled ice chippers that look like the devil's pitch fork are used to break large ice blocks into smaller pieces to fit into the reefers. And long poles with a barb or two on the end appear to be used to steer the ice between the platform and the reefer ice hatches. I think the proper names of these tools are caker and pike pole, but I'm not certain of that. I assume tongs might also be used to carry smaller chunks of ice, and you could include those if you like. I made some of these and they are distributed around the loading platform. I also included shovels as I suspect they might be needed to deal with broken ice.

Access between the icehouse platform and the tops of reefers appears to be by one of two means. Some ice house had folding extensions hinged to the platform that were dropped down onto the roof of the reefer once the reefer had been spotted for icing. They were then pulled up after loading was complete. The other system I see in photos is the use of portable duck boards as mentioned earlier. These are nothing more than a few boards nailed to cross pieces, sort of like the walkway on the top of freight cars. These duck boards were probably 8 or 10 feet long, 2 or 4 feet wide and were just laid across the gap between platform and car roof. Ice blocks were scooted along the duck board from the platform, guided by the long barbed poles, to the reefer ice hatch. I made a few duck boards and they are also here and there on the platform. They probably assume a reasonable sag over time so mine have this feature.

We needed a few workman on the platform to add some life to the structure. I had a gandy dancer figure who was supposed to be holding a pry bar of some sort. I made a barbed pole for him and placed him such that he could have a good poke at an ice block. In my box of figures, I found an old lead figure holding a long handle shovel. He was painted with gloss paint and had a base under the figure. I repainted him in flat to kill the shine of the gloss paint and filed and sanded off the base. These two fellows were placed on the platform. Hopefully they will do a bit of work while there.

Scenery

I glued the ice house in place on the base. Before gluing down the platform, I drew lines around the sills, painted the base my basic earth color, then sprinkled on some fine sawdust and sand over the wet paint other than under the sills. Next I added some grasses and other dirt materials and bonded these with diluted white glue. The platform came next and it was glued in place. When this dried, I added some foliage. I used some small tufts of lichen in addition to grass clumps. I reckon the area under the platform would have green grass due to the leaking of melting ice above. Under the shed and other areas, I applied dried grass clumps.

Icing Operations

Having this facility on the Mountain Electric means that reefers destined for loading at the packing house in Celestown, the next town down the line, will first need to be switched to the ice house at Jacobs Creek for icing. The switching crew will need to stay with the car during icing as it will need to be moved to permit the ice bunkers at both ends of the car to be iced. When iced, the car can be forwarded to Celestown as expeditiously as possible for loading with produce. Empty steam road reefers will also be iced before spotting for loading at the local dairy. And, when a loaded reefer arrives in Jacobs Creek and cannot be immediately set out at the IGA warehouse, or the freight house when the car is loaded with beer for an off-line beer distributor, it may need to be sent to the ice house for topping off while awaiting movement to the delivery destination. This delay in delivery can happen when the siding is already full and the arriving load must wait for the cars currently on the siding to be picked up.

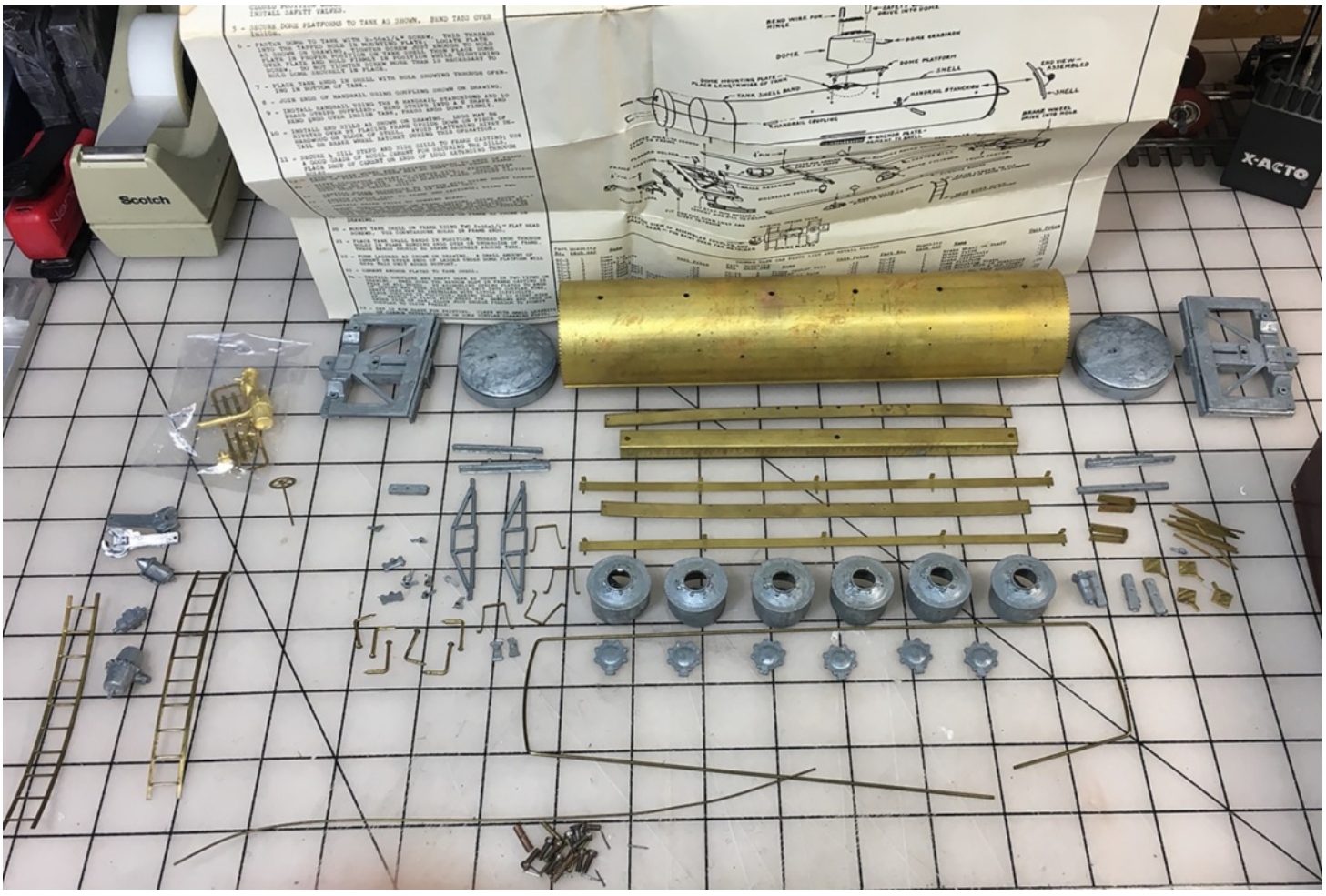
And, in the winter, steam road reefers will bring ice to the Jacobs Creek facility from the lakes where the ice was harvested.

This all creates traffic, switching fun, and needed revenue for the Mountain Electric Railway.

Thomas Six Dome Wine Car
Let's revisit some older kits… By Daniel Dawdy

We like wine. There, I said it. When Amy and I travel, we always stop at local wineries for a taste and some bottles. To be honest, not every small winery has wine that I like. Sometimes, Amy likes it and I don't. I'm more of a sweet white kind of guy while Amy likes a more dry red.

I also like tank cars, and now Amy has a wine train on the layout consisting of tank cars and reefers. While at the Strasburg O Scale Show last fall, Amy saw an unbuilt Thomas six dome wine car. I bought it and looked everything over. All the parts were there including two instructions sheets: one for a standard tank car, and another showing the differences for the six dome car. Decals, Roma, were also there, but I am not going to use them. I wanted to do a wine supplier that I did not already have. Norm at Protocraft has done some beautiful decals, so I ordered a California Grape Products Company (GATX) set for this car.



I laid everything out and made sure I had everything. The bag of brake parts are new. The brake system is the one thing I'll update to this kit.

This kit was designed in the late 1940's, but the castings were as beautiful as the day they were made. And these were not spin castings, there was a lot of tooling that went into these molds. The kit was designed not needing any soldering. For the most part, everything was clean and there was no flash. I wanted to keep the neat ideas they had when designing this kit and keep the "flavor" of the kit, but at the same time update a few things.

This was an ad that Thomas ran in 1949. These are beautiful kits and worth seeking out.

Here's the THOMAS LINE-UP

Precision Engineering

Plus Quality Workmanship in O Gauge

THOMAS INDUSTRIES
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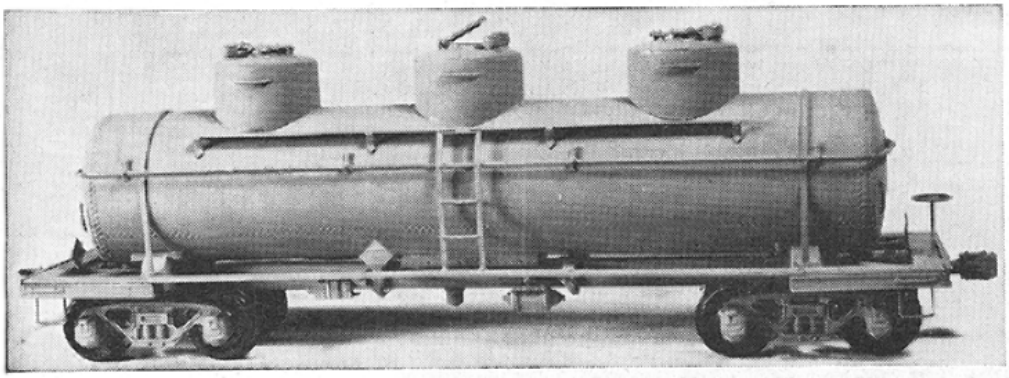
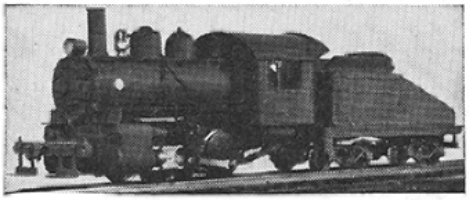


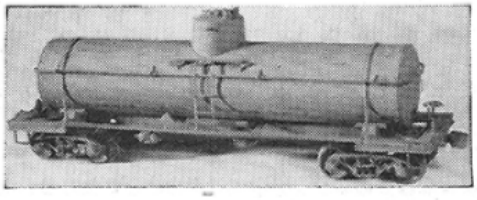
NEWEST ARRIVAL in the THOMAS family. Beautifully detailed 3 dome tank car. Operating dome lids. Available now at **$6.75**, less trucks.



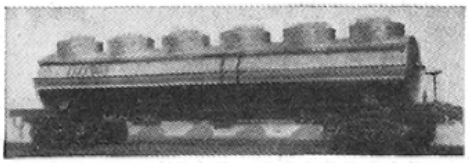
TENDER KIT

Because of many requests to market this sturdy tender separately in kit form, we are bringing them out at the low price of only **$8.95**

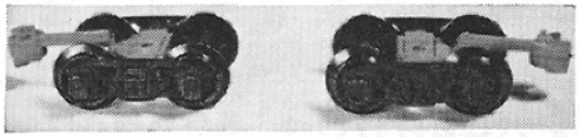
This husky little switcher is scaled from Baltimore & Ohio blueprints. And its broken all endurance records for continuous running on display layouts across the country. Easily assembled, only $39.50



Modelers everywhere tell us it's the best looking tank car ever. Never before so much realism at so low a price. Only $5.95, less trucks.



Here's the famous 6 dome tank car used by the largest wineries. A real prize for your layout. Ready now, but photo of actual model not ready at press time. Less wine and trucks, $7.75



Here's realism at a low price for you tinplaters. Tinplate freight trucks with coupler that attaches to Lionel, and swivels with truck wheels. Per pair, only $2.10

A REAL value for you tinplaters. This colorful, red-and-green, all metal waiting platform has electric lamp and waiting bench. No better construction made. Only $3.85

Tinplate street lights, green finish, all-metal:

7" arch neck type $1.39
5" and 3¼" boulevard type ..... .85

Quantity of lamps limited.

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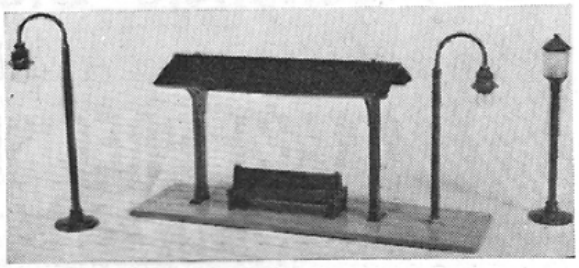
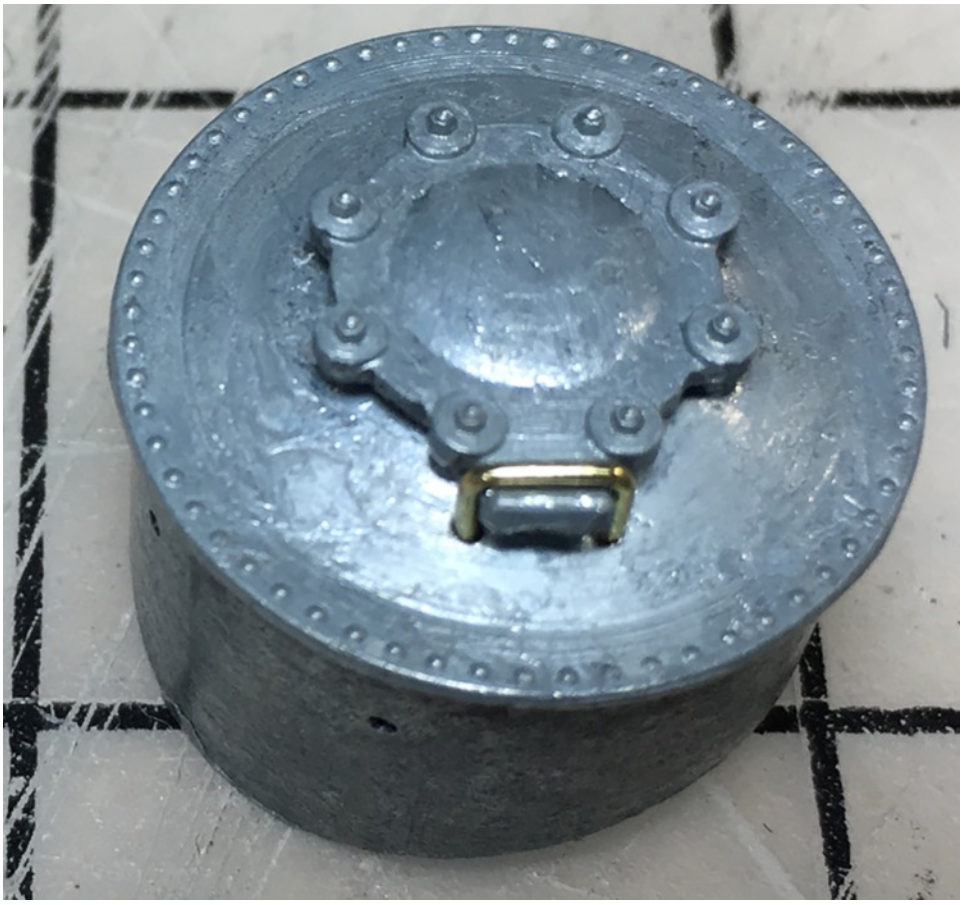
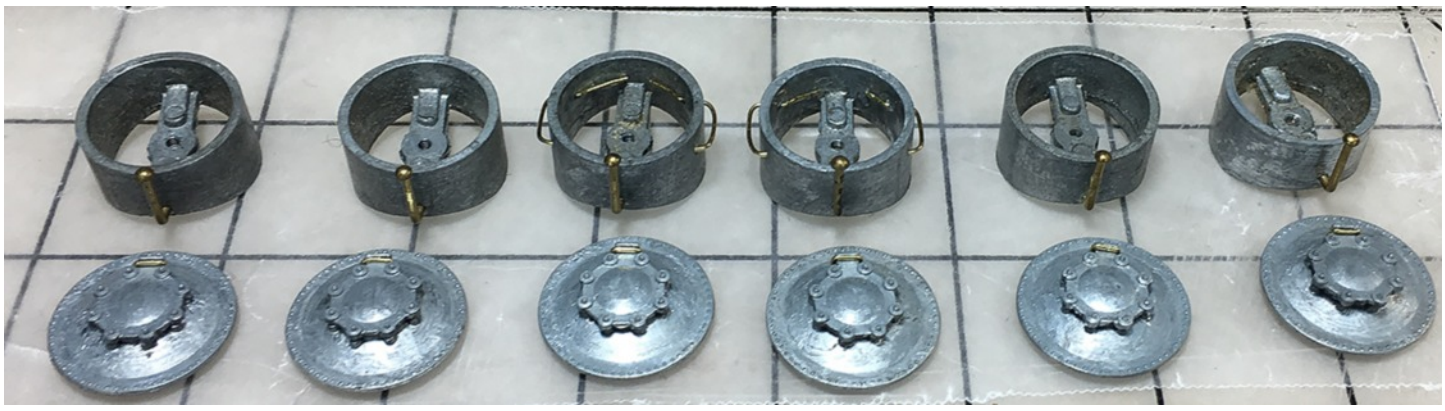
THOMAS INDUSTRIES WENONAH, N. J.

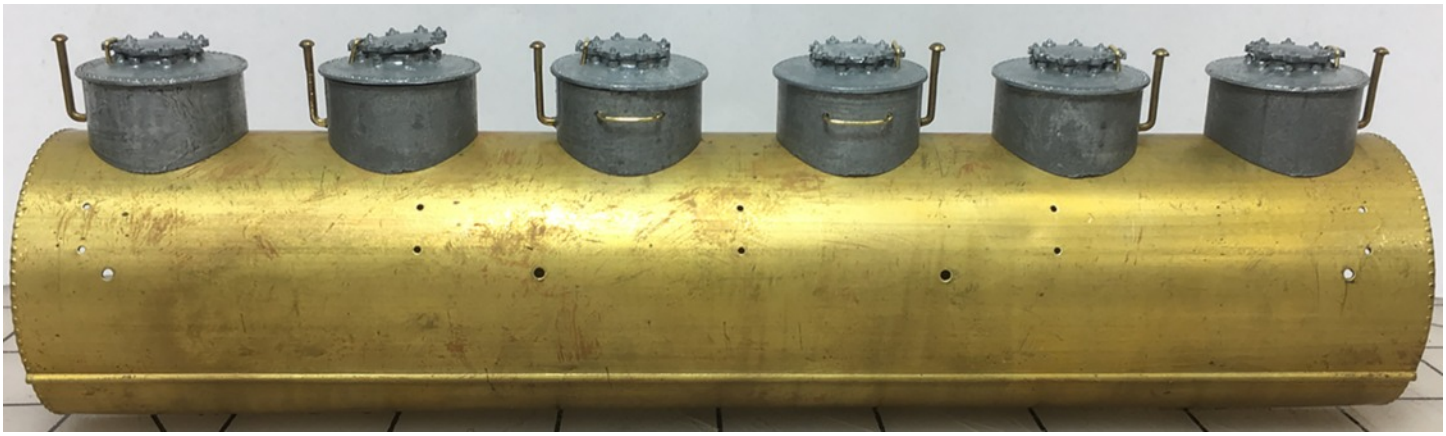


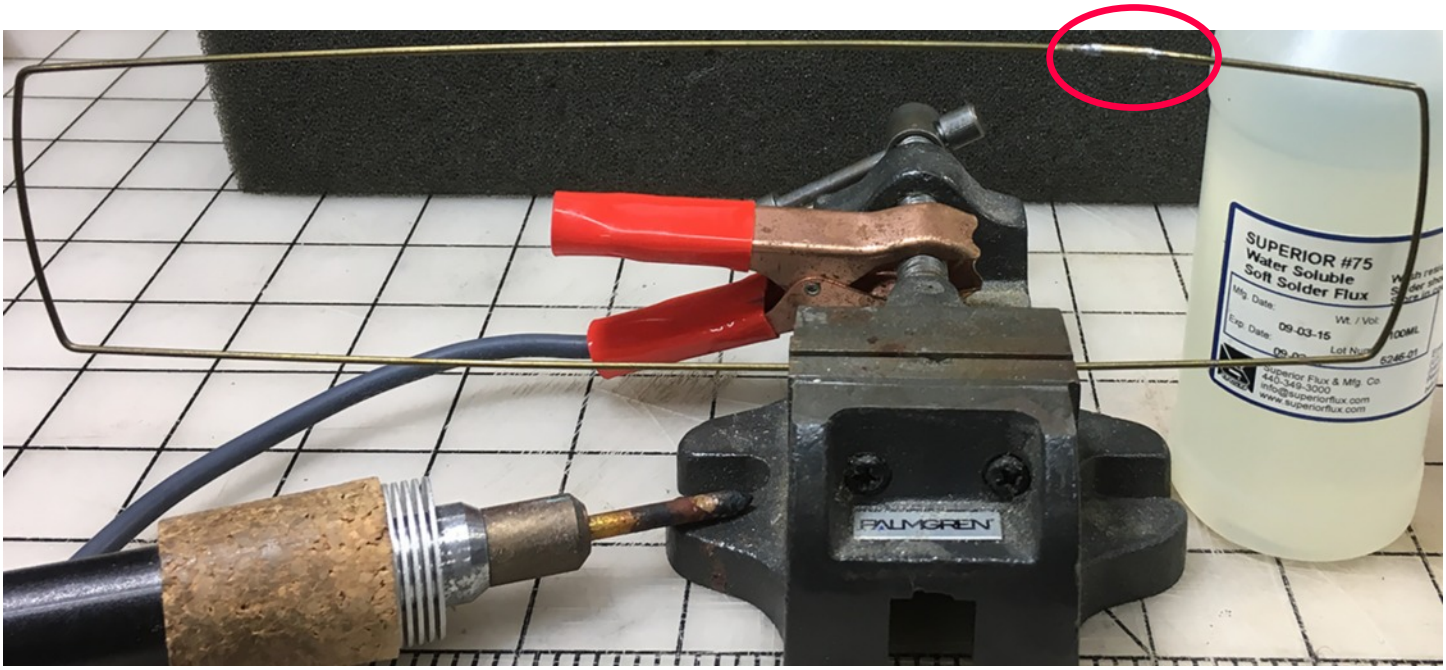
Glenn Guerra gave me a bag of his old Mullet River brake parts that I would use to add more detail to the body of the car. That was going the be the biggest change to be made. So, following the instructions, we start at the top and work our way down.



The domes are a three piece assembly. The opening hatch, the dome cover and the dome itself. The kit had some .030 wire which I thought was too heavy and would have been hard to work with. I used .020 wire for the "hinge" and the dome grabs. For the hinge, the wire is bent over the end of the hatch and down through two holes in the cover. I spread the wires out underneath and used ACC to secure. Only the center two domes had grabs, so using the same wire I made these, again bending the excess wire inside the dome and gluing. The vent pins were bent to size in the kit and just needed to be pushed into their holds and glued. This is one part that you could replace with a newer casting, but again, I wanted to keep part of the charm with this kit. The domes screw on the wrapper from the inside and no gluing is needed.

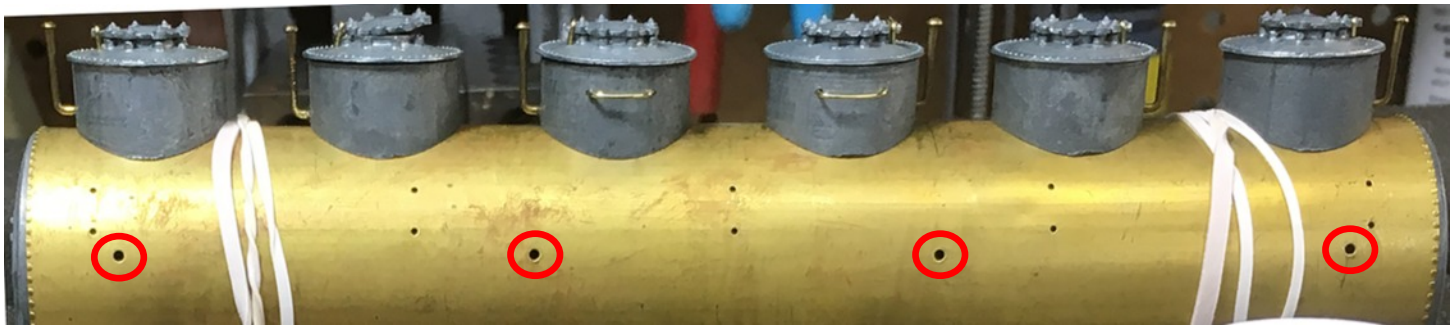




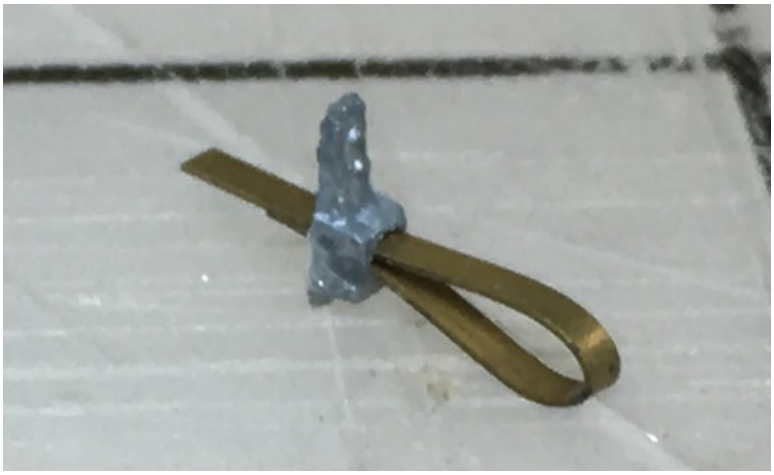


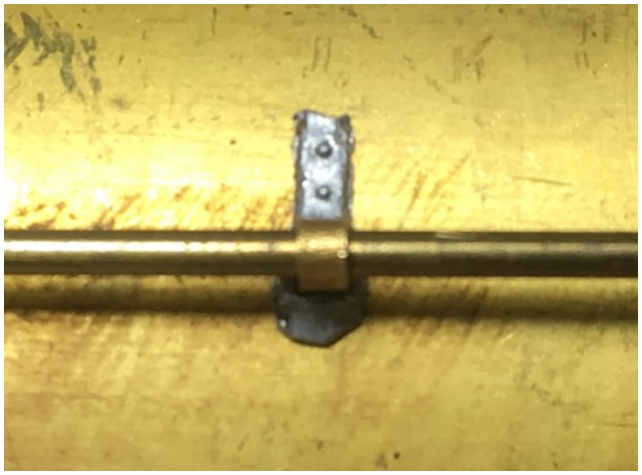
Red circle shows the small coupling soldered to the pre-formed hand rail.

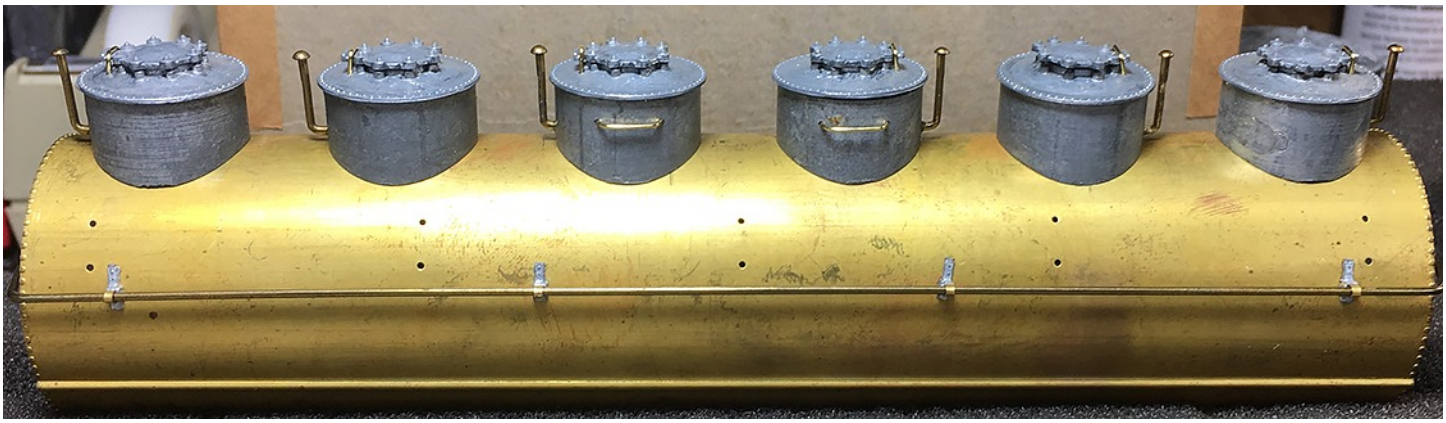
The hand rail was next. It was pre-formed and just needed to be joined. They gave you a small hollow tube to be used as a coupling. Here, I did solder as I did not this to come apart while working with it. I am sure ACC would also work just fine.



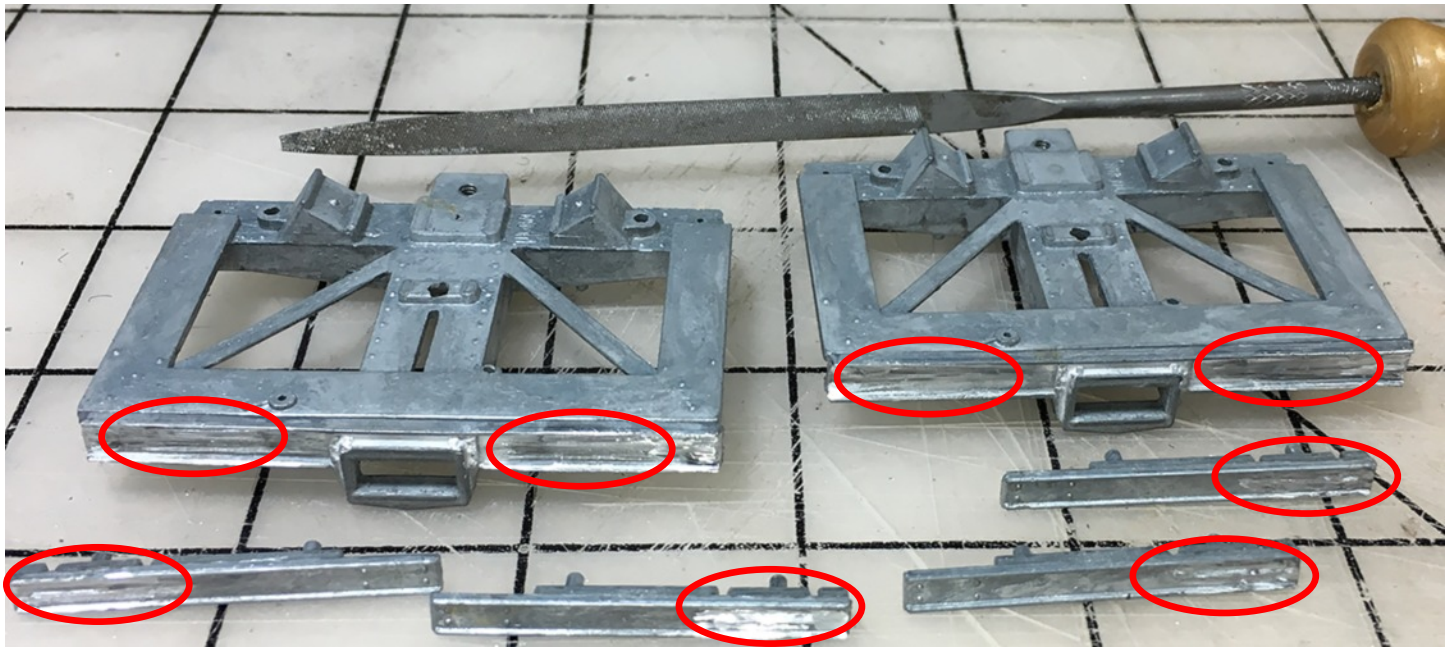
Attaching the handrail to the tank wrapper was really ingenious. As I said before, all holes were pre drilled making this very easy. The four large holes, in red above, were used for the attaching the handrail. There is a small casting that sets against the wrapper and then a small s piece of brass stock is used to loop around the handrail though the casting and into the hole. Pull the excess tight inside the tank and flatten against the inside of the tank. The picture on the next page shows the finished assembly. I'll come back later and put a small dab of ACC on the casting just to keep it straight up and down on the wrapper.

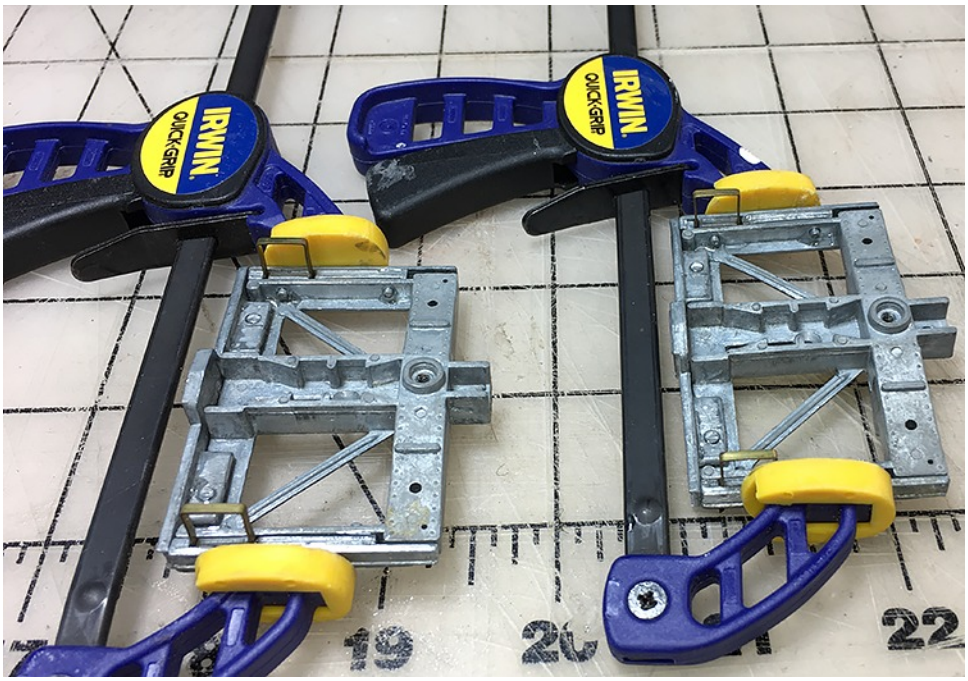






Now we will move to the end sills, frame casting and side sills. Both the end and side sills had cast in grab irons. Well, I thought this would be an upgrade. Just file them of and add wire. That's a lot of filing in a small space.

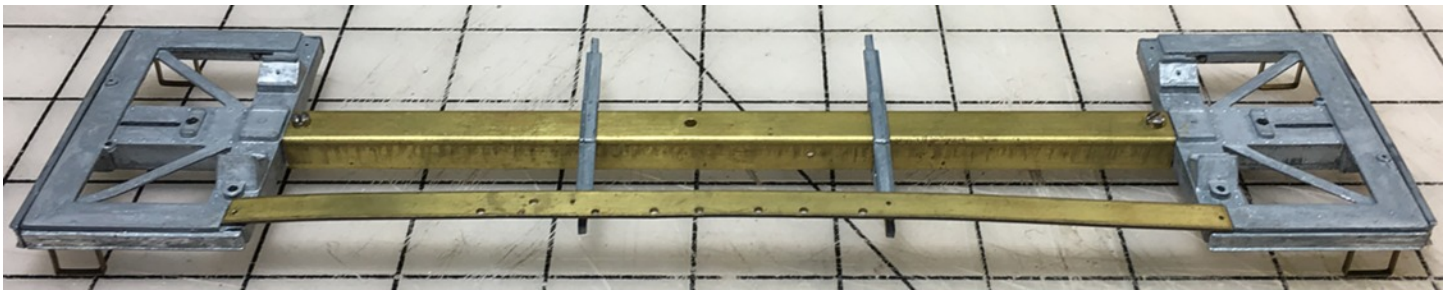


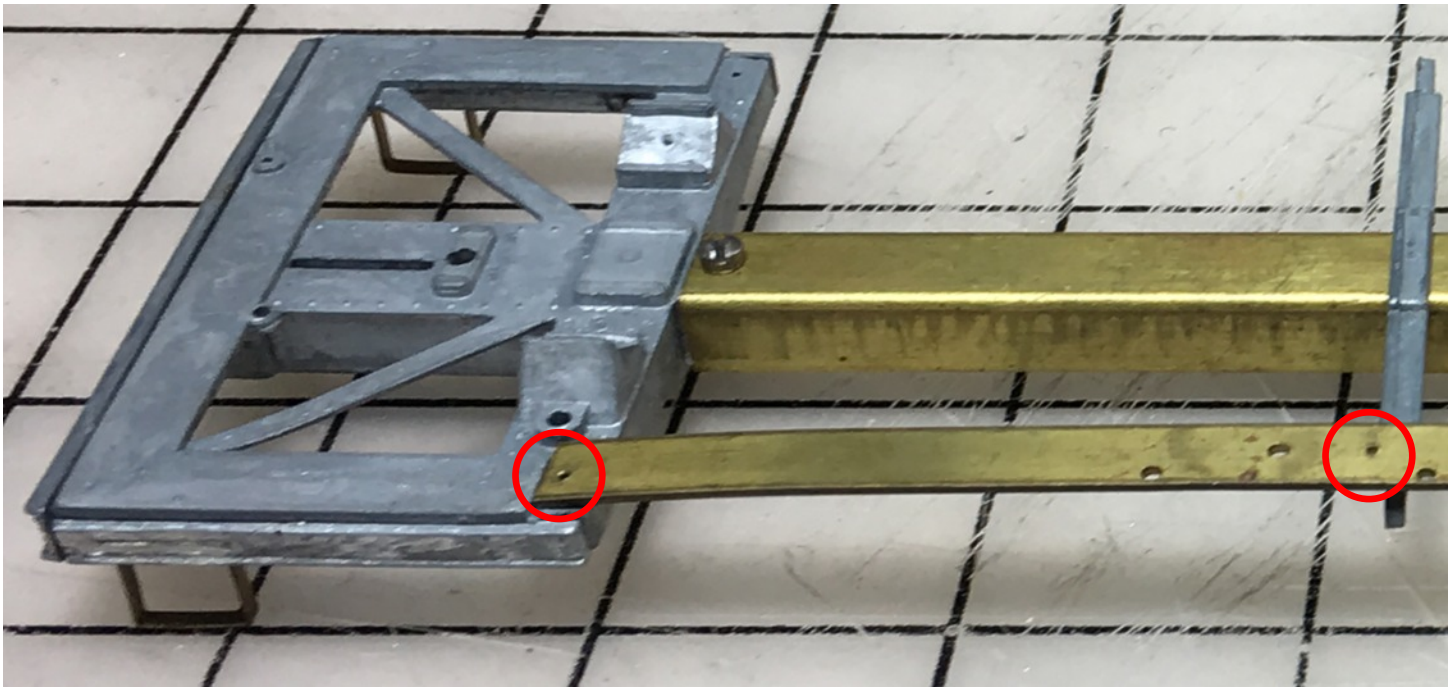


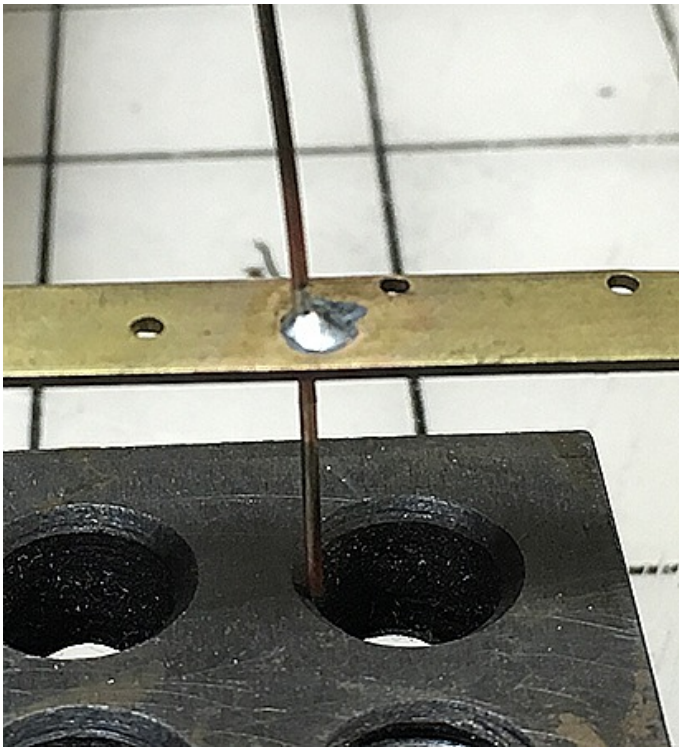
Above: Shows the end sills and side frames. Grabs on both ends were removed. The side sills had one grab to remove on each.

Left: Shows one of the two completed end frame castings. It's all held together with pins and holes. They suggested riveting the pieces in place by flattening out the pin after it went thought the hole. I used ACC.

At this point, the instructions want you to add some of the details and brake rigging. I thought I should finish the frame first and then worry about the rest. The two completed frame castings are held by the center sill with a screw in each end with two running board supports between as shown below. The running boards fit on ether side of the center sill.

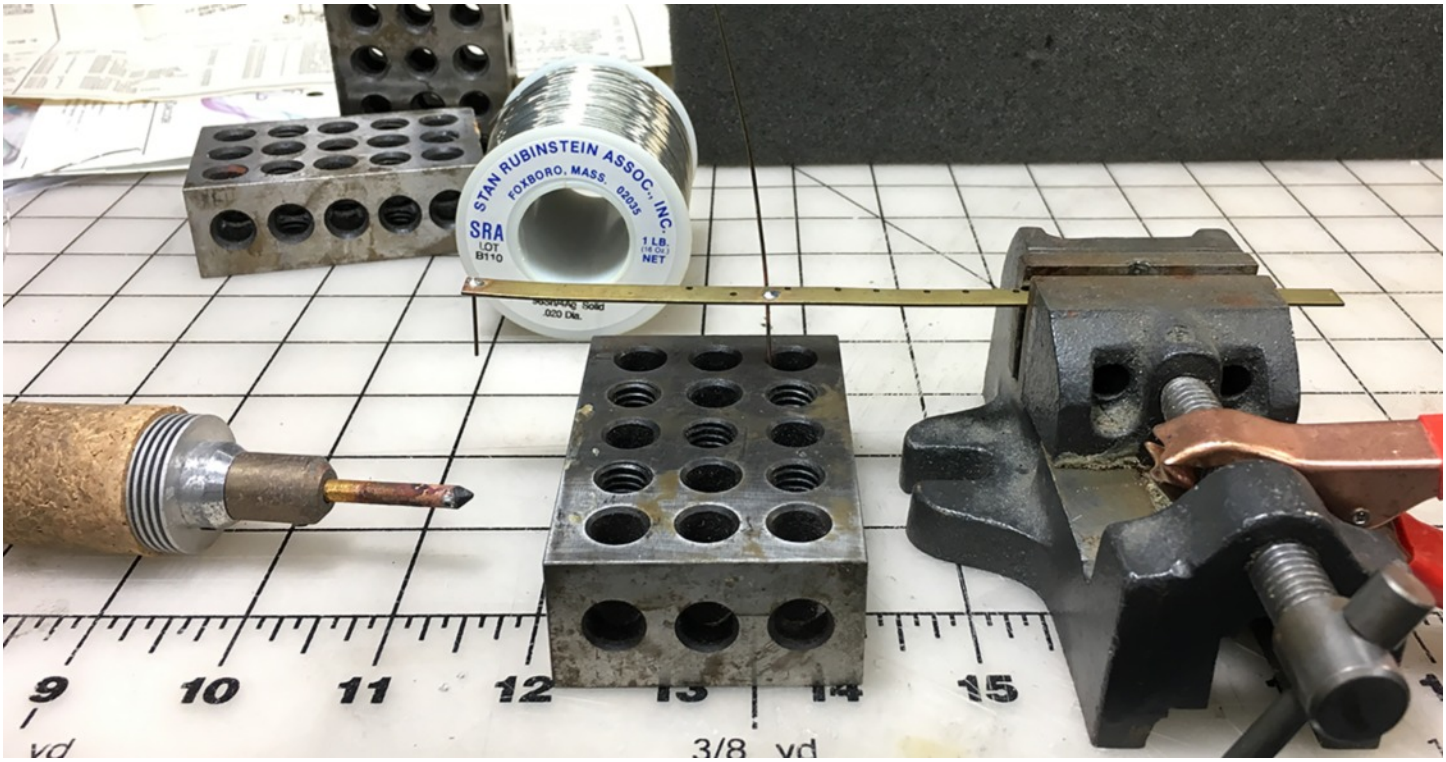




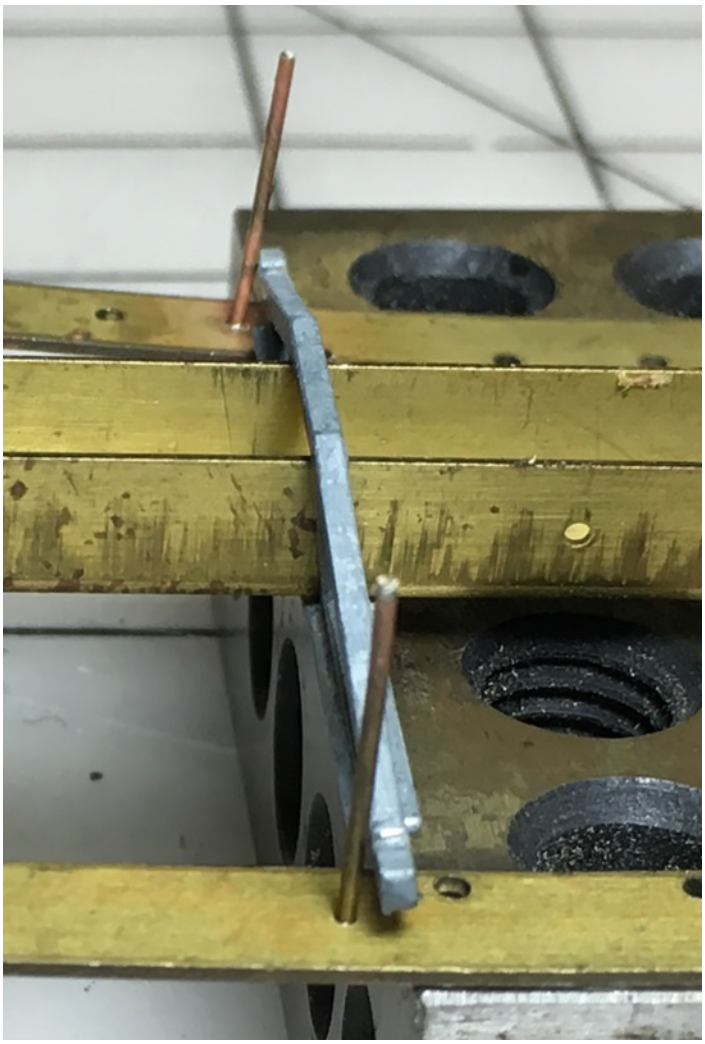


The close up above shows the hole at the end of the running board and at the running board support. The kit contains very small 1/4" nails, which on the end are pushed through from the top and then "bent" over underneath the frame casting to hold in place. On the running board assembly, the nail will go through the hold and wrap around the running board support casting. No way will that work, at least I had a real hard time bending the nails or pins as they called them. They were too short to get a grip on and fold over. Soldering to diecast will not work, at least with anything I have, so plan C was implemented.

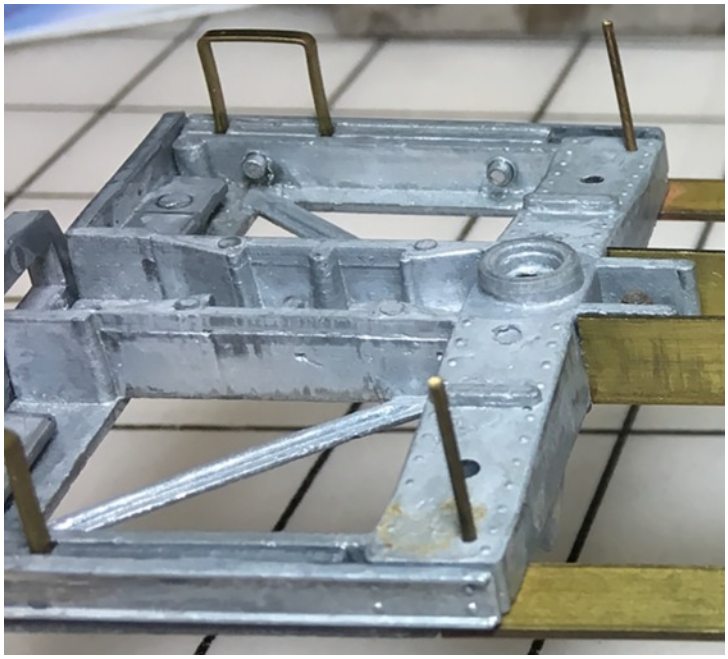
Using the .030 wire the kit wanted for had grabs, I cut short pieces and soldered through the four holes on the running board. Once soldered, the tops will be filed smooth leaving the "pins" hanging down. The picture on the next page show the assembly being soldered making four new pins.

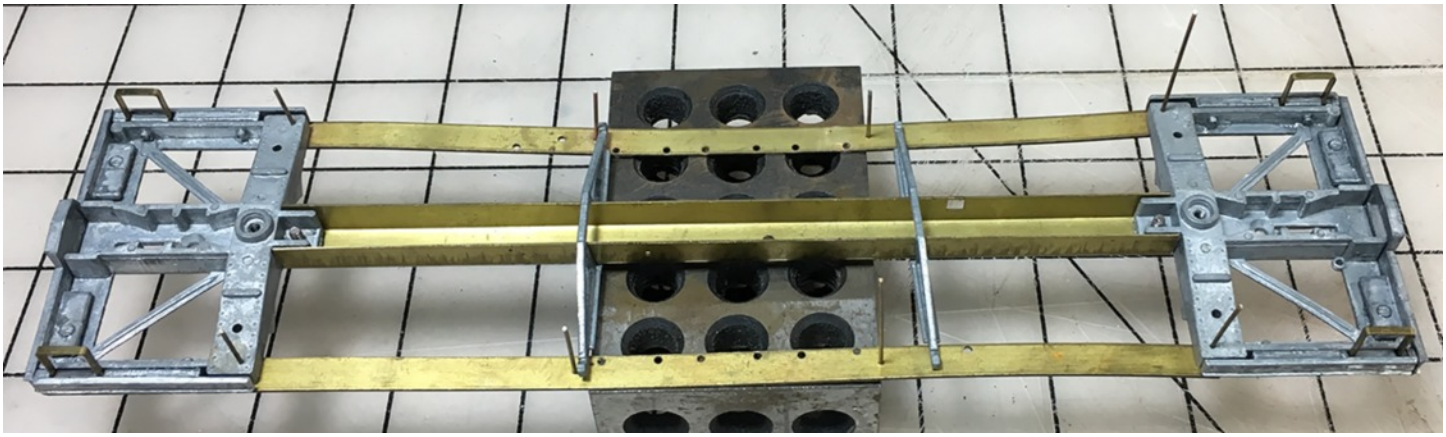


The solder blobs on top of the running board will be filed smooth with just the pins or extra wire hanging down.



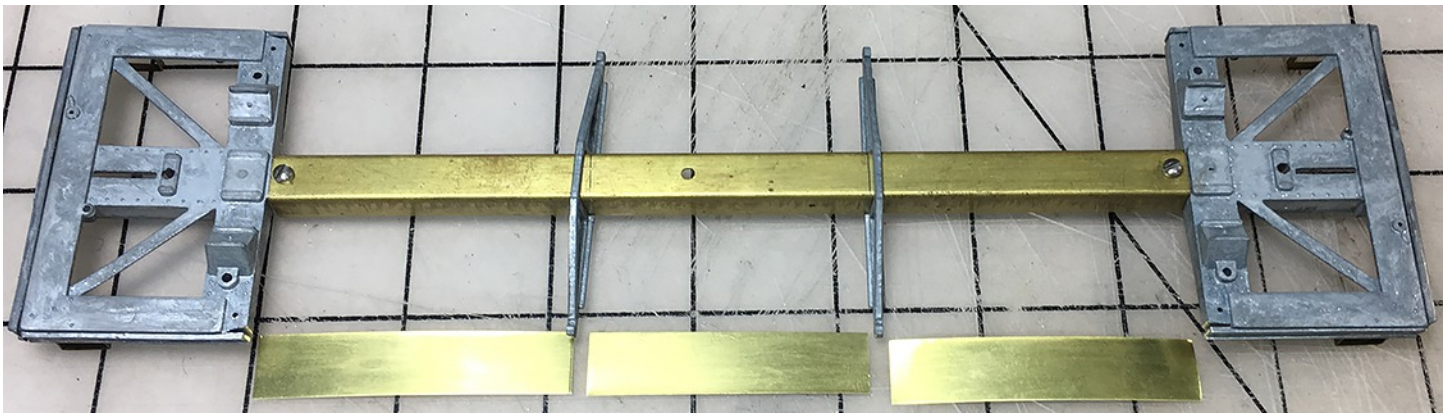
Left: The softer brass wire would have been much easier to bend around the running board support castings, as well as, the ends below.





This was going to be the completed lower running board and my idea would have worked, but after doing all of this, I decided to make it out of wood. I left this in the article for others to show using the kit material.

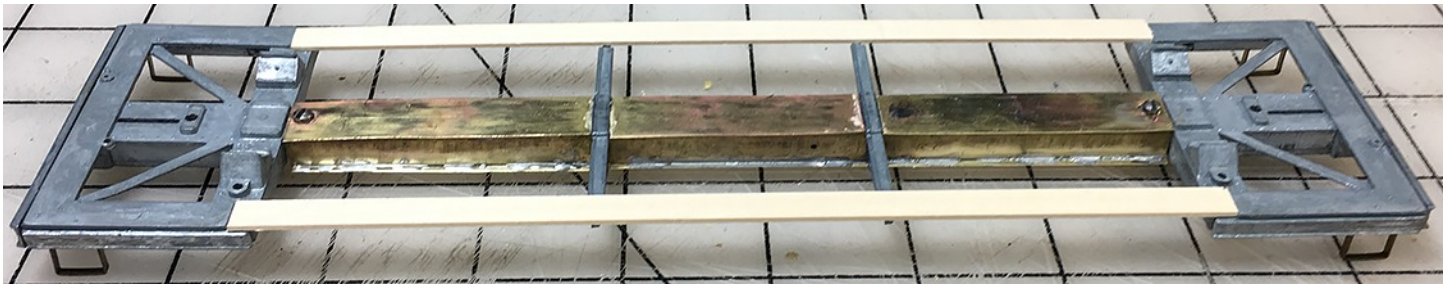
Notice in the picture above that the center sill was hollow. It's simply a C channel. Well, that is not very convincing, so I thought I would "box it in" using flat stock on the top and bottom like the real cars had.



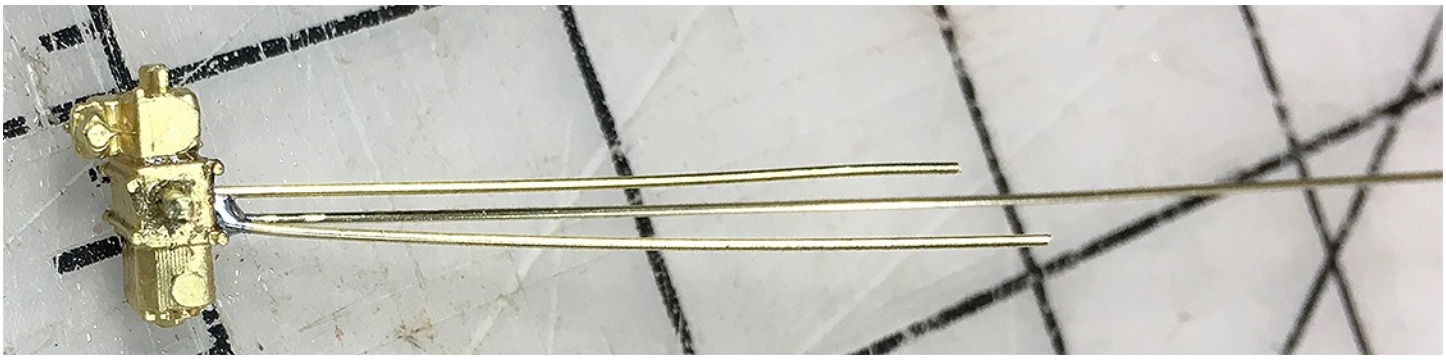
Because of the platform supports, I needed to cut three pieces of .010 brass to fit both top and bottom.

These were then soldered using a resistance soldering tip. An iron would also work, but this was faster.

Above: All 6 pieces soldered and the new holes drilled for the screw to hold the end sills.



I used some 2x8 scale stock for the running boards in place of the brass that came with the kit. Once fitted, they were stained in India Ink and 91% alcohol. They would be painted with the rest of the car, but the stain would stop any warping. Now on to the brake system. The castings in the box were OK, but I used an AB set from the old Mullet River castings. Plastic from Grandt Line or any other supplier would also work.

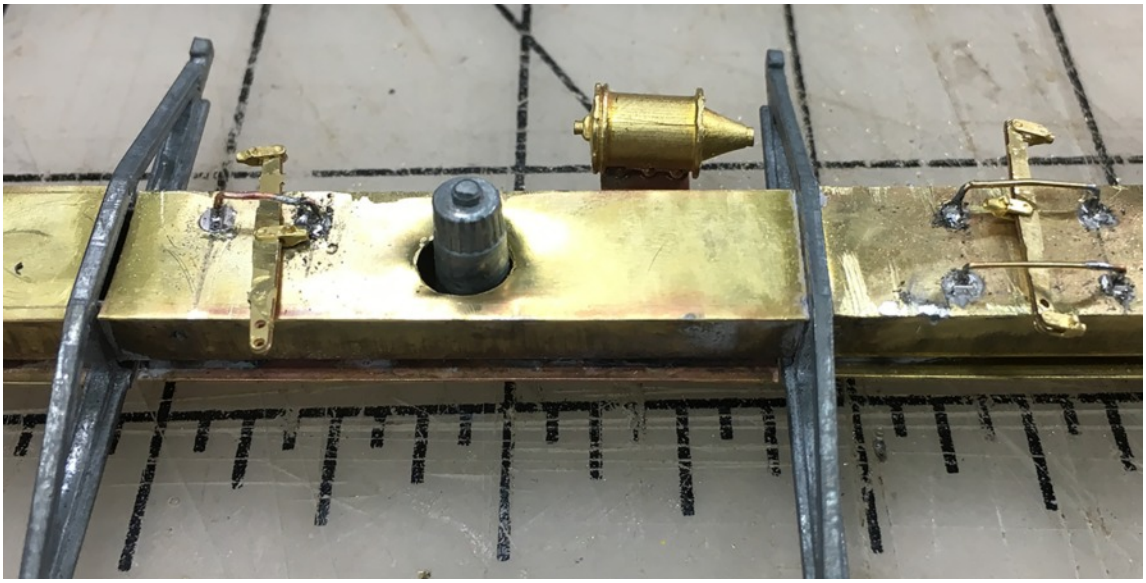


Three wires were soldered on to the valve and cut just a bit longer than needed.

Now I had to decide how and where to mount the pieces. Some cars had the valve on the bottom, while others had them on the running board. That was the way I decided to mount mine with the tank directly underneath. For the air tank, I used the hanger from an InterMountain box car. You could form one from brass or wood. This assembly hung below the valve. For the cylinder, I cut a piece of brass stock added an angle and soldered to the center channel. (See next page.)

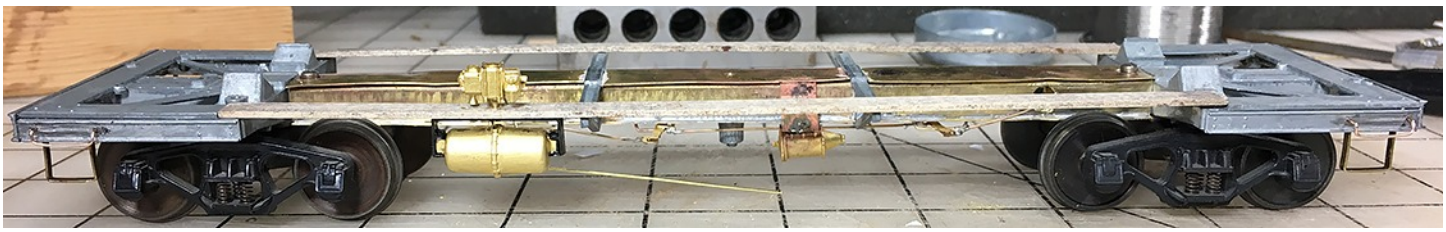
Although not the exact same car I was modeling, I used this as a guide for my brake equipment.

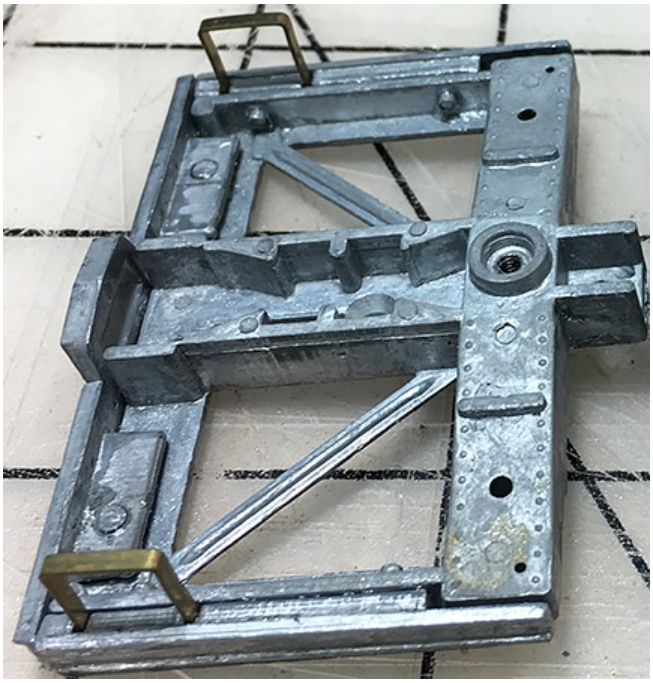
Left: Valve, air tank and cylinder attached to the car. The other hole in the center sill is for the filler.

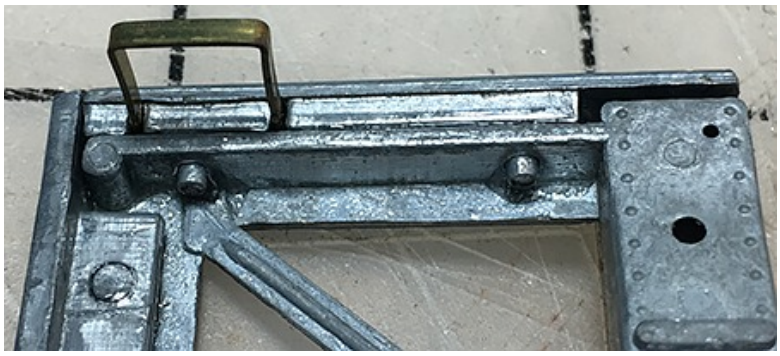


Left: Now I started on the brake clevises.

Bottom: Showing the mounting of the air tank using an InterMountain part.





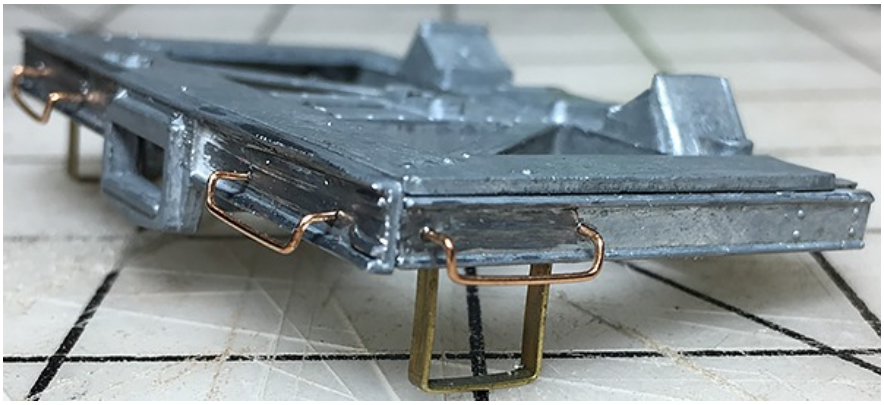


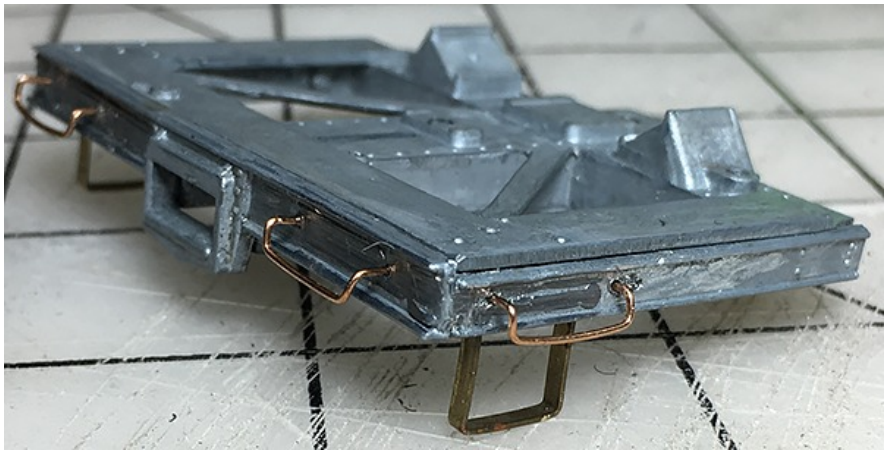
Left & Top: Look at the step and how it fits snugly into slots in the side sill and then pressed against the frame casting.

Next, I had to drill the holes for the new grabs. 16 holes total in some extremely hard material. Using a cheap drill press and expensive chuck, I was able to drill all the holes and only broke 4 bits. The grabs were 18" drop grab irons by Tichy and I did make a small template for the hole spacing.

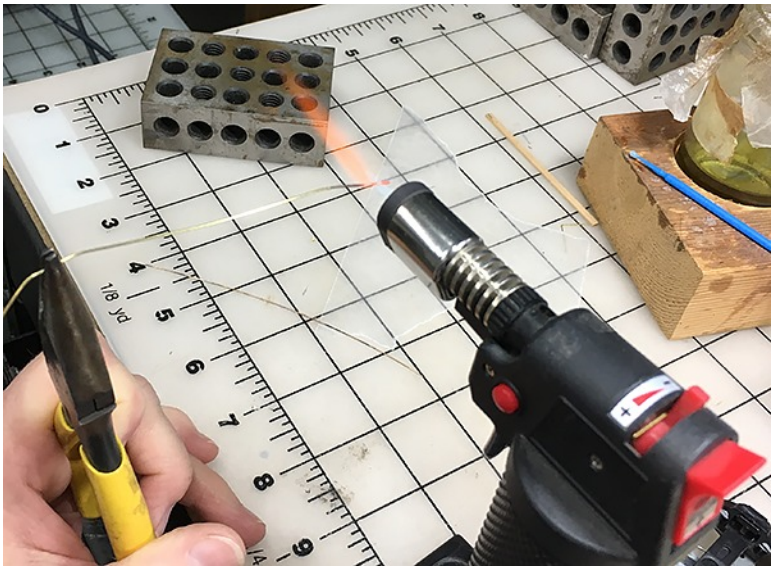
Left: Mini chuck allows me to hold and pull down using the knurled knob for great control.

Below: All grabs attached and glued using ACC.



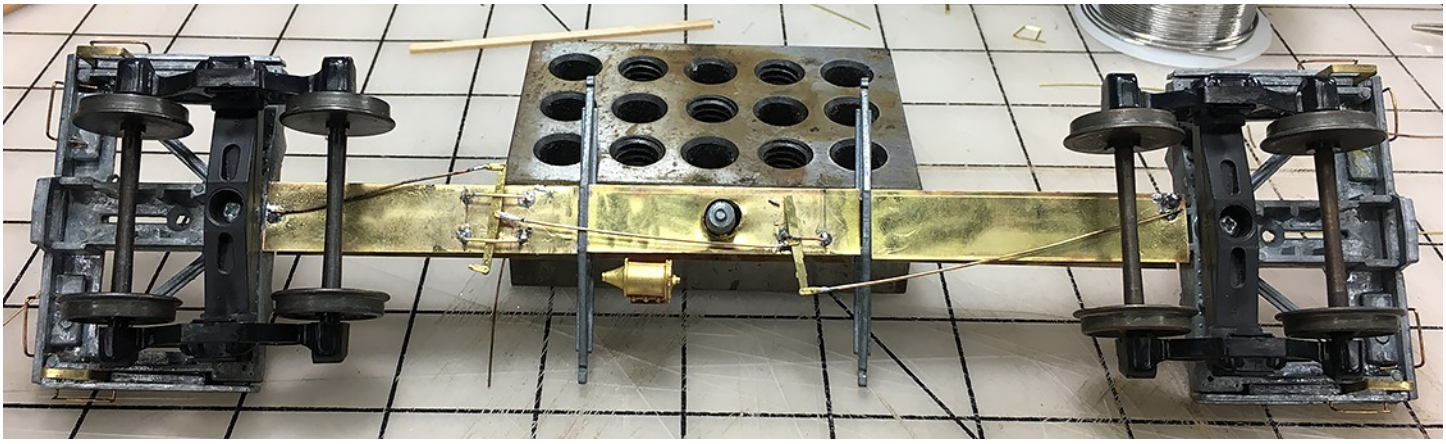


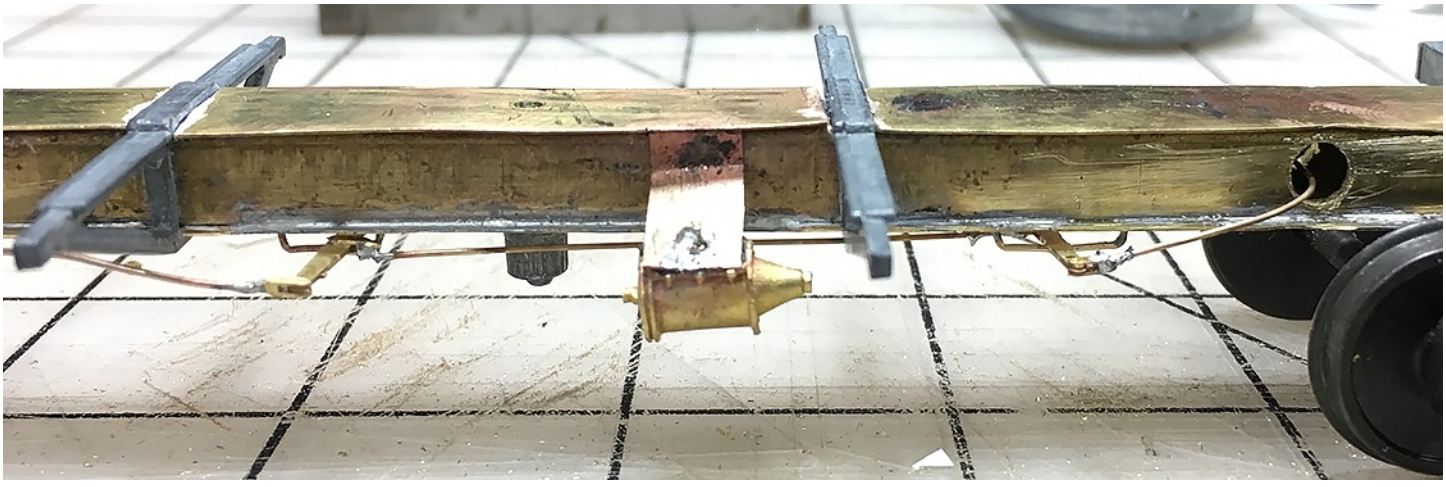
At this point, I could finish off the frame. To make the brass wire easier to work with, I annealed the brass with a torch which is basically getting it red hot and letting it cool. This allows the brass to be bent and shaped without any spring back.



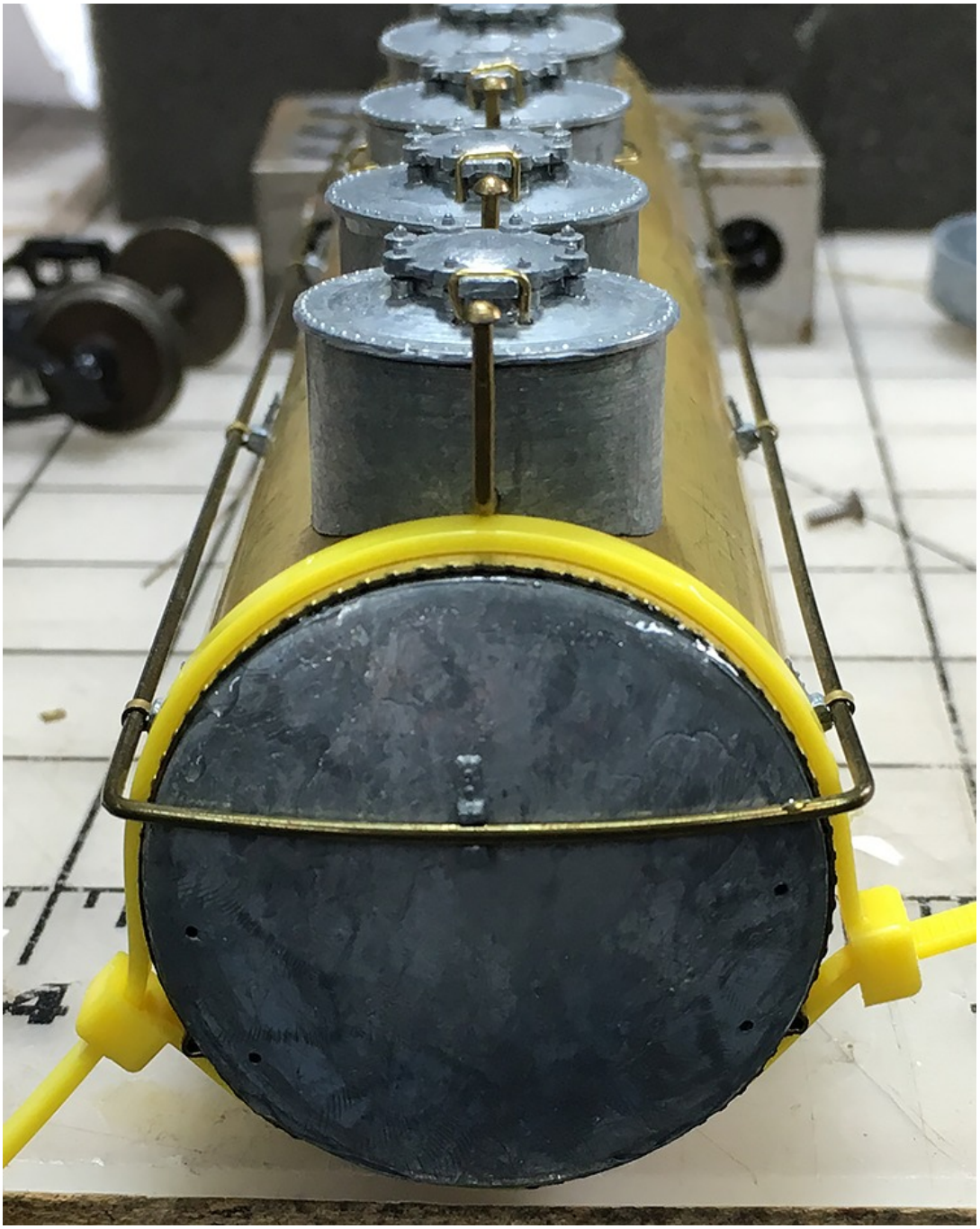
I realize the image below is not 100% accurate, but gives a good representation of the parts. I have no doubt that many of you can do a more accurate job than I did, but as I have said, I was going for the "flavor" of the overall car.

I forgot that I needed a hole for the brake line to go through the center sill so that was completed and the line run.





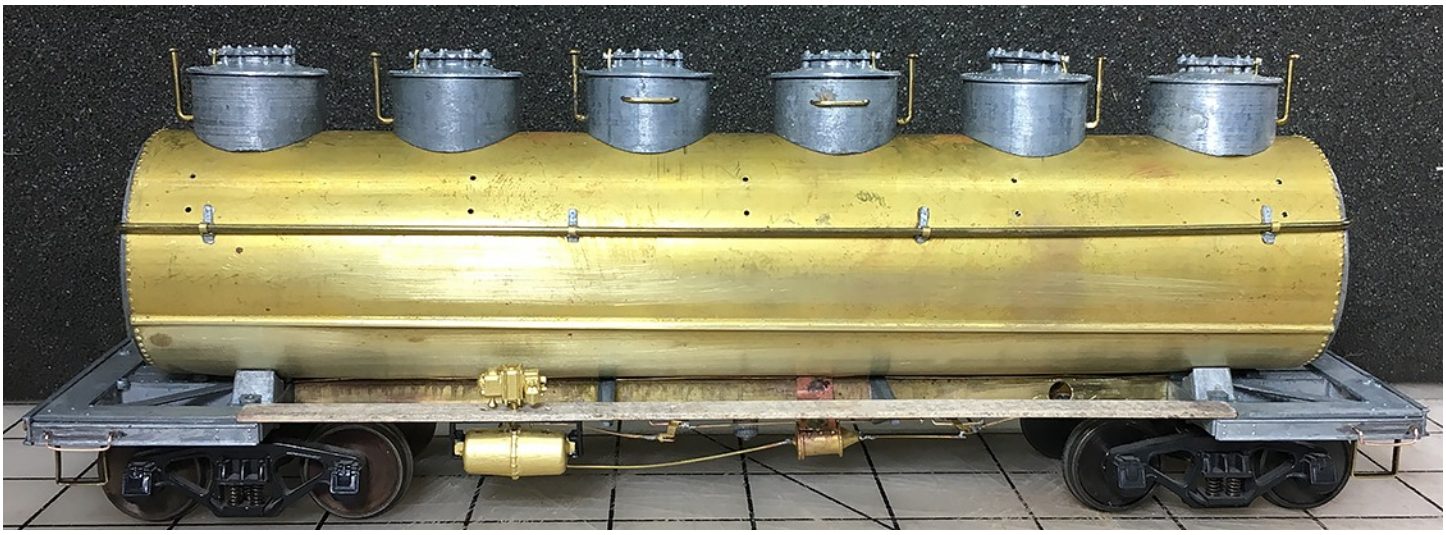
Now it was time to attach the ends to the tank. This was a bit tricky a there is no guide to line up the end other than a screw hole in the bottom of each end. A screw from the bottom of the frame casting is supposed to meet and screw into the ends. Using epoxy, I glued on the end making sure the screw hole was centered down and adjusting the end to keep it straight within the tank wrapper. I then used tie wraps to secure the wrapper and let it dry. A few hours later, I did the same to the other end. See the image on next page.



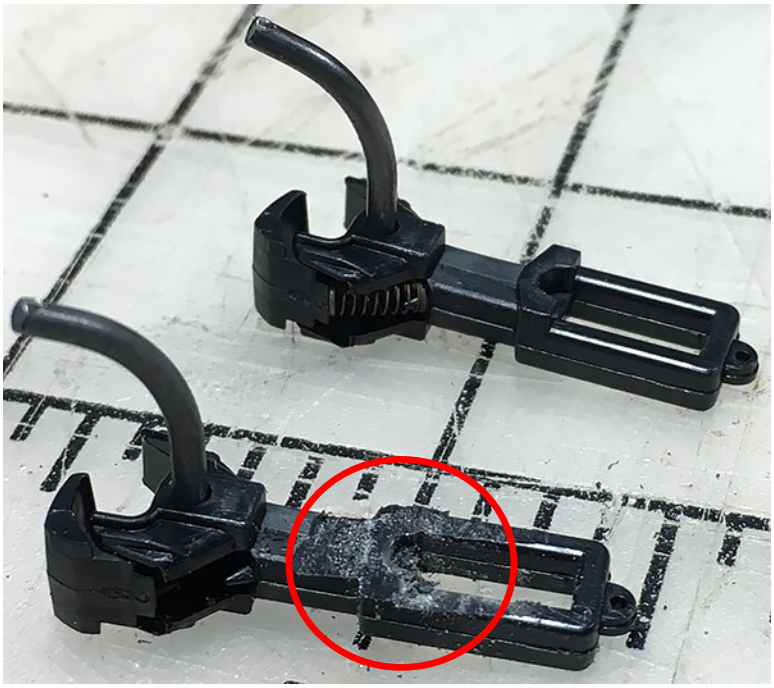
Left: Tank end being epoxyed in place.

Below: Test fit of tank on the frame.

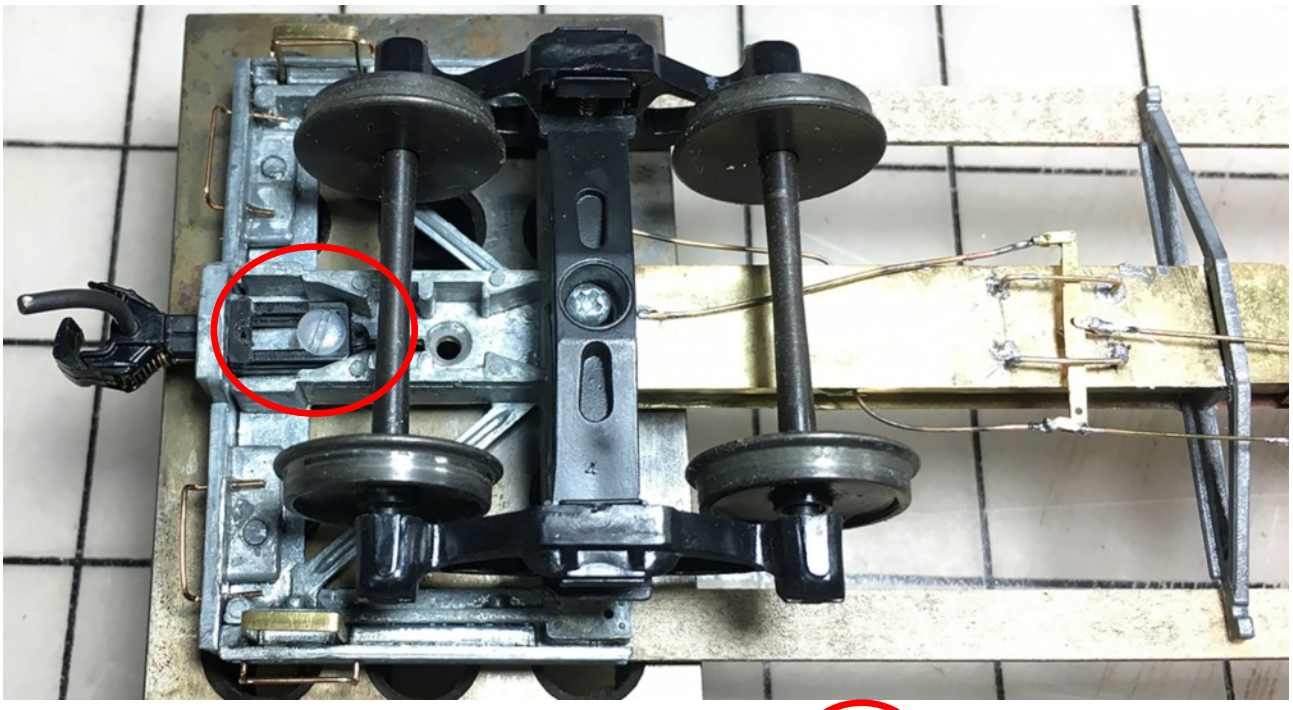
Note the holes in the tank just below the domes. This is for the upper walkway. It's punched out of a single piece of brass and the tabs are aligned with the holes.

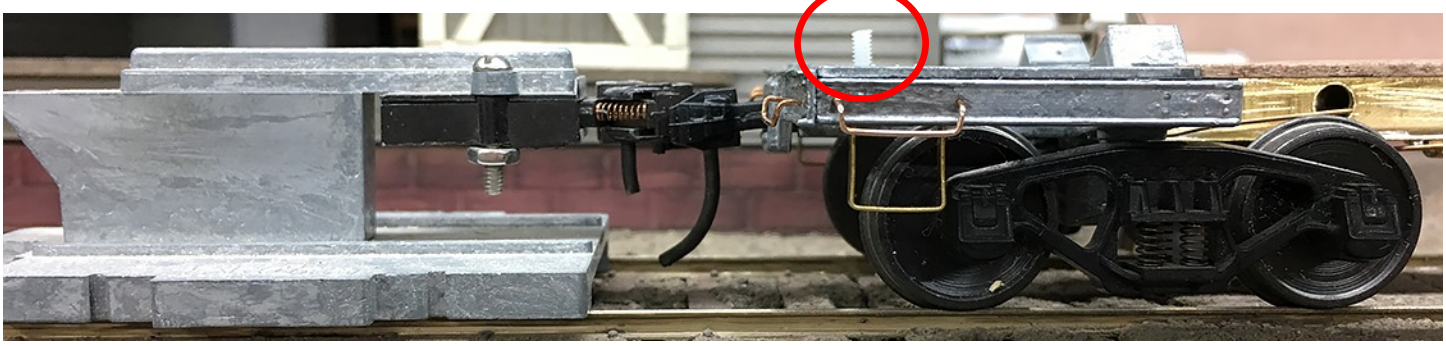


The couplers were going to be a problem. The kit had a very ingenious way of assembling using a draft gear and spring. The problem was that it used a dummy coupler which I did not want. It needed Kadee® couplers so it could be easily cut from a train with a pick or magnet. You may chouse to keep the couplers that came with the kit.

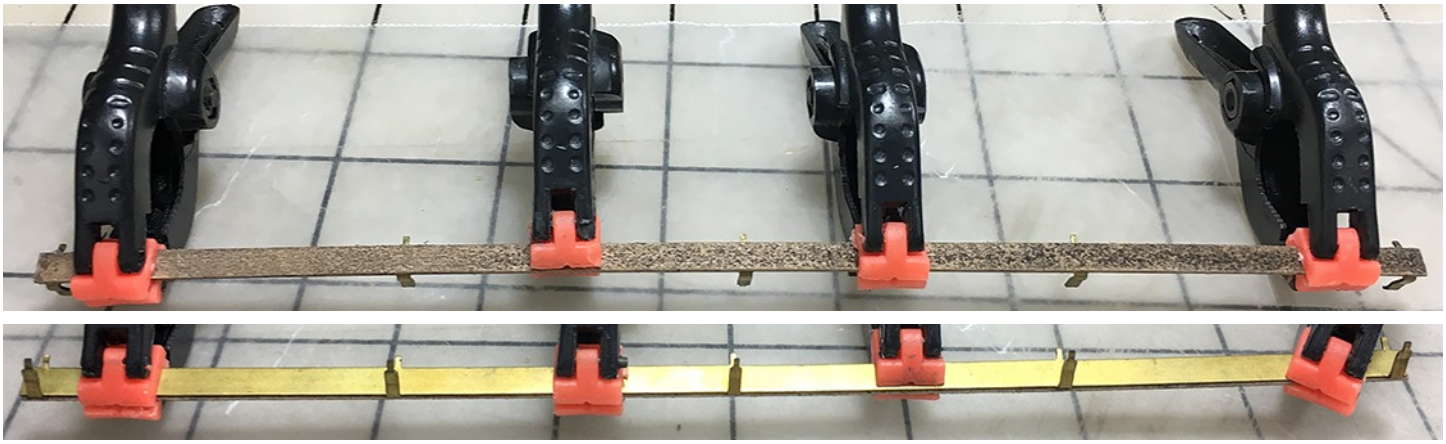


Using a number 804 Kadee®, I shaved off the bottom of the coupler so it would fit into the frame casting as shown on the left. After some filing and smoothing, it fit. I drilled and tapped a 2/52 hole at the rear of the coupler and used a nylon screw threaded up through the frame casting. Using Loctite® to secure the screw, I then filed off the end of the screw even with the top of the frame casting. Once painted you will not notice it. I did lose the spring action, but the coupler does swing without a problem. I am sure some of you may be able to come up with a more elegant solution, but this worked for me. The picture on the bottom shows the height of the coupler almost perfect. You can also see the end of the nylon screw protruding up through the frame casting before it was cut and filed down.

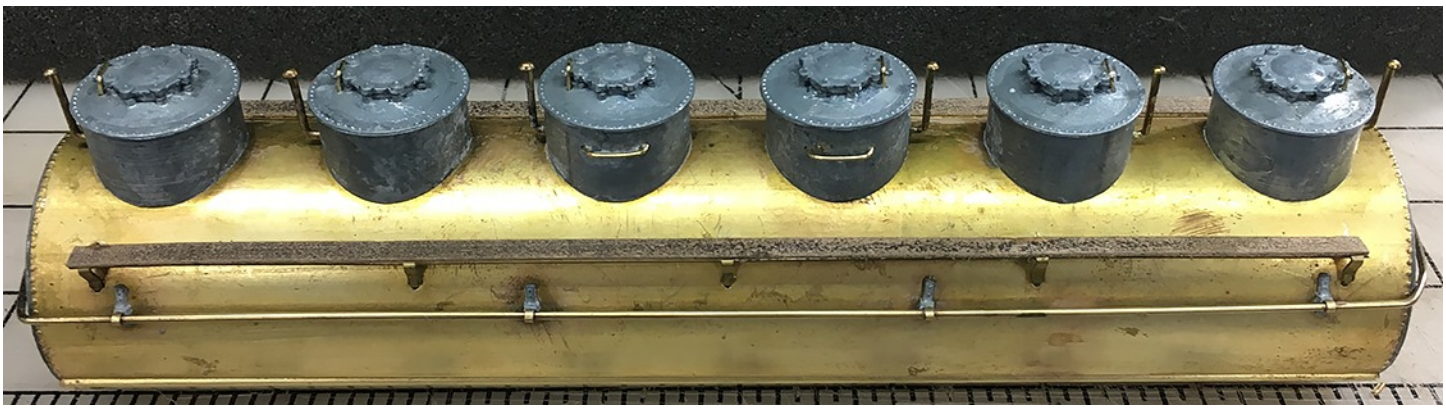




The last major piece was to add the the dome platform or upper running board. I wanted to use wood again, but the brass strip and alignment tabs were one piece. I ended up gluing a 1x6 scale piece of wood to the top of the brass.



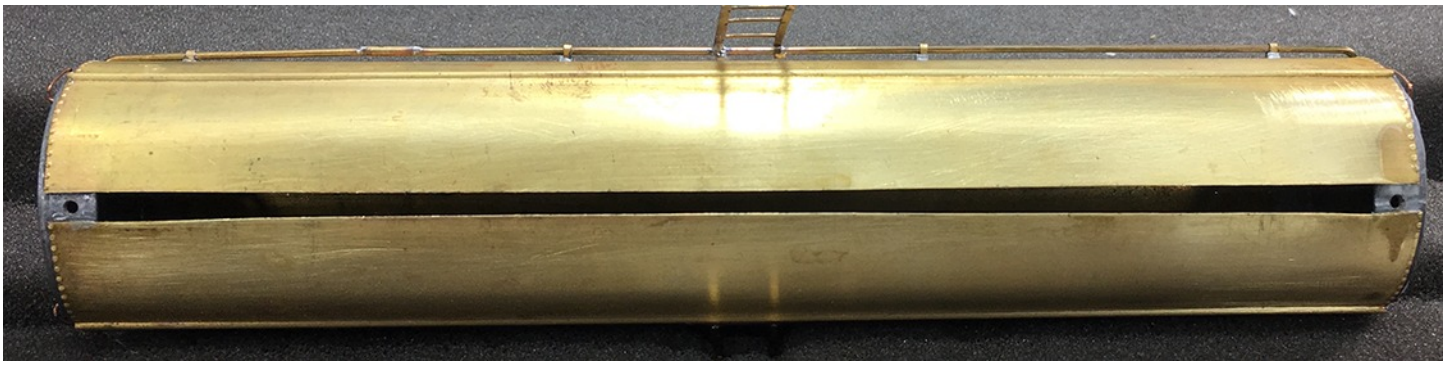
The two pictures above show the the stained wood being clamped to the brass as well as the underside that shows the tabs better that align with the holes in the tank.

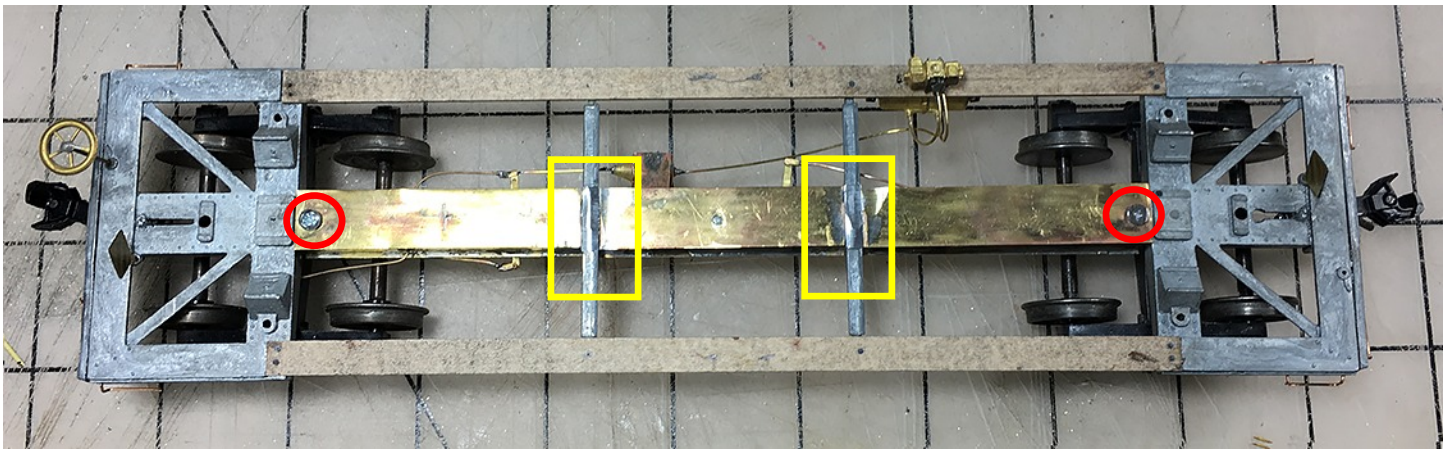


The picture above shows the finished tank and ready to be mounted to the frame. These will be painted separately, but I better test fit everything first.

After screwing the tank on, I seem to have a problem. Take a close look at the frame castings and notice they bow down when the center sill attaches. I was not a happy camper! After a cigar and glass of Bourbon, I

realized that obviously something in the center was too high causing the ends to pull up. Because I boxed in the center sill, the tank sat higher on the frame.



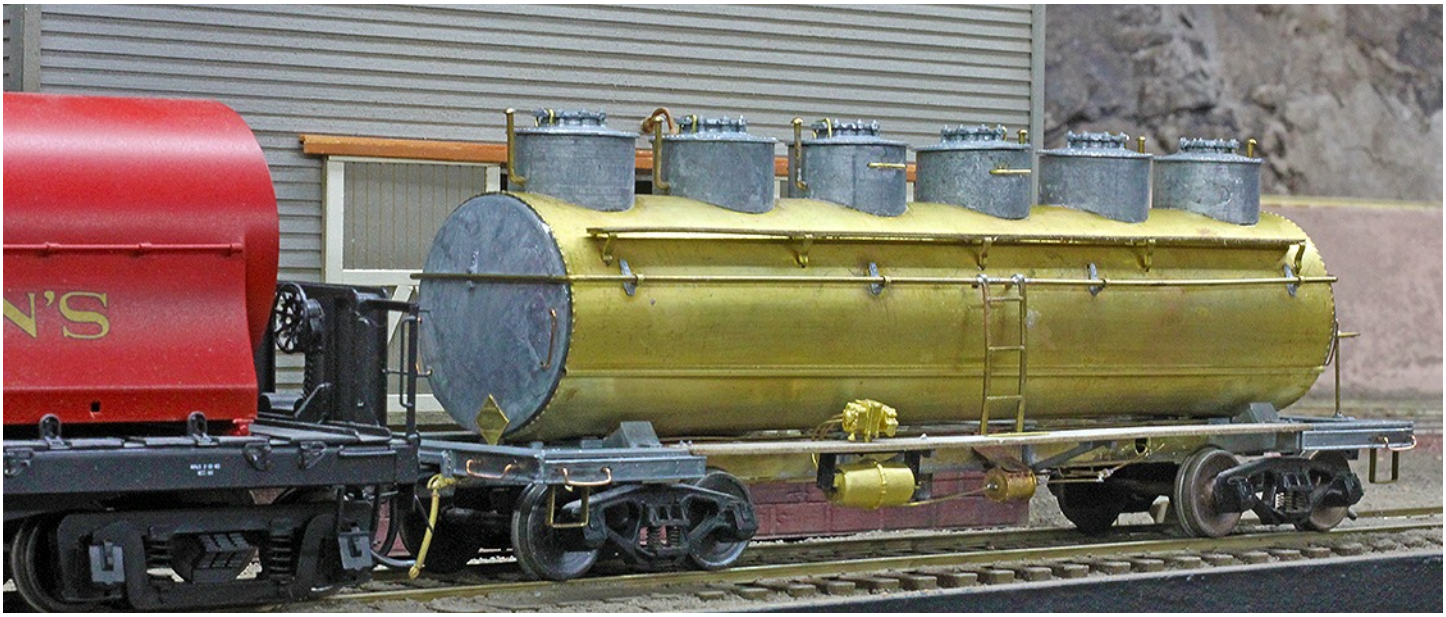


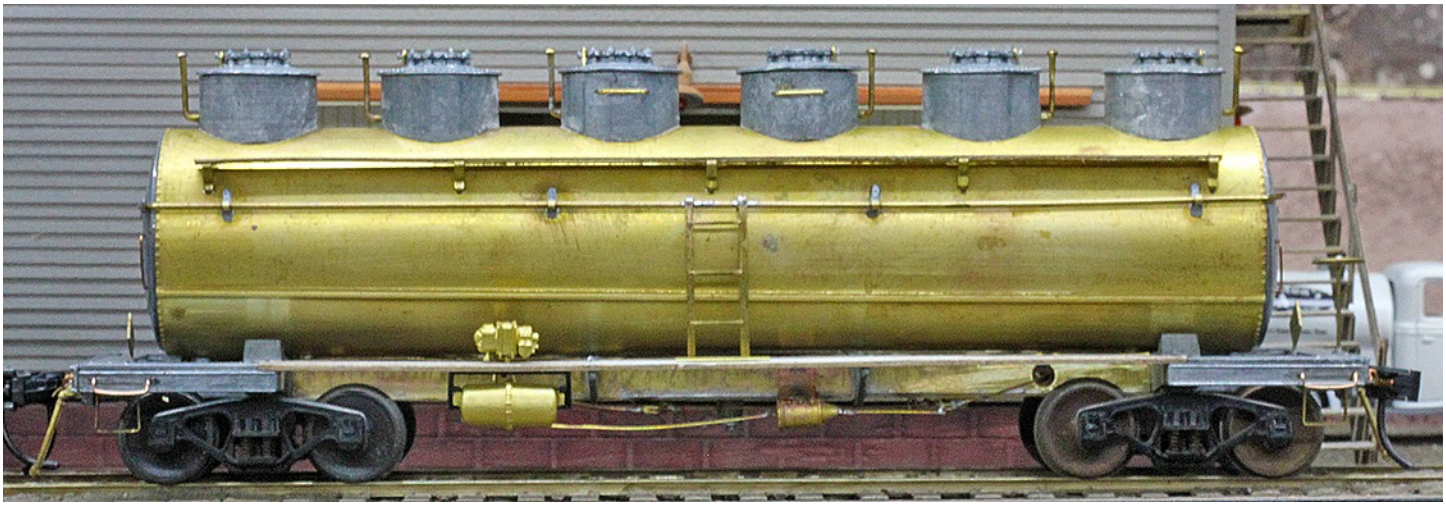
I did three things to fix this. In the top picture, I used a piece of wood along the bottom of the tank and lightly tapped it to bring the edges closer together in the center. Before there was a bit wider gap in the center than on the glued ends. Next, I drilled out the holes (in red) that held the center sill to the end castings. Originally, the small screw went down the center sill and into the end sill. To strengthen this, I went all the way through the end sill and then used a nut on the bottom to get a stronger fit. Lastly, I filed the running board supports (yellow) even with the top of the channel. That allowed the tank to be screwed on the frame without any bowing.

The last thing to add were the ladders. I decided to use just one per side up to the hand rail. I thought about using InterMountain ladders, but gluing them was going to be a problem and I know someone down the line would grab the car in the center by the ladder, and you know would the result would be like. I soldered the ladder to the hand rail and then cut the bottom flush with the running board, but did not attach it because I wanted to paint this in two pieces. Lastly, I added nut bolt castings to the running board to finish that off and added brake hoses.

Right: I got lucky with the end grabs. The Tichy grabs fit the predrilled holes perfectly!

Car ready for cleaning and paint.





As I said in the beginning, you do not need to solider the original kit. Everything could be glued or epoxyed. Because of the extra parts, I used a combination of soldering iron, resistance soldering and torch. Not all are necessary, but they sure help.

Parts List

These are the parts and supplies I used mostly because I had them already. There are many other suppliers out there that also offer these parts and supplies.

AB brass brake set	Mullet River (Many others out there in brass and plastic)
Air tank holder	InterMountain (or make your own)
.010 sheet brass	K & S Precision Metals
.020 wire	Clover House
Kadee® #804 couplers	
Brake Hoses	Precision Scale
Grab Irons	Tichy 18" drop grab irons
Decals	Protocraft Victor Wine-1
2x8 scale wood	Kappler
1x6 scale wood	Kappler

I forgot about coupler cut levers, but I was not going to take the ends again off and try to drill. I should have done this at the time I did the grab irons.

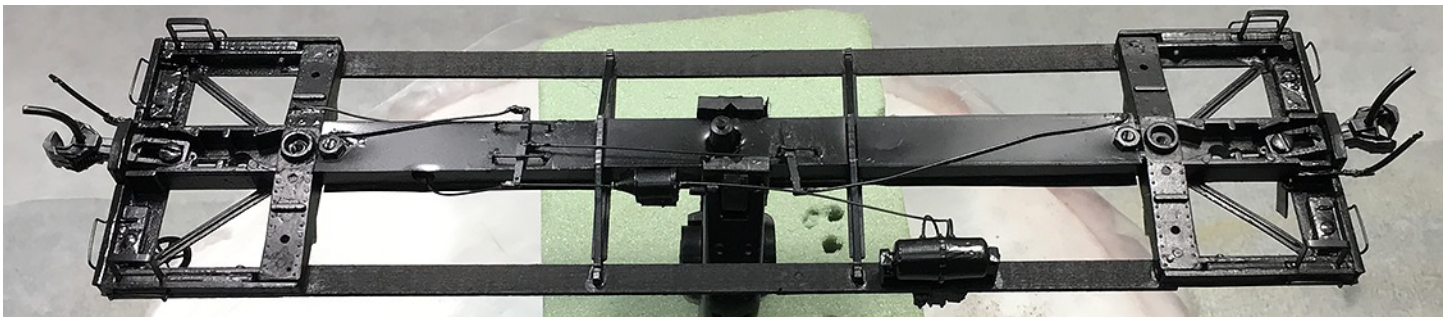
I really enjoyed this build. I am NO super builder, and I know many readers could take this even farther, but I am happy with this. If you have modified any older kits please send me some samples and we'll put them in a future issue for others to get inspired!

Now on to the painting!

The instructions suggest to clean the model before painting with Carbon Tetrachloride since that was popular back in the day. In fact, when I was about 10 years old in the mid 1960's, I would ride my bike downtown to the drug store and buy quarts of the stuff. I used it to clean the rails. Times have changed!

I have switched airbrushes since my last paint job. I have always used the dependable Paasche Single Action H external mix series and, in fact, have two of them, each with a different size tip. I have tried double action air brushes in the past, and could never really get a handle on them. Obviously, I am not coordinated enough to use them. I recently bought a Paasche SA Series single action internal mix. This gives me better atomization and therefore helps give a smoother finish. It's not costly, and cleaning is not that much more than the H was. Before I get letters and Email, yes there are many more expensive air brushes out there and they maybe better for some. For me it's a hobby and not a business.

I used 91% alcohol and a Q-tip to remove any oils and residue from the model's brass area. Once dried, it went into the paint shop. I used Scalecoat I Black (1010) as I wanted a gloss finish for decals. The mix was was 50% paint and 50% thinner. I used their thinner because, well that's what I have always used. I did not prime the model as in most cases,because there is no reason to using Scalecoat, especially black. The pressure was 20 pounds, and this is normally what I use.



First coat on both tank and frame. I cannot bake these like I normally would because of the different glues, plastic air tank holder and wood. So I'll just let them air dry before decals.

The kit came with decals which I could have tried to save, but I already had a Roma tank car so thought I would see what else was out there. Protocraft has many great tankcar decals and I ordered a set of California Grape Products. The decals are Protocraft's artwork printed by Microscale Industries.

After waiting a few days for the car to fully cure, on went the decals. Because of the glossy Scalecoat surface, there was no need to gloss coat the car. I used Microscale's Micro Set on the model and slid the decal onto it. This allowed me to move it around a bit to position. Once you have it where you want it, leave it alone! It will look wrinkled, but don't touch it, it will straighten out as it dries. An overspray of Krylon matte and I'm finished! I may weather this a bit but, for now I'll call it a day.

What did I learn? Let me tell you. Even though the castings look good, sand them as smooth as possible. Black paint is unforgiving. Plan ahead for all the extras like the cut levers I forgot about. Do as much or as little as you feel comfortable with, don't over think it. If you modify, as I did the center sill, think ahead to see what, if anything, that modification will impact. I had a few OH *%!*&! moments along the way because I didn't.

There are many older kits out there at shows and on-line, don't dismiss them. This was a fun and a good learning build, and I am happy with the way it turned out. Not to mention, it's nice to have a great looking car on the layout that's older than I am…


GATX 417
GATX417 VICTOR
CALIFORNIA WINES
CALIFORNIA GRAPE
PRODUCTS CO.
GATX
66717


Route of the Mariner
827
GATX417 VICTOR
CALIFORNIA WINES
CALIFORNIA GRAPE
PRODUCTS CO.
GATX 417
GATX
66717

Scene Around the Layout

Mike Luczak from Nashville sent us a few pictures of his latest project. Here's what he had to say: "I wanted to send on a picture or two of my latest project. It is about done; a few weathering touches to complete, but ready for pictures at least. I threw in a link to my YouTube page in case you wanted to listen to what it sounds like as well. Not the greatest video, but it lets people hear what it sounds like."

Glacier Park Models 2-6-6-2t with Tsunami 2 DCC.

Here is a link to Mike's YouTube video.

We are proud to feature reader's work. To make this a regular feature, get those cameras and cell phones out and start shooting!
High quality JPG or TIF files only.
Email to scene@oscaleresource.com with a description of your picture.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WEYERHAEUSER TIMBER CO.
ERIE

Scene Around the Layout
EXTRA

Frank McCabe from The Rockford O Scalers had a visit this month from Nolan Gahlbeck who used to live in a Chicago suburbs, but now resides in St. Louis.

He is one of our biggest fans and we had a great time running many different trains, both passenger and freight, with steam and diesel power.

Hurry back for another visit any time, Nolan!

We are proud to feature readers work. Depending on your response we would like to make this regular feature.
So get those cameras and cell phones out and start shooting!
High quality JPG or TIF files are only.
Email to scene@oscaleresource.com with a description of your picture.

What's on your workbench today?

This series shows 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

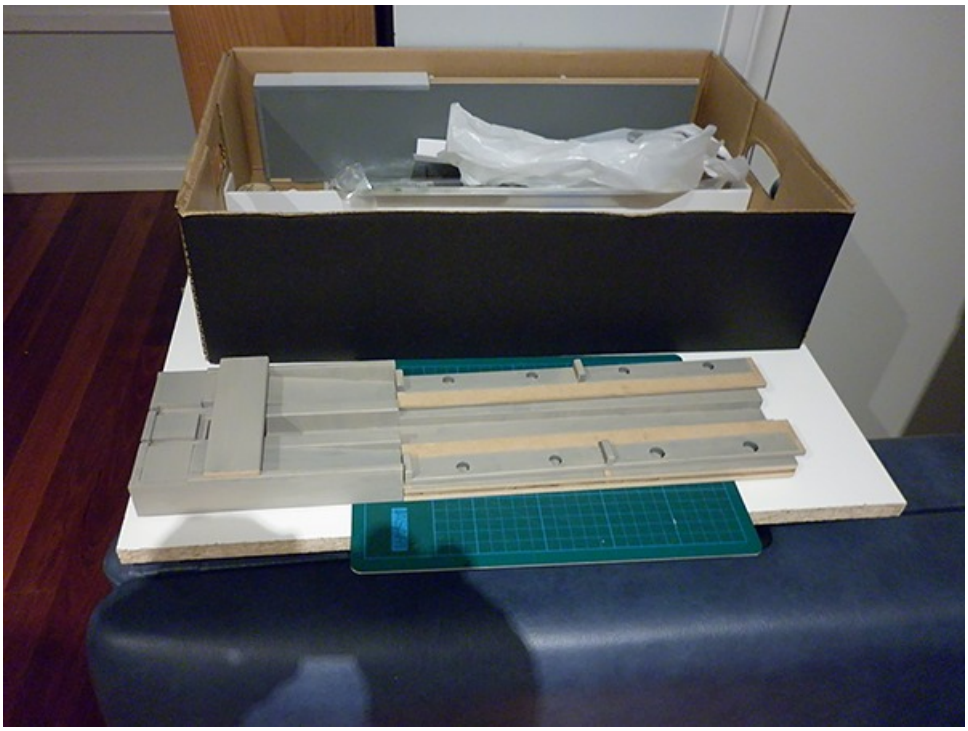
Paul Hemsworth sent in the following: Many of you are probably thinking, "That's a workbench?" Believe me, I am very happy with this set-up. Yes, it's only a folding card table with a chunk of chipboard shelving to give it a solid, flat surface, but up until a few weeks ago, I didn't have even this. Since then I've been able to get back to some modeling. To me this isn't just pleasing, it's thrilling.

So what is on my “workbench”? This Diesel Servicing Facility is a structure that I have wanted to build ever since I first saw it in February 1983 *“Mainline Modeler”*. Actually, I did start it over three years ago, but two moves and various other things halted progress. The concrete base is 1/4” Medium Density Fibreboard and the steel canopy is Evergreen styrene sheets, strips and shapes.

The large brush is to remove 3+ years of dust that parts accumulated while in storage. The other brush which has had most of its bristles removed is to dispense MEK from the old Testors bottle. At the back, there is a jig which is holding the supports in position while I build the roof and side panels. It's not the most complex jig I've ever made, but it is the biggest. Between the jig and the white shelving is the pipette I used to transfer MEK from its bulk container to the small Testors bottle. This sophisticated piece of laboratory equipment replaced the drinking straw that I used as a pipette previously.

Finally we come to the point of this assemblage. This Diesel Servicing Facility is in Vancouver, WA. It consists of 9 bays each 25' long plus a ramp at each end for a total length of over 270'. Click here to view on Google Earth.

I've elected to make two 25' bays and one ramp. On the cutting mat nearest the camera is a new side panel 50' x 7'. Behind that is a new roof panel 50' x 11'. This is to match the grubby one above it that's been waiting 3+ years for a mate. Now the side panel has to wait for its mate until another pack of Evergreen 4522 metal roof arrives. All those little ridges have to be glued into grooves individually. Some tips for anyone who hasn't used this product: 1. Cut the panel to size. 2. Use a Chopper to cut strips slightly longer than needed. 3. Glue the strips into the grooves. 4. Use flush cutting nippers to trim the strips to the panel. Evergreen generously supplies way more strip in the pack than needed, so cutting slightly oversize is of no consequence. It does save a lot of time that can be wasted messing about with long, floppy strips.

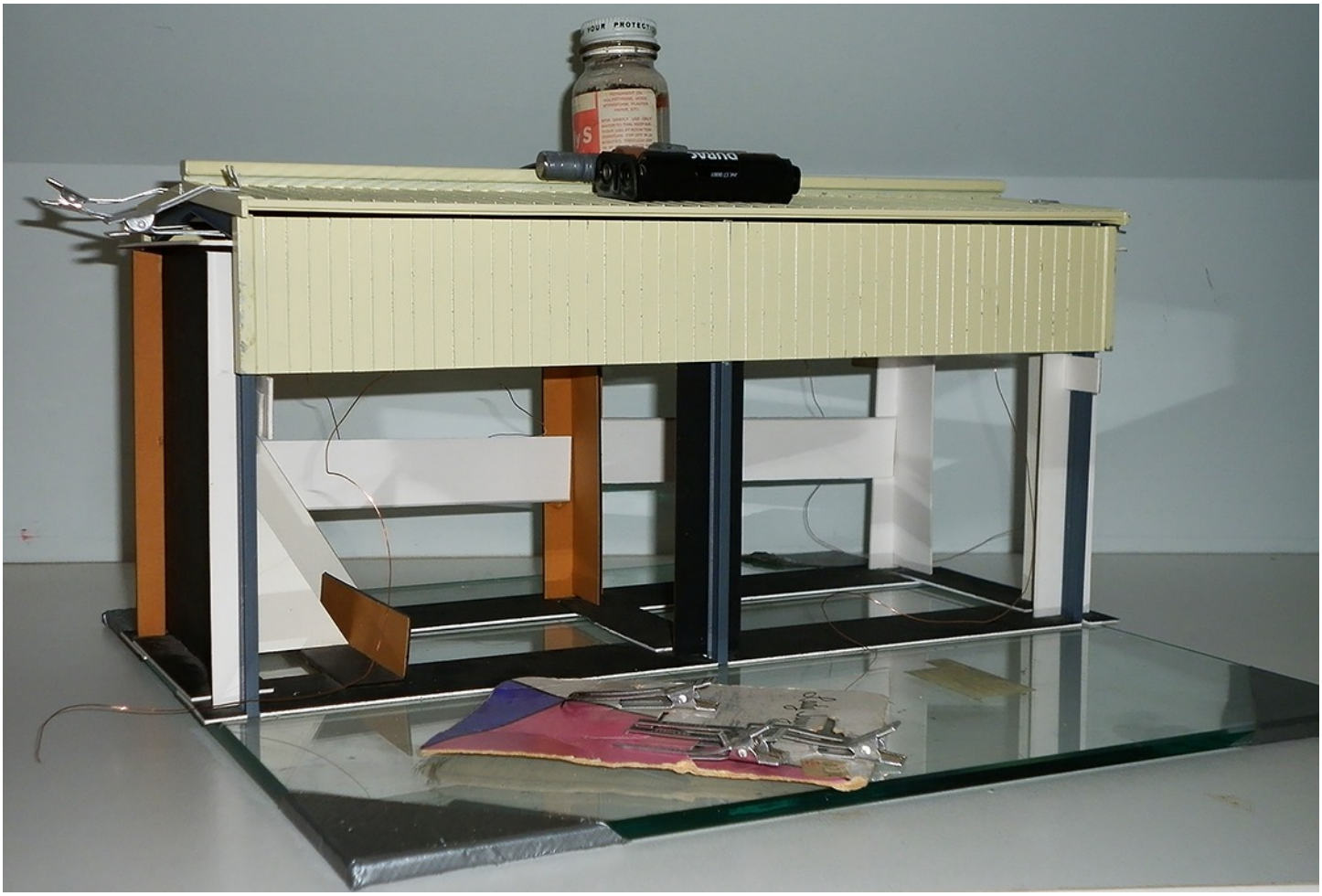


This is the base or concrete service pit that I mentioned previously needed to be painted. The two side pieces and the end which is sitting on top of the ramp have been painted. They haven't been attached as I need access to fit the rails and their supports.

These panels represent just the outer steel sheeting. Still to be fabricated and attached are the steel support frames for these outer skins. Progress has halted on that front also until materials arrive. After that I have to add the flashing. Then the completed panels can be painted silver to make them opaque before over painting with off-white.

Progress may be halted on my workbench but I'm looking at lighting options - ordinary or SMD LEDs? Also, there is painting of the base and fitting of the rails. So still plenty to do away from the workbench.

P.S. Materials have since arrived and progress has recommenced. However, looking at these panels with 20/20 hindsight, I believe it would have been better to fabricate and attach the steel frames first. Inserting the ribs into the completed panels would be no more difficult and I wouldn't have to worry about damaging them. All those little ribs intimidated me so that I jumped in and did them first.



The side panels, roof panels and central roof vent are being glued to the three trusses all clamped in place on the jig.

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 :-)

As Amy and I sit and wait for a train at the old TY Tower in Tuscola, Illinois, a new figure comes into view. "Comanche Bill", as he is known, is sitting on the UP/CSX bridge finishing off a six pack of Red Dog. (Red Dog is an American beer) He eyes us suspiciously, and then sees the cameras. Offering us a can of beer, he tells us about his life. The man has been everywhere in the country, a modern day hobo. Maybe that's too nice a term, but I am trying to be "politically correct". I wish we would have had more time to talk to him. What were his dreams and ambitions while growing up, what made him follow the track in life that he did? As he sat back down to finish off the last of his brews, a CSX local came through.

O Scale Shows & Meets

Have an upcoming O Scale event? We would like to help publicize it. Send us the information up to one year in advance, and we'll place it here along with a direct link to your Website and/or Email.
Click here to send us your information.

Indianapolis O Scale Show / S Scale Midwest Show
September 21-23
Wyndham Indianapolis West
The Indianapolis O Scale Show has been in place for over 48 years. For the past 15 years, it has been chaired by James Canter, and he has decided it is time to "pass the torch" We, at The Model Railroad Resource LLC, publishers of The O Scale Resource and The S Scale Resource, are proud to have been selected to carry on the tradition for the 49th year.
Website: indyoscaleshow.com
Email: info@indyoscaleshow.com

Southern New England O Scale Model Train Show
October 7th, 2017
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 Adam Ferraro, Phone: 508-713-1814 or sneshowchairman@snemrr.org
http://snemrr.org/train-show--open-house.html

Strasburg Train Show
October 14, 2017
2 -rail swap meet at the Strasburg Fire Co, 203 W. Franklin St, 9 AM - 1 PM. Admission $5 (Wives/children/military w/ID free). Tables are $25 for first table, additional tables $20 each. Great food, modular layout, clinics. Contact John Dunn 609.432.2871 or jdunn8888@hotmail.com or Rich Yoder at oscale48@comcast.net.

Grand River Valley Railroad Club Fall Train Show
October 14, 2017
HSB, Inc. 5625 Burlingame Ave SW Wyoming, MI 49509
Train Show and Swap Meet, All Scales LEGO & Thomas The Train play areas, On3 layout.
Email: kwskopp@gmail.com
grandrivervalleyrrc.org

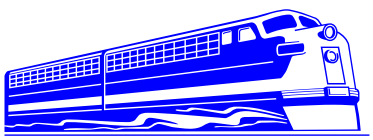
Southwest O Scale Meet
Friday, October 20 - Saturday, October 21
Fort Worth Academy
7301 Dutch Branch Road, Fort Worth, 76132
Each year since 2012 the Southwest O Scale Meet has grown larger and more exciting.
Website: www.oscalesw.com
Email: swoscalemeet@gmail.com

RPM Chicagoland - 24th Annual "Naperville" Conference
October 26 through 28, 2017
Sheraton Hotel and Conference Center, Lisle, IL
Railroad Prototype Modelers Meet, 40+ seminars from leading presenters, vendors, layouts, meals, and more. Free Mini-kit, including S & O scale available, for early bird registrations!
Email: mike@rpmconference.com
http://www.rpmconference.com

Cleveland 2-Rail O Scale Meet
November 4th, 2017
Lakeland Community College, Auxilliary Gym
7700 Clocktower Drive Kirtland, OH 44094
Model Train Meet buy, sell trade
9 am to 2 pm Adm. $7.00
Contact Sam Shumaker for more information

Chicago March Meet
March, 16, 17 and 18, 2018
Weston Lombard Hotel
Lombard, Illinois
Email : info@marchmeet.net
Web Address: marchmeet.net

2018 Scale O National Convention
August 22-25 (Wednesday through Saturday)
Rockville Hilton, 1750 Rockville Pike
Rockville, Maryland
Rooms will be $109 per night plus tax.
More details to follow
Website: 2018oscalenational.com



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