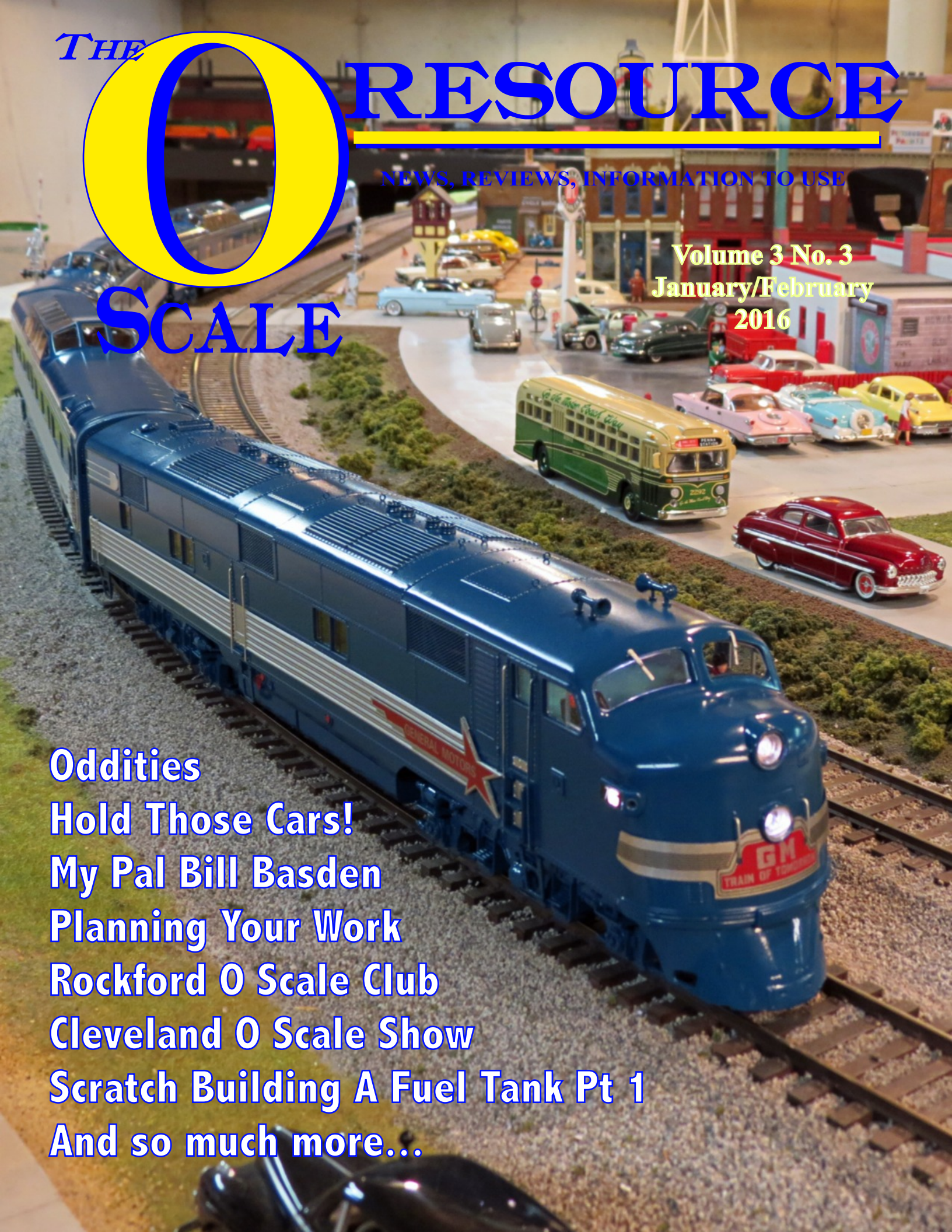

The O Scale Resource

NEWS, REVIEWS, INFORMATION TO USE

Volume 3 No. 3
January/February
2016

Oddities
Hold Those Cars!
My Pal Bill Basden
Planning Your Work
Rockford O Scale Club
Cleveland O Scale Show
Scratch Building A Fuel Tank Pt 1
And so much more...

THE O RESOURCE
NEWS, REVIEWS, INFORMATION TO USE
SCALE

Published Bi Monthly

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January/February 2016
Volume 3 No. 3

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

GM's Train of Tomorrow running on the Rockford O Scale Club.
Photo by Frank McCabe

Rear Cover Photo

A look inside the roundhouse at the Rockford O Scalers.
Photo by Daniel Dawdy

Bill Of Lading

Page

From the Publisher's Desk

The Holiday season is in full swing and 2016 is only a couple of weeks away. I don't know about you, but I feel like older I get, the faster the days fly by! There never seems to be enough time to get everything done. That being said, maybe I should make a New Year's resolution to try to schedule my time a little better. Unfortunately, my projects always seem to take twice as long as I think they will. So, take a tip from my playbook – allow yourself at least twice as much time as you think you need to complete a project. That way, you won't need to hurry, can pay attention to the details, and if you finish early, you will be thrilled! Plus, because you took your time, chances are the end result will be much better.

While you're thinking about projects, don't forget to get your models ready to enter into contests next year. This is where that extra time and effort can be showcased. Don't forget to send us an email or picture with what you've been working on for our "On the Workbench" section. We want to continue to have this section, and are counting on our readers to make sure it's successful. Who doesn't like to see what others in the hobby are doing? Send pictures or emails to us at:

amy@modelrailroadresource.com or daniel@modelrailroadresource.com

This issue highlights a wonderful layout in Rockford, Illinois. We also have an article on planning that segways into Part 1 of a series of articles from Glenn on scratch building fuel tanks. Be sure to read about Master Model Builder, Bill Basden, and read the the articles on stopping cars and railroad oddities. If you were waiting like a child on Christmas morning for Part 2 of Dan's article on Working with Older Brass Locomotives, you'll have to wait until the March/April issue. Remember the time scheduling I referred to above, it didn't work out for Dan. He may have a different story, but this is mine and I'm sticking to it!

On a somber note, it is with a heavy heart that we have an "In Memorium" section this month, as the hobby has lost another two entreprenuers, Lou Cross of Right of Way Products and Henry Bultmann, founder of Car & Locomotive Shops. May their spirits continue to inspire us.

Looking back on the year, we attended some great shows, the latest of which was Cleveland on October 31st. We met some of our readers and had a great time talking to all the modelers and vendors. The show, albeit short, is always well attended, and there are always some great buys. Going forward, we look forward to meeting even more readers. Our next trip is a first for us as we head to Amherst, Massachusetts for the Amherst Railroad Hobby Show January 30-31, 2016. After that, comes the Chicago O Scale Meet in April, followed by O Scale West in May.

Happy Reading & Happy Modeling,

Amy Dawdy

In Memoriam

Louis (Lou) R. Cross

Lou Cross, of Right O Way Products passed away at his home in Chowchilla, California. Lou was well known to many in the railroad hobby and his sudden passing is a shock to all of us. We received word of Lou's passing from one of his long time friends, Bob Jakl. On Monday, December 14th, Bob and others had a full day of working on Lou's train layout and enjoyed lunch together. Lou was very happy, living life to the fullest, seemingly doing well. However, on Wednesday December 16th, Bob could not reach Lou all day by phone. Being worried, he had a close neighbor go check on Lou, only to find him in his bed, having passed away in his sleep.

We spoke to Dennis and Kathy Mashburn, also close friends of Lou, who gave us a little of Lou's background. Lou was born in Chicago. His father was a prominent businessman who dealt in securities. Dennis said that Lou told him his father was an avid golfer and even played golf with Dwight Eisenhower once. Lou went to college in Santa Clara, California, but before Lou could finish school, WWII broke out and he was drafted into the Army. He drove a Weasel carrying ammunition in Europe during the Battle of the Bulge and was trapped in Bastogne when it was surrounded. After the war was over, Lou went back to college and then became a securities broker in the Los Angeles, California area. He retired around 1973 and moved to Chowchilla, California. Lou had a close friend, Jim, in the area and it was through him that he moved to Chowchilla. Soon after Lou moved his friend Jim died, but Lou stayed in Chowchilla. Lou had a small farm house in an almond orchard which was harvested by a local farmer. Being a consummate model railroader all of his life, he built a building to house his layout. In addition to railroading, Lou was a good woodworker and also loved collecting and tinkering on old Packards. He also built an addition to the rear of his house for his collection of books. In 1980, Dennis and Kathy moved to the Merced area when Dennis was stationed there in the Air Force. Dennis was buying a lot of Right-O-Way switch components from founder, Gene LaVancil. It was through Gene that Dennis met Lou. Dennis and Lou hit it off and began a 35 year friendship, more like family relationship. Around 1993, Gene passed away naming Lou as the executor of his estate, and he learned that Gene had left the Right-O-Way business to him. Lou took it over, working very hard to get the business back in shape as Gene was not the best businessman.

When Glenn Guerra met Lou around 2002, he was heavily into making passenger cars. He would punch the window openings in the car sides with a foot operated punch press. The roof stock was milled by him in his wood shop using cutters he had made.

He loved to travel to train shows, in a first class compartment on Amtrak, which was reminiscent of his childhood travel with his Father. Dennis and Kathy went to many train shows with Lou. Lou, being a devout Catholic, always looked for a church as he never wanted to miss Mass, even when traveling. Every year he could, Lou would take Amtrak from California, usually with other railroad modelers across Canada on the VIA, to Toronto, Canada, meeting up with the late David Nadeau. The entourage would road trip, visiting other layouts on the drive to attend the Chicago O Scale show. After the show, Lou and others would take the Amtrak Zephyr train back to California. He looked forward to that trip throughout his years.

Last but not least, Lou loved ice cream, and more ice cream; chocolate and more chocolate; prime rib and no green veggies; he lived alone, was still driving….and lived to be 93 years young. Lou was definitely blessed, and will be sorely missed by all who were fortunate to have known him.

Lou was inducted into the O Scale Hall Of Fame at the 2008 convention in Worcester .

He is survived by his sister, Marge Billingham and her children.

Henry Bultmann

Rich Yoder writes the following: I regret to inform you that on October 20th, 2015, Henry Bultmann passed away. He died from a heart attack in the Johnstown, PA Hospital. He was 65. Henry was the founder and owner of Car & Locomotive Shop which imported exquisite steam, diesel, and cabooses in "O" scale. Upon rumor of his death, I felt compelled to find and share what happened with those that appreciated what Henry did for the hobby. I contacted the county Coroner and obtained this information. I was saddened to hear that there was no known next of kin information found in his personal belongings. I shared that he did have both a brother and sister and a favorite Aunt and the small bit of additional information I believed to be true. No other information was given or is available from the county office. May the lights be green Henry, full speed ahead.

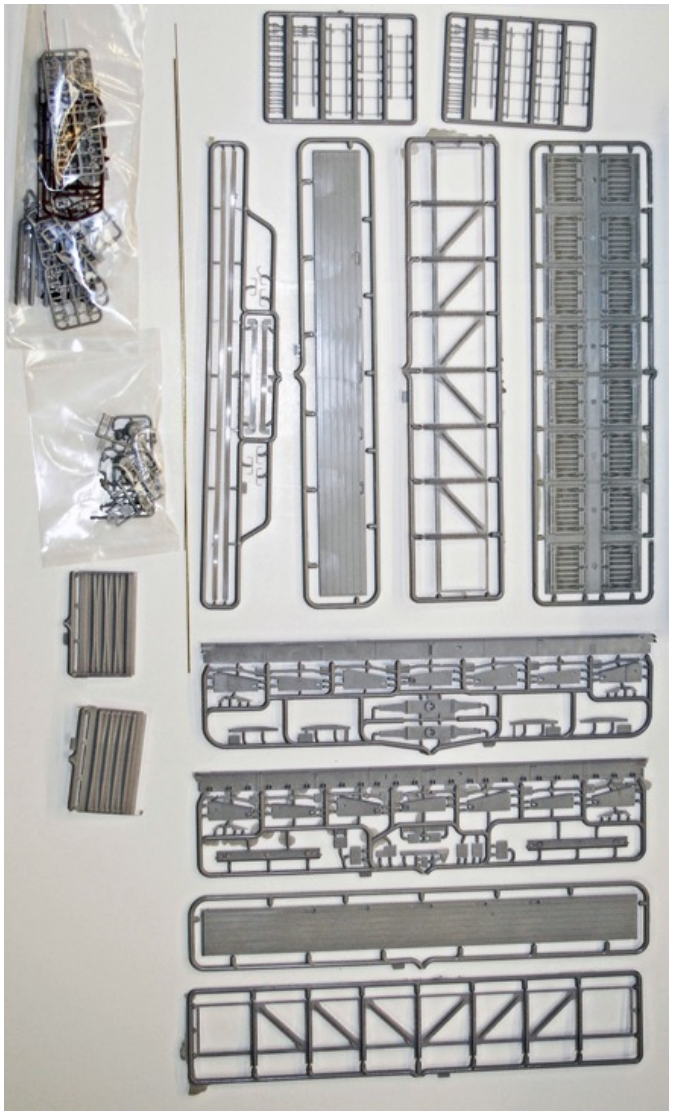
M. David Vaughn adds: Henry Bultmann never understood that the perfect is the enemy of the good. That is fortunate for O scale modelers, who benefited from Henry's obsession. He produced what is almost certainly the best engineered and most authentic O scale diesels ever produced. His 700+ Alco run was the best. Sell outs notwithstanding, Henry's ongoing struggle with his builder was one of the great love/hate relationships in the hobby. Henry's post Alco projects never matched the scope of his first venture. Unfortunately, the conflicts resulted in a sellout project which was essentially without profit and which cost Henry his financial security and a chunk of his psychic peace. Henry's Alcos, of which I have seven, are a real tribute to his quest for perfection. I wish that Henry had received both the financial rewards and recognition he deserved. The fact that he died in apparent absence of family and friends is just plain sad. He deserved better.

Thanks, Henry. Rest in peace.

NEWS YOU CAN USE

Tom Dempsey of Clover House sent us a note about some items that are now back in stock. Part number 3248 .025" Straightened Spring Temper Brass Wire and part number 3252 .040" Straightened Spring Temper Brass Wire are back in stock. Also, part numbers 9600-11, 9600-21, and 9600-31 Dry Transfer White Railroad Roman Condensed Bold Alphabet lettering sets are in stock.

John Parker was working on a model of a Southern Pacific drop bottom gondola at San Juan Car Co. He had been working on the model for many years and people were looking forward to seeing it in production. When John passed away, it looked like the end of that model. Jim Booth of Glacier Park Models is a mold designer and purchased the kit from San Juan Car Co. Jim has finished the tooling and redesigned the model which is now available through Glacier Park Models. The kit is a model of a Southern Pacific G-50-23 gondola. Glenn Guerra saw one on the shelf at Des Plaines Hobbies and photographed it. This looks like an outstanding kit. The kit is all styrene and will be easy to assemble. One of the best features of the kit is the ends. Jim has tooled them so they are very thin and the corrugations are on the inside, as well as, the outside. Since the model is styrene, it will be a little light, but Glacier Park sells a weight kit separately. The trucks and couplers do not come with the model. The model retails for $99.95 and the weight retails for $9.95.



Protocraft's new E Type coupler is developed from prototype drawings of the Symington-Gould Corporation of Rochester, NY (1940), for the drop-head, bottom operated freight coupler as approved by the Association of American Railroads (AAR). This design replaced the Type "D" coupler and became the standard of the industry through the 1980's.

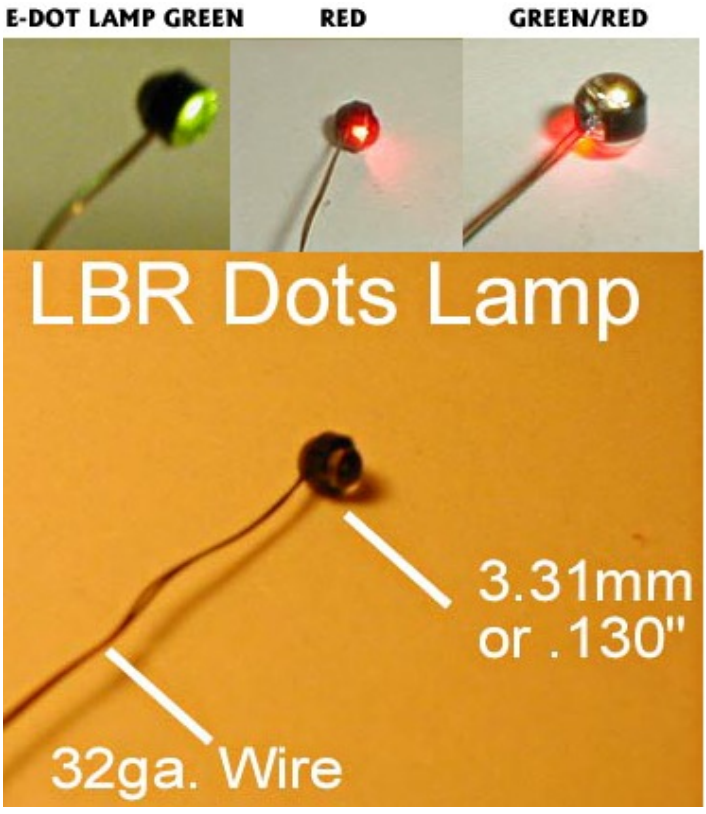
The model is to accurate scale dimensions, cast of all brass and pre-assembled in Korea by Boo Rim Precision, the couplers are chemically blackened and ready to install.

The coupler lift pin is magnetically operated using a wand with a magnetic tip (PC-1077) and will remain open until coupled. The coupler mechanically operates from the accompanying lift bar for prototype uncoupling operation also. (Note: for top-operated applications use PC-1074)

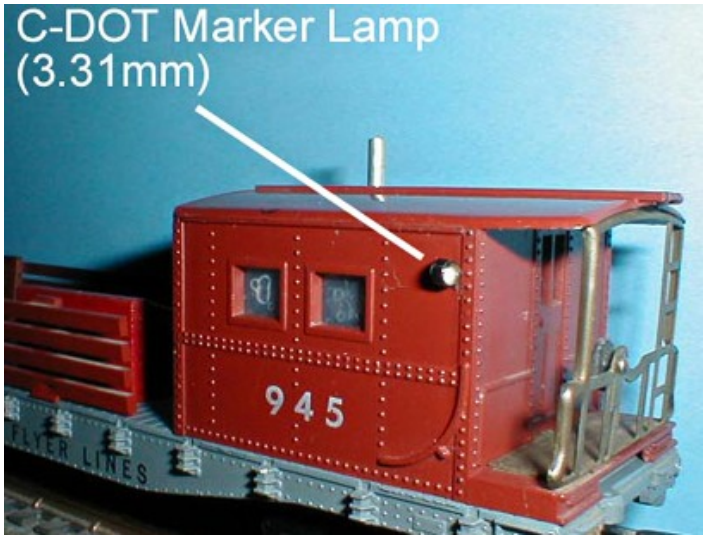
The new scale Protocraft coupler box and striker plate is designed from prototype drawings and replaces the “Kadee” style non-standard box, while adhering to standard screw mounting hole positions. .2mm mounting screws and lift bar are provided.

Part number is PC-1075 and sells for $59.95 for 5 pair. To order go to www.protocraft.com

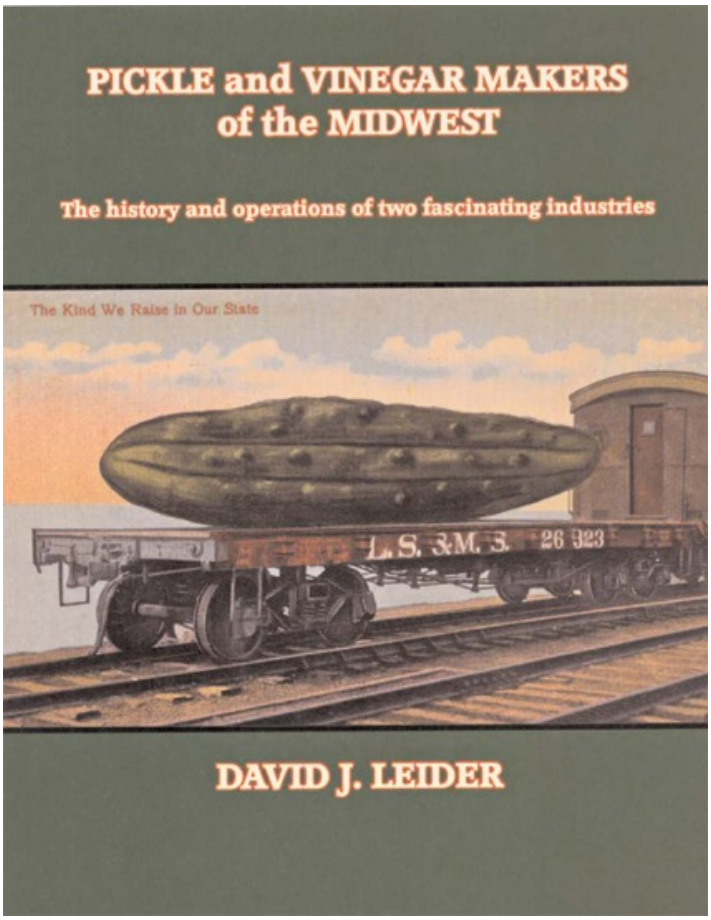
Dave from lbrenterprisesllc.com sent in some new lighting products which will work in many scales. The newest product is called C-DOTS and are LED marker lights for "O" & "S" gauge trains. Also, these same DOTS can be used in "HO" for head lights and reverse lighting.



Priced at $5.50 - $7.25 per pair with FREE shipping in CON US, they are an economical answer to other higher priced marker lights.



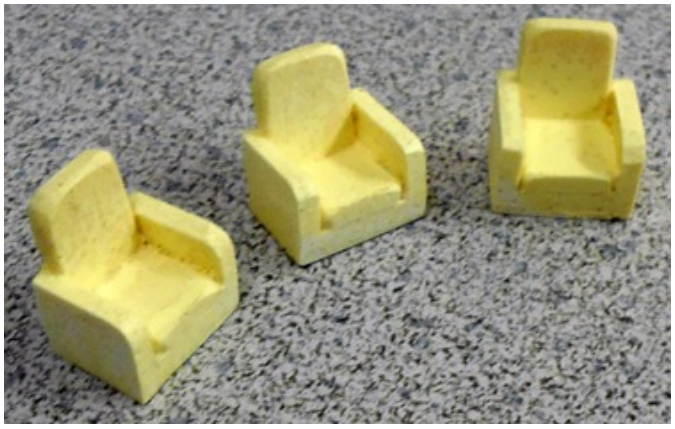
Finally- A book about the pickle and vinegar industries! David J. Leider has just released his new book "PICKLE and VINGAR MAKERS of the MIDWEST." Half of the book is devoted to pickles and half to vinegar. It has some history, focusing on some of the major Midwestern manufacturers, how they began, grew and were acquired. And of course there is transport, and the cars used. The final chapter deals with statistics, Wisconsin and Michigan towns with pickle and vinegar factories and some plans of pickle and vinegar cars.



- Both pickle and vinegar companies are featured – the major players, their history, operations and cars.
- Special attention is given to Michigan and Wisconsin, with charts of where cucumbers were grown, cities with pickle and vinegar factories and their relationship to Chicago – at one time the leading maker of pickles and vinegar.
- The author has written articles on pickle and vinegar cars and operations for several model railroad magazines, and presented numerous clinics on pickle and vinegar operations.
- 140 pages
- Over 190 photos, 39 in color
- 31 maps
- 68 drawings and illustrations
- Includes plans of vinegar and pickle cars

Price- $32.95 plus $4.25 shipping to the continental United States. For more information and to order please go to http://vinpic.dhke.com/

Bill Basden form Delta Models has some new items this month. DM 252 AC duct work sections for Heavyweight cars. These are modular sections with end caps and you cut the sections to length and add the caps. These sections will allow you to do most all heavyweight cars. (Resin Parts)



DM 253 are new cushioned Parlor / Lounge seats.

Sales for custom carrying cases are doing very well. Customers who have purchased these have been very pleased. A new one was recently added. DM 603 30 x 9 x 6 (29" inside length) this is a wider version, and will allow you to carry a Union Pacific Big Boy and tender with a caboose side by side.

Soon to be released after the first of the year, Interiors for the Santa Fe Budd 10/6 Pine sleepers. They will fit cars for Pecos River Brass and others.

New interiors for ACF 14 4 sleepers, Individual parts and full kits. If there is enough interest. Interiors for the Atlas O CZ cars. Please send us your ideas for future projects.

Edward Skuchas from the Berkshire Car Shop has new C&LE Freight Containers and Flat Cars. The Cincinnati & Lake Erie was one of the dominant Ohio interurbans, and they pursued the trolley freight business. The Cincinnati Car Company fabricated these freight containers which allowed interchangeable freight shipments on both truck and flat car. Cars were lifted off of the flat car or truck by overhead cranes. The container system was devised and patented as a means to provide better freight service for customers. The C&LE offered overnight service throughout its service area across Ohio. Pickup in Cincinnati in the evening with delivery the following morning in Cleveland. The container system was also used in Massachusetts and in Michigan.

Following considerable research and computer-aided engineering, the containers were faithfully replicated with detail that extends to the riveted components, the floor framing and the corrugated roof. Yes, even the number of corrugations are correct The body includes all of the structural components, drip edges, hooks, hinges, dimples, etc. Plans did not exist, so the container's details were taken from available photos. The parts are cast in resin using molds of the rapid prototype printed masters. The floor is a separate casting with the other five surfaces cast in one piece. The modeler provides the 3 longitudinal cleats that would be in the center and at the edges of the arched roof.

The flat cars in development are currently rapid prototyped parts. They include all of the rivet detail, wood deck surface and have the under floor framing. The radial coupler mounts should be ready soon. The cars have the locator pins for locating the containers on the car. The flats were also used without the pins for general service on the C&LE and other roads.

Also available soon will be the decals for the containers and the flat car. The decals will be unique to this car and containers, and they do not match any other C&LE lettering font that the car line used.

The containers and flat car model details have never been shown on any other models of this type.

The container castings are now available, and the decals and the flatcars should be available soon.

Chris from Miller Engineering is announcing three new products to their line of beautiful signs.
#88-2001- Lg Woolworth Lg. Size .75" tall x 7.3" wide, Price $49.95

#88-2051, Lg. S&H Green Stamps Sign, Size 1.1" tall x 5.9" wide, Price $45.95

#88-2201, Lg. Rexall Sign, Size 1" tall x 6.6" wide, Price $49.95

These signs are unique in that they have the ability to be mounted two different ways. The sign can be mounted as a regular roof top billboard or, because we have added a second set of contacts to the backside center, it can be mounted flush against the front or side of a building. Click here to see these signs in action.

Martin Cohen of Tru-Color Paint has some new colors coming out. January, February. and March of 2016 of new colors Tru-Color Paint is releasing:

$ 5.69 Suggested List
TCP-305 Chessie Yellow
TCP-306 Chessie Blue
TCP-307 Chessie Red/Orange
TCP-308 Florida East Coast Blue (Older Scheme)
TCP-309 Florida East Coast Yellow (Older Scheme)
TCP-310 Retarder

$ 6.19 Suggested List
TCP-833 Flat Foundation

James Bester from from Model Tech Studios LLC has some new items.

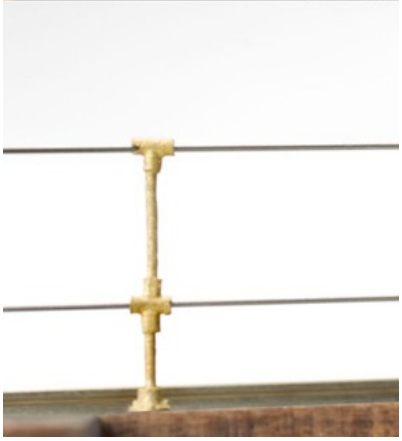
"O Fisherman" --- Dom, the Career Fisherman is spreading his net out to get ready for a busy day of fishing ahead. Great Character for a Fishing Workboat, a Dock scene or a Fishing Company scene. Our Finished and Layout Ready Creative Working Waterfront Figures make the difference in O scale and HO scale scenes.

"O Generators" --- 2 Detailed O Scale Detail Power Generators Perfect for Industry Side or a Industry Railcar Freight Load… they come all assembled and painted/weathered for you… instant detailing. Available in O, HO, S and N scale. See these and all the fine products at www.modeltechstudios.com

We lost a great gentleman and fellow O Scaler this month, Lou Cross. (See "In Memoriam" on page xx) Lou was also a good man of business and had a plan in place to carry on Right O Way products. Orders are being filled, and the line will continue. At press time, all the details could not be released, however. Questions may be sent to Jay Criswell. Click here to Email Jay.

David Thompson of Harbor Belt Lines sent us a new kit. It includes a pole with LED already wired for 12V, cast phone box and phone, bead insulators and even the very nice Arttista painted figure. Even with painting and staining, it took me less then two hours to build this as shown. It may not be on his Website yet, but watch for it or drop David a note at hblosm@yahoo.com

Millhouse River Studio is pleased to announce a couple new items. The first item is the long awaited brass Union Pacific / Southern Pacific style electric arch. The arch is available as another option for our turntables to complement our standard arch and our PRR arch. Allowing the modeler to choose which style matches their particular railroad they are modeling. We designed the arch so that it could be



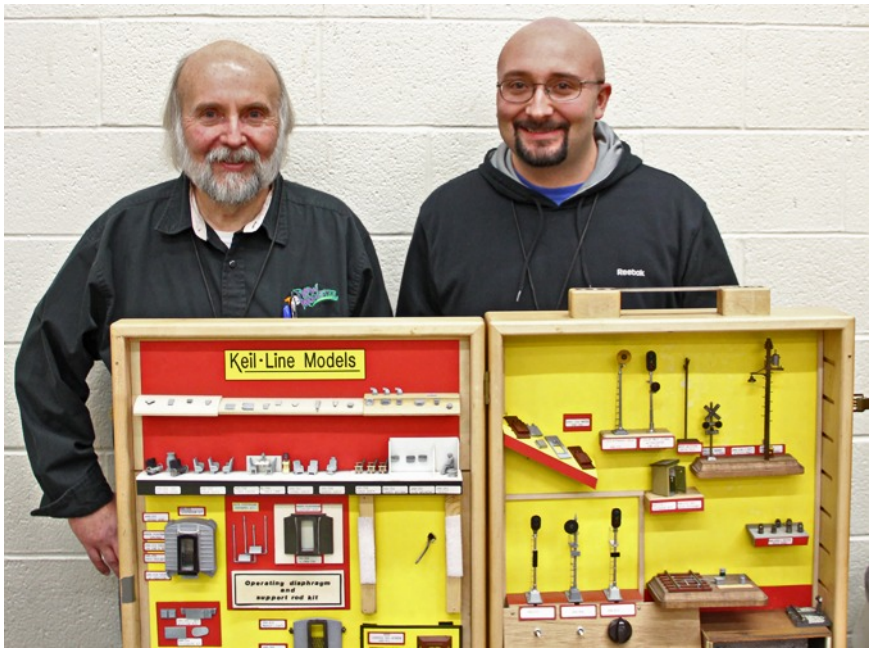
assembled in two different roads. If modeling SP, you can just leave off the upper platform and railings to have the rounded top arch. If modeling UP, then you can complete the arch by adding the railings, platform and upper triangle to the arch. Both versions allow the modeler to attach wires to simulate the power connection. The top of the arch allows the table to turn with wires connected, just like the prototype. In addition to the arch, we also created a new laser cut control cab to go on the bridge deck and has the design of a sliding door rather than the typical swinging door found on our standard or PRR cabs. The UP/SP bridge also comes with our brass pipe railing stanchions that mount into the bridge tie ends, like the prototype. This new option is available when ordering.

Our second new item is track screws. Not as pretty as the brass parts, but still great quality. These are not made in China, and from our testing, are a higher quality so that the heads don't snap off and are less likely to strip out. We know how frustrating that can be when building your railroad! They are 3/4 in. long, have a #1 Phillips pan head and have a black oxide finish. These, too, are available on our website and come in packages of 48 pcs. $3.49 bag. www.studiozphoto.com/millhouse.html

Editors Note: You will notice that Al sent us a picture of a turntable set up for three rail. Be assured that he will install any track you give him. Below is our turntable with Micro Engineering code 100 track that we sent him when placing the order. The turntable and indexer continue to work flawlessly. ~ Amy & Dan

Cleveland O Scale Show

Again this year, Amy and I went to the Cleveland O Scale Show representing *The O Scale Resource* on October 31st. The Cleveland show is held at Lakeland College in Kirtland, Ohio, and is hosted by Sam Shumacher who continues to do a fine job. There were a few less tables this year; Pat from P&D had a high school reunion and could not make the trip, but attendance was good. The show was open from 9:00 AM until 2:00 PM. There was no diner on Friday this year because the restaurant where it was held closed, but Sam is working on being able to have one next year. And, if you were inclined, there were some layout tours available. Let's take a look and see what was new this year, as well as reconnecting with old friends.

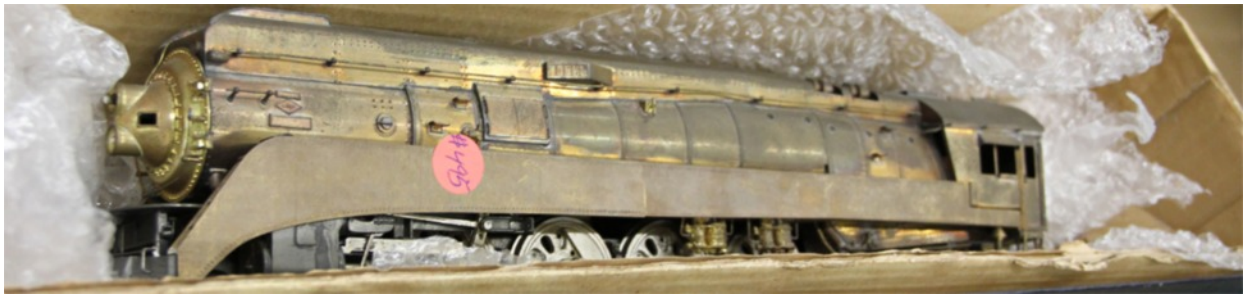


Marty Milner, Sr. and Marty Milner, Jr. brought some of the old Keil Line products to sell. Much of the line was not yet unpacked as they had just returned from picking everything up from Martha Keil. Per John Kiel's wishes, the name will change, but all products will again be available.

The Milner's were also selling their other line of kits, Scale City Designs, and doing a brisk business.

Bob Heil is the East coast rep for Sunset and goes to many of the shows. He always has the latest updates about the goings on at Sunset Models.

Many oldies, but goodies, show up at this show; all looking for a new home.



Over the years, I have built over 20 boxcars and reefers from Intermountain kits. They were one of the best engineered kits ever brought out. I really did not need anymore, but at $10.00 a hit, even I was tempted. Anyone looking for high quality kits had no excuse for passing these up.

I have five Central Locomotive PA's, but I still slowed to look at this "project" pile in the picture below.

Carl Johnsom had a table of nice items all reasonably priced. It's always nice to see old friends, and that is another reason to go to these shows.

Another table full of items new and old. I almost scored another wine tank car for Amy's train, but someone beat me to it.

Parts is Parts…

Bob and Karen Lavezzi were there and this time with much more than a stack of Atlas cars. Bob and David Vaughn purchased the parts inventory from Weaver Models and are still sorting through them. Bob had a good, but small sampling, of their inventory. They are working on a Website and taking pictures of all the parts, so stay tuned.

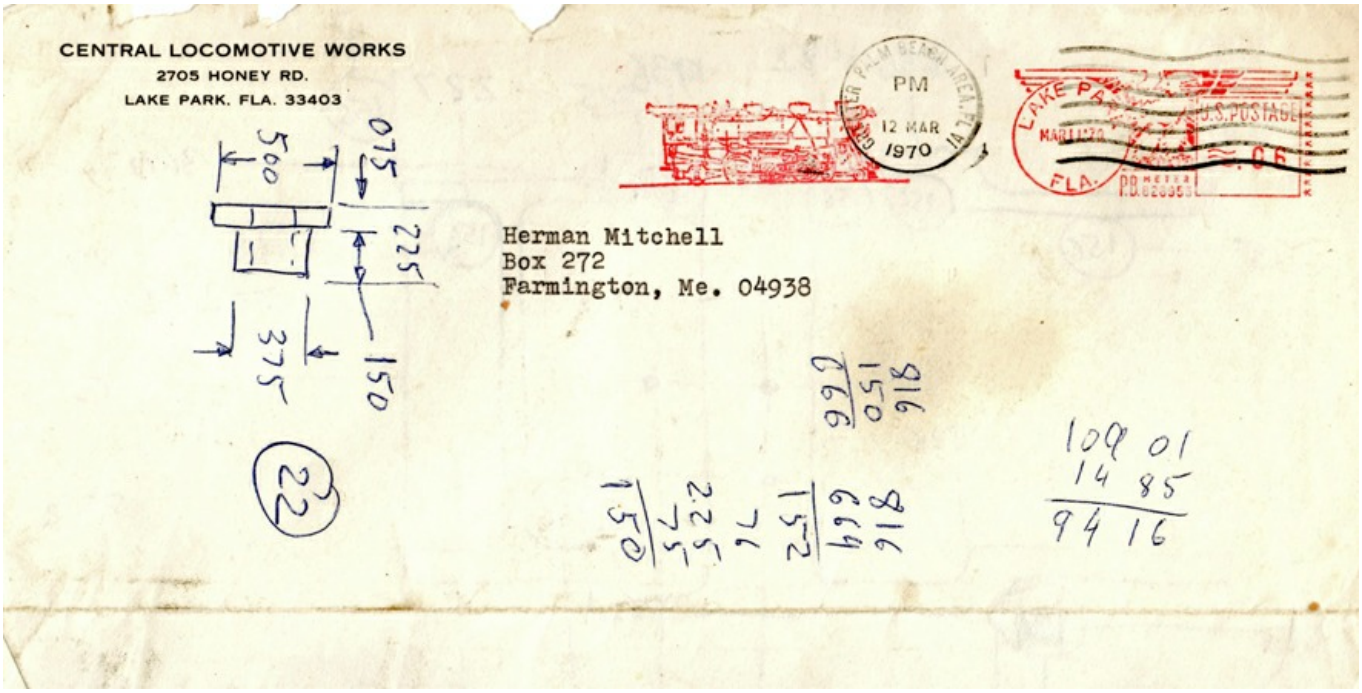
Jim Canter asked me to take a picture of Lisa and Bruce Cunningham from St. Clairsville, Ohio. According to Jim, they are newlyweds. I never did hear the whole back story, but I hope this was not their honeymoon!

As we like to keep reminding everyone, all is not lost. Younger people are here and enjoying 2 rail O Scale. Karl Scheich and his son, Noah, enjoying the show.

Local author, Jane Ann Turzillo, had a table selling some of her books. Her newest book, published by The History Press, is "Ohio Train Disasters". Other titles such as" Murder & Mayhem on Ohio's Rails" and "Wicked Women of Northeast Ohio" were available for autographed copies. Check her Website at janeturzillo.com for more information.

All wrapped up and ready to go. There is always something for everyone at the Cleveland Train Show!

Planning Your Work

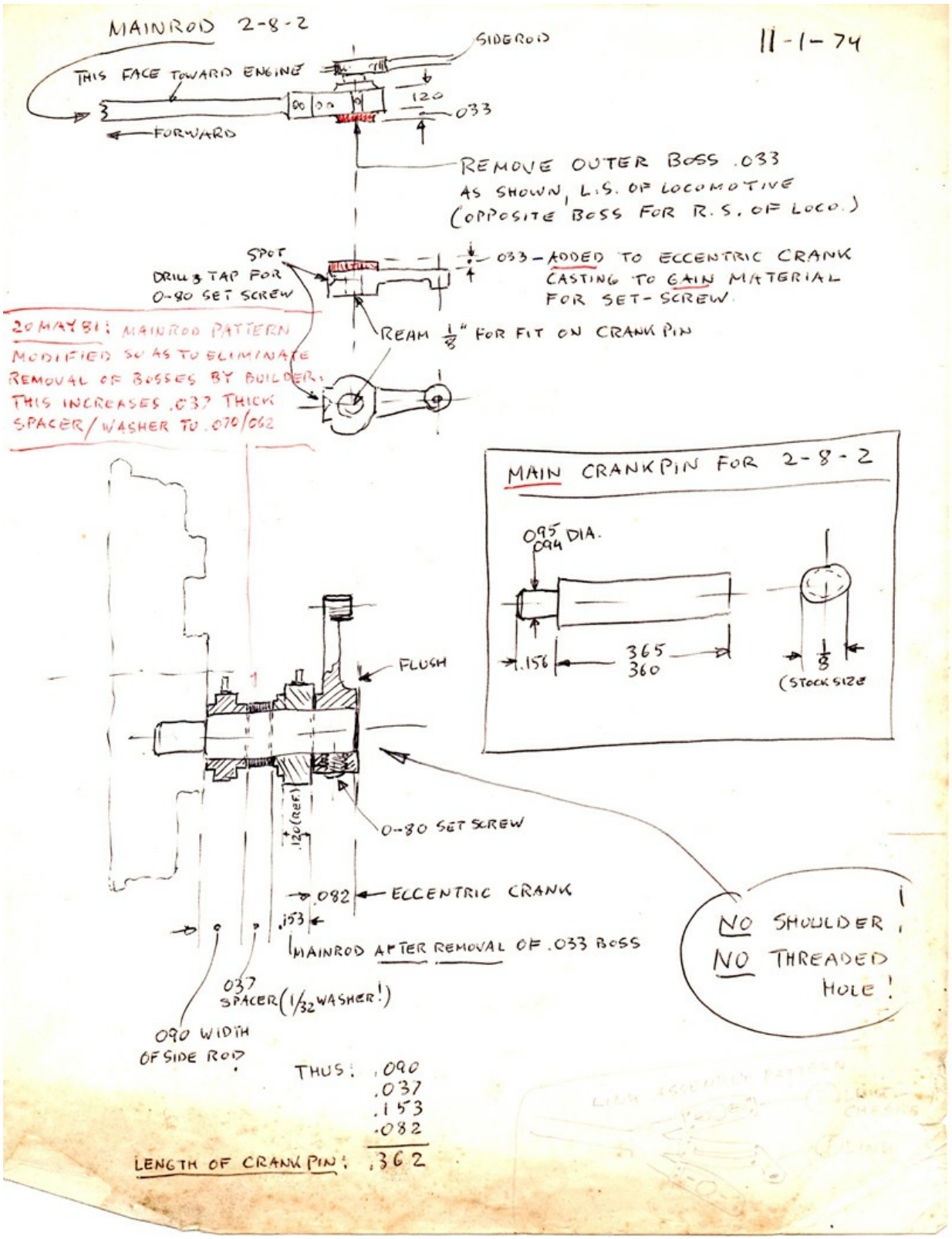


Herman was working on patterns for a USRA 2-8-2 for Central Locomotive Works. The sketch above shows that you don't need a computer or fancy drafting tables – it was made on an envelope.

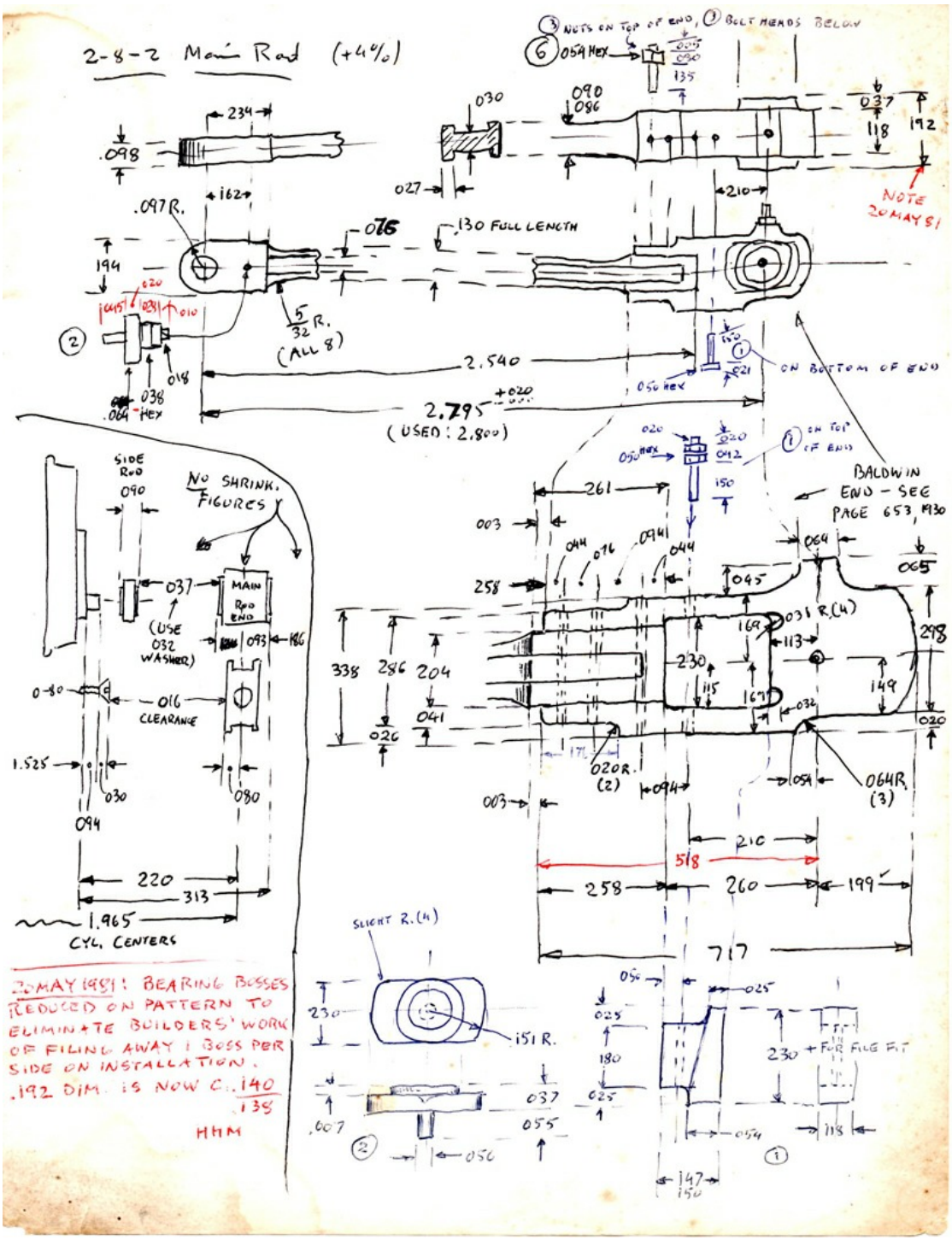
By Glenn Guerra

Herman Mitchell was a pattern maker living in Farmington, Maine who did a lot of work for Central Locomotive Works. I don't know a lot about him, and wish I knew more. What I have seen of his work is very impressive. Bob Stevenson acquires patterns and information about past builders, and you saw some of the patterns he has acquired in the July/August 2014 issue of *The O Scale Resource.* We looked at some of the sand casting patterns Bob had, and while Bob and I were talking, he showed me a folder of notes and some patterns he recently acquired. They were from Herman Mitchell, and through a round about path, they ended up with Bob. The notes are hand written on any type of paper that was laying around. I photographed them all so we would be sure to preserve the images. While I was looking at them, I started to notice what they were about.

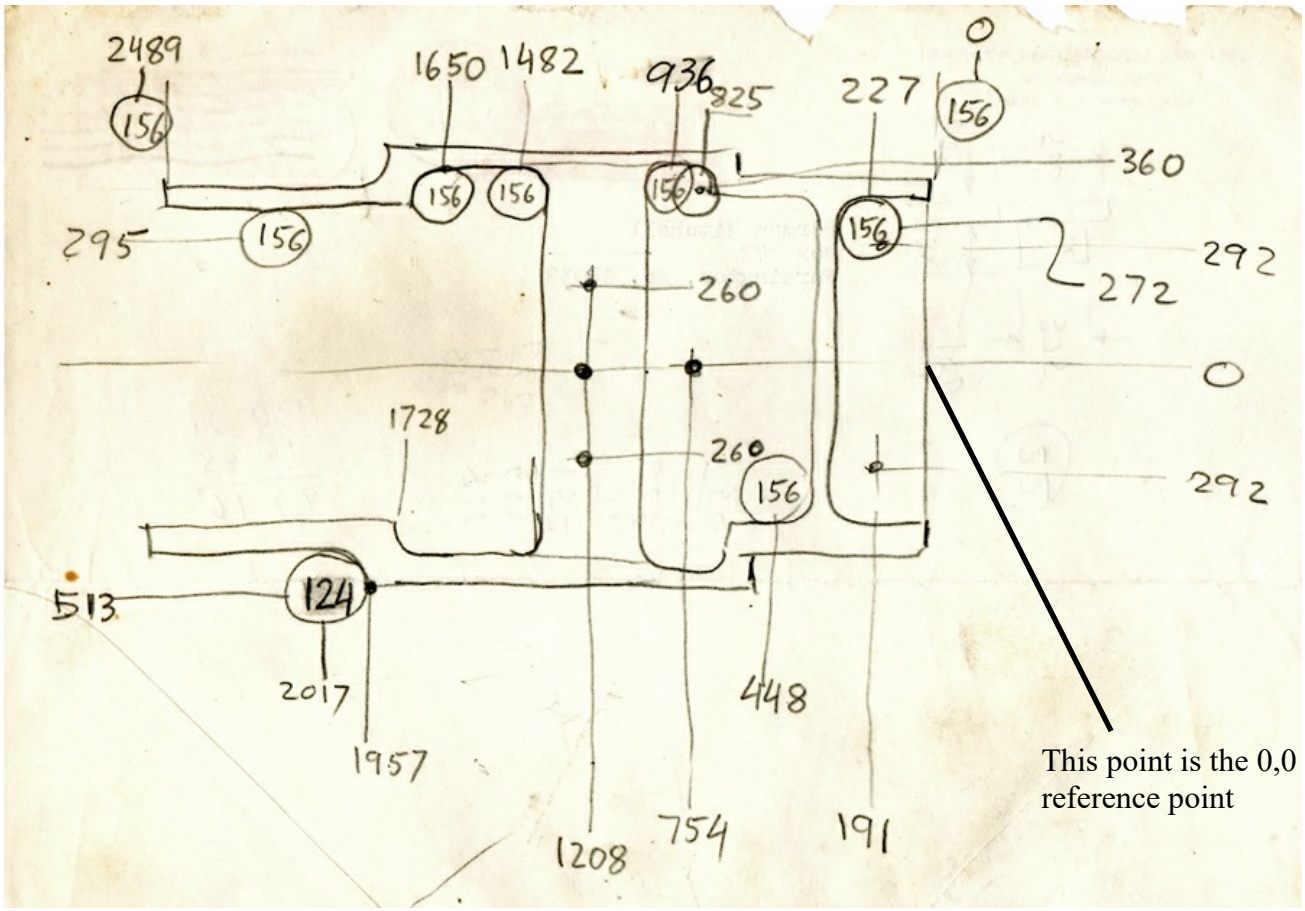
I am a big proponent of thinking your work through, and you have heard me mention this in articles I have written. I have had enough projects turn out bad because I did not think them through. On the other hand, I have had some projects that turned out well and went smooth because I took the time, or was forced, to think the project through. When I looked through Herman's notes, this came through loud and clear. I want to share some of his notes with you. As you look at them, notice the detail that he put into his sketches. This was not done with the aid of computers or fancy drafting equipment, but he was able to turn out magnificent work. Let's take a look.

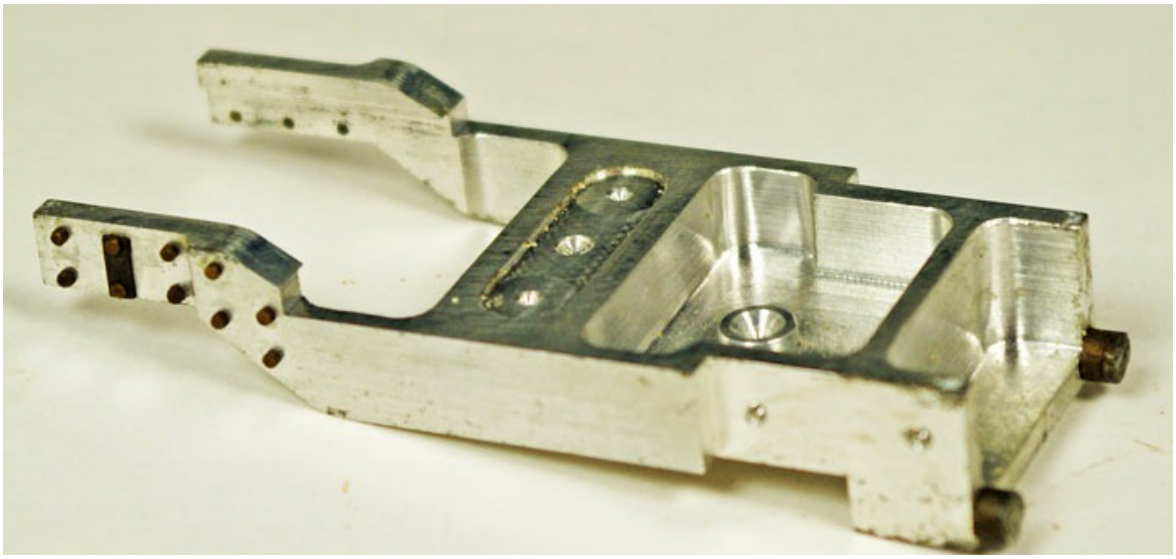


This is the sketch for the side rod clearances. This was laid out prior to making the sketches of the individual parts. All this needs to be determined because the parts must fit and line up with other parts. For example, the main rod must line up with the center line of the cylinders. Then the thickness of the wheel and shape of the wheel will determine how much of the crank pin sticks out. Now you have some known dimensions and you can figure out the thickness of the rods so they will fit. Keep in mind that you need to make these parts; therefore, they must be thick enough so you can machine them and they will work on your model. Notice also that changes have been made, and Herman has noted them in red.



Here is the main rod and the drawings Herman made so he could make the part. Note the changes in red that he made as he and Bob Smith from Central Locomotive Works went over the design.

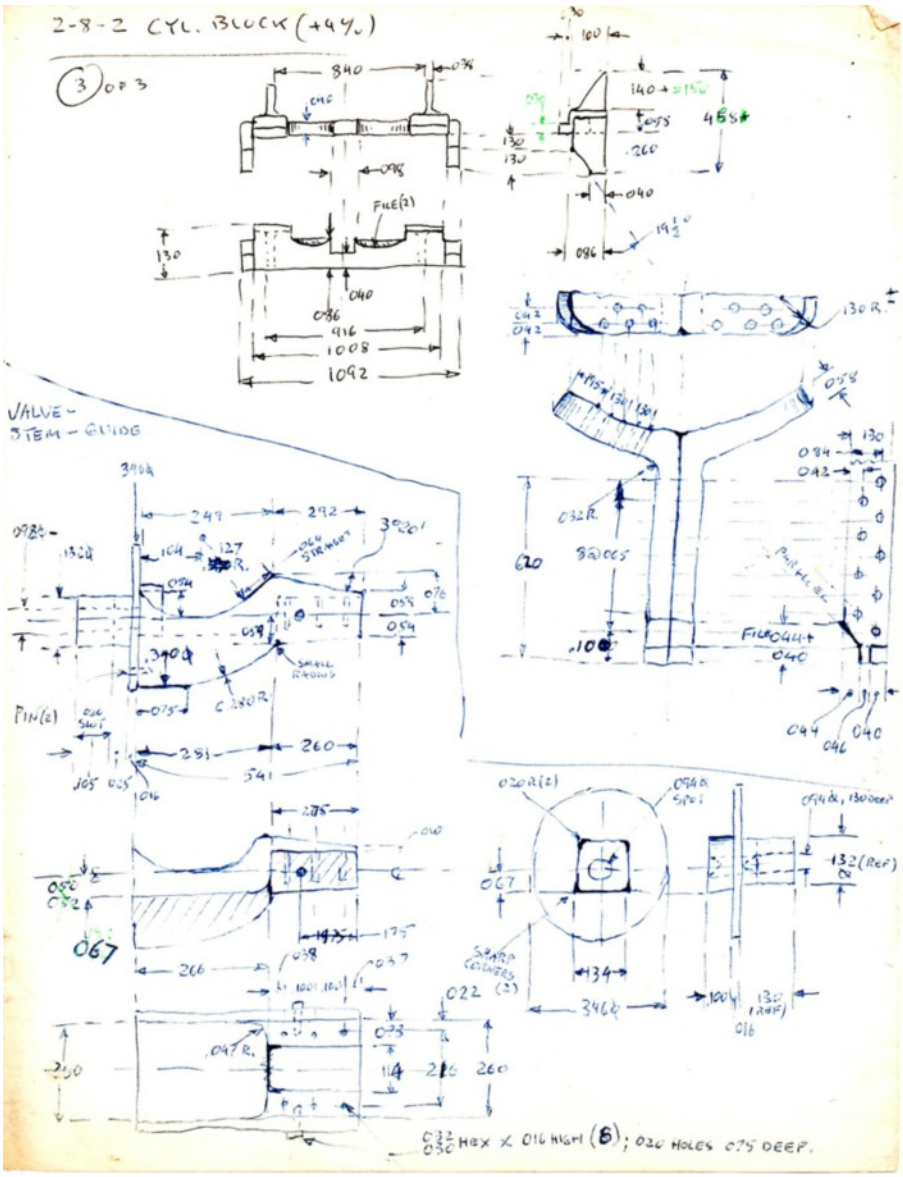




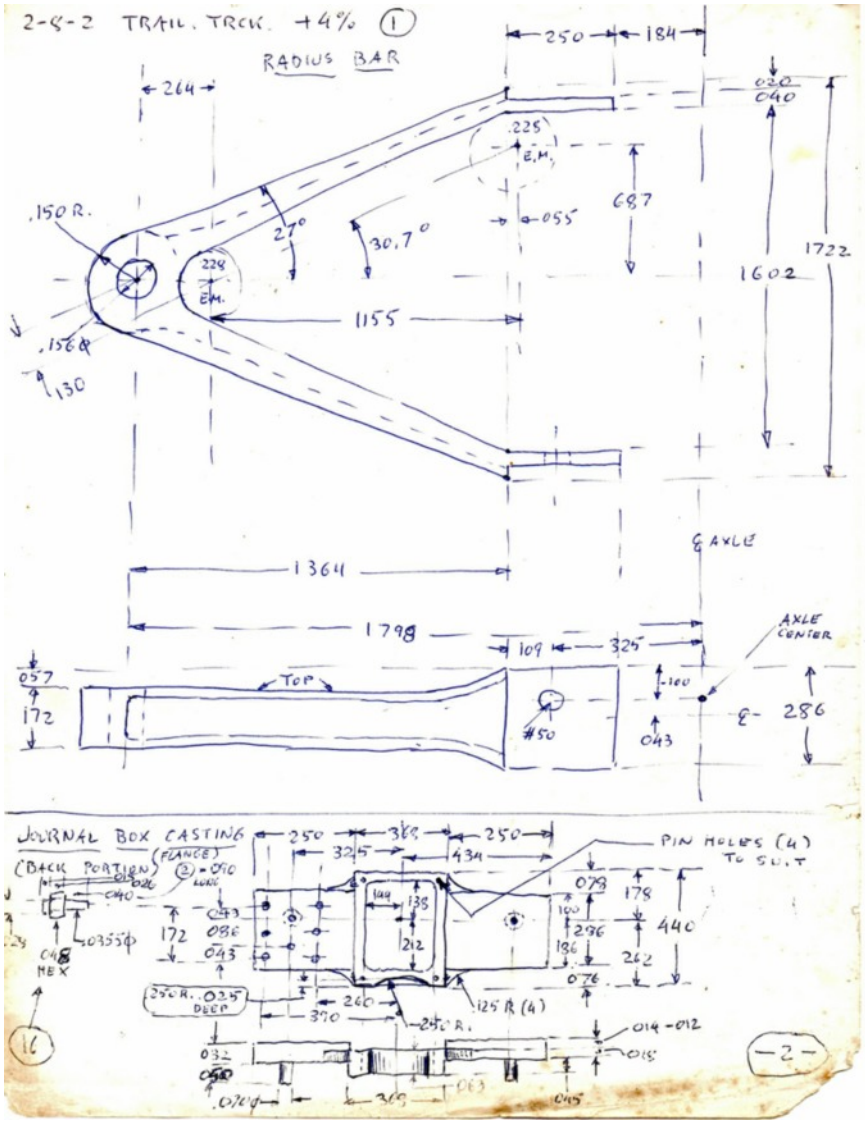
This is a drawing and the pattern for a frame extension. I noted where Herman established his 0,0 point. All dimensions are derived from this point. The circles with the numbers in them are the diameter of the end mills he is going to use. Each circle has an X coordinate (horizontal distance from 0,0) and a Y coordinate (vertical distance from 0,0). When he machined this part, he set the digital read out on the mill to 0,0 at the end of his part. Then to machine the contour, he moved the mill table to the numbers he sketched. For example, the circle on the lower left (124) is -2.017 in X and -.513 in Y. He moved the table to a location approximately -2.017 X and -.700 Y. Then, he advanced the table in the positive Y direction until he got to -.513 Y. Next, he moved the table in ever increasing X (to the left) and cut the profile. When he made the drawing, he needed to take into account the diameter of the tool since the digital read out shows him where the center of the tool is – not the edge of the tool.

This is what the finished part will look like.

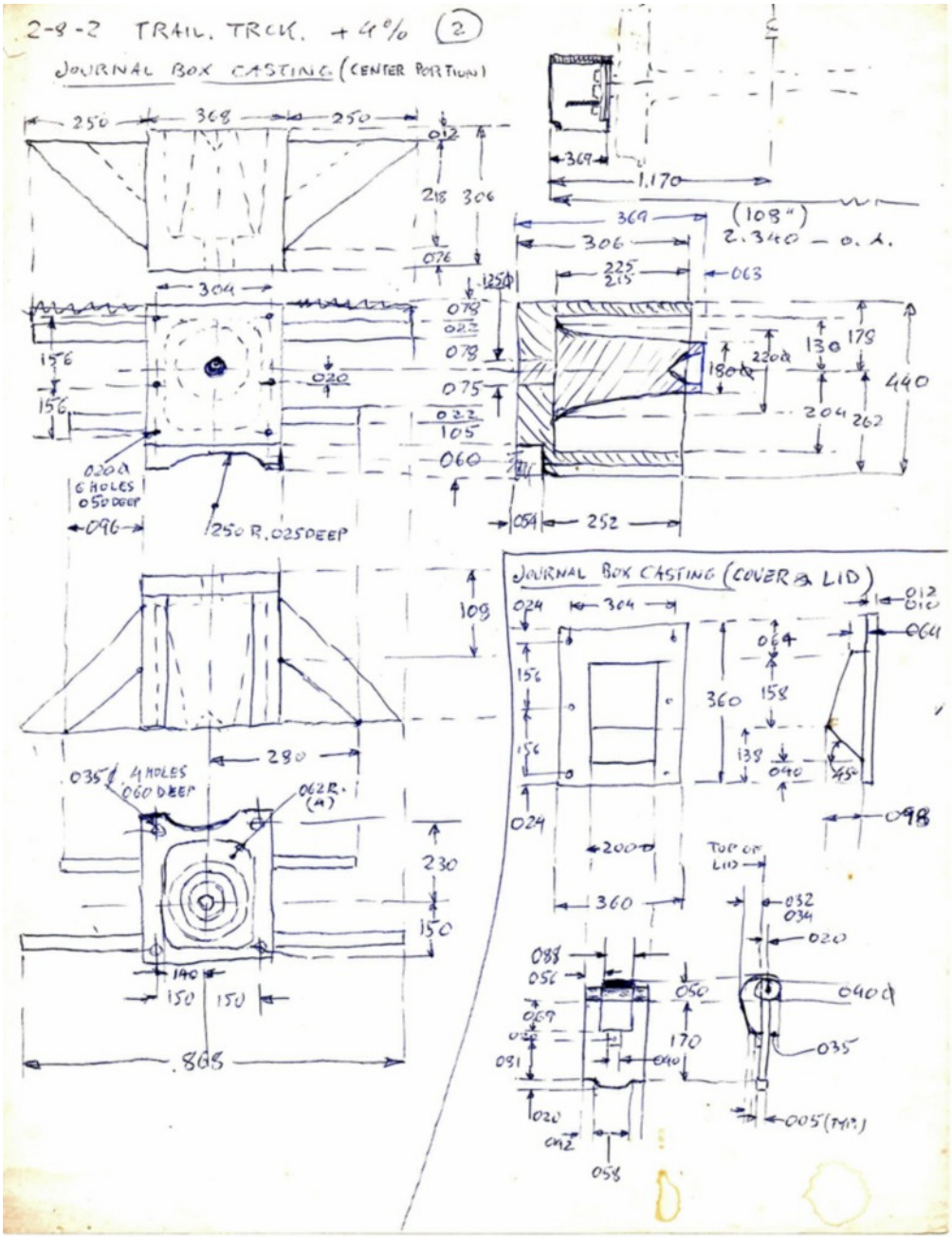
These are the two parts Herman had to make.



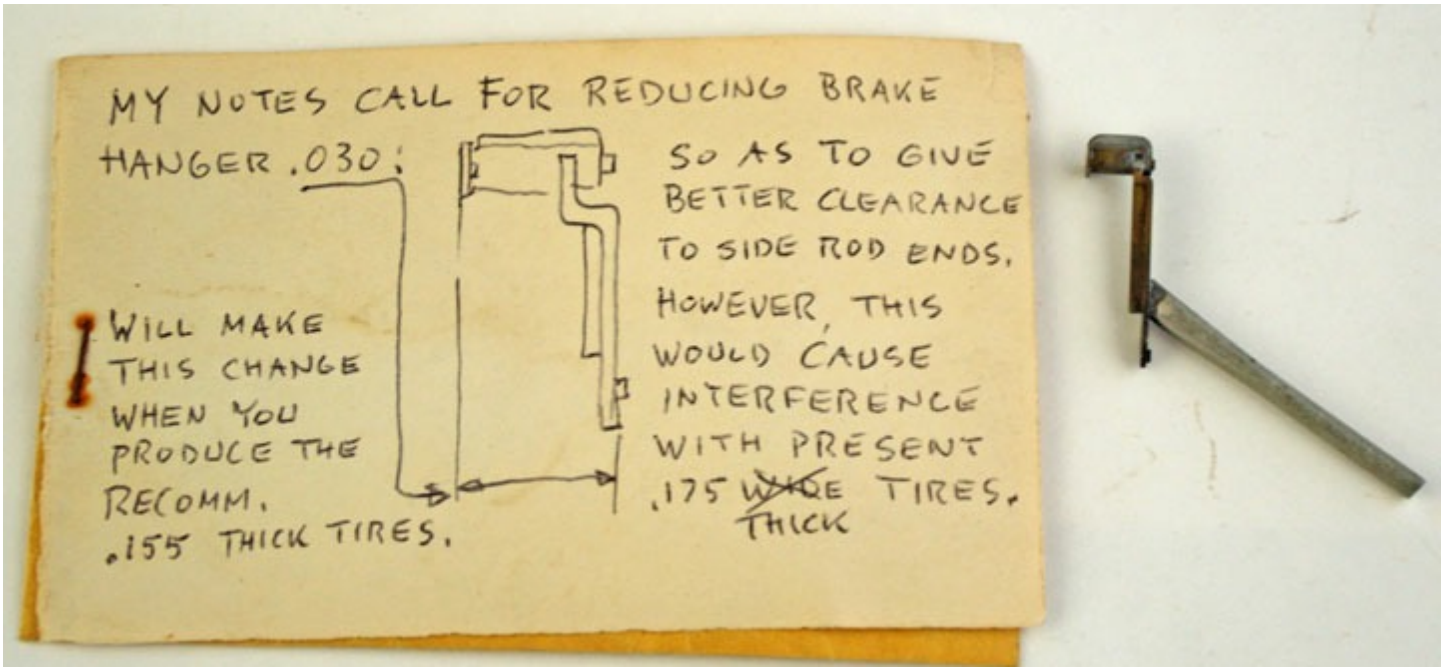
Here is a sketch for a guide yoke and the finished pattern. To make this pattern, Herman had to make two parts. The two sketches on the bottom are the parts he had to make. The reason he had to do it this way was because there is no way to machine the boss where the valve rod goes into the valve chest. When made separately, the boss is a rather simple part to make on the lathe. He made the yoke on the end of a bar in the milling machine and finished it by hand. This is called "leaving a handle on the part". By doing this, you have some way of holding the part while you work on it. When it was done, he cut the yoke off of the end of the bar (the handle) with a slotting saw. By doing this, he had a clean cut that was square to the center line of the part. Then, he silver soldered the turning to the yoke and had the finished part. The final step was to silver solder the casting sprue to the part.



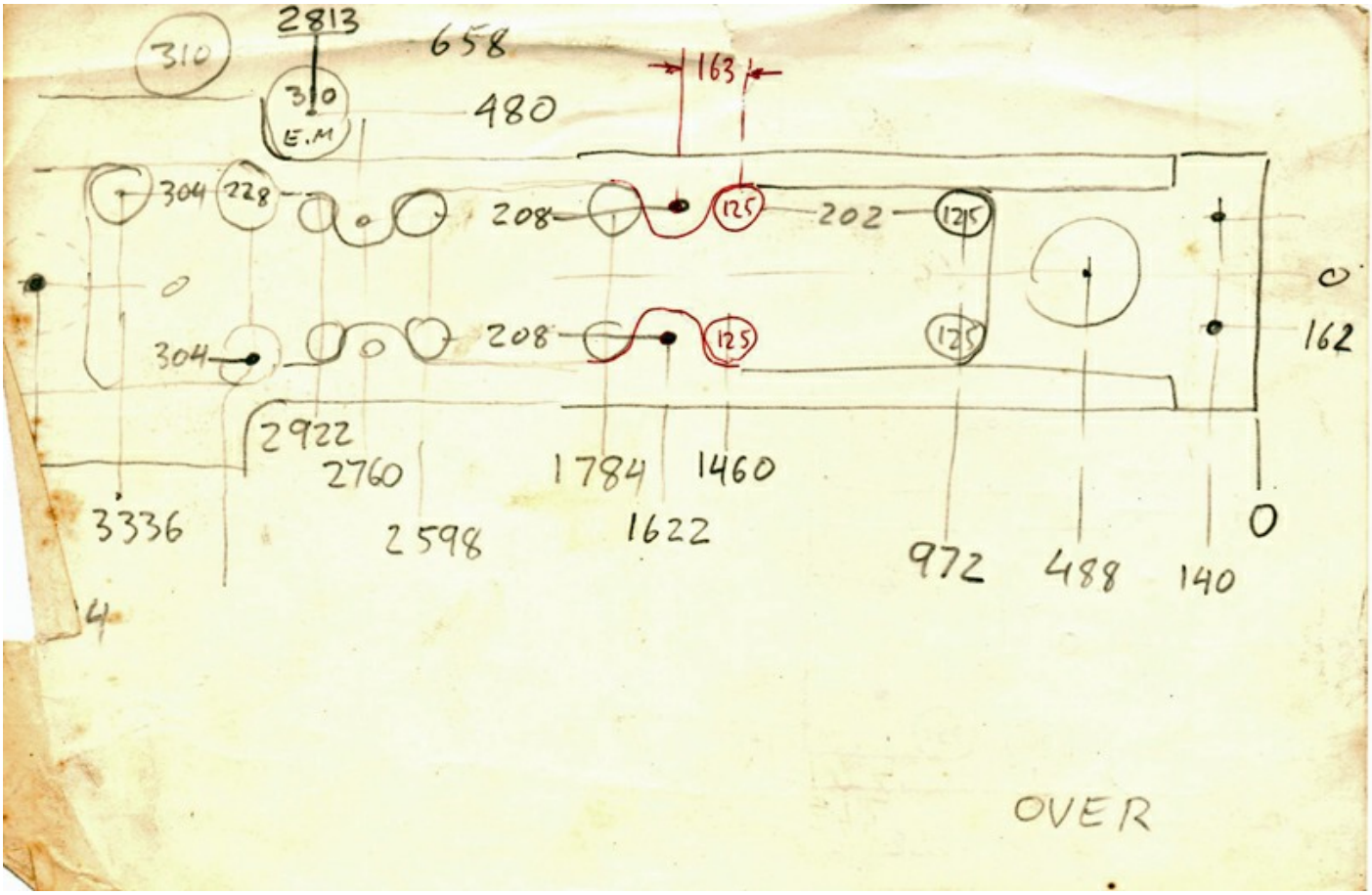
Here is the drawing for the radius bar of the trailing truck and the pattern. See if you can determine where Herman established his 0,0 point. This is an arbitrary point that you locate anywhere on the part to make determining dimensions easier. One of the points is usually on a line of symmetry in the part. By doing this, determining a dimension on one side of the line will tell you the dimension on the other side. On the drawing, notice the .687 dimension from the center of an end mill circle to a line. That line is the 0 Y line. The dimension he has on the drawing is +.687 Y. He does not need the dimension for the other side because he knows it is -.687. On this drawing, 0,0 is the center of the mounting hole.

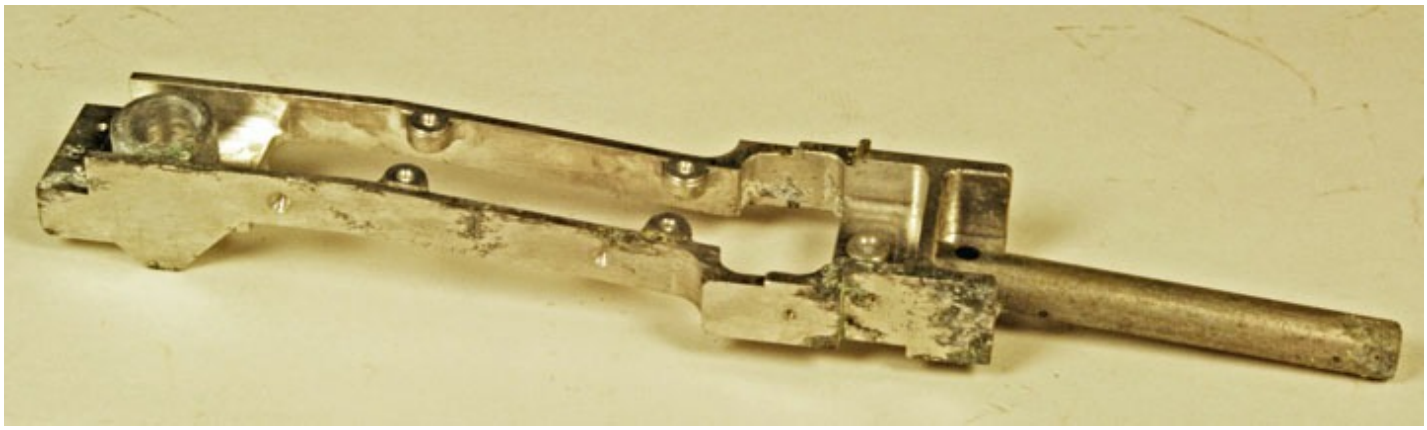


Here are some of the sketches for the trailing truck and some of the finished patterns. This would have been a nice model had they finished the kit. It was well along in the process.



This note was attached to this pattern for a driver brake hanger. Herman is telling Bob Smith from Central Locomotive Works that this part will need to be changed when they change the thickness of the tires. The .175" thick tire was the old NMRA standard. Today the standard is .147".





Here is a sketch for a frame extension and the pattern. Notice that Herman is working using a 0,0 location and the centers of the end mills. A simple sketch like this will save you a lot of frustration.

Scratch Building A Fuel Tank Pt 1

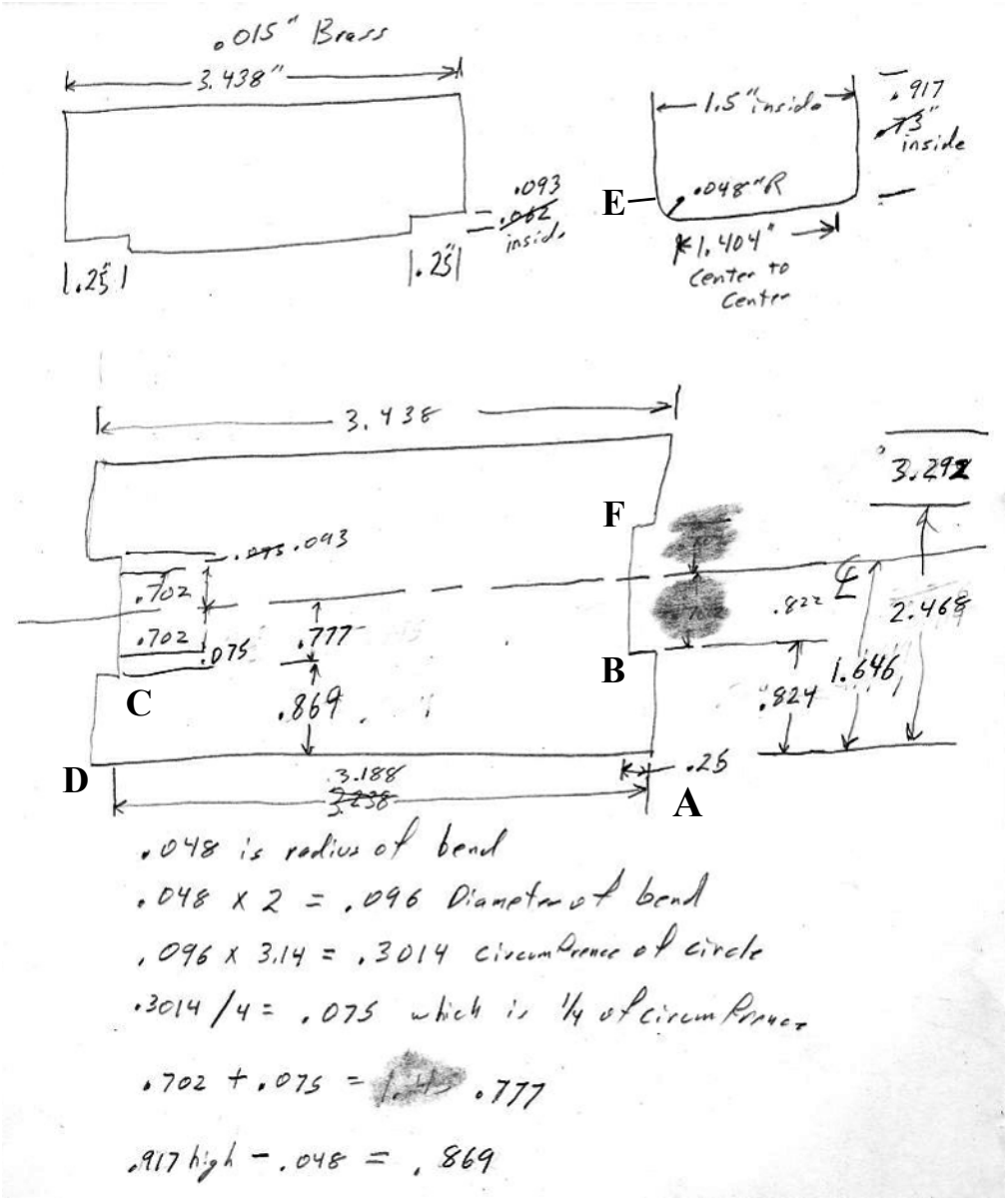
I found this photo of a C St P M & O RS 3 laying over in the Des Plaines, Illinois coach yard, and started to detail a Weaver model to match this. All was fine until I got to the fuel tank. I could see no way of modifying the tank that came with the model to match this, so I would need to scratch build one.

By Glenn Guerra

Part of the fun in modeling is creating a miniature of what we see or imagine. This creating involves the use of paints, added details, modifications, or scratch building, and we all do it to some degree. Many years ago when my nephew was around ten, I bought him a Weaver RS 3. They had just come out at that time. We had a lot of fun going to work on Ted Schnepf's layout and running the model. I starting looking at photos of C&NW RS 3 locomotives with the thought of adding some detail to the Weaver model. Des Plaines Hobbies and P&D Hobby had a lot of cast brass and etched brass parts which could be added to the basic Weaver model. Then, I ran across the photo above. I noticed that the fuel tank was different from the basic tank which Weaver modeled. My nephew grew up, is now an airline pilot and plays with fancy cars. In about 2001, when I was working at the Western Railway Museum in Rio Vista, I took the Weaver RS 3 with me to have something to do in the evenings and on days off. I made a lot of the other modifications to to the basic model, but never tackled the fuel tank. Now, I am going to try to build the fuel tank out of brass.

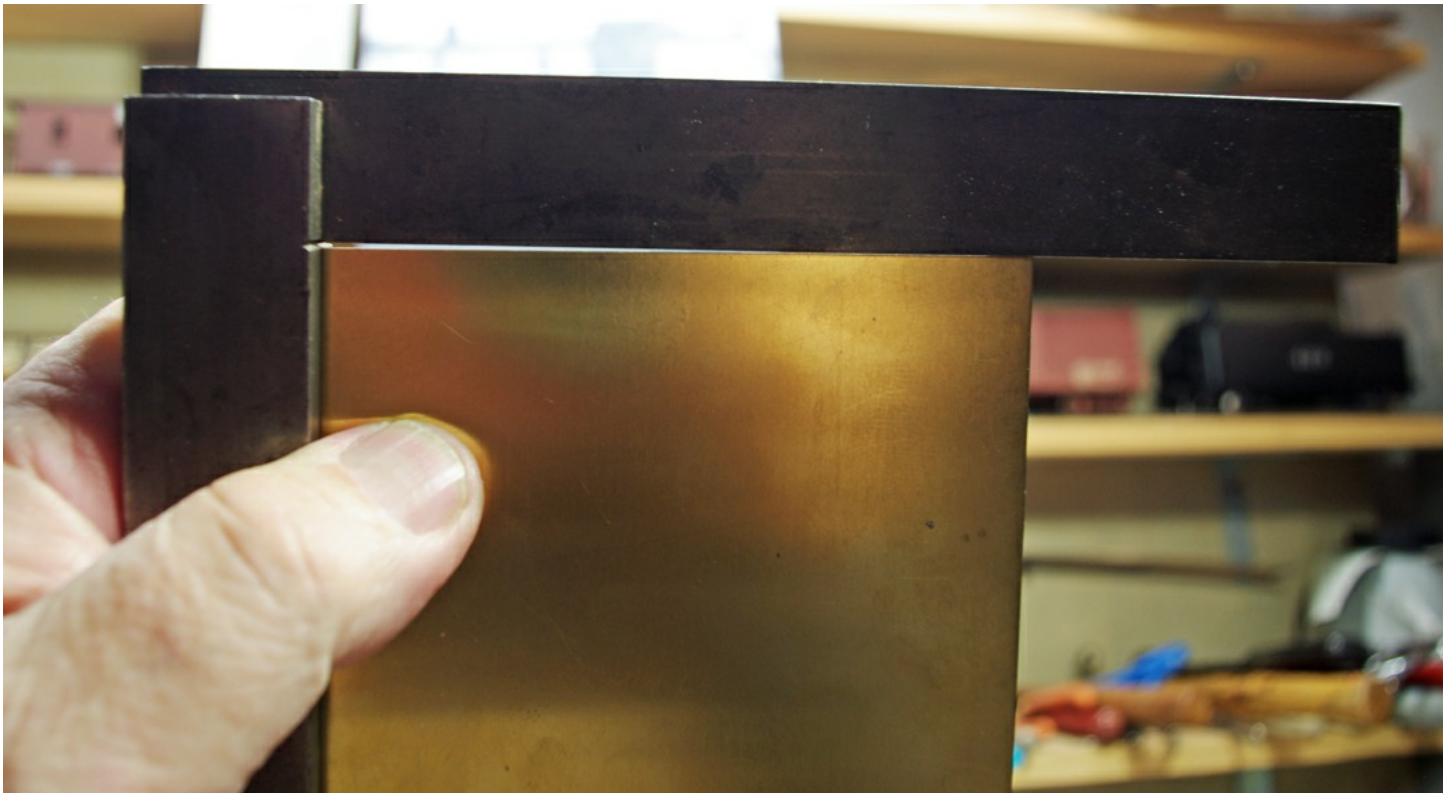
This tank could be built out of wood, styrene, brass, or a combination of all the above. When professional model builders are making a model, it's the final look they are after, and any material will work. I chose to build this out of brass, not only because I wanted the durability of the brass, but mostly because I wanted to see if I could. I've always admired brass models and the people who build them. As I work more with brass, I am also getting to like it. However, if you don't want to make this out of brass and are more comfortable with styrene or wood, don't quit reading. There are some things in this article relating to planning your work and the layout of the parts to get the outcome you want.

Rather than go through all of this with text, I decided to do this article with photographs and long captions. I think it helps to keep the explanation with the photo it belongs with. The photos show each step of what I did. Again, many of the layout steps are applicable to other materials. This will be a three part article. In this first part, I will layout and build the basic tank. In part 2, I will add the fuel oil tanks and the air tanks. In part 3, I will add the rest of the details. Let's get started.

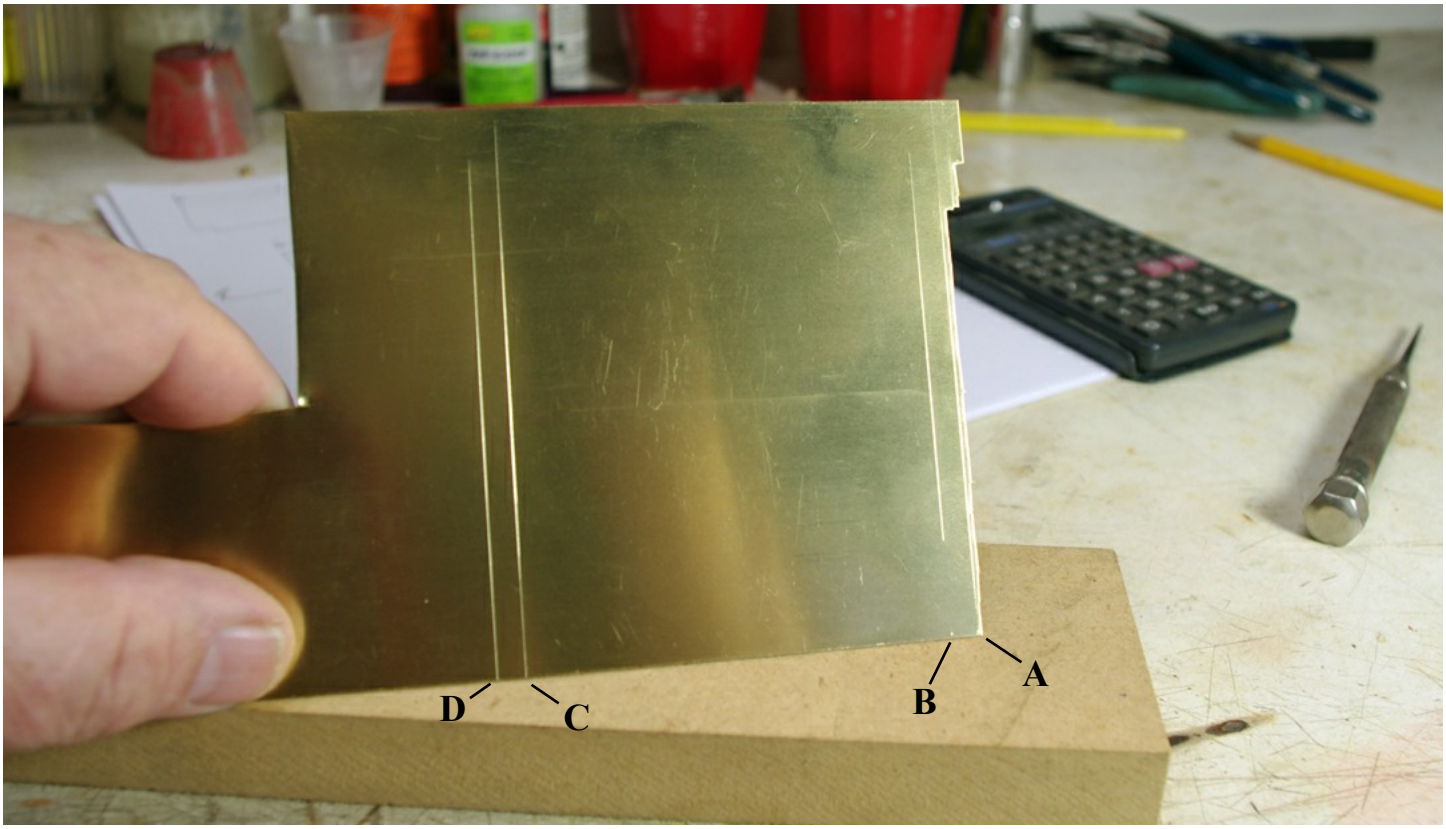


This is my sketch for the fuel tank body. We saw how Herman Mitchell made sketches for the patterns he was making. You don't need computers or CAD systems to do this type of work, just get it in writing before you start. When doing layout, you want to use only one side of the material for reference and one point as an origin. In this example, point A on the sketch is my origin. I will use one edge of the brass as the bottom edge of my part. Whenever you measure, there is some amount of error involved. To minimize the error, always measure from the same point. For example, if I measured from point A to point B, there may be a .015" error. Then, if I start at point B and measure to point C there will be another .015" error. Since I am already off by .015" at my start point of B, my location of point C will have the potential to be off by .030". As you can see, the error starts to add up rather quickly. To minimize this, measure all dimensions from one point and each measurement will only be off by .015"(in this case). You can see I did the same thing with the vertical dimensions on the right. Since I wanted to have a large radius on the tank, I needed to take into account how it would affect the dimensions of the flat part. It is always good practice to write all the calculations down step by step as I did here. That way, you can go back and see what you were doing if there is a problem. Notice I have crossed out numbers and erased some because I changed what I was going to do. The two numbers I derived gave me the dimension of the center line to the edge of the part. I then used these numbers to get the vertical dimensions listed on the right of the drawing. Look at the sketch in the upper right. See that the centers of the bends are 1.404" apart. One half of that is .707" which is the distance from the center line. I calculated that the distance along the arc of the bend is .075" and added that to .707" to get .777". That gets me to the tangent point of the bend on the side of the fuel tank, point E on the sketch. I now want to know the distance from point E to the top of the tank. The distance from the bottom of the tank to point E is .048" which is my bend radius. Then the tank height of .917" minus the bend radius of .048" is .869" which is the remaining distance from point E to the top of the tank. By adding .777" and .869", I get 1.646", and have now established the distance the center line is from the bottom edge of the layout. From the upper left view, I can subtract .093" from .917" and get .824", which is the distance from the bottom edge to point B on the bottom sketch. Lastly, I subtracted .824" from 1.646" to get .822", which is the distance from the center line to point B. Then I added .822" and 1.646" to get 2.468", the distance from the bottom edge to point F. Lastly, 1.646" times 2 is 3.292", which gives me the overall width of my tank wrapper.

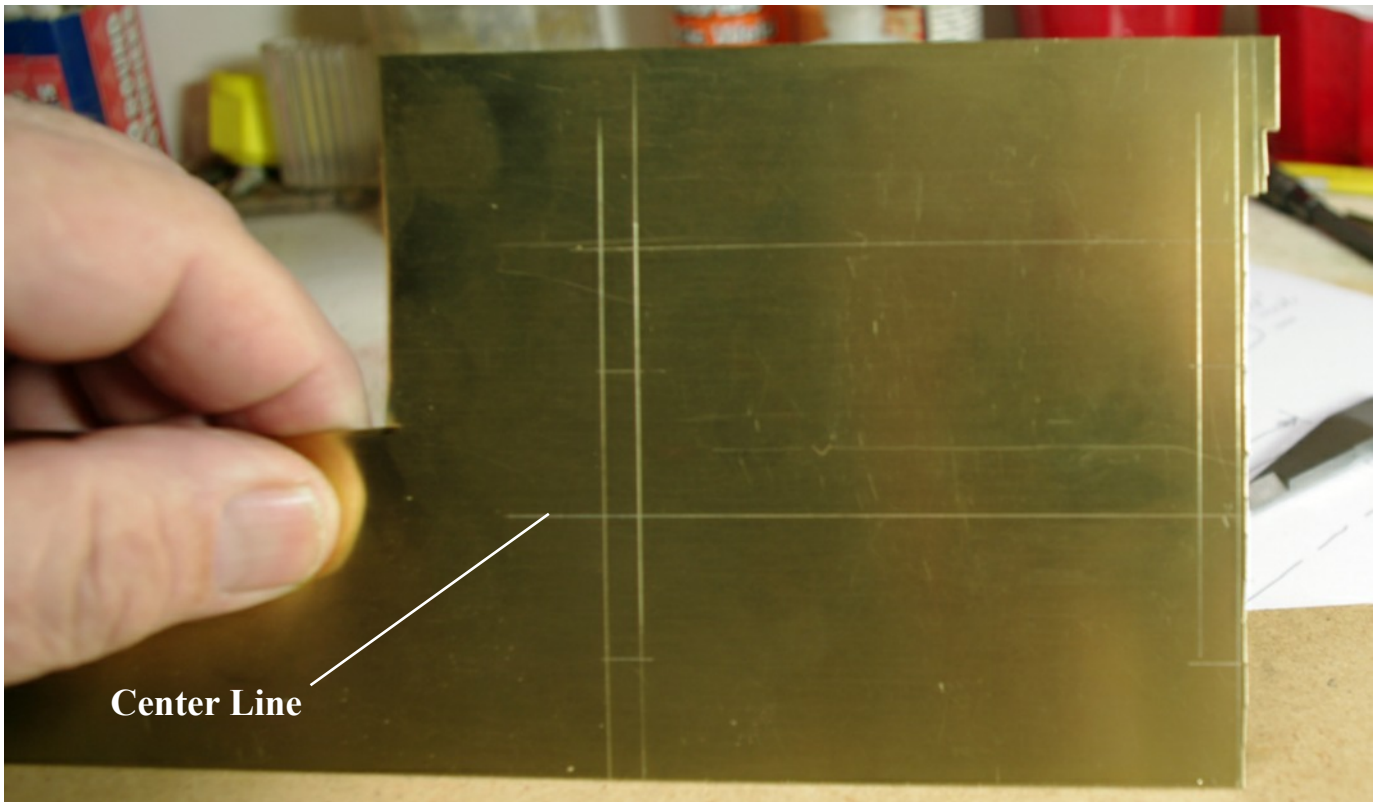
Here is my workbench while I was figuring this out. I used the basic length and width from the original plastic tank. The calculator is a big help. You will also notice that the drawing does not match the one on the previous page. Stay tuned till the end to see why.



When doing layout work, you never want to work from two edges and here is why. Notice that even the factory cut edge is not square. Never assume the material you are working with is square.

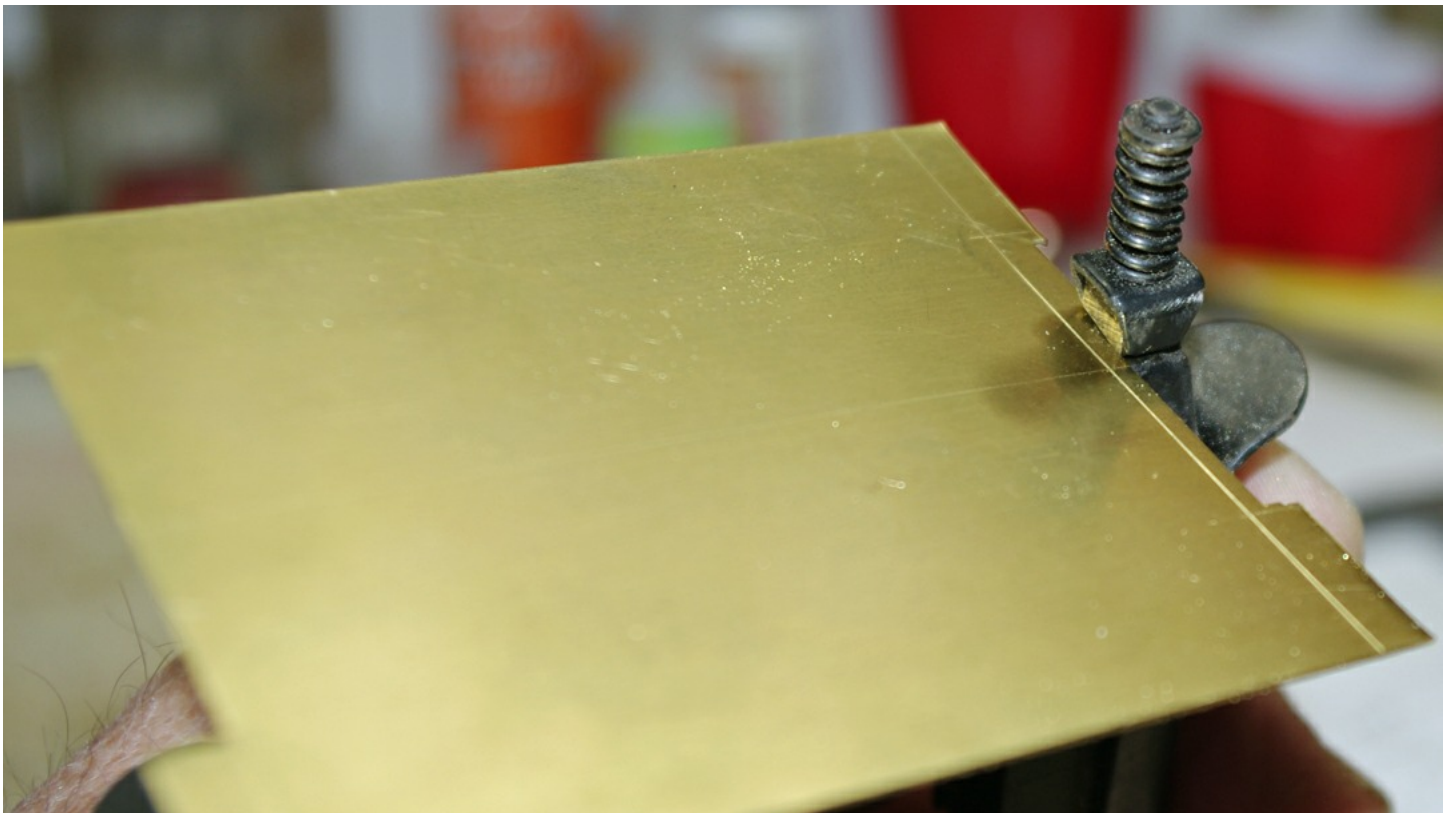


Here I have laid out the vertical lines. Notice that I drew a vertical line over on the far right. This establishes a square edge on the right. It also establishes point A from the sketch. Measure along the bottom edge and scratch small marks. Then, use your square and scriber to scratch in the vertical lines.

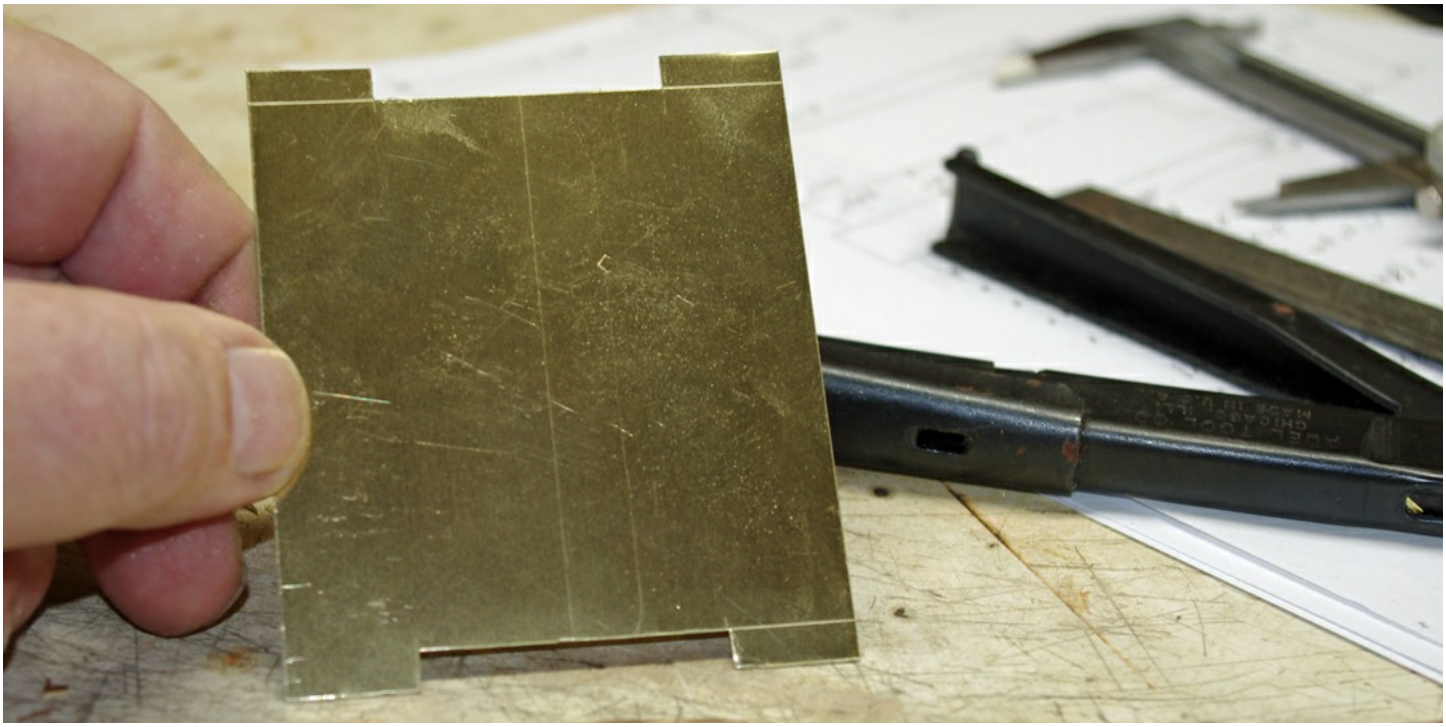


In this view, I measured up from the bottom of the sheet to get the horizontal lines. I scribed them using the tip of the caliper. This is not good practice, but works in many cases. There is error put in because you can not keep the caliper square to the edge and it is hard on the tip of the caliper. The proper way is to set your adjustable square and run it along the bottom edge with your scriber following the square.

In this view, I rough cut the sheet using the metal shears. Don't try to cut to the line. The shear tends to curl the brass when it cuts. I have had better results by cutting close and filing the edge flat to the line with a #2 cut mill file.



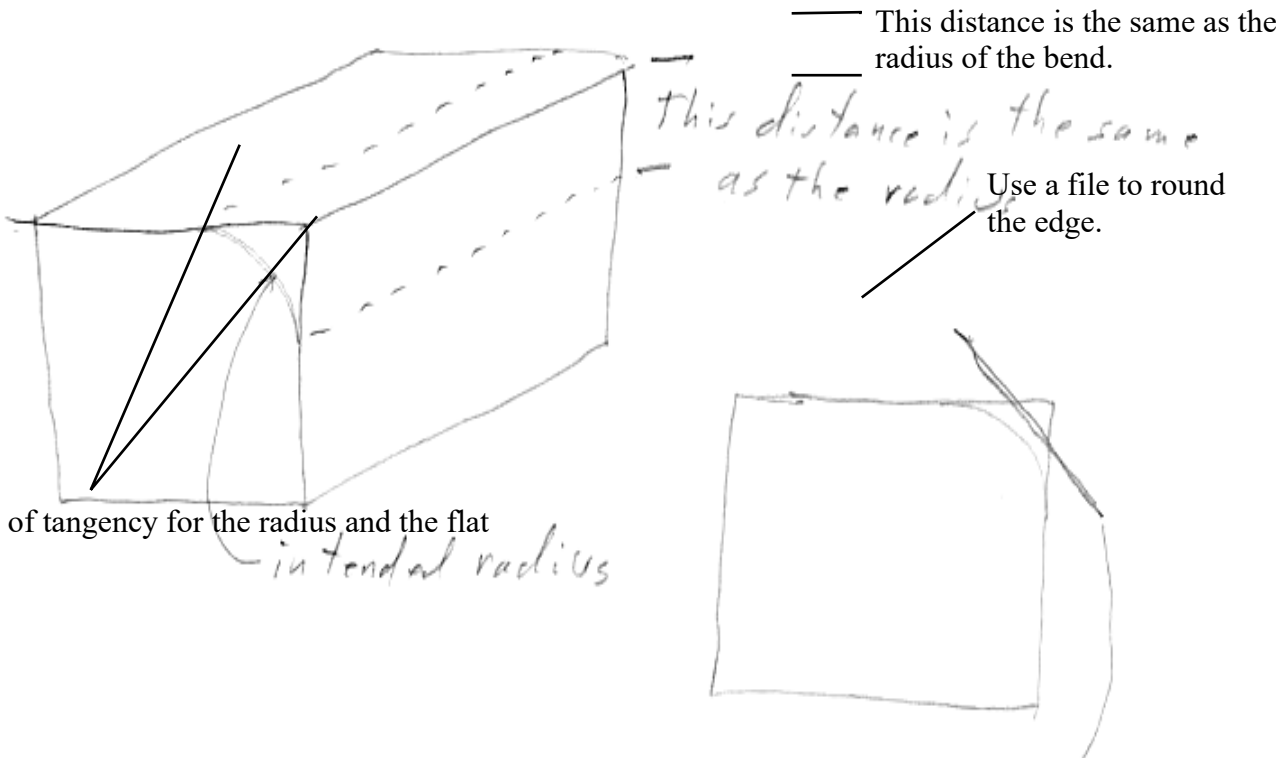
You probably noticed that there is a notch in the tank. It would be hard to cut this inside corner with the shears, so I used a nibbler. These are available from tool suppliers and are handy gadgets. I have also used mine on styrene with good results. They nibble little bits out of the sheet, and make nice sharp corners.



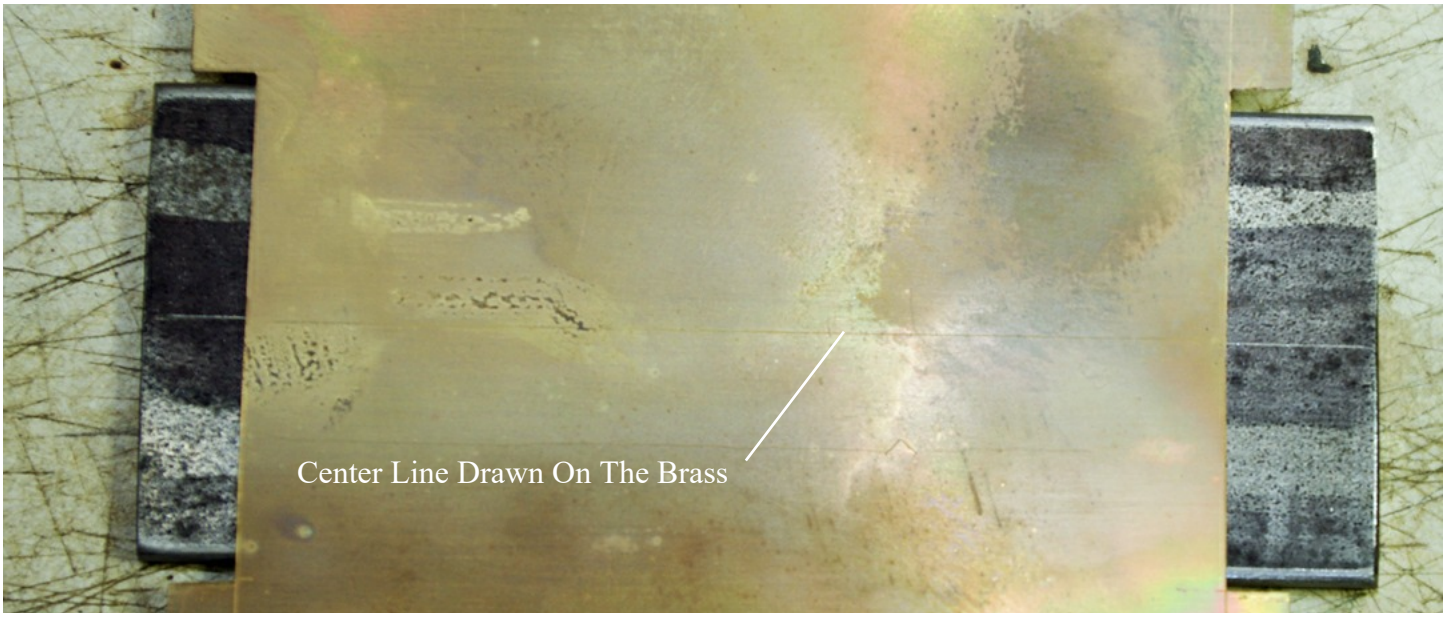
This is my tank wrapper after I finished cutting it out. The nibbler will cut very close to the line, but I still left a little and finished with a file.

When I was thinking about how I was going to bend the wrapper of the tank, I decided to bend it around a metal form. I purposely made the inside of the tank 1.5" so I could use a piece of 1.5" wide steel. This was actually very close to the dimension from the plastic tank, and since I had no other information to go by, this was what it was going to be. I used a magic marker to color the steel in place of layout dye. This way, the scribe marks showed up better. I used my scriber to make the lines since the steel would be hard on the tip of my caliper. First, I scribed the center line as you see here.

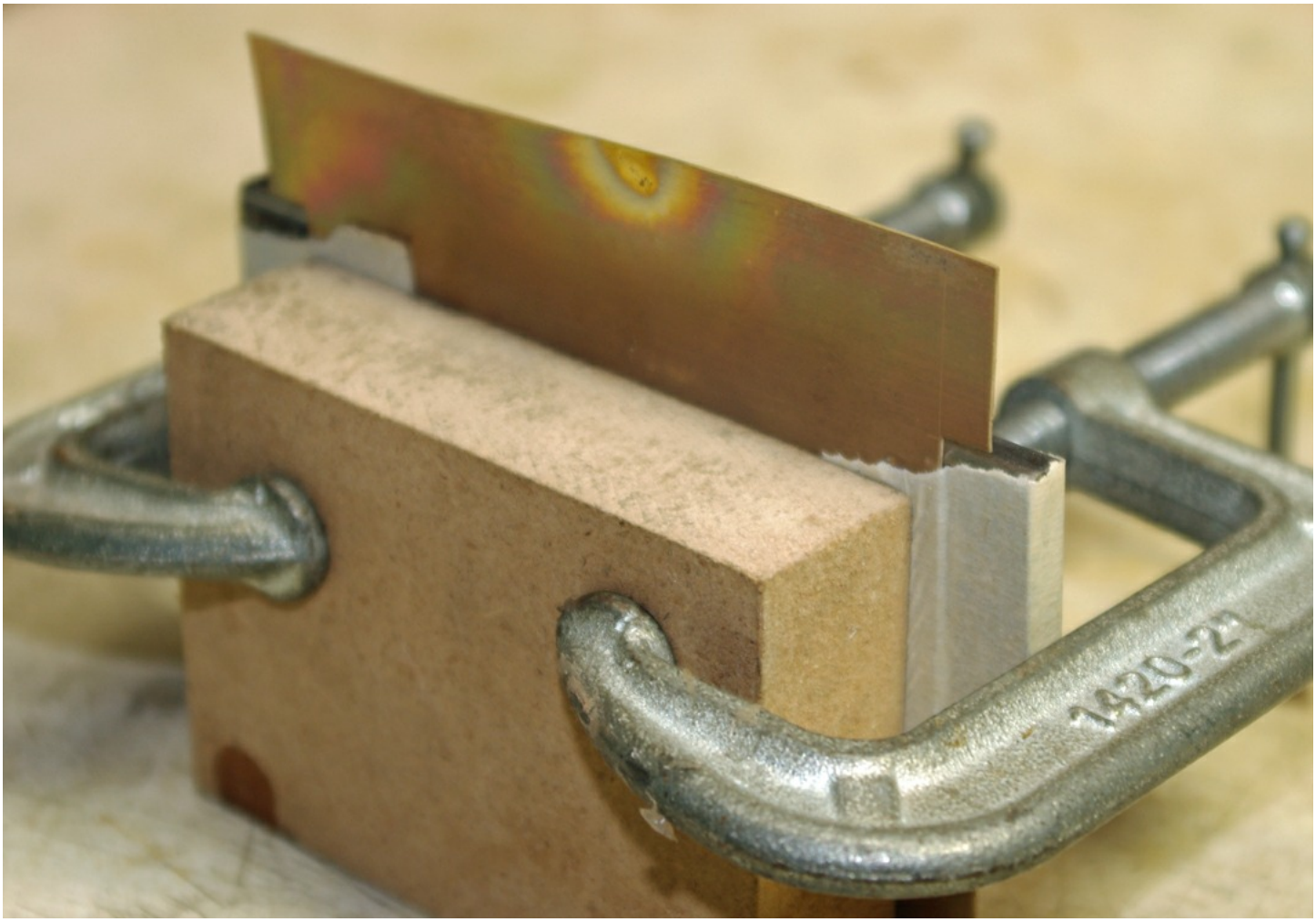
Here you can see the scribe marks better. Notice I have scribed marks close to the edge. These marks are the radius of the bend or .048" in this case. I used these marks to file the radius on my form. See the explanation below for how to do this.



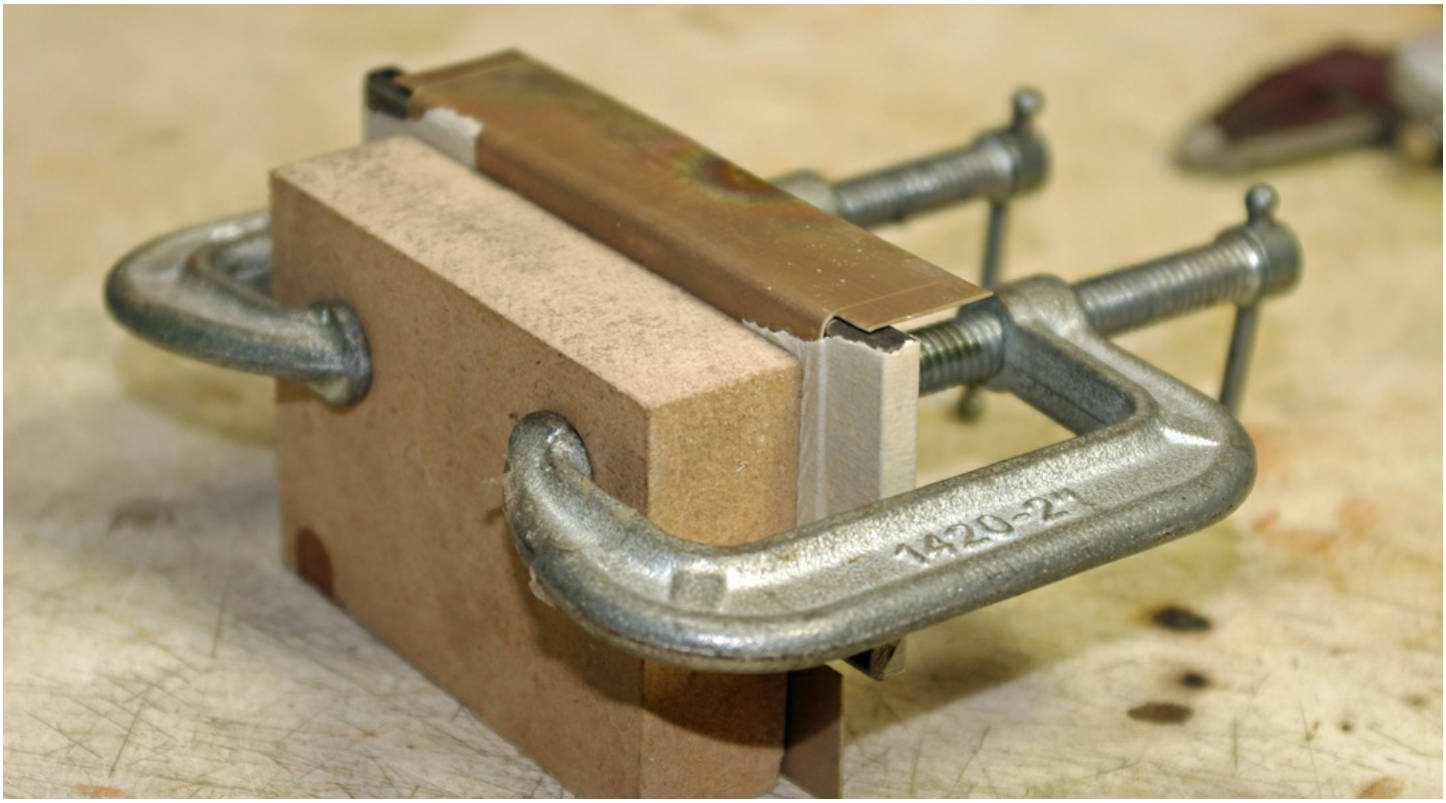
This is a quick and dirty way to make a radius on the edge of something. Draw the two lines that represent the tangent edges. Then, remove a little of the high point with a file. Next, remove a little of the high points that are left and so on. Stay away from the tangent edge until you have the radius close. Then finish it. I have done this with a 6" radius in wood to make the corners of a wood passenger car. Instead of filing it all, I made cuts on the table saw to get close and finished with sandpaper and a block. It works well and does not even need to be on a straight edge. I also did this on a piece of 1/4" Plexiglas to make a form for bending an O Scale locomotive back head over.



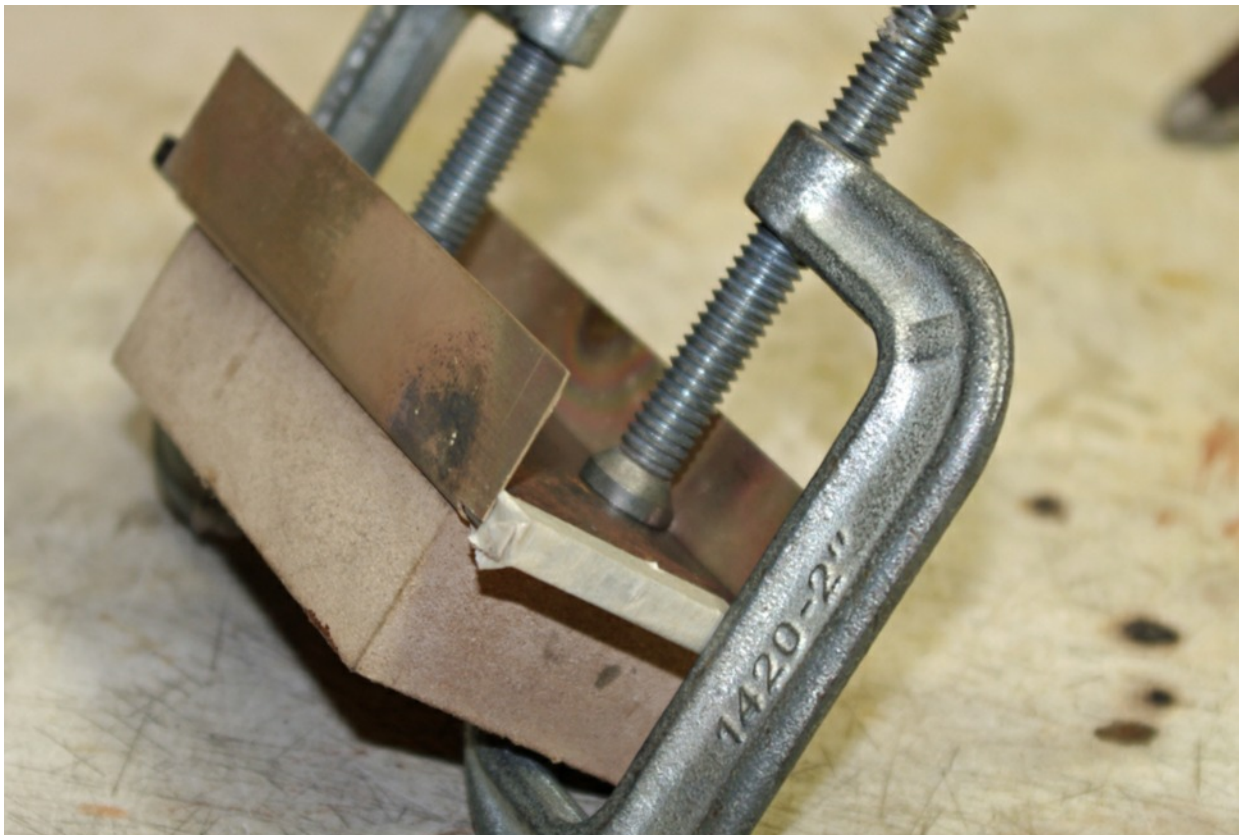
This is why we wanted the center line on the wrapper. I needed a way to make sure I had the wrapper positioned right on the bending form. I annealed the brass with a torch at this point which is why it is a different color. This almost eliminates the springback in the brass, and will give a good bend right where you want it. To anneal it, heat it to a dull red. The temperature should be about 900 degrees F.



I positioned the wrapper on the form and taped it in place. Then I clamped a block of wood on it, as shown, to hold it tight in place. Make sure the wood is just short of the edge. Next, I bent the wrapper over the form by placing the wrapper at the edge of a block of wood and rolling it over to follow the form.

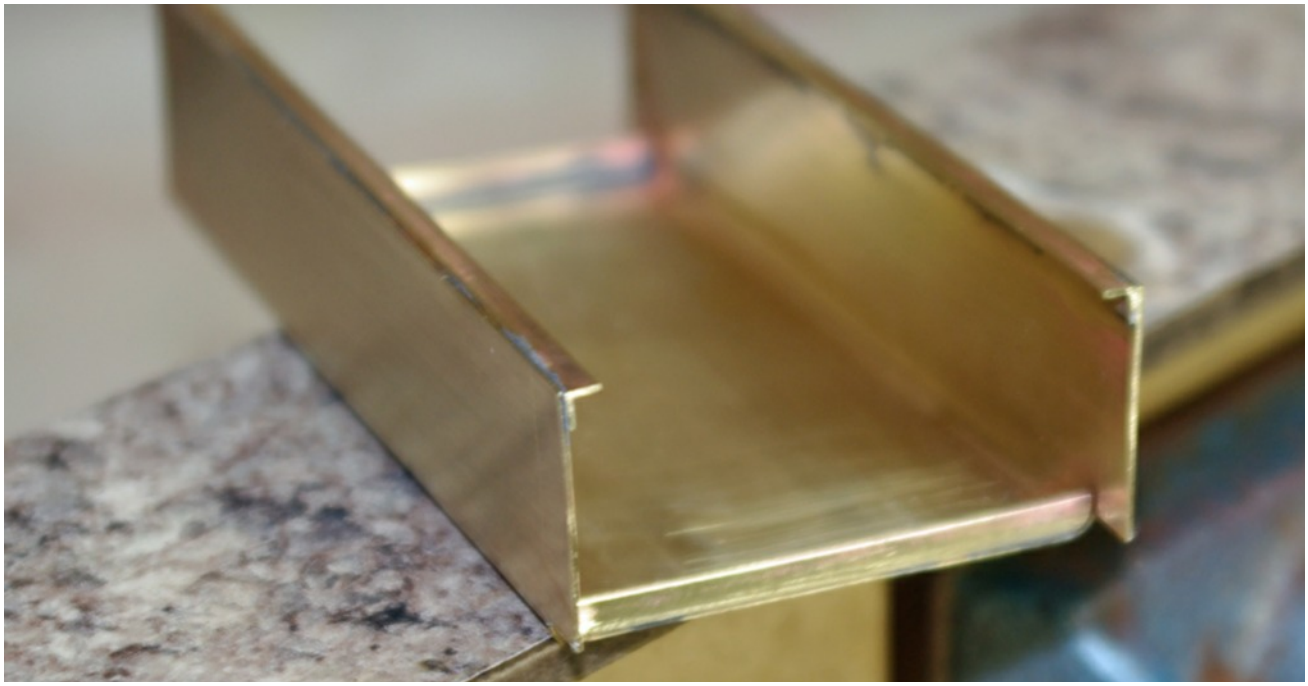


This is how the wrapper looks with one side bent over. Notice how nice the bend looks. Also notice how there is no springback on the brass. This is because I annealed the brass first. Brass work hardens and now that I have bent it, it is getting hard again.



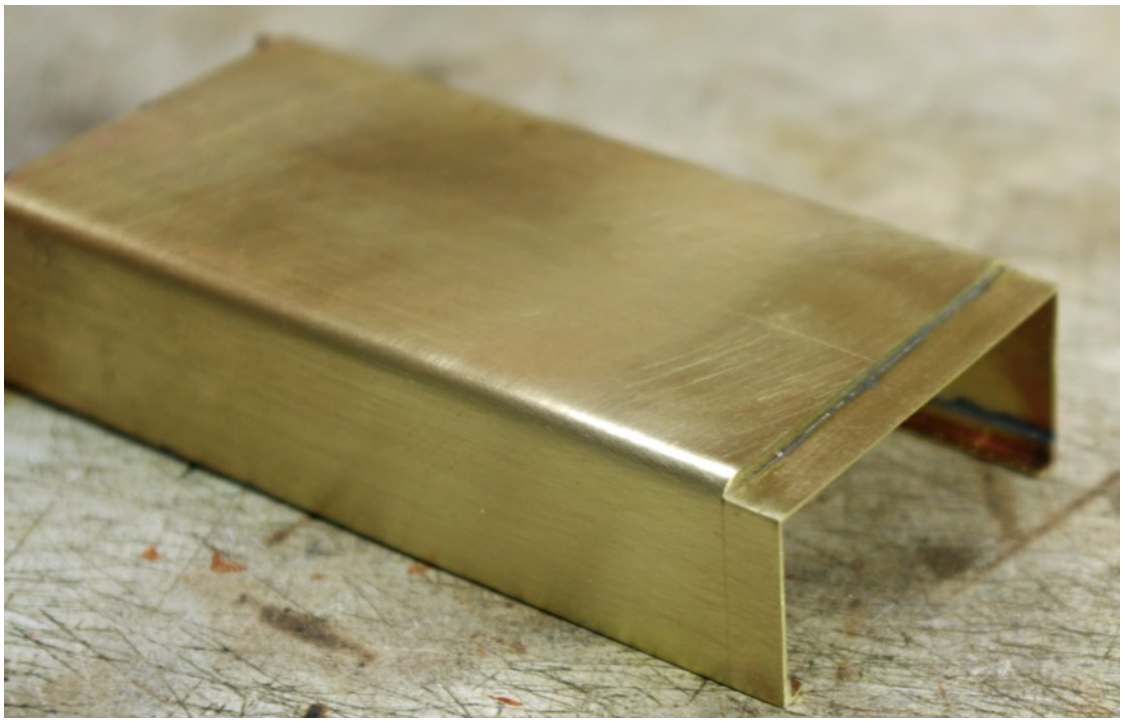
After I had the first side bent, I repositioned the wood block and bent the other side over. Notice that the two sides of the tank are parallel and the tops are the same. Using the form, and making sure I positioned the wrapper with a center line, made this all work out. Again, by annealing the brass I did not have to fight the springback, and the bend came out where I wanted it.

I wanted to stiffen up the edge of the tank and make it straight, so I soldered a piece of 3/32" brass angle to the top edge on the inside. I left the angle long and filed it flush with the end later. This made the set up clamping easier. I clamped the wrapper and angle to a flat surface as shown. Then, I heated it from the outside as shown and applied the solder to the inside. The solder is drawn to the heat and filled the joint completely. Do not try to do the whole edge at once. You need to control the heat expansion. Tack a corner first and then go to the other corner. Then tack the middle. After that, tack a spot in between the middle and a corner. Finally fill it in. When one side is done, do the other side.

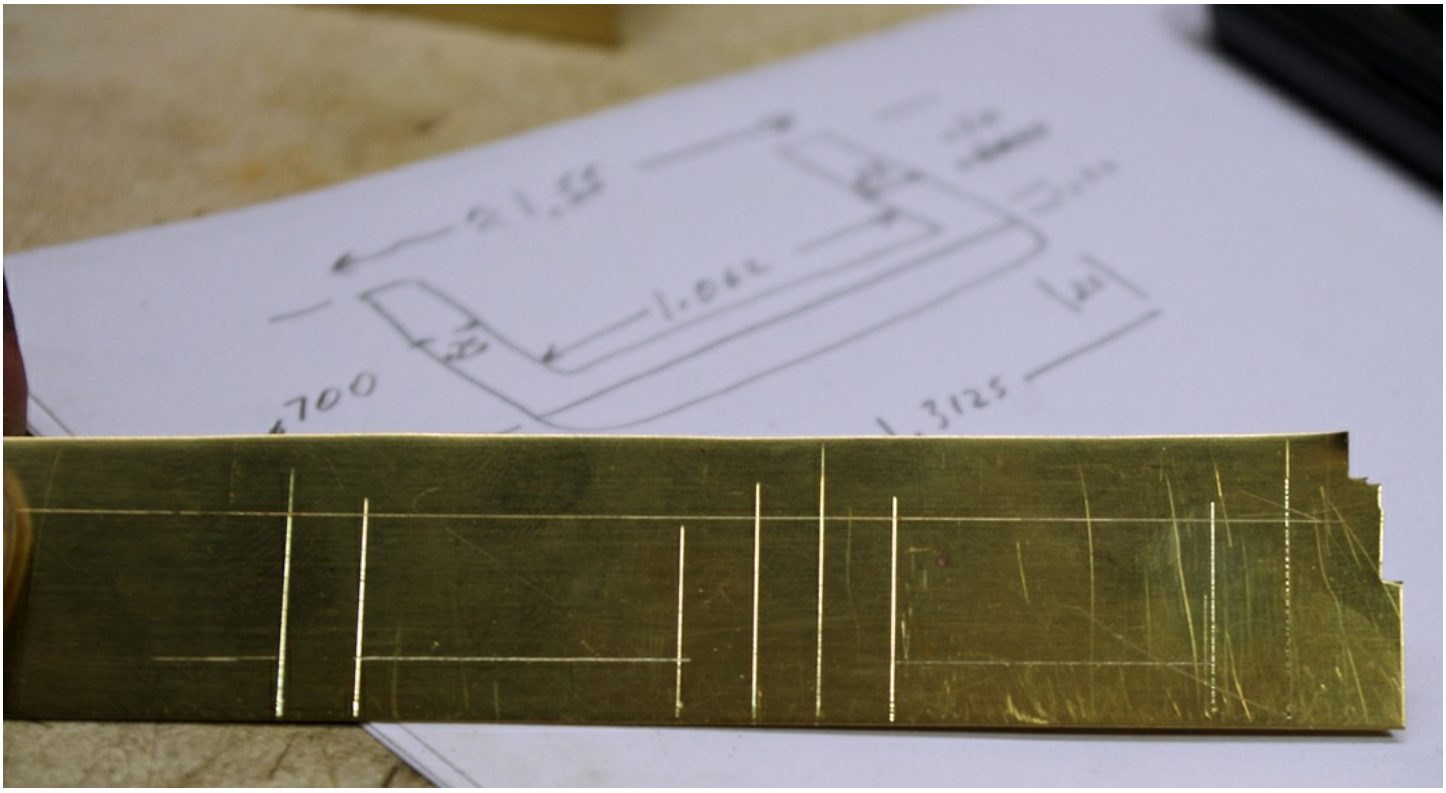


After the top edges were done, I needed to do the step. I used a piece of the 3/32" angle again. I fitted it to length and filed the corners round to match the tank. Then, I clamped it like I did the top edge and soldered it in place. This straightened out the bottom of the tank, added some strength, and also made the face of the step.

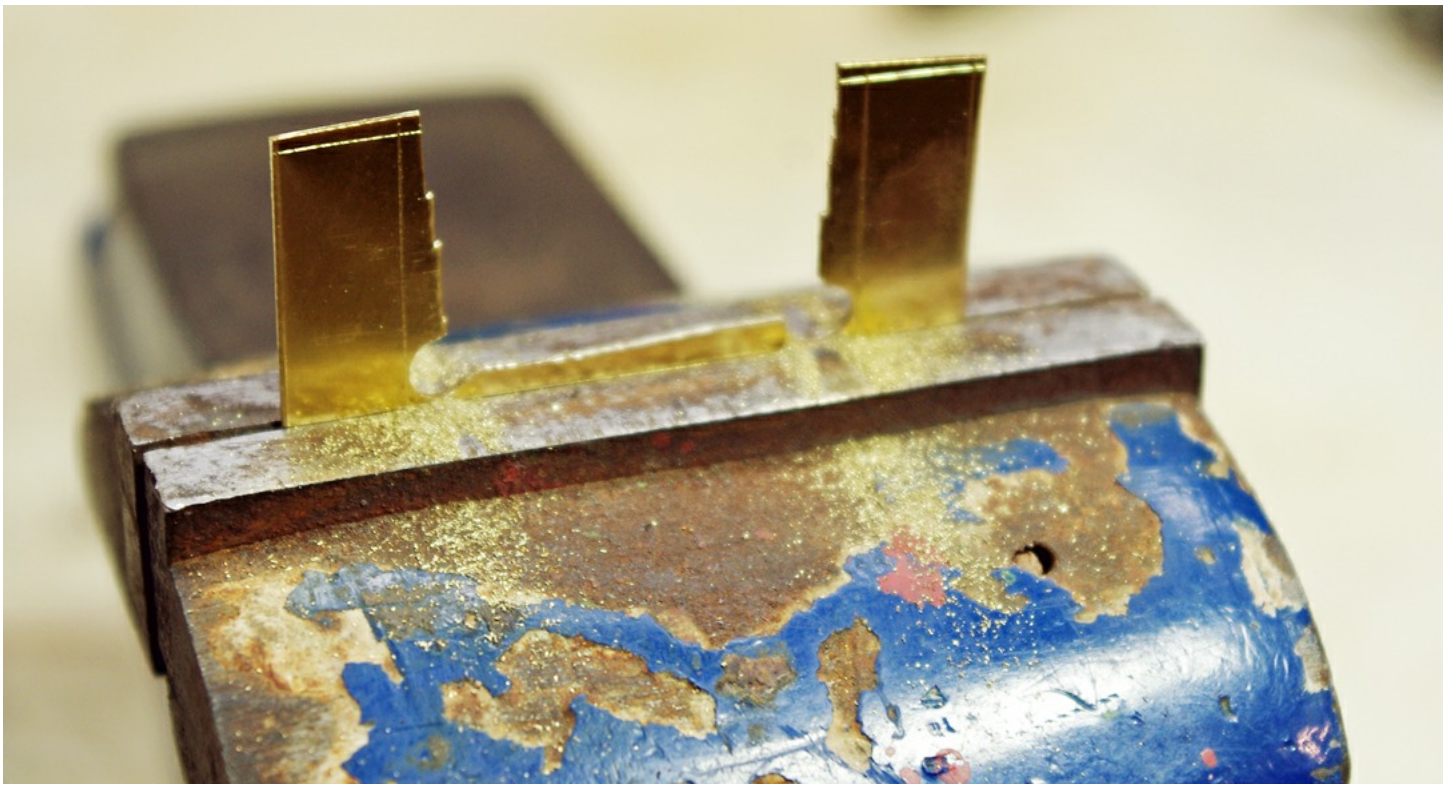
The next piece I put on was the floor of the step. Notice that it is a bit larger than needed. I think it is easier in these types of places to leave the part big and file it flush later. Not having to perfectly align the parts is one less problem in the set up. I soldered the edges first and then tacked the middle again. I used a stainless steel rule (as shown) to make sure the piece was straight and where I wanted it. The solder will not stick to the stainless steel. The tank is clamped in a vice, and I was able to apply some pressure to the ruler while I heated the joint.



At this point, the tank will look like this. I cleaned it with household vinegar and a Scotch-Brite pad to get the tarnish off. All that neat shiny work you always see in the photos did not start that way. File or sand any excess solder off.

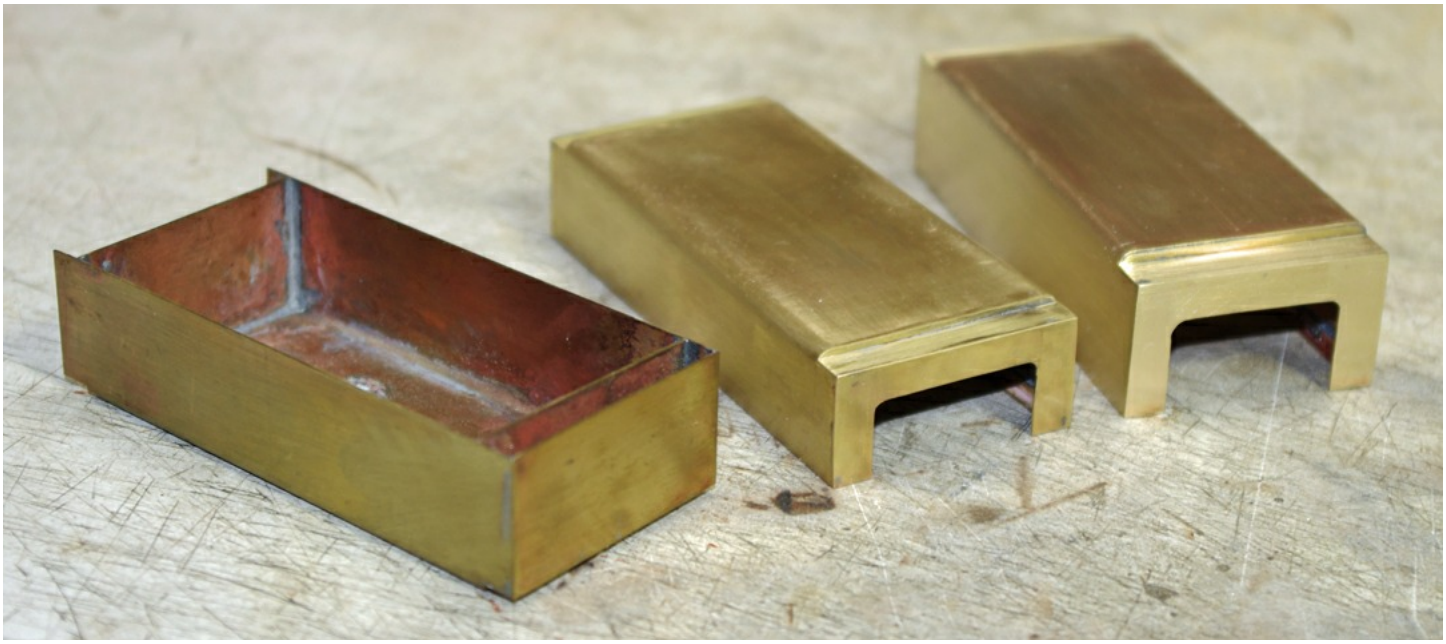


Now it was time to lay out the ends of the tank. This model has the older single tower drive, and I needed to make room for the drive shaft to go through the tank. I have two of them laid out here. Do the layout the same way you did the tank wrapper.



When I cut out the ends, I left them big again. I think you would stand a better chance of guessing the lottery numbers than getting this end to match the tank at this point. I used the nibbler again to rough it out. After looking at it, I decided I would like a radius in the corners so I filed the corners with a round file as shown. Then, I trimmed close with the nibbler. Lastly, I filed to the lines on the inside only.

This is how the tank looked after soldering the ends on. All that remains now is to file the sides flush.



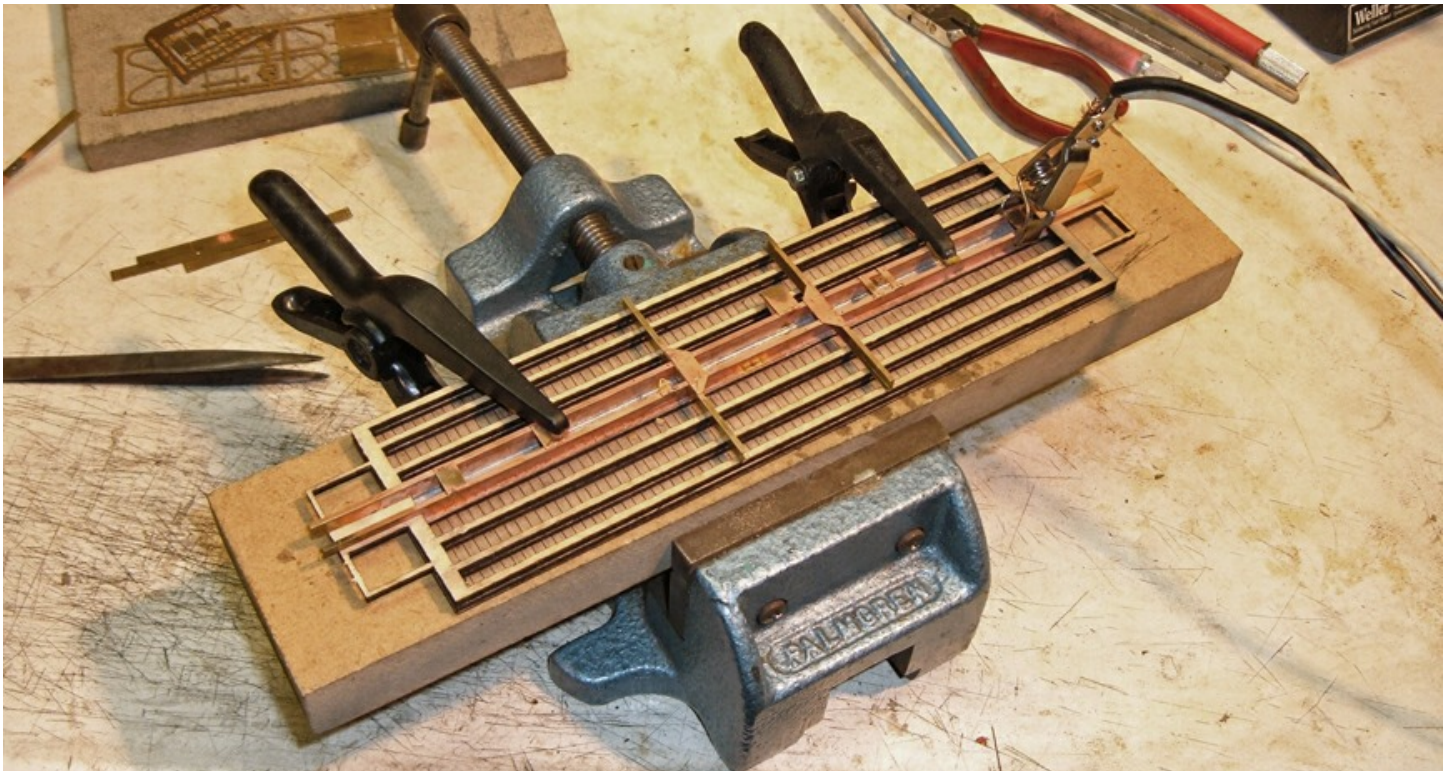
This is the photo you never see. Bryce Sunderlyn told me one time "The first thing you need to get when scratch building is a good garbage can.". Louis Bartag told me "This is just a hobby and if you don't like the way it came out, throw it away and do it again.". On the left is my first attempt about a year ago. The middle tank was the one I made for this article, and the one I took all the photos of. It is much better engineered and built, but it was too short when I put it on the locomotive. I built a third (one on the right), and that came out the way I wanted. So don't give up. You will make some scrap, but will learn in the process and each job will get better.

The drawings in this article are crude, but I am trying to make a point that you don't need to be a draftsman to make some drawings you can use. In the next issue, I will put the rectangle fuel oil tank on and the round air tanks. See you then.

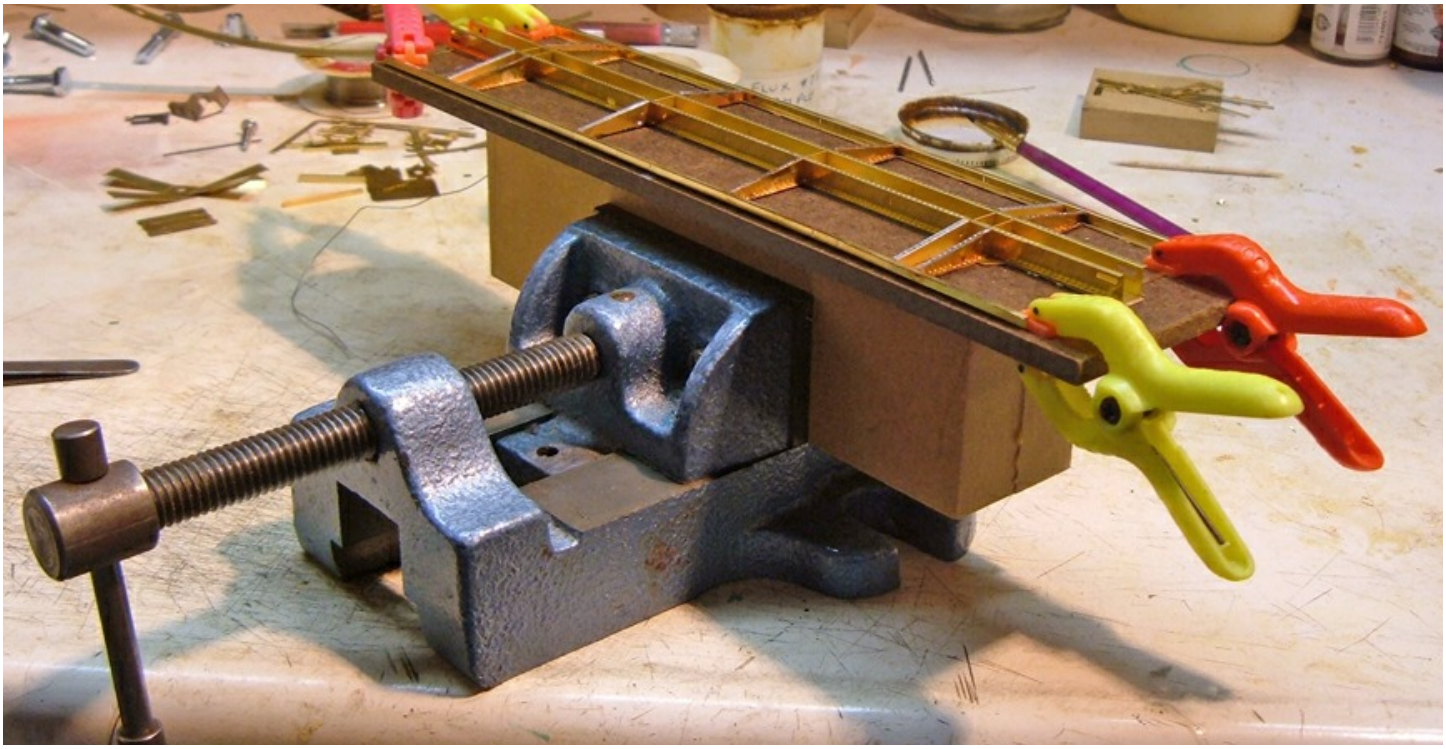
Work Tables

By Glenn Guerra

When working on our models it is sometimes hard to hold them in place while we use our hands to do other things. It is also important to keep things square and straight when assembling a model. I have been experimenting with what I call “work tables” to hold my model when I am working on it. This was started because I was getting interested in soldering models and was using a resistance soldering rig. The ground lead for the resistance rig kept dragging the model around the work bench. The other problem I was having was holding the parts in place while I soldered them and keeping the model flat. The first thought was to clamp a piece of wood in my bench vice and clamp the model to that. As you can see in the photos, I used a piece of 3/4” thick particle board. This kept the model flat while I assembled it. The weight of the bench vice was enough that now the ground lead from the resistance soldering rig did not drag the model around. This worked well, but there were still some problems. The 3/4” thick particle board was too thick for a lot of the small clamps I use. The next version was to glue a piece of 1/4” masonite board on the edge of the 3/4” particle board so I had a “T” shape. The 3/4” particle board acted as a backbone of the 1/4” masonite keeping it straight. It also was a convenient way to clamp the work table in the vice. Since I was soldering on these tables, a new concern came to light. I use a liquid flux when soldering and when the liquid flux was on the wood it mixed with the resins in the wood. As the flux boiled off ,the resins would boil and smoke. This was causing problems with keeping the solder joint clean. My first try at fixing this was to use printed circuit boards between the model and the table. This eliminated the smoking and contamination problem from the wood, but there were still other problems. Old circuit boards were made from Bakelite plastic which is the ideal material for this type of application. The problem is, new circuit boards are made from an epoxy material. This new material is ok for soldering electrical components on because they don’t require much heat to fix them. On our models, we need a lot more heat and the circuit board material was melting and charring. I could live with this I supposed, but since it looked like I would be consuming this material, the cost started to become a concern. Then it dawned on me that countertop laminate was made of a form of Bakelite. I soldered some parts together on the countertop I

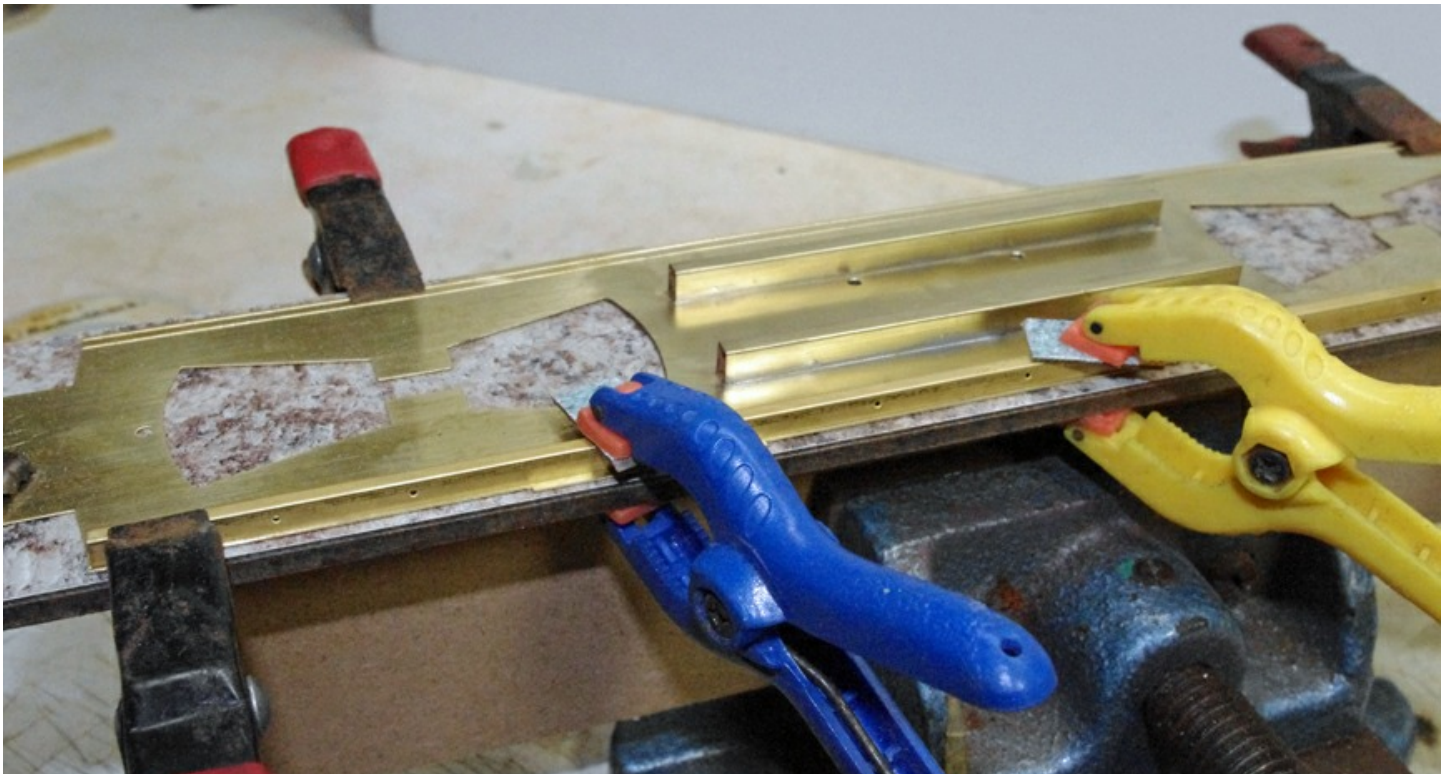


This was my first attempt at a work table. I needed a way to hold the model flat while I assembled the frame. This was tried because I needed to hold the model flat and keep the stiff wire from the resistance soldering rig from dragging the model to where the wire wanted to be, which was never where I wanted the model to be. This worked well, but the thick table made from the 3/4" particle board limited the clamps I could use.



This was my second version of the work tables. The 1/4" masonite top now allowed me to use many more clamps. Notice that I glued two pieces of 3/4" particle board together for a backbone. I later found that one piece was all I really needed. In this set up, I was still getting contamination of the solder joints from the wood. The liquid flux I use was wetting the wood and it would dissolve some of the resin in the wood into the flux. As the flux boiled off, it would boil the resin and smoke, contaminating the joint.

This is an S Scale tender I was working on. Notice I put a piece of circuit board material between the model and the work table. The bar under the "C" clamp is a piece of Garlite plastic that is similar to the circuit board material. Notice how it is charred from a previous project. It would not smoke like the wood, but still melted and it is expensive. This was not going to work.



This is an S Scale Alco RS 1 frame and some recent work. Notice the small pieces of countertop laminate between the plastic clamps and the work. This was just enough insulation that the plastic clamps did not melt. Also, I have glued a piece of countertop laminate to the work table top. The set up is working very well.

use for a workbench and they top did not burn or smoke. I remember from my wood working days that cabinet shops have a lot of counter top laminate scraps, so I went to the local cabinet shop to see what I could get. Most of the time they throw the scraps out and those pieces work great for what we are doing. All you want it the laminate material and not the base it gets glued to. I offered to give them a few bucks for some of the scraps and explained what I wanted it for. He gave me a bunch for free and I was on my way. When I got home, I cut some and glued a piece on my work table. I used epoxy glue from the hardware store because I thought it would be more permanent and less susceptible to heat. I also found out that the countertop laminate material will insulate, and I use small pieces between my work and plastic clamps. This works in all but the most extreme heat conditions, and opened a whole new range of clamping devices to what I was doing.

Little by little, this idea came together. I have used these tables for all types of model work and not just soldering. As I mentioned, the weight of the vice will hold the whole table in one place, but allows it to be rotated if needed. If you are gluing a model together, you can clamp it in place and rotate it around to glue a piece on the other side, or push the whole assembly aside for a while to let the glue set. Try making a few for yourself. I think you will like how they work. The more you work with them, the more ideas you will get for how to use them.

Hold Those Cars!

By Daniel Dawdy

Properly installed derail located on the upper mine runaround track.

If you remember back in the July/August 2015 issue, I had installed a derail incorrectly. I had the derail affixed to the wrong rail so a derailed car would foul the main. I also had the sign too far away from the actual derail. So, I went back and fixed everything. Now that I have everything set properly, it's working, too well. It does what it was designed for. It will derail a car that rolls up against it. The problem here is this runaround track slopes down grade towards the switch and mainline, so if you are not

Although hard to see, both cars have been derailed simply by being allowed to roll back against the set derail. Prototypical, yes, but not what we really want here.

careful, or cut the cars too far ahead of the derail, they will roll back on to the derail and, well, derail. Although very prototypical, it's not what really what I want to happen. I needed something to stop cars from rolling downhill on a temporary basis. I have seen many ways to do this, and my idea is nothing new. I have seen pulls out the fascia that will flip up a wire or piece of wood that was placed between the rails. All very fancy but I wanted something cheap and easy.

Before ballasting, I drilled a 1/8 inch hole centered between the ties

By painting the tube black and ballasting up to it, it's unobtrusive to the normal viewer, but relatively easy to find for the switching crew. I have 10 or so toothpicks piled up down the switch looking like just scrap wood.

and the rails about an inch or so down. I then cut a piece of Plastruct 1/8 inch tubing and fit that into the hole tall enough to be flush with the where the ballast would be. You can do this after ballasting, and just touch up around the tubing if needed. I painted the tubing black and then glued it into the hole. Round toothpicks were my cheap and easy choice for the poles to stick in the hold when needed. I dumped a bunch in dark stain and let them dry. I left them full size, but you

could cut one end down to match the coupler height and then stain. Now once your train pulls past the hole, you can place your pole and be sure nothing is going to run away.

With our toothpicks in place, even a light "tap" with the locomotive will not break them. Ram them too hard and a broken toothpick will be the least of your worries!

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 :-)

Apparently it's been awhile since this car was moved or did anything productive as the weeds and trees are getting taller. I'm not sure how this scene would "scale down" but may be worth a try. Amy gave me some plant material last year for Christmas, and this might be just the place for some of it.

My Pal, Bill Basden
Master Model Builder

By Larry Sokol

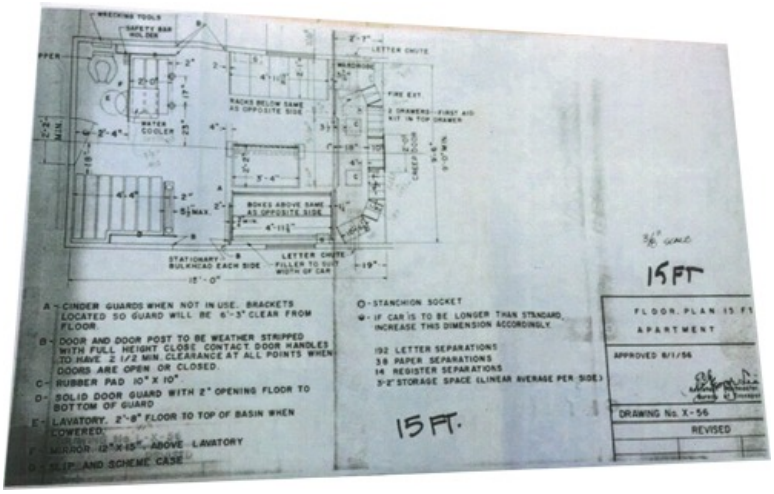
Left to right, Isaac Harpole, Larry Sokol, Bill Basden

Over thirty years ago I first met my longtime pal, the artist behind Delta Models, Bill Basden. The initial encounter was memorable, but not in such a fun way. I had a Pennsy scale locomotive that was in desperate need of a serious repainting. So, a buddy of mine said the most talented painter he knew was right in Portland – a guy named Bill. He offered to take the loco and tender to Bill to get an estimate. Bill called and we agreed on the paint job cost. So, imagine my surprise when he called in only a week or two and wanted to meet. Wow, what a quick turn around. So, we did, and as I recall it, Bill had the loco still in a box, but the tender was in a puddle in some sort of glass pan. Not something you see everyday. He apologetically explained that he found out too late that the tender was actually a dense plastic which was not immediately evident. Turns out that MEK likes plastic, not in a good way. Eventually we found just a tender and gave some thought to turning the melted one into a coal load.

Bill traces his interest in trains back to about 1959 in Brownsville, Texas where his first effort was, ready for this, a train set on a 4’ x 8’ sheet of plywood. This was the start of a lifelong passion for building and collecting trains – especially unique models over the years. In 1975, Bill moved to Portland to hang out near his brother. He was a single guy at the time, but he married Sue, still his life partner, the next year. His funniest remark about this time was that he had more trains than clothes. Sound familiar? A little too familiar? Anyhow, fashions change, although you probably couldn't tell it from looking around at a train convention, but trains are always in style. A 1940's steam locomotive looks as good in 2015 as it did in 1946, depending on the modeler, maybe even a little better.

Bill soon found perfect work at Precision Castparts Corp., which builds intricate components for the aerospace industry. As you can easily imagine, the customers for aircraft or rockets need perfect parts with precise tolerances and that is just what Bill insured. His job was to measure wax mock ups to provide perfect molds for casting. Funny thing, this is exactly what he does now in his business Delta Models. Talk about lucky! Imagine getting paid to do work which prepares you for your passion. Bill was compensated to turn out fine work for 28 years; all along training himself for what he would describe as his true life's work, researching, designing, building, painting and making the details for passenger cars and for constructing consistently award winning passenger cars.

The story of Bill's entering model contests is one commonly heard. He lost entry after entry while living in Florida. Since you learn the most from losing, soon he was a pretty smart fellow. Starting in 1973, he began winning big time. An early highlight was a 1974 award from the NMRA as a Master Builder – Motive Power. This inspired Bill to start putting his considerable talents to supplementing his income. For thirty-five years, Bill was the "go to guy" to get a piece of rolling stock painted, built or have some fine decal and weathering work done. His steam and diesel paint jobs are legendary. It was easy to identify Bill's handiwork from a lot more than three feet away. His primary interest has always been the Missouri Pacific and the Texas and Pacific railroads. About five years ago he started working mostly for himself and came up with some amazing models, a few pictures of which are included with this article. His blue ribbons in passenger cars gave him an idea-why not help others achieve the same results? He decided to research, design and construct what is now a huge line of passenger and other car parts. Ta dah, the birth of Delta Models which as you can see in this article and online is the home of a substantial selection of cast resin creations which can easily turn the plain car body into an eye popping beauty.

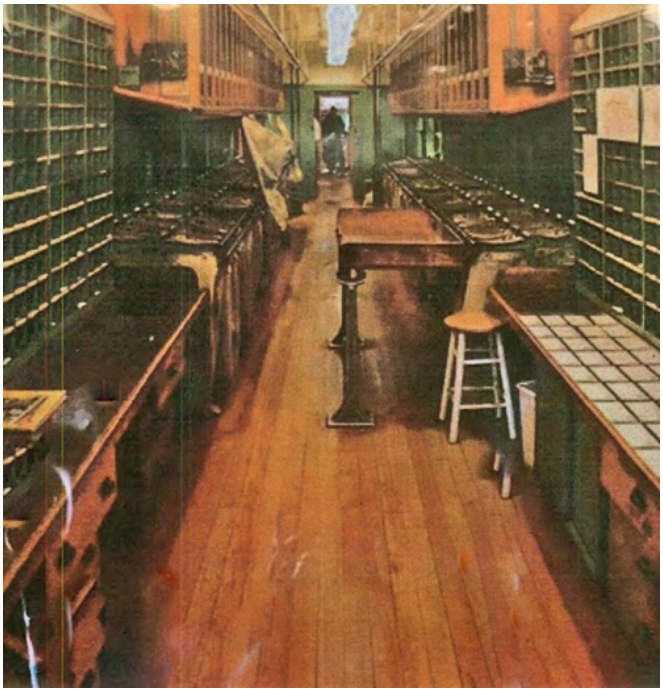


These are actual RPO plans. Bill researched for weeks and found these to use in making his interior parts.

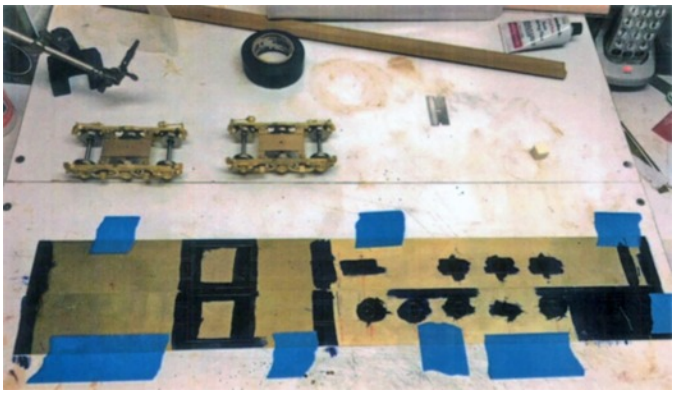
A look inside Bill's award winning Missouri Pacific REA car.

Bill's partner in this work has always been his daughter, Des. She is herself a talented artist. As far back as she can remember, Des recalls Bill working on trains. He always had a room dedicated to the efforts. She loved looking around his shop, especially when he was at work, looking at all the small parts and pieces which were everywhere. She loved seeing a loco in the paint booth just freshly striped, or some piece of rolling stock just sand blasted. Des patiently enjoyed watching her dad carefully and meticulously placing delicate letters of decals on the cab of a diesel. When he finished, they both watched the glow of the lights in the engine when it was put on the track for a maiden run. After graduating from college, she became his graphic designer and, if you'd like to see her work, just check out the Delta Models website.

Now, history behind us, here are the steps Bill follows to design the Delta Model masterpieces: first is the research, which can take a lot of hearty effort. He reads, looks, and pores through many train magazines and books to find the best detailed examples for his fledgling business. His most successful recent project is interiors for some RPO cars. In this article, you can see not just a photo of a Delta interior, but also the interior of a real RPO car. Bill actually obtained plans from the USPS which he used in designing his O scale interiors. His efforts have taken him to many railroad historical societies, libraries and of course the Internet.



Actual RPO interior used to help design Delta Models interior kits.

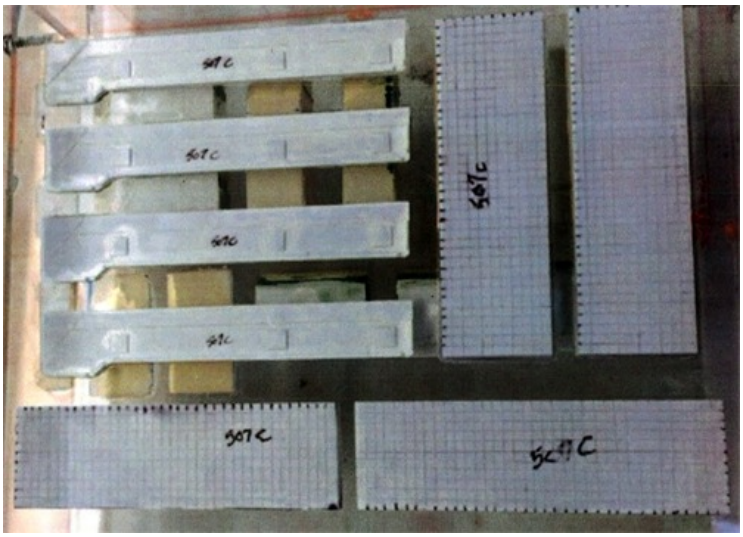


Bill has taken some brass sheets and is about to create another Missouri Pacific masterpiece. Notice the portholes. What do you think, a baggage dorm, strait baggage???

What you are seeing here are the hand crafted masters on the left. They are carefully created in white styrene. The blue is the runner mold created from the masters.

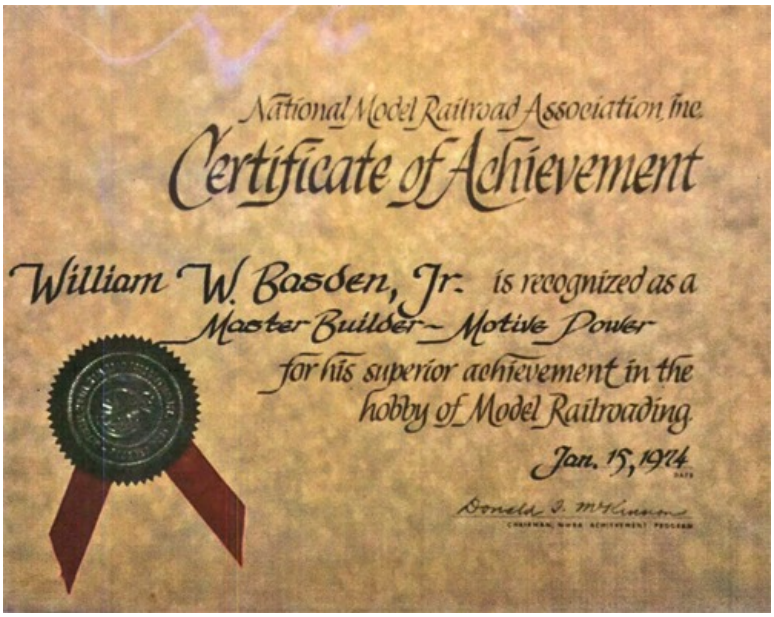
Once the research is completed, (Is it ever?) Bill next builds a master. The photos show a selection of these hand built originals for interiors of passenger cars. Not content with just making generic parts which can be used for almost any railroad, Bill sometimes goes to the extra trouble of creating masters which are from a specific railroad. For example, when Bill built his Missouri Pacific diner or MP 10-6, his model's interior matches the real McCoy. Other parts, for example, those now available for RPO cars are pretty much standard on most railroads. You could use the interior kits for almost any railroad and be accurate. Check out the pictures of the masters. Can you imagine the careful measurements which must be taken from the plans or photos and then extrapolated into O scale? It takes a pretty unique modeler to accomplish what he has done. With each new project, he is trying the raise the bar for what is to come next.

In several of the photos, you will see some white plastic parts that have been numbered (i.e. 507c). These are placed in a clear plastic box which is going to be used for the pour. Other shots show the shelves and interior structures which go in the sleeping compartments. Some effort huh?



Close up of the hand built masters.

Bill's retirement inventory. Actually, like all model railroaders who give their time and expertise to providing something for the O Scale hobby, this is mostly a labor of love. Just breaking even is the goal.



Bill has been a valuable contributor to the hobby for more then 40 years.

Now comes the rubber which is prepared and slowly allowed to flow over the masters after they are prepared to insure the mold won't stick. One of the pictures shows the mold next to the parts built so you can get the gist of the process. Once the rubber cures and the temperatures are ok, it is time to mix up the resin. Many have been tried. Like everything else, each has it own pluses and minuses. You'll have to experiment for yourself and see which works best, or better yet, spend a few bucks and get the benefit of thirty years of Bill's successful negotiation of the learning curve.

Look around. Our hobby has changed a lot. Not so many years ago, there were dozens of people working mostly part time, often in their basements selling their creations from ads in the magazines or at the meets. O scale, and our society, is moving consistently and inexorably towards having electronics, technology, and computers take over more and more of our lives and creativity. So, it is comforting to know that there are still a few people out there in our hobby who are working with their hearts and minds to create something which will likely (or hopefully) always be out of the reach of something which needs to be powered from an outside source and can crash at any moment. Bill, and the few like him left today, are powered from within by a love and passion for trains which benefits us all in immeasurable ways.

Looking at Delta Models, along with the efforts of people like Bill, one cannot help but be drawn to the men and women who sat at their desks or kitchen tables during the last century doing what he is doing in 2015, using many of the same tools and devotion to design and build the trains many of us have loved all our lives.

ROCKFORD O SCALERS

By Glenn Guerra **Photos by Daniel Dawdy** *(unless noted)*

Three of the four Rockford O Scalers, left to right, Frank McCabe, John Handlogten, and Greg Anderson. The fourth member of the group, Bruce Morrall appears in the photo below.

From left to right. Long time Rockford O Scaler, Stan Guyer, a friend of the group. Then Greg Anderson and Bruce Morrall, who are both current members of the group. Nice double header don't you think?

The Rockford O Scalers are an informal group of HO scale modelers. Now wait a minute, you just called them O Scale modelers and now you are telling us they are not. What's gong on here? Well, stick with it a bit and I will explain, but first we need to go back to the beginning.

For the Rockford O Scalers, the beginning was around 1993 when a few HO scale modelers in the Rockford, Illinois area started talking trains and O scale. Most of them had HO scale layouts at home but were drawn by the size of O scale and wanted some of that. At this point, many people would stop and say they have a big investment in the scale they are in and don't want to start over. These guys had a different idea, and the idea was to have both. They would keep their home layouts and build a portable O Scale modular layout so they could run their mantle piece models.

Two views of the original modular layout, taken by Frank McCabe at a train show.

Tyrone Johnsen and Bob Zinn got the ball rolling. Frank McCabe became the third member of the group in 1993. These three Rockford modelers heard about some fellows in the Janesville, Wisconsin area that were into O Scale, and soon Greg Anderson and John Nash joined the group. Unfortunately, John Nash passed away a few years later, but is remembered on the layout with the town of Nash Flats and also "Nash Yard", the primary stub ended freight yard. Eventually, the two original members, Tyrone and Bob, left the group and moved on to other things. That left Frank and Greg. Frank, who is now retired, worked for the aerospace firm, Sundstrand, now officially called UTC Aerospace Systems, located in Rockford and they had a company plane for travel. On one of the company business trips, Frank found out that one of the pilots, Bruce Morrall, was also a model railroader. Bruce was an S Scale modeler, but was starting to look at O Scale. Bruce decided to sell all of his S Scale and join the group. Soon another member, John Handlogten who also worked at Sundstrand, came along . The module was getting set up at local train shows and Greg Anderson from Janesville, Wisconsin got involved. That brings us to the present roster of the Rockford O Scalers which consists of Frank McCabe, John Handlogten, Bruce Morrall, and Greg Anderson.

There are many ways modelers get together. Some groups are formal club arrangements with officers and a specific purpose. Other groups are less formal, but more regular as in a round robin group that meets at regular intervals. The Rockford O Scalers are neither. They meet when they feel like it, work on the layout when they feel like it, operate trains when they feel like it, and generally do whatever else when they feel like it. Not a bad way to be. The only sure thing that they do is to host two public Open Houses per year. One is always the first Saturday in November and the second is held in conjunction with the Chicago O Scale "March Meet" on the final Sunday of the meet. The O Scalers are also happy to have visitors at other times, based on prior appointment.

The Baldwin Center Cab transfer locomotive was built by Bruce Morally from a Central Locomotive Works kit. When Frank McCabe saw it, he convinced Bruce to sell it to him. Frank had it painted to look like the locomotives that ran past his grade school when he was younger.

Before I get into the layout itself, let's visit with some of the members. I interviewed Frank McCabe for this article. Frank grew up in Park Forest, Illinois and remembers the Illinois Central and Elgin Joliet & Eastern trains that ran through the area. Frank had a Lionel train when he was young. He also had a family friend by the name of Alan Sims who had O Scale trains and lived in Clarendon Hills, Illinois. Frank told me he always liked to go with his Dad to Alan's house to see the O scale layout. Frank was able to acquire some of Alan's models when he passed away, and they are treasures which he is very happy to have. In adult life, Frank models in HO scale and has an HO scale layout at home, but he could never get O scale off his mind. He has family roots in the Pittsburgh, Pennsylvania area, and as a result, has an interest in the Pennsylvania, New York Central, and Baltimore & Ohio railroads as well. The next thing that happened was the purchase of the big O Scale locomotive for the book shelf. Now where to run this? And that is how Frank became interested in an O Scale modular layout idea.

Bruce Morrall, who lives south of Rockford, was an S Scale modeler. After getting involved with the Rockford O Scalers, he sold all of his S Scale and moved exclusively into O scale. Frank said Bruce likes to model and builds kits. In the photos, you will notice a Baldwin Center Cab transfer locomotive painted orange and green for the Elgin Joliet & Eastern. Bruce built this Central Locomotive Works kit and was going to paint it for the Pennsylvania Railroad. Frank took one look at the model and convinced Bruce to sell it to him and then had it painted green and orange for the EJ&E. These huge locomotives used to run behind the grade school Frank attended. Bruce likes the eastern roads, Norfolk & Western, Virginian, Delaware and Hudson, as well as, the Baltimore & Ohio.

The town of Nash Flats is named after John Nash, one of the early members of the group. John passed away, but is remembered by this town.

The town of Nash flats has grown into quite the urban center. Frank McCabe has an interest in automobile models and the layout is populated with them. Most are 1/43rd or 1/50th scale, but Frank said they work well. Just try to put the 1/50th scale models farther back and keep the 1/43rd models in the foreground. It will help to force the perspective.

This storage building was built by Bob Zinn, one of the original members of the group, out of coffee stir sticks. They matched scale lumber very well. The irregular length and thickness add a lot of character to the building. This is a nice job of scratch building.

On the original section of the layout, which was the original module section, The town of Nash Flats was where the stub end freight yard was. This coal dealer is at the beginning of the yard. This nice small scene adds interest and doesn't take up a lot of space.

Nash Flats is really starting to grow. I expect to see suburban service starting soon.

This was the start of the yard on the original module layout. The yard has had five additional tracks added to the original three tracks. I like the old box car on the ground for a storage shed. It looks like some of the crews park here when they go to work.

The Milwaukee Road Alco S-2 looks lost with all the big steam engines a few tracks over. John Handlogten scratch built the sand house.

We are over at the round house now. The railroad has a lot of open air storage tracks, and this small driveway allows the maintenance people to get in to do servicing. The wires on the poles are a nice touch.

Lots of big steam over at the roundhouse. Looks like they keep the place neat and tidy.

The roundhouse area has been greatly expanded from the original on the module layout. There are now 17 tracks, and they all appear to be occupied. The turntable is a Millhouse River kit that John Handlogten installed and detailed. The roundhouse is a Korber kit that the group purchased partially built. John modified it to fit the track spacing and finished it. It has interior lighting. You can see downtown Nash Flats in the background.

This view is the other side of Nash Yard. Compare this view with the caboose track view three pages back. The line of cabooses is the same and in the same location.

Greg Anderson is an HO scale modeler from Janesville, Wisconsin. In fact, he is still a member of the local Janesville HO club. When he was younger, his father had an O Scale layout at home, so Greg was introduced to O Scale at an early age. Today, Greg runs his large collection of HO models on the local club layout, but also has a lot of O scale equipment, some of which belonged to his father, and runs these on the Rockford O Scalers layout. Greg likes the Milwaukee Road and the Chicago & North Western, along with the Burlington and a bit of New York Central.

The final member of the current group is John Handlogten. John is still working for Sundstrand. He does technical things at work and is the "go-to-guy" in the group when it comes to electrical, DCC, track work, weathering models and building things, in general. He may have been the last to join the group, but his modeling skills are the best and he is truly an artist. In 2005, when the module layout increasingly started to become a lot of trouble to set up and take to shows, John offered a permanent home in the basement of his large ranch style house. That is where the layout is located today and hopefully will be for many years to come. John primarily likes the Santa Fe, Chicago Great Western, Chicago & North Western, and Burlington. That is the current roster of the group. Now, let's talk a bit about the layout.

The original module layout was approximately 18' x 35', consisting of a two track loop with a yard on one of the long sides. The original modules were built to NMRA standards and were 42" high from the floor. A local Rockford Hobby Shop allowed the layout to be worked on in their basement, but moving it out of that basement to take to shows involved a herculean effort. Since the members all wanted to be in O scale because of the size, they also wanted to run big engines. That meant big radius curves. After first building a set of corner modules that proved to have too tight a radius for the type of equipment they wanted to run, they rebuilt them to include 88" radius curves for the inner loop and 92" radius curves for the outer loop. The track is mostly Atlas flex track with Atlas and Peco turnouts. The power is analog DC with Aristocraft wireless throttles. This layout gave them the ability to run big engines and long passenger trains, but moving it to one or two train shows each year was definitely a chore!

Frank McCabe watches his MTH Baldwin Centipedes roll by. What a lot of locomotive. Now you see why they wanted 88" radius curves.

The layout is taking root in John's basement and this storage yard has appeared. From the length of the passenger trains it looks like they need the space.

The people on the farm don't seem to even notice the Norfolk and Western Class Y thundering by with a mixed freight. The choice of big curves really pays off if you are running these big engines.

Each corner module has a different theme for the scenery. One corner is what Frank calls a Route 30 theme. The real Route 30 runs east and west through Park Forest, where Frank grew up. On the module, the highway passes under the railroad which is on a concrete bridge. These are typical around the area. There is also a small commercial district similar to a suburban town that is growing. An old wood gas station is on the edge of town. Around the corner, at the next module, is the town of Nash Flats. There is an old wood depot there, but the town has grown into more of a city. This corner is an urban scene and includes various businesses, along with a large "Studebaker" dealership. This model came about because the first car Frank remembers his family having was a 1953 Studebaker Starliner coupe, styled by the industrial designer, Raymond Lowey, who also styled many of the Pennsylvania Railroad's locomotives. Model cars and trucks are another area of interest for Frank and they are amply represented on the layout. As you round the corner, you pass the local coal merchant and enter into Nash Yard. This was where trains were originally staged when the module was set up. The yard also is the location of the six stall roundhouse and turntable, as well as, a small passenger station. Leaving Nash Flats yard, we first pass a farm scene with a large barn and shed and then round another corner with a big cut through a hill. There is a small house on the hill and a wood truss highway bridge over the tracks. This scene continues into a rural railroad crossing at grade located next to a General Store and a playground across the road, then down the long straight away, across the double track bridge over a river, and finally back to the Route 30 corner. The building of each module was originally done by various members of the group, and has been continuously updated over the years.

The people on the farm around the corner may not care about the trains, but the rail fans have discovered this is a good place to take photos. Notice the fans on the bridge with their cameras. The Centipedes were short lived engines, and it's always good to get a few photos of them.

As I mentioned, this is no longer a module layout. In 2005, the group was getting tired of setting up and taking down the layout, and putting on a show was not what they wanted to do. Instead, they wanted to have fun running their trains for themselves. John offered his basement as a place they could set up the layout and run their trains. John, as I mentioned, does engineering work for Sundstrand and like all good engineers, can't leave things the way they are. There is always room for improvement. One of the improvements was to raise the height to 54" from the floor for easier viewing by adults. In addition, model layouts tend to send out roots and grow. It wasn't long before John started to add things to the layout in his spare time. In fact, the layout was sending out roots and attaching itself to John's basement walls! The module layout sat in the center of the room and there was room for track around the walls which soon started to appear. By now, everyone had more locomotives and they needed a larger roundhouse area to store them all. The original engine house area from the module was expanded to 17 tracks with a 28" Millhouse River turntable. Then a friend brought down a partially built Korber roundhouse. John modified it to fit the track spacing that was in place, and it was installed. Now that there was room to park more locomotives, what about those passenger trains? The answer was a second level around the wall loop with a staging yard in a crawl space and a "dummy" storage yard below. (The Rockford O Scalers have a problem shared by many other modelers, and that is too many locomotives and rolling stock!) The Nash Flats yard on the original module has been expanded as well.

On the outer loops, John has installed a NCE DCC system that runs new DCC compatible models, and he has also converted some older DC locomotives to run on the DCC section of the layout. As things are currently set up, the double track outer loop is exclusively DCC and the original double track modular layout is exclusively DC, although some of the new models can operate on either system.

Frank said they don't have any formal operating sessions; but rather, they just like to run their trains and watch them go around, because they feel the large O Scale models themselves are really the major works of art They get together on average around two times per month or whenever they feel like it. The loose nature of the group encourages each of them to pursue modeling the railroads they are interested in. As you can see in the photos, the equipment is mostly big main line equipment from the transition era of early diesels and later steam locomotives, which some call the "Golden Age" of railroading. However, they also roster some later generation motive power including Amtrak and freight locomotives and cars, for an occasional "change of pace". One of the things that caught my eye was the pair of Pennsylvania Baldwin Centipede locomotives. These MTH units belong to Frank. Most of them were sold as three rail models, but a few were offered from the factory in two rail configuration. Now, I can see why they wanted 88" radius curves!

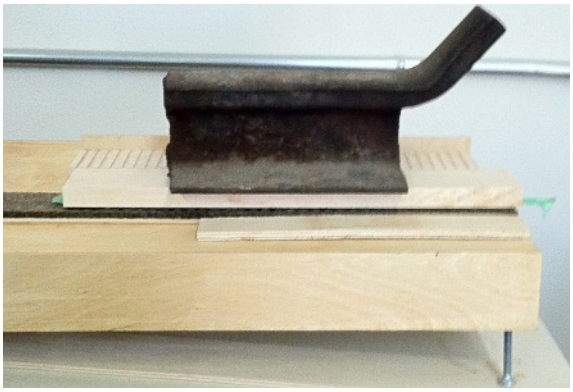
All and all, the Rockford O Scalers are a passionate group that have a lot of fun running their trains, and that is what we all like.

What's on your workbench today?

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

By Tom Dempsey

The reason for building the section in the photograph on the left is to lay some track to test the new power trucks I purchased. The trucks were acquired to build a model of an interurban train that ran in this area between 1904 and the late 1920's. The construction is an experiment with 1/8 and 1/4 inch plywood to see if I can get enough strength and rigidity to handle O Scale weights without resorting to 3/4 inch plywood. So this is also doing double duty as a proof of concept model.

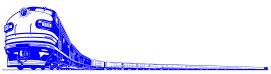


And, look at the neat weight Tom built using a piece of rail. It's also good for ironing shirts or playing "Whack A Mole".

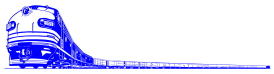
O Scale Shows & Meets

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

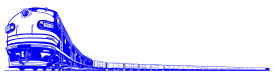
Baltimore Society of Model Engineers Open House
Open House Sundays, Dec 27 and Jan. 3, 10, 17, 24, 31
from 1 to 5 p.m.
225 W. Saratoga Street, Baltimore, MD 21201
Email: nash2812@verizon.net
Web Address: www.modelengineers.com



Southern Oscalers 2nd Annual Southeast 2 Rail O Scale Train/Swap Meet
February 13th, 2016
160 South Church Street, Canton, GA 30114
3ft Table Space is Available for free to the first 12 that notify me.
Email: daniel@southernoscalers.com
Web Address: www.southernoscalers.com

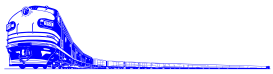


Rock River Valley Division Show and Sale 2016
March 20th, 2016
Jefferson High School, 4145 Samuelson Road, Rockford, Illinois 61109
All scale train show and sale
Sat. 10:00 AM - 5:00 PM, Sun. 10:00 AM - 4:00 PM.
Admission $5, sale tables $25, Non-sale / display only tables free.
Contact Don Brindle 815-874-6095, donbrindle@aol.com

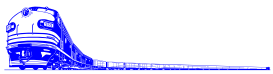


Chicago March Meet (Note new later dates this year only)
April 1st, 2nd and 3rd, 2016
Weston Lombard Hotel
Lombard, Illinois
9:00 AM-2:00 PM each day
Email : info@marchmeet.net
Web Address: marchmeet.net

Strasburg Train Show
April 9 - Strasburg, PA
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.



O Scale West
May 5 through 7th, 2016
Santa Clara, California
9:00 AM to 5:00 PM each day
Email: info@oscalewest.com
Web Address: oscalewest.com



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

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

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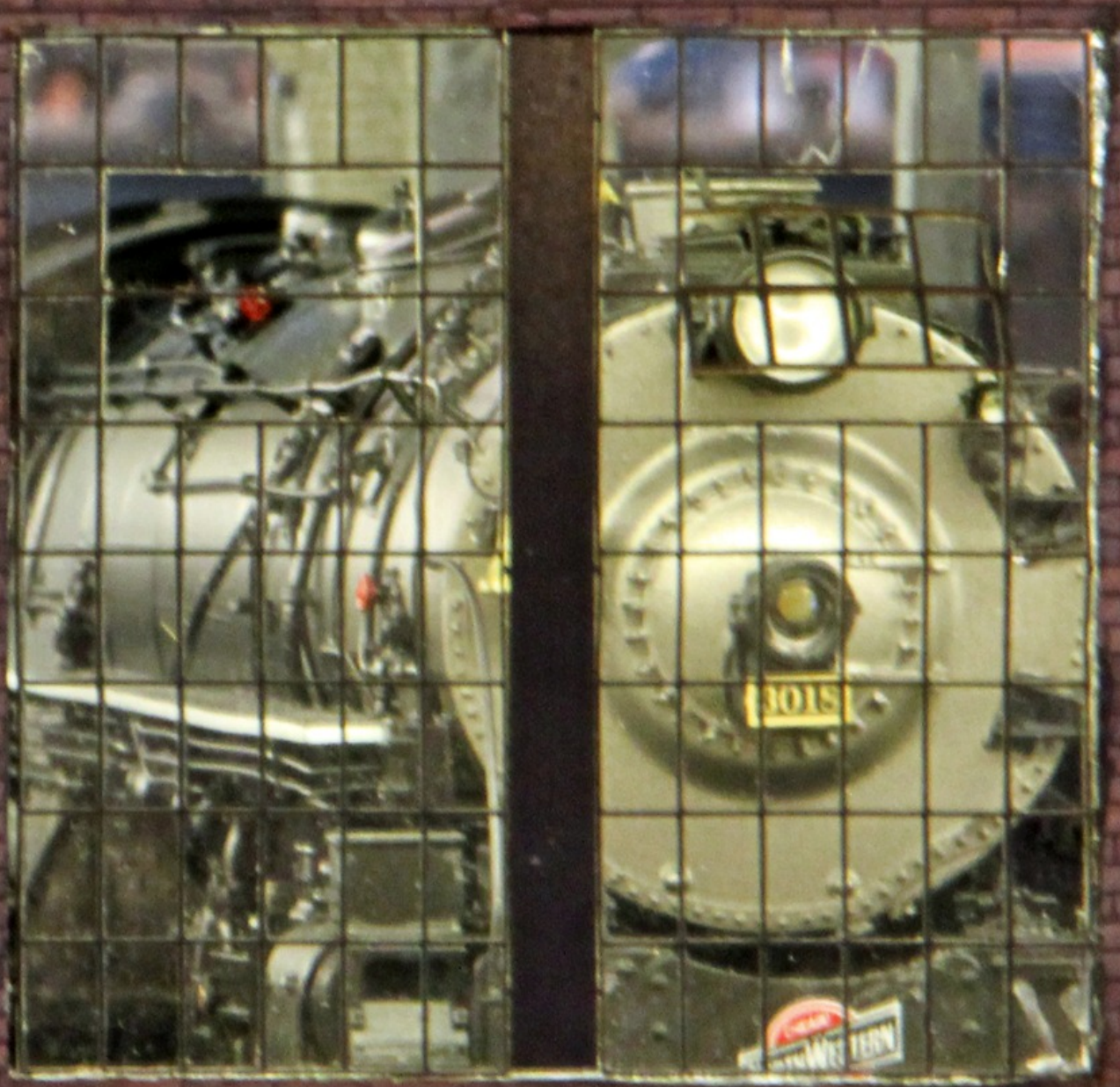
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