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Volume 9 No.2

November/December 2021

SCALE

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AND
SAILORS' HOME

Installing & Running the ProtoThrottle™
Scratch Building My Steam Locomotives Pt 8
Adding Depth & Life to Shallow Structures
Techniques Tools & Occasional Tips
Warner Clark's Maumee Basin Lines
O&S Scale Midwest Show Wrap-up
New Tracks Modeling
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AMTRAK: GENESIS & SUPERLINERS

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Photos Courtesy of Brasstrains.com

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Welcome to the online O Scale Resource magazine. The magazine is presented in an easy to use format. The blue bar below 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 PDF copy to your computer.

Front Cover Photo

A view of the Old Soldier's Home and the town behind on Warner Clark's beautiful P-48 layout.

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The Model Railroad Resource, LLC publishes *The O Scale Resource* and *The S Scale Resource*. Be sure to look at both of our magazines. There are many articles in our magazines that are not scale specific and will be of interest to you. Click the magazine title in this announcement to see the magazine.

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The O Scale Resource November/December 2021
The parties whose names appear above, have agreed to hold harmless all of the organizers, the sponsors, Pioneer Limited LLC, the Westin Lombard Yorktown Center, and others, singly and collectively, for any injury, harm, loss, damage, misadventure, or inconvenience suffered or sustained as a result of participating in this March O Scale Meet 2022, or in connection with any activity related to this event, whether of negligence by agents under their employ or otherwise.

From the Publisher's Desk



October was an exciting month around here. First off, our O&S Scale Midwest Show was a great success! We had the best attendance, most sold tables and room nights ever. All the dealers we spoke to were very happy with sales, as were the people walking out with arm loads of stuff. We want to thank everyone who was able to attend. We are working with the hotel for next year's dates. **We have produced a video of the show** and it may be seen by clicking on the picture.



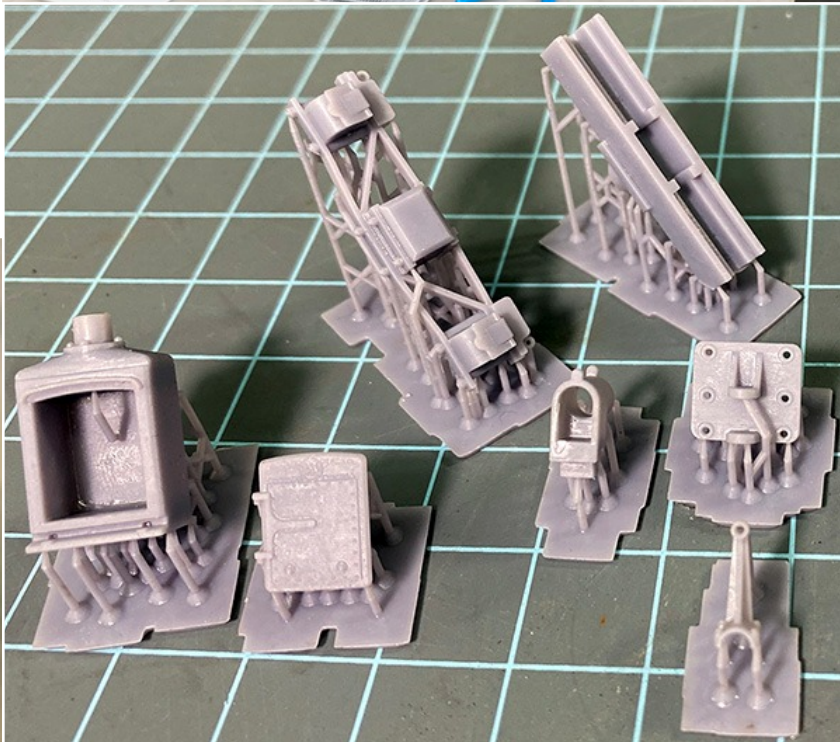
After seeing the fantastic builds from Sarah Griessenböck and Serge Lebel, we decided to buy a resin printer and begin making items for our layout, as well as some rapid prototyping. We chose the ELEGOO Saturn because of its larger printing capabilities. The very first print job was a success with some test parts. We can still dial things in better, but these turned out very well. This hobby always amazes me as to all the things you can still learn and do.

This month we visit Warner Clark's beautiful P-48 layout, as well as the O&S Scale Show wrap-up. Glenn continues his steam locomotive build; Adding Depth Shallow Structures by George Paxon; Techniques Tools and Tips by Paul Hemsworth; New Tracks and more.

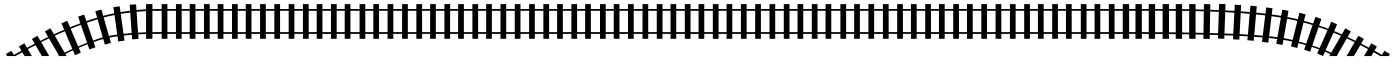
Let us know what you are up to. Email daniel@modelrailroadresource.com with any projects, large or small, and let's talk. Don't worry if you don't fancy yourself a great writer, we'll work with you and help get your thoughts down.

Thank you all for your support, and remember to tell our advertisers you saw them in *The O Scale Resource Magazine*! Happy Reading & Happy Modeling,

Amy & Dan Dawdy

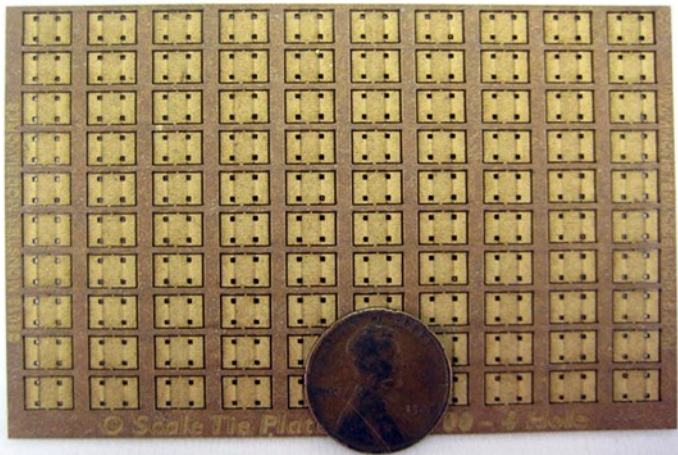


NEWS YOU CAN USE



[Monster Model Works](#) announces O Scale Tie Plates Now Available. Code 100, Code 125 and Code 138/148.

Our Tie Plates will add realism to any layout, module or diorama. Tie Plates are a must in every yard as track clutter. Our Tie Plates are prototypically correct so P48 modelers can choose from Code 138/148, Code 125 & Code 100. All versions are 4 hole configured.



Prototypical Dimensions for all our Tie Plates listed below

Code 138/148 - 4 Hole measures approx. 14" X 8"

Code 125 - 4 Hole measures approx. 14" X 8"

Code 100 - 4 Hole measures approx. 12" X 8"

Each package contains 300 pieces. [See their Website for ordering.](#)



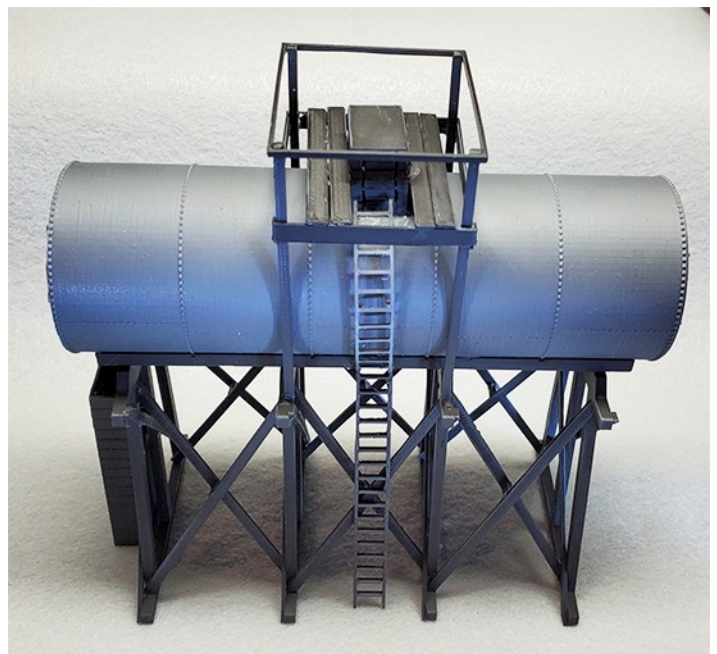
[Precision Vintage Classics](#) announces several new kits.

First up is our rendition of the D&RGW Side dump cars, class 10a. We also have an On30 car at 25'6".

Next is The WP&Y Open Top Container in S & O.



And a 3D printed kit of the SP Oil Tank at Laws California, developed for us by Chip Van Gilder. Available in S, O, & H0.



[See their Website for more details.](#)



[Lines West](#) has released the first and only available model of the unique Milwaukee Road Thrall built caboose.



Pre production model shown minus etched parts.

The Lines West model will have the following features;

- Full interior

- Etched windows for the bays with three variations to allow closed, partially open or fully open windows

- Etched roofwalks, wagon wheel antenna, marker paddles

- Various smokejacks to represent changes made over their service life

- Muffler for diesel generator on as built models

- Two variations of end platforms. One as a simplified one piece to ease assembly and one to allow the modeler to install etched steps and wire grab irons. Both styles will be shipped with kit along with etched steps.

- Unique MILW caboose trucks with nylon inserts for excellent rolling qualities

- Choice between standard gauge or P:48 wheelsets (included with kit) NOT available in three rail.

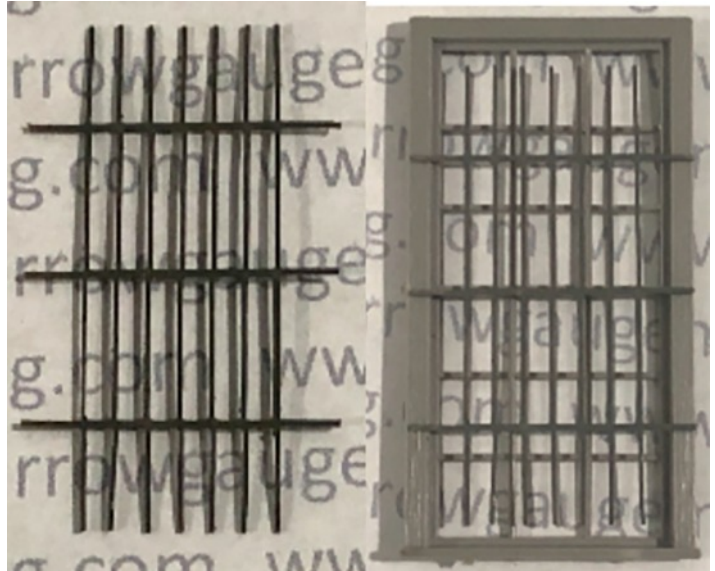
- Draft gear set up for drop in of Kadee couplers

- Decals correct for the era. 1950's, 60's, 70's, or 80's.

[See their Website for all the details.](#)

Kevin Macomber from [Narrow Gauge Modeling Company](#) as a new item of interest. Window bars are must on the bad side of town. Dimensions 1.1"W x 1.4"H. Product is laserboard and requires painting. Can be cut to fit any window size.

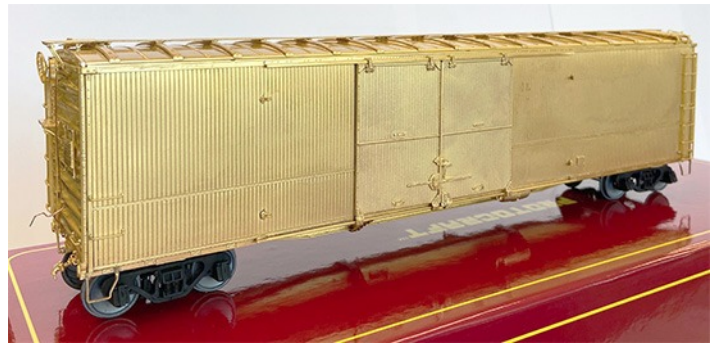
[Check their Website for more products.](#)



On September 16th, 2021 Robert Lavon Nahikian JR, passed away. Lavon was passionate about model railroading and had a very impressive collection of diecast model trucks and cars as well as trains. He had several published articles about his unique building techniques and had friends around the world that he corresponded with who shared his enthusiasm.



Protocraft has announced its latest import of 24 different 50-foot automobile and express cars from master builder Boo-Rim Precision of Korea. None of these cars have been produced in O scale before. The 24 different versions are composed of twelve different ends, 6 different roofs, various sides and doors, and hundreds of brass castings from pattern work scaled from suppliers such as Camel Manufacturing Company's detailed drawings. Ends, for both square or round (W) corner design, and most roofs were constructed using original drawings from Standard Railway Equipment Co. of Chicago.



PC-3701b Series 61400-61699 Has another unique end - an Inverse Dreadnaught end, also under a Chicago-Cleveland Climax Radial roof.



PC-3701a - Series 61200-61399 Has a unique Inverse Murphy end under a Chicago-Cleveland Climax Radial roof.

All models are built using copies of original linen builder drawings supplied by the Pullman Library of Union, Illinois, the National Museum of Transportation in St. Louis, the California State Railroad Museum in Sacramento, and a number of other sources. Hundreds of builder and in-service 8x10 photographs supporting these drawings were supplied by Bob Liljestrand, Arnold Menke, Richard Burg, Ed Hawkins, the John Barriger National Library at the University of Missouri St. Louis, the Smithsonian Institution in Washington DC, and the National Archives of Canada. No effort has been spared in developing these individual models to be as accurate as the prototypes, even to the individual rivets.

Historian Ed Hawkins has been a full-time consultant throughout the project. The cars ride on Protocraft's Bettendorf, ASF A-3, National Type B, Vulcan, Dalman 2-level, Allied Full Cushion or Commonwealth BX trucks, all with ball bearings for easy rolling and working journal covers. Wheels are individually stamped in a 3-story hydraulic sintering process to achieve a hard steel wheel with a rib-back profile.

Over 60 new and appropriate decals have been created to accompany these models and are available at Protocraft Decals. Models are available in either O gauge or Proto:48 and can be ordered on line at <https://www.protocraft.com/category.cfm?Categoryid=53> and sell for \$358.



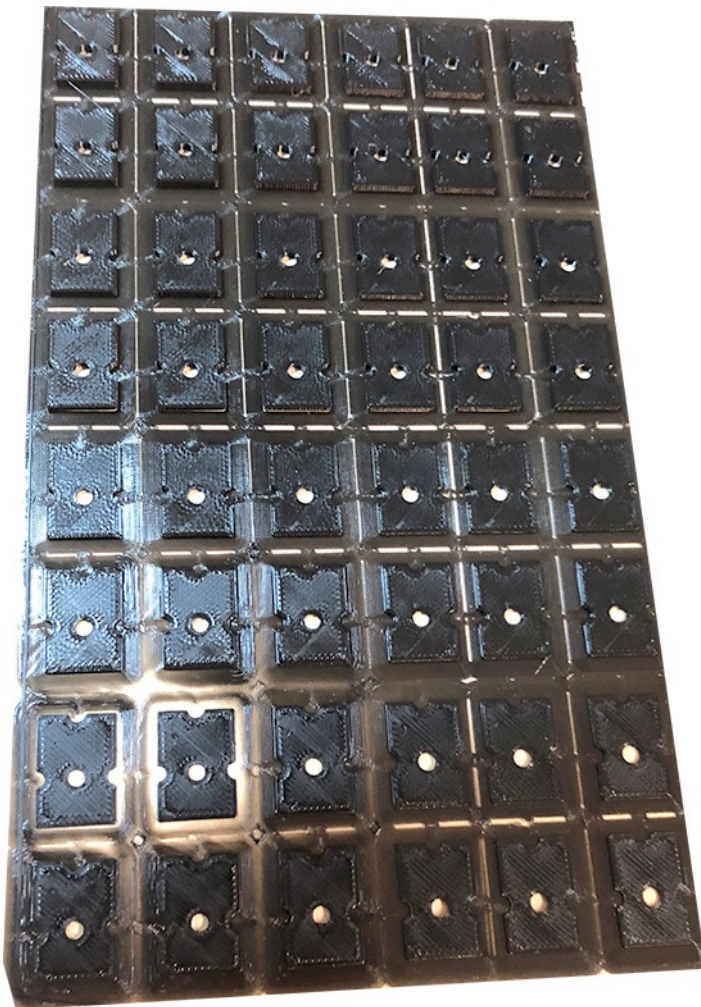
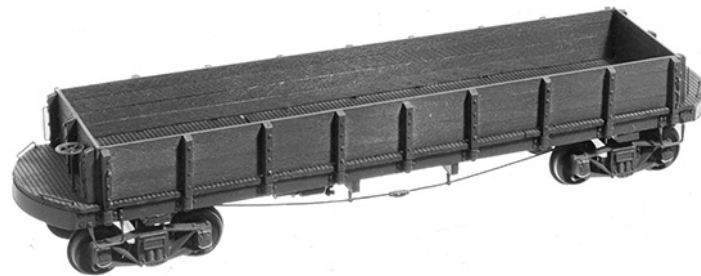
John Wubbel from All Nation Line send us some new items.

All new product development and introductions have a basis or logical reason to meet a need. The All Nation Line introduces shell kits to attract new model rail hobbyist to O Scale 2 Rail with affordable easy to assemble kits that will be visually striking when completed.

The newly released kits include a wooden Union Pacific Caboose model, a modern Ortner 100 Ton Open Aggregate Hopper Car or for the traction fan the Shell Kit - Trolley Freight Flat/Low Sides and Trolley Freight Gondola ,Great Gifts For Beginners! All Shell Kits are exactly that, base component starter parts only, available for \$29.95 plus shipping.



Available direct or from our eBay Store, <https://www.ebay.com/str/allnationlinehobbyshop> the kits afford the model railroader wide margins to innovate and super detail the models.



Component parts are 3D Printed on Prusa Research Printers using various Prusa Filament types.

These are a great way for entry level modelers to quickly learn new model building skills and techniques.

And to make life even easier, our Kadee Coupler pocket shims, 12 shims each in the following thicknesses: 0.5mm, 1.0mm, 1.25mm, 1.5mm, 1.75mm, 2.0mm for \$5.00 a set makes getting your couplers adjusted to the correct height on all your freight cars very easy.

See all these and other products here:
<https://www.ebay.com/str/allnationlinehobbyshop>



More colors from our friends at [Tru-Color Paint](#).
November, 2021
Sprayables

- 395- Clear Primer
- 3-D Printed & Cast Resin
 - 9007- Dark Gray Primer
 - 9256- Light Gray Primer
- Aerosols
 - 4034- Matte Steel
 - 4035- Gloss Aluminum

December, 2021
3-D Printed & Cast Resin

- 9084- Maersk-Sealand- Blue
- 9395- Clear Primer

Aerosols

- 4036- Gloss Off-White
- 4037- Matte Sand

As always Tru-Color Paint is always open to new ideas for paints. If there are colors that our readers need but aren't made, have them shoot them an email at tru.colorpaint1@yahoo.com. If they can find enough information on the color, they could put it in the next year's production schedule. [See their full line up at their Website!](#)



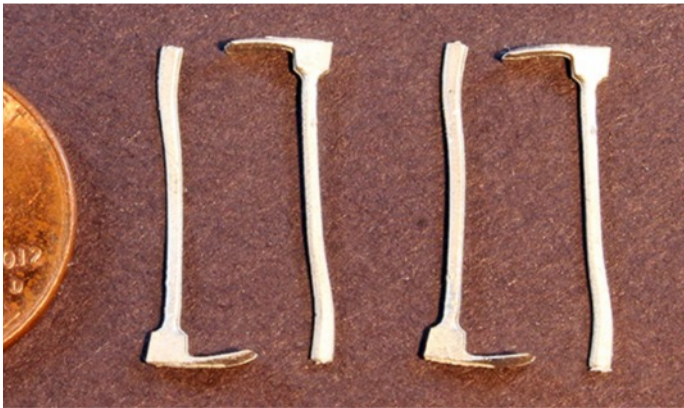
Some new items from Richard Rands and Berkshire Valley Models.

#679 Hoes, 4 per package \$3.00

#680 Rope Coils, 4 per packages for \$3.00

Both are white metal castings.

See their Website for more great products.



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[All Nation Line eBay Store](#)

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Ballasted Deck Trestle



Laser-cut wood parts. Track and ballast are not included. Approximate size is a scale 16' x 50' #17103 O \$39.95

Cheat Run Trestle



Laser-cut wood. Rail and spikes are not included. Approximate size is a scale 13' x 27' #17142 O \$37.95 #17143 On3/30 \$37.95

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O&S Scale Midwest Show Wrap-up



This was our best show ever! We had the largest attendance since we took over the show, and were totally sold out of tables and had very happy dealers and attendees. We'll concentrate on the O scale side of things here. Check the upcoming December/January 2023 issue of *The S Scale Resource Magazine* for the S scale write up.

Also, please note that many of the following pictures were shot just before the show opened to the public to make it easier for me to get around without running into people.



Jim Canter's P-48 layout was open Friday night.



ABOVE: CARS, ENGINES AND PARTS, OH MY ...

BELOW: NORM FROM PROTOCRAFT COULD NOT MAKE THE SHOW, BUT SENT OUT HIS NEW AUTO BOXCARS FOR JIM CANTER TO HELP SELL.





*Above: John Wubbel owner of The All-Nation Line talks with Joseph Norman about all the new products.
Below: Des Plaines Hobbies had many different items... all on sale!*





Above Merlyn Lauber of Caboose Stop Hobbies had seven 8' tables filled with all sorts of products.

Below: Bill Davis and his team from American Scale Models had fourteen tables of fantastic bargains.





Left: Algis Oslapas looks over Bob Stevenson's line at the Stevenson Preservation Lines tables.

Below: David Vaughn's Wit & Wisdom Models selling John Armstrong's famous Nighthawks buildings.





CLAYTON HARVEY



BOB ZINN



DAN PANTERA

BILL YANCEY





GLENN GUERRA
JIM ANDERSON
GEORGE WALLACE
CAREY WILLIAMS

Our good friends at Tru-Color Paint sent up six boxes of assorted paints as door prizes along with color charts and information on using their paints. That made for six happy people by the end of the day Saturday!



Installing and Running with the ProtoThrottle™

By Brian Huang

What is the Proto Throttle (PT):

The ProtoThrottle is a DCC compatible throttle. The PT has buttons, levers, and switches to mimic an EMD Control Stand to control your model locomotives. The design goal was to create a throttle that helps an operator experience running a model train just like the real thing. The PT will work with all scales in model railroading. Each model locomotive will need to have an on-board DCC decoder installed, of course!

Iowa Scaled Engineering (ISE, for short) (<https://www.iascaled.com/store/>) are the creators of the ProtoThrottle. The idea for the PT came from a good friend of the two co-founders (Michael Petersen and Nathan Holmes) of ISE, Scott Thornton. Scott came to them asking if they could create a version of the following for him: <https://youtu.be/eLPhXHHWKSQ> After some back-and-forth, Michael and Nathan decided it would be easier and better to just build a throttle instead of trying to modify an existing one like shown in the video.

This YouTube video (presented at the Virtual NMRA convention in 2020) presents the three people behind the impetus and development of the ProtoThrottle. It also contains quite a bit of information on set-up and usage of the device along with some Q and A. Check it out here:

<https://www.youtube.com/watch?v=OYSMN7UQoBo>

The Creative Geniuses behind the Proto Throttle:



Iowa Scaled Engineering Co-Founders Michael Petersen (L) Nathan Holmes (R)

Michael Petersen & Nathan Holmes are the co-founders of Iowa Scaled Engineering (ISE). Friends for 25+ years, with a shared interest in trains (model & real), electronics, and software, we decided to start ISE in 2011 to build and sell electronics that we wanted ourselves and thought others would be interested in, too.

Iowa Scaled Engineering designs and manufactures a variety of “useful widgets”, focusing on both the makers and tinkerers of the world as well as model railroaders. Most designs follow the Open Hardware model in the hopes of encouraging additional designs and as a means to educate other hobbyists.

With a combined 30+ years of professional hardware, software and embedded design experience and a lifetime of curiosity, Iowa

Scaled Engineering's staff is here to help. If you have an idea for a product you don't see here, please contact them. They're always looking for new ideas.

Michael and Nathan met at Iowa State University where they both were studying Electrical Engineering and highly involved in the solar car team, Team PrISUm. They met Scott a few years after starting ISE when he needed electronics for his model railroad and we severely needed help with graphic design.

According to Michael, "The ProtoThrottle was quite challenging to find the appropriate encoders, potentiometers, switches, and buttons that both provided a prototypical experience while also enabling mass production. We went through a couple iterations before settling on the final design, with only minor updates since to improve manufacturability."

There have been about 750 ProtoThrottles built to date.

Scott Thornton (right): Scott is a graphic designer from Ames, IA. Scott is owner of Designgrid, LLC and is a development partner for the ProtoThrottle.



All three of these guys are model railroaders! Here is what they model:
Michael = (Iowa Interstate) IAIS in Altoona, IA (N-Scale)
Nathan = Modern day Copper River & Northwestern Railway in Alaska (N-Scale)
Scott = IAIS in Milan, IA (HO-Scale)



The ProtoThrottle:

Hardware Needed:

ProtoThrottle (ISE supplied). Cost \$482-\$513 depending on faceplate color. Current faceplate colors: Gray (original color), Black (Special Edition), Olive Green (Special Edition), and Bronze (exclusive to Spring Creek Model Trains). There are currently only two places to purchase the ProtoThrottle: Iowa Scaled Engineering <https://www.iascaled.com/store/ModelRailroad/ProtoThrottle> and Spring Creek Model Trains <https://www.springcreekmodeltrains.com>. You'll have to call Spring Creek as none of the ProtoThrottle products are listed on their Website. Their telephone: 402-365-7628.

There was a third place to purchase, Caboose Hobbies in Littleton, CO, but they have ceased operation. Nathan told me at the STL RPM meet in Collinsville, IL (July 30-31, 2021) that they are close to getting a third retailer to sell product.



ProtoThrottle Receiver for ESU CabControl, JMRI WiFi Throttle, and Digitrax LNWI.

Currently, Iowa Scaled Engineering manufactures two different faceplates:
The PT pictured previously is labeled for “BRT DITCH LIGHTS” on both FRONT and REAR HEADLIGHTS knobs.

The other type of faceplate has “AUX LIGHTS” labels instead. Both ProtoThrottles contain the same electronic guts and firmware. The only difference is the labeling on the faceplate.



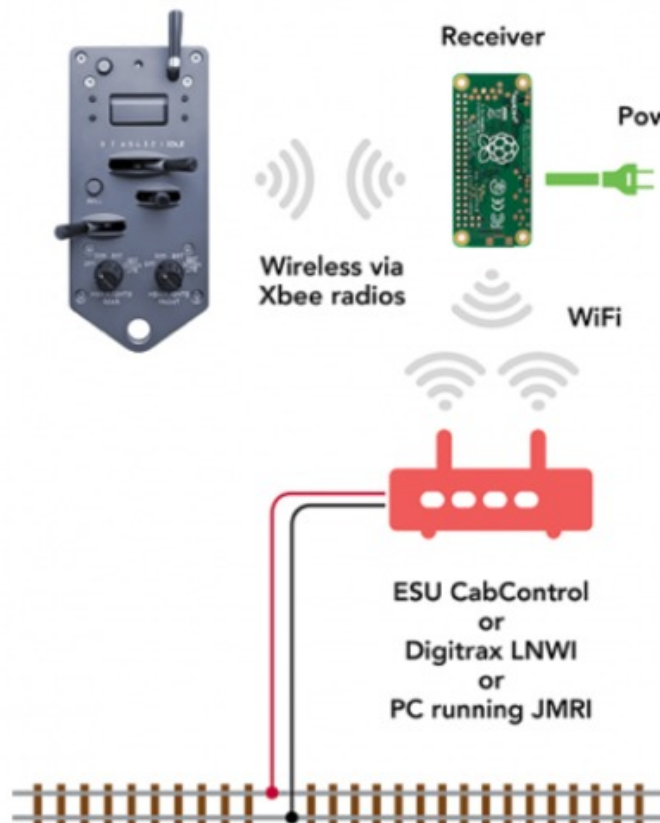
The LocoNet WiFi Interface (LNWI) (Digitrax supplied—MSRP \$83.00)

Receiver for specific DCC system (ISE supplied) \$99
ProtoThrottle Receiver for ESU CabControl, JMRI WiFi Throttle, and Digitrax LNWI. this device is called the: ESU-BRIDGE. ISE currently manufactures three different receivers that support seven separate DCC manufacturers.

In the case of Digitrax:

This receiver connects the ProtoThrottle to a Digitrax LNWI system, JMRI WiFi Throttle (a.k.a. WiThrottle or Engine Driver), or ESU Cab Control. It receives the wireless signal(s) from multiple ProtoThrottles and communicates them directly to the command station over a WiFi network.

Here is an image of the network topology as to how the ProtoThrottle interfaces with the Bridge and DCC system.



Configuration and Setup of the Hardware:
If using Digitrax or a JMRI WiFi Throttle requires editing two text files (*.txt) that are stored/located on the Micro SD card that is supplied with the Receiver from ISE.

These two files are named:

- wireless-config.txt
- protothrottle-config.txt

These are all the files and folders that are contained on the Micro SD card. The volume is named boot:

Here are the two files that must be edited (modified) with specific changes for Digitrax:

In the wireless-config.txt:

Digitrax LNWI: Uncomment the following lines by deleting the pound sign (#). Change the SSID string to match the ssid of your LNWI module. NOTE: this


```
wireless-config.txt

# Don't mess with these lines
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
country=US

# Placing a '#' before a line comments it out
# Entire blocks (everything from network to the trailing brace)
# needs to be commented out to deactivate a block

# This is the default ESU CabControl wireless configuration
# For ESU systems, uncomment this and comment out all other network
# configurations

#network={
#    ssid="ESUWIFI"
#    psk="123456789"
#}

# This is an example for a Digitrax LNWI. Uncomment this and comment
# out all other networks to connect to an LNWI. You will also need to
# change the ssid line to match the SSID being transmitted by your LNWI

network={
    ssid="Dtx1-LnServer_170A-7"
    key_mgmt=NONE
}

# This is an example for a home network with a password. To connect to
# your home wireless (such as to use JMRI), use this network block
# In order to connect, you will need to change the network name and password
# to match your home wireless configuration

#network={
#    ssid="MY-HOME-NETWORK-NAME"
#    psk="MY-HOME-NETWORK-PASSWORD"
#}
```

```
protothrottle-config.txt

[configuration]
# mode sets which DCC IP server type we're going to connect to
# Options:
# esu      = ESU CabControl System
# withrottle = JMRI Wifi Throttle (Engine Driver) server
# lnwi     = Digitrax LNWI interface
# Defaults to "esu" if not specified
# Uncomment one and only one of the following lines...

#mode = esu
#mode = withrottle
mode = lnwi

# baseAddress is a number between 0-31 that sets the base address
baseAddress = 0

# searchDelay is the time, in seconds, to scan each IP for the appropriate server
searchDelay = 0.05

# packetTimeout is the number of milliseconds
packetTimeout = 4000

# serverIP specifies which IP the bridge will connect to
# Leave commented out for automatic search and find
#serverIP = 192.168.7.1

# serverPort specifies which port the server is listening on
# Leave commented out for the default 15471 on ESU or 12090 on WiThrottle
#serverPort = 12090

#####
# JMRI Fast Clock Configuration

# UseJMRIClock is True or False depending on whether one wants to enable the fast
# clock display of JMRI maintained clock values on the protothrottle display.
#useJMRIClock = 1

# webPort specifies the port used by JMRI web server. This used to retrieve
# the fastclock if enabled above with useJMRIClock = True
#webPort = 12080

# timeZoneOffset is the hours from UTC to set local time on the fast clock show on the display
# JMRI sends time in UTC only.
#timeZoneOffset = -4
```


string MUST be changed to match the unique string of your module – the default value listed is just an example. Make sure all other network configurations are commented out. The lines below are actually two physical lines in the file. Ensure they stay that way!

```
network={ ssid="Dtx1-LnServer_0ACC-7"  
key_mgmt=NONE }
```

In my specific case, the LNWI provided a wireless network SSID of Dtx1-LnServer_170A-7. It appears only four values changed. This has been verified by viewing videos on YouTube. But a Russian proverb that President Ronald Regan is credited with saying in English, “Trust, but verify!”

In the protothrottle-config.txt:

Change the mode line to match the system you are using.

ESU Cab Control:

```
mode = esu
```

JMRI Wifi Throttle (a.k.a. WiThrottle or Engine Driver):

```
mode = withrottle
```

Digitrax LNWI (subset of JMRI WiFi Throttle protocol):

```
mode = lnwi
```

In my case, the editing of these two text files proved somewhat challenging. I use an Apple iMac computer. Matter of fact, all my wireless devices are Apple. I’m such an Apple Fan Boy! All I ask is you don’t judge me!

Since they are both text files (.txt extension) I used the TextEdit.app on my iMac. This is where it gets fun! Even though I could edit (make changes to) the files, I was unable to save them with their original file name. This is problematic. What workaround I devised was to save each file using a different name, then opening the Finder app, navigating to the Micro SD card and...get ready for this: Delete the original files and then rename the “edited and saved” files to their original names. This is where owners of Windows based systems have an advantage over Mac users!

The instruction manual supplied with the receiver/bridge explains this process well, with the exception of the Mac peculiarity.

Installing the Digitrax LNWI was straight-forward:

Parts List (provided by Digitrax)

- (1) LNWI LocoNet Wifi Interface
- (1) PS14 Power Supply
- (1) LNWI Quick Setup Guide
- (1) 2’ LocoNet cable
- (1) Instruction Sheet:

1. Place the LNWI in a convenient location and connect it to your LocoNet system using a known good LocoNet cable.
2. Plug in the PS14 and connect the barrel plug connector to the LNWI. The ID light will light green being mostly lit winking off as a “heartbeat” indicator.
3. On your Mobile Device following your device’s instructions select and join the Wi-Fi network with the SSID “Dtx1-LnServer_XXXX-7” . The XXXX for each LNWI is the unique LNWI serial number. This is the factory default SSID format for all LNWI devices.

4. Open your throttle app on your device. Follow your apps instructions for selecting the appropriate server. Most apps will automatically detect the LNWI. If you must manually enter the server, by default the LNWI's IP address is 192.168.7.1, Port 12090 (I did not have to do this. The ProtoThrottle receiver began indicating it was connected by blinking a green status LED on the throttle. This took about 30 seconds. Most likely the time it takes to "boot" the receiver. By the way, the receiver is Raspberry Pi based.

5. Follow your apps instructions to select and run a locomotive.

Setting up the ProtoThrottle to run a DCC decoder equipped locomotive:

My first test case: SoundTraxx Econami decoder installed in an Atlas O Trainman RSD-7/15 model.

The decoder is also known as an ECO-4400 with user selectable Prime Mover sounds for EMD, GE, Alco. The Econami line of decoders was discontinued by SoundTraxx in July of 2017. They are still out in the marketplace often with good discounts. SoundTraxx does indicate the Econami decoders are still repairable items if you need to send it in. SoundTraxx does state that decoders discontinued for 2 years are no longer serviceable. Looking at the date of discontinuance of the Econami, it's a safe bet they won't be serviceable much longer.

I was able to find several references on how to set up the decoder (CV values) and the ProtoThrottle configuration on the iascaled.com Website:

Configuration Examples:

[Athearn GP40-2 with Tsunami2 decoder](#)

[Configuring Headlights for the ProtoThrottle](#)

[Setting up Auxiliary Lighting Functions on the ProtoThrottle](#)

[Decoding the ProtoThrottle Notch Settings](#)

[Choosing a ProtoThrottle Braking Mode](#)

[Recalibrating the ProtoThrottle Horn and Brake Handles](#)

[User Manual](#)

Culling Out Specific CVs Needed in the Decoder:

These examples provided a good starting point so I wasn't completely walking uphill both ways! Unfortunately, the examples were using a Tsunami2 decoder (TSU-4400), and JMRI. The Econami and Tsunami 2 decoders do share most of the same CVs, but not all. The Tsunami 2 decoder has more. Also, I don't use JMRI. I appear to like inflicting mental anguish/pain and frustration upon myself by modifying CVs using my Digitrax Throttle. This behavior is similar to the actions on the Johnny Cash song "One Piece at a Time"

I spent most of a Sunday afternoon (let's say 6 hours) poring over the JMRI dump of CV settings, making notes, noting differences in the CV values set by JMRI and the SoundTraxx defaults. I would liken this experience similar to when I was going through First Officer Training for an airline. Trying to absorb all this information was like drinking from a fire hose! The only difference being I could set the pace of the "drinking"! The author of the reference material (albeit using JMRI screen captures) did call out the CVs being changed. There were only 12.

Here they are:

CV 3—Baseline Acceleration Rate (value of 128)

CV 4—Baseline Deceleration Rate (value of 255)

CV 57—All lights On in any direction (value of 63)

CV 58—All lights On in any direction (value of 63)

CV 112—Sound Configuration 1 (setting True Idle to Enabled, value of 11))
 CV 114—Engine Exhaust Control (setting Manual Notching, Engine Interlock, Engine Auto Start to Disabled)—value depends upon how many speed steps for each notch, value of 83 — sets 3 speed steps per notch)
 CV 117—Independent Brake Rate (value of 255)
 CV 118—Train Brake Rate (value of 153)
 CV 216—Motor Speed Step Deadband Value (value of 2)
 CV 1.258—Extended Function Mapping (value of 22—remap Rear Light to F22)
 CV 1.403 Independent/Train Brake Effect Auxiliary Map Register (deselect Forward Standing and Reverse Standing options (value of 0)
 CV 2.511—DDE Throttle Sensitivity (value of 0)

Of these 12 only four of those did not have a corresponding CV in the Econami according to the Econami Diesel Technical Reference.

Here they are and the SoundTraxx description:

112—Sound Config 1
 118—Train Brake Rate
 1.284—Alternate Mixer
 2.511—DDE Throttle Sensitivity

Are these important? We will never know! It's interesting to note that I programmed these CVs using a Digitrax 402 Throttle. For each CV, the throttle displayed a "Good" acknowledgement. I'm not sure what that means for a CV that is not supposed to exist in the Econami decoder.

As a part of my data absorption, I also discovered several dozen CVs that had been changed from the SoundTraxx default. The author did not call these out. What I did was to investigate (i.e. lookup in the SoundTraxx Technical References) for both decoders and make decent notes on what default value provide and compare/contrast to the modified values. This took a considerable amount of time, and I had to find a Decimal to Binary converter on-line. This exercise brought back some old (possibly fond) memories from college when I majored in Data Processing.

As a second test case, I setup an Atlas O Master Line B40-8 model with a SoundTraxx Tsunami 2 decoder (TSU-4400) installed. The decoder is specific for GE prototypes. This locomotive model is equipped with Front and Rear lights, Ditch lights, and Front and Rear Class lights. I verified that all lights were operational before configuring the ProtoThrottle for this locomotive.

This configuration exercise did become problematic. Since a Tsunami 2 decoder was installed, I was able to follow and use all of the setup steps found on the ProtoThrottle website: [Athearn GP40-2 with Tsunami2 decoder](#). The setup steps indicated that F19 was an unused function in the decoder and to re-map the Rear light to operate from it, making it non-directional. However, this was incorrect. When the setup steps were written, the decoder version was prior to 1.2. The decoder installed in the locomotive was at the 1.2 version. Prior to v1.2 F19 was unused. Occurring with v1.2 F19 now was used as "Straight to Idle".

To say the least, re-mapping F19 to control the Rear light confused the ProtoThrottle. The behavior I was seeing when using the PT as I could never get the Prime Mover to notch up/down. It always stayed in Idle. After many hours spent of trying to determine what was occurring, I posted a question to the [ProtoThrottle@groups.io](#) email. After some back-and-forth emails someone mentioned about F19 being used as v1.2 decoders. With the Rear light always being on the Prime Mover would always be in Idle. Eureka! Once I was able to grasp and understand the issue, I simply re-mapped the Rear light to operate off F22 (Cab Chatter). All is well now. This situation caused me much frustration, but the ProtoThrottle@groups.io provided outstanding information and explanations!

Configuration the ProtoThrottle for Your Specific Locomotive:

The last step is to configure the ProtoThrottle. To begin, select the locomotive number (600 for the Alco RSD 7/15 model and 1868 for the B40-8 model) using the SET LOCO menu. Then, enter the CONFIG FUNC menu. Set each function to the corresponding DCC function number shown in the table on the following pages. Finally, the speed step sent in each notch of the throttle should be adjusted to match the decoder settings. In my case, this is three speed steps per notch.

Refer to the ProtoThrottle Manual Quick Start Guide on how to set the Loco number using SET LOCO and perform the configurations using CONFIG FUNC.



Brian doing a ProtoThrottle demonstration at the O&S Scale Midwest Show

ProtoThrottle Settings (Alco RSD 7/15 #600)

Menu	Setting	Value	Comments
CONFIG FUNC	HORN	F02	
CONFIG FUNC	BELL	F01	
CONFIG FUNC	BRAKE	F11	
CONFIG FUNC	BRK OFF	F--	
CONFIG FUNC	AUX	F12	Brake Select
CONFIG FUNC	ENG ON	F05	RPM+ (ENGINE START)
CONFIG FUNC	ENG STOP	F06	RPM- (ENGINE STOP)
CONFIG FUNC	THR UNLK	F11	
CONFIG FUNC	REV SWAP	F--	
CONFIG FUNC	CENTERED	UNKNOWN	
CONFIG FUNC	ALERTER	UNKNOWN	
CONFIG FUNC	COMPRSR	UNKNOWN	
CONFIG FUNC	BRK TEST	UNKNOWN	
CONFIG FUNC	F.HEAD	F00	
CONFIG FUNC	F.DITCH	F—	
CONFIG FUNC	F.DIM #1	F00	
CONFIG FUNC	F.DIM #2	F07	
CONFIG FUNC	R.HEAD	F22	
CONFIG FUNC	R.DITCH	F--	No rear ditch lights
CONFIG FUNC	R.DIM #1	F22	
CONFIG FUNC	R.DIM #2	F07	
CONFIG FUNC	UP BTN	F09 MOM	Grade Crossing Horn
CONFIG FUNC	DOWN BTN	F04 LAT	Dynamic Braking
NOTCH CFG	NOTCH 1	1	
NOTCH CFG	NOTCH 2	3	
NOTCH CFG	NOTCH 3	6	
NOTCH CFG	NOTCH 4	9	
NOTCH CFG	NOTCH 5	12	
NOTCH CFG	NOTCH 6	15	
NOTCH CFG	NOTCH 7	18	
NOTCH CFG	NOTCH 8	21	
OPTIONS	VAR BRK	OFF	

ProtoThrottle Settings (GE B40-8 #1868)

Menu	Setting	Value	Comments
CONFIG FUNC	HORN	F02	
CONFIG FUNC	BELL	F01	
CONFIG FUNC	BRAKE	F11	
CONFIG FUNC	BRK OFF	F--	
CONFIG FUNC	AUX	F12	Brake Select
CONFIG FUNC	ENG ON	F05	RPM+ (ENGINE START)
CONFIG FUNC	ENG STOP	F06	RPM- (ENGINE STOP)
CONFIG FUNC	THR UNLK	F11	
CONFIG FUNC	REV SWAP	F--	
CONFIG FUNC	CENTERED	UNKNOWN	
CONFIG FUNC	ALERter	UNKNOWN	
CONFIG FUNC	COMPRSR	UNKNOWN	
CONFIG FUNC	BRK TEST	UNKNOWN	
CONFIG FUNC	F.HEAD	F00	
CONFIG FUNC	F.DITCH	F24	
CONFIG FUNC	F.DIM #1	F00	
CONFIG FUNC	F.DIM #2	F07	
CONFIG FUNC	R.HEAD	F22	
CONFIG FUNC	R.DITCH	F--	No rear ditch lights
CONFIG FUNC	R.DIM #1	F22	
CONFIG FUNC	R.DIM #2	F07	
CONFIG FUNC	UP BTN	F09 MOM	Grade Crossing Horn
CONFIG FUNC	DOWN BTN	F28 LAT	Front & Rear Class Lights
NOTCH CFG	NOTCH 1	1	
NOTCH CFG	NOTCH 2	3	
NOTCH CFG	NOTCH 3	6	
NOTCH CFG	NOTCH 4	9	
NOTCH CFG	NOTCH 5	12	
NOTCH CFG	NOTCH 6	15	
NOTCH CFG	NOTCH 7	18	
NOTCH CFG	NOTCH 8	21	
OPTIONS	VAR BRK	OFF	

1. You will still need a “traditional” DCC Throttle for your DCC system. With me using Digitrax DCC I use this throttle to turn on Track Power. The PT can’t do this on its own.
2. The PT is powered by two double A (AA) size batteries. You may use rechargeable cells. You can expect several hours of operating fun from each set.
3. If the batteries are completely drained, you won’t lose any Configurations.
4. The PT can contain 20 Configurations.
5. Setting up a Consist of multiple locomotives is something I have not attempted. PT Support says it can be done as you are only operating a single “consisted” address. How to control Light and Sound functionality within the Consist is not yet understood by me. Readers are encouraged to refer to the User’s Guides provided by SoundTraxx for both Tsunami 2 and Econami decoders. The section entitled “Configuring Advanced Consist Operation” should prove useful. Additionally, this topic, could, very well, become the subject of another article. Stay tuned!
6. The PT is not necessarily portable between layouts if they are operated with different DCC manufacturers systems. This is primarily due to the specific hardware (the ProtoThrottle receiver) that may be needed.
7. If the layouts use the same DCC systems, you would need the PT, the PT receiver, and any specific hardware for that DCC system. In the case of Digitrax: the LNWI.
8. You may need to recalibrate the Horn handle. See [Recalibrating the ProtoThrottle Horn and Brake Handles](#)



Groups of people showed up throughout the day for ProtoThrottle demonstrations at the O&S Scale Midwest Show.



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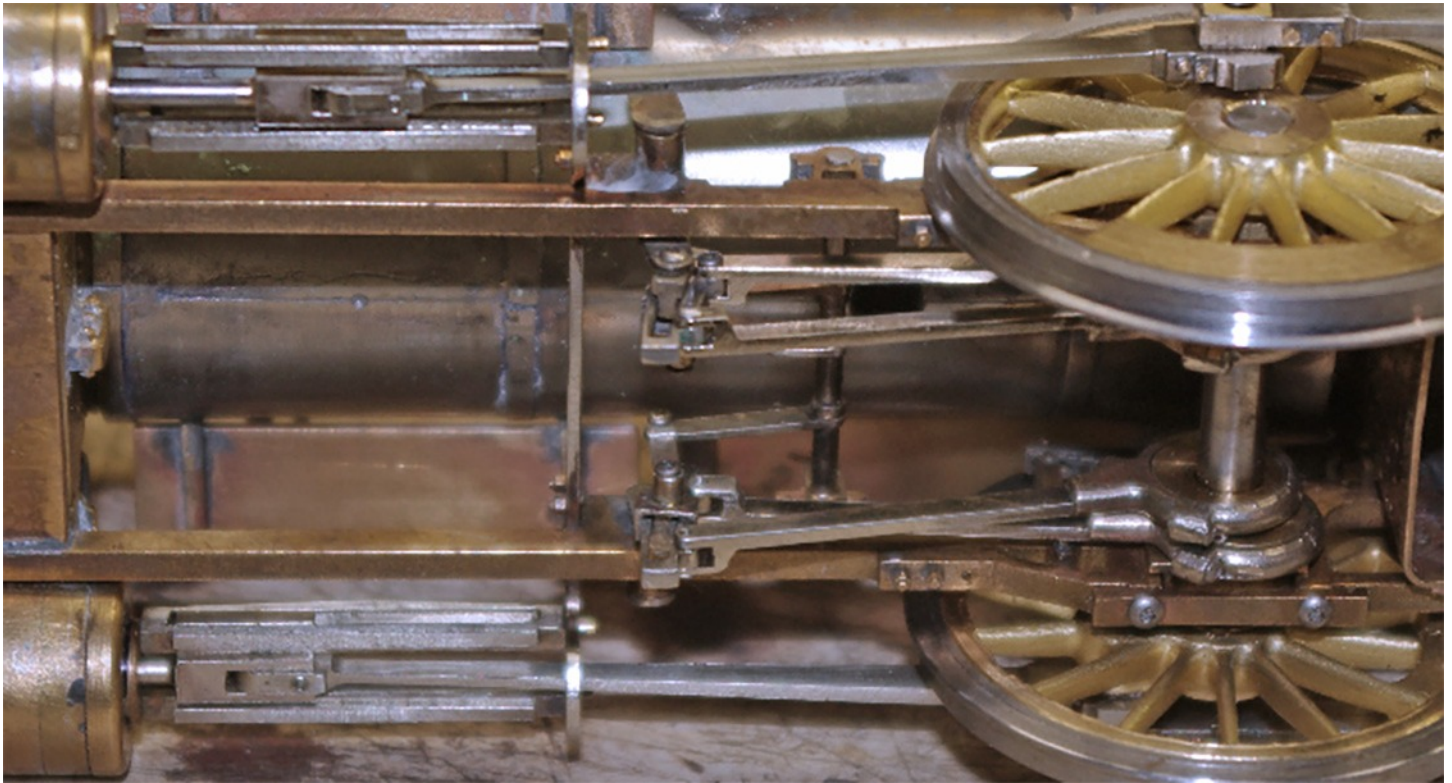
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Scratch Building My Steam Locomotives

Part 8: The Valve Gear



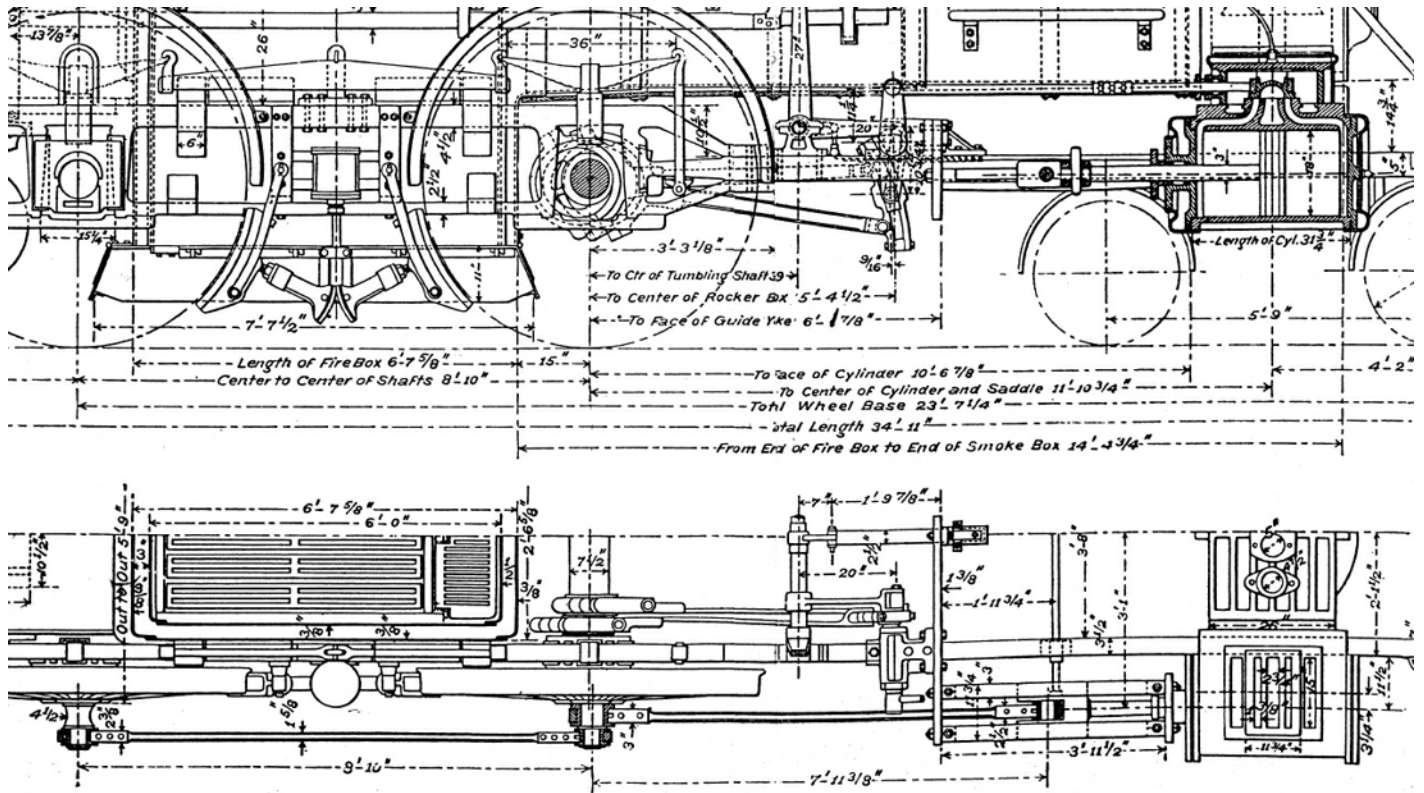
By Glenn Guerra

We finally get to the valve gear. I have been holding this back because I was not sure I could make it all work. The eccentrics and links have been done for a year now, but I needed to machine the eccentric straps. I wanted to do this on my Enco lathe here in Wisconsin since I have more tooling for it and it's a better lathe than the small lathe I have in Florida. The good news is I was able to get it all to work. It's not perfect, but all the parts move like they should. This was a real learning experience for me and I want to share it with you.

If you have been following my articles, you know how much I stress drawing your parts in the scale you will make them. I did that on these models and still I have some clearance problems. When scaling things for a model, you have two problems to deal with. One problem is making the model part large enough to hold together. If you just scale a part, you may end up with areas that are too thin to be actually functional. The other problem is clearances. A part that has 1/4" clearance on the prototype only has .005" clearance on the model. Can we hold those clearances and will the part still function? Keep asking yourself these questions while drawing up the parts for your model.

As I mentioned, this whole project is a learning experience for me. I am doing more machining than I ever did before, and learning some of the fine points of machining. One of those points is what the forces generated by the tool cutting the metal are doing to the machine. I had a lot of trouble getting a nice smooth and accurate cut on many of the early parts I made. It finally occurred to me that on these small machines the forces generated by the cutter can move the table and take the slack out of the lead screws. The force will act on the table differently depending on whether you are doing a climbing cut or not. The solution to the problem was to lock down the table so it will only move in the direction you want. In addition, keep the gibbs on the table snug. It will seem like a lot of force to move the table, but it will make your cuts smoother.

Now let's get into what I was doing.



This is a drawing of one of the models I am building. The other locomotive uses the same valve gear as this one. This valve gear is referred to as Stephenson valve gear and was the most common valve gear until other valve gears were invented around 1900, give or take a bit. The valve gear works well, but maintenance was a problem because all the parts could only be reached from in a pit under the tracks. On models of this valve gear, there is usually only one cam and that works the rocker shaft and valve rod. Since that is all you usually see, I wanted to see if I could build the whole thing and have it work. There were some compromises made and I will discuss them in more detail when I get to those parts.

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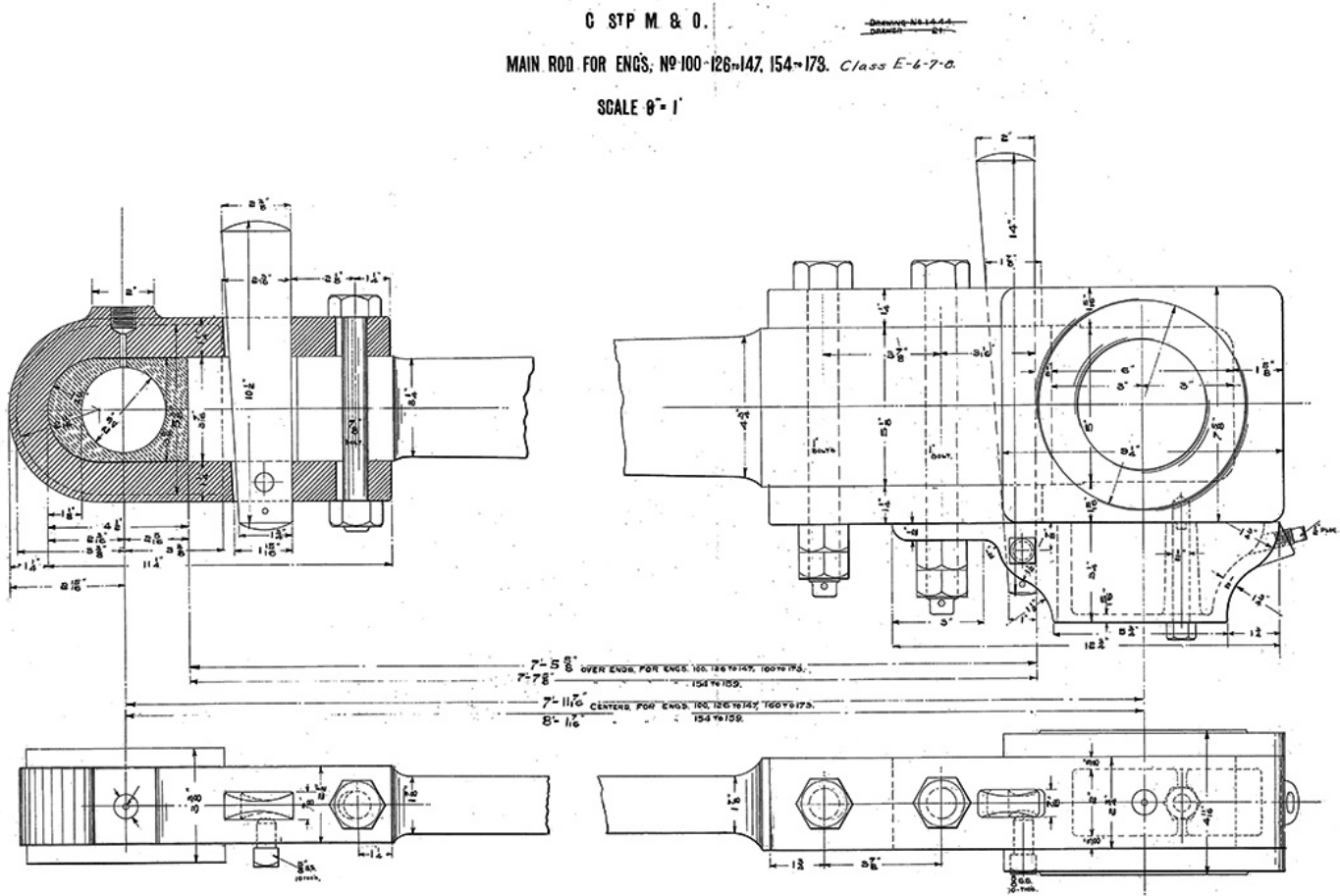
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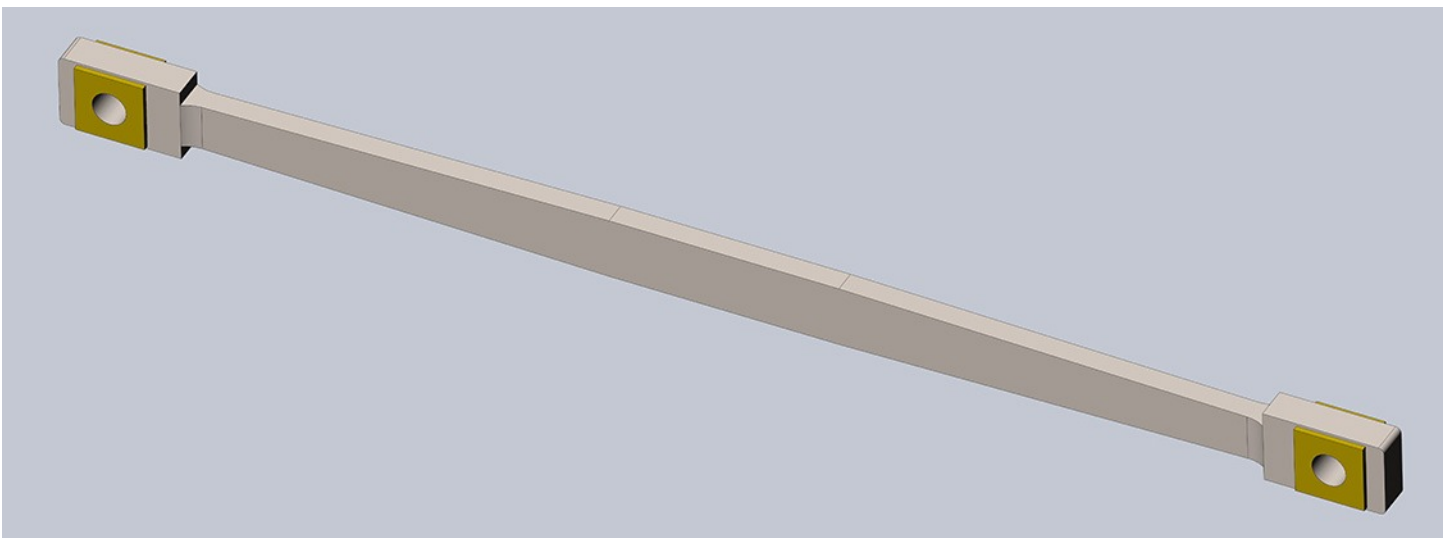
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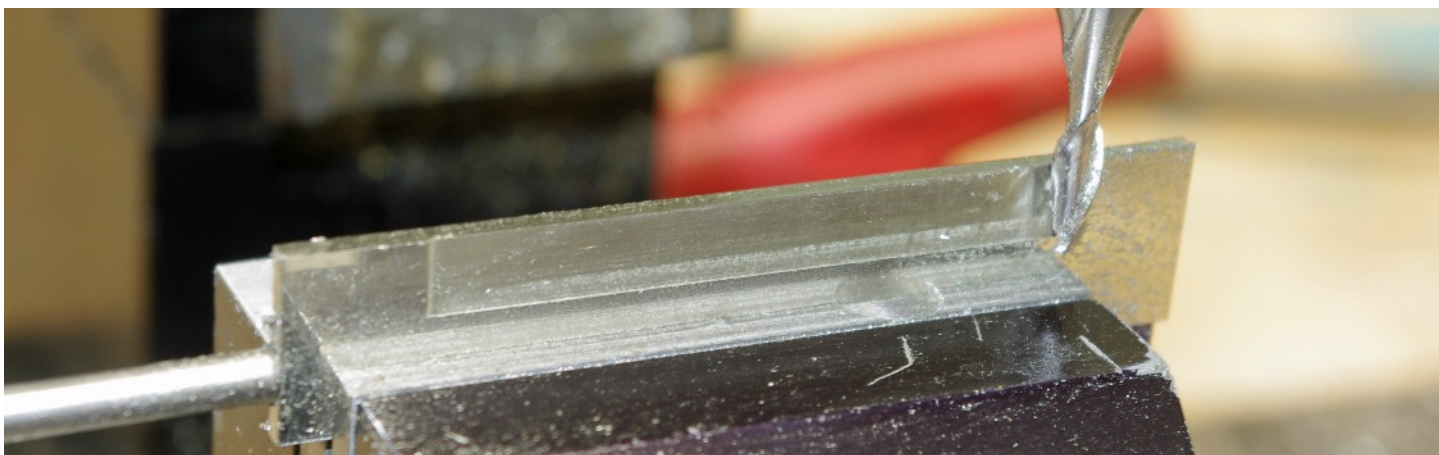
The Rods



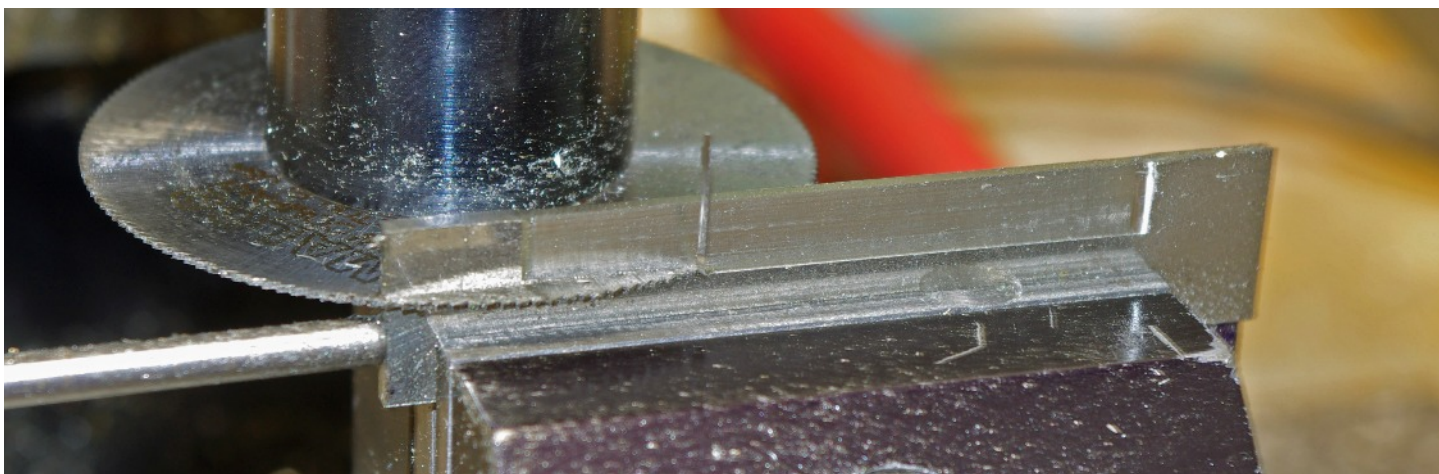
This drawing is for some C St P M & O locomotives of the same vintage and manufacturer as the C & NW models I am making and were a starting point for me. Note how the ends have caps that hold the brass bearings in place.



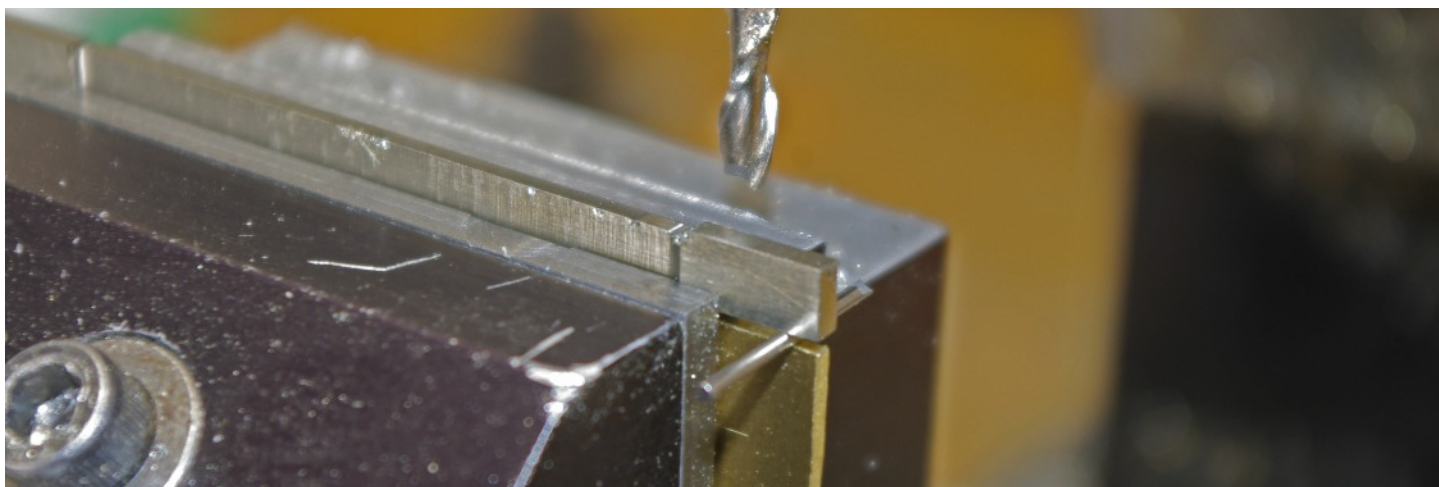
This is my drawing for the side rod I will make. I did not make the separate caps because of the difficulty making those small parts. I will add some nut bolt washer detail later. In addition I did not make brass bearings for the ends. There will be some thin brass parts soldered to the rods later to look like the brass bearings. The body of the rod will be machined from nickel silver.



To make the body of the side rods, I first made some blanks of the correct length out of .062" nickel silver plate. If you go back to the drawing of the main rod on the previous page, you will note it is 2-3/4" thick which is .057" in O Scale. There is no .057" thick material available, but there is .062" thick material. This is one of the decisions you will need to make while you are drawing the parts for your model. I will use the .062" thick material and fudge some other dimensions to get it all to work. What I am doing in this photo is cutting the center of the rod thinner than the ends as on the drawing. By cutting all the blanks to the same size, I am able to use the stop, which you see on the left, to locate the part. Then, all I need to do is cut to the same point on each side of the blank. When you do this, you will be moving the table in the "X" direction (left to right), so lock down the "Y" direction. Take a light cut first and finish with a light cut to improve the surface finish.



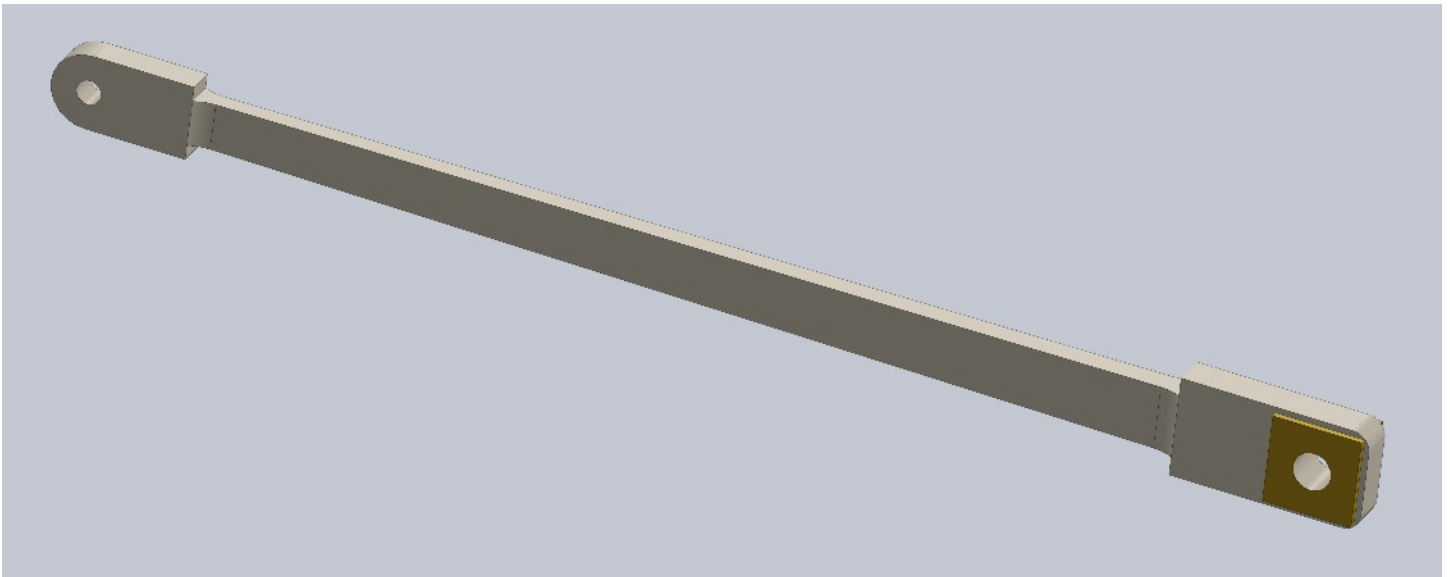
After you have the rod made narrow in the center, cut it off with the slotting saw as I am doing here. This is a good time to talk about the tool pulling the table. I am cutting from left to right here. As the cutter is rotating, it is trying to pull the work to the left. This can be a problem because the cutter will pull the slack out of the lead screw and make a heavier cut in the material. The reason I cut this way is the cutter is pushing the work away on the "Y" axis (front to back). This minimizes the cutter pulling the work in and taking too big of a cut which will break the teeth on these thin saws. It will want to do this on the "X" axis, but I am able to control it because it is a lighter cut and I have the gib on the "X" axis tightened up. Most of the time you cut brass and nickel silver dry, but I like to use a little oil with these saws. The nickel silver seems gummy to me and will clog the teeth on the saw. A little oil helps prevent that. One last point. You may want to cut the piece a little big. Sometimes these thin saws can wander and your part will be a different dimension from one end to the other. Better to face off the top first then cut off the piece. Turn the piece over and face it with an end mill.



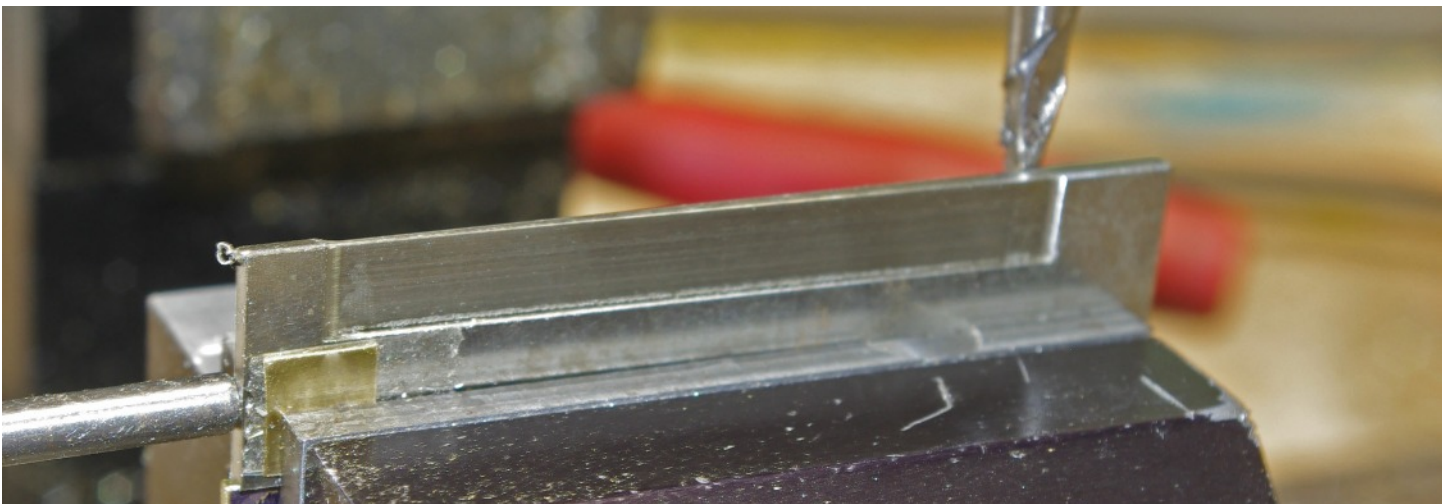
The center of the rods are wider than the ends and this is how I cut the tapers. There is a piece of brass in the vise that acts as a parallel. Then I put a small rod under the work piece at one ends as shown. The other end of the work piece is up against my stop so all the cuts will be the same. The spacer rod determines the taper you want to cut. Make a cut and flip the work piece over. Cut the other side and turn the work piece around to do the other end. This little trick works good for cutting tapers, and in this case, will make all the tapers the same.



These are the finished side rods. I added some thin brass to each end to look like the bearings and then drilled the holes. The nut bolt detail was added last. The rods were polished later with some 600 grit wet dry sand paper glued to a stick. This gave them a nice finish.



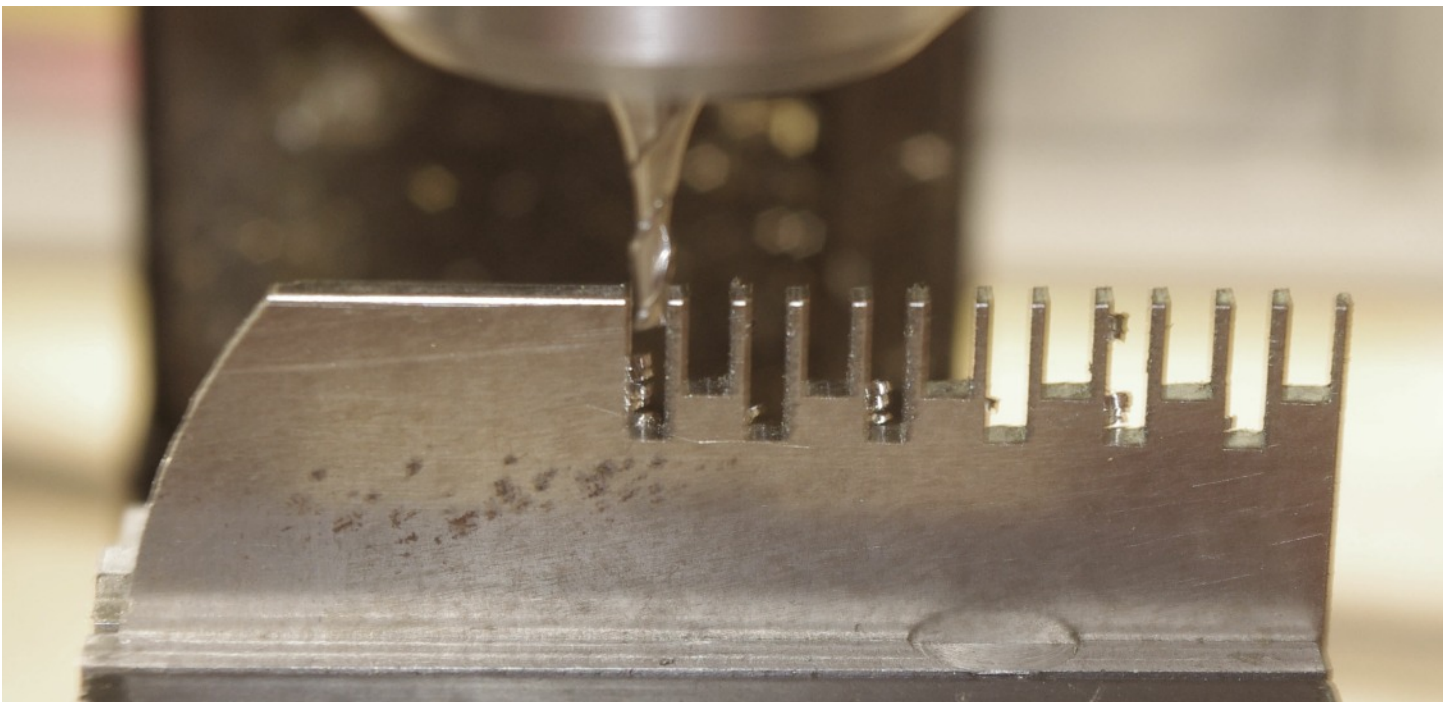
This is the drawing I made for the main rods. The big end will be the same as the side rods. The small end will need a removable cap like the prototype so I can get it around the pin in the cross head. These rods are also tapered two ways to be smaller at the end by the cross head. To do this, I will need to make some small caps for the ends and find a way to make them removable. I bought some 000-120 stainless steel screws from McMaster Carr and they worked. There is also a cellar on the big end that needs to be made. Look close at the drawing of the C St P M & O parts and you will see the cellar.



The main rods are tapered two ways, and this is how I did the first taper. Note the small piece of brass in the vise. There is one on the other end of the rod on the opposite side. This holds the blank in a known taper. To cut the taper on the other side of the rod, switch the brass shims to the other side of the blank. Cut the rods off with the slotting saw as you did on the side rods.



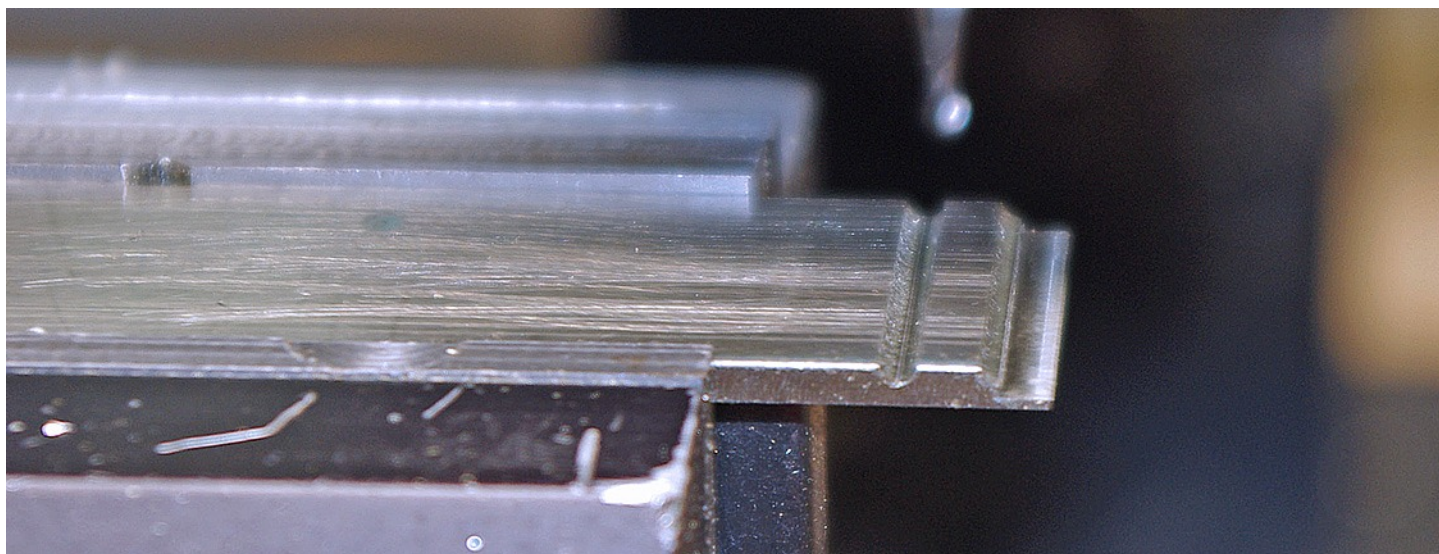
These are the blanks for the main rods after they were roughed in. They need the caps on the small end yet. They will be polished with wet dry sand paper for a final step.



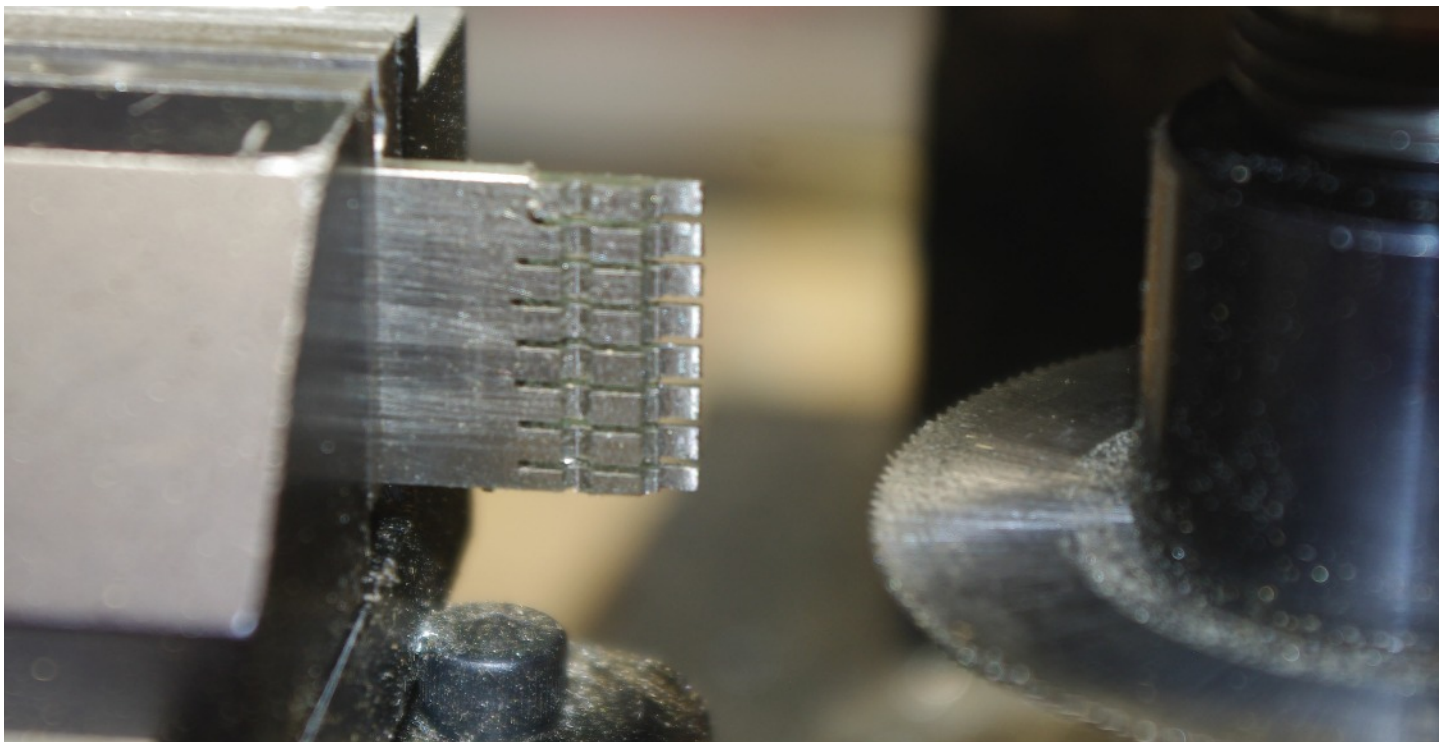
Here I am machining the caps for the main rods. I started with a piece of nickel silver plate held on end in the vice. You can see them starting to take shape. I will cut them off last using a slotting saw. You have seen me do stuff like this a lot. It is much easier to hold and machine a large piece like this than to hold all of the small pieces separately.



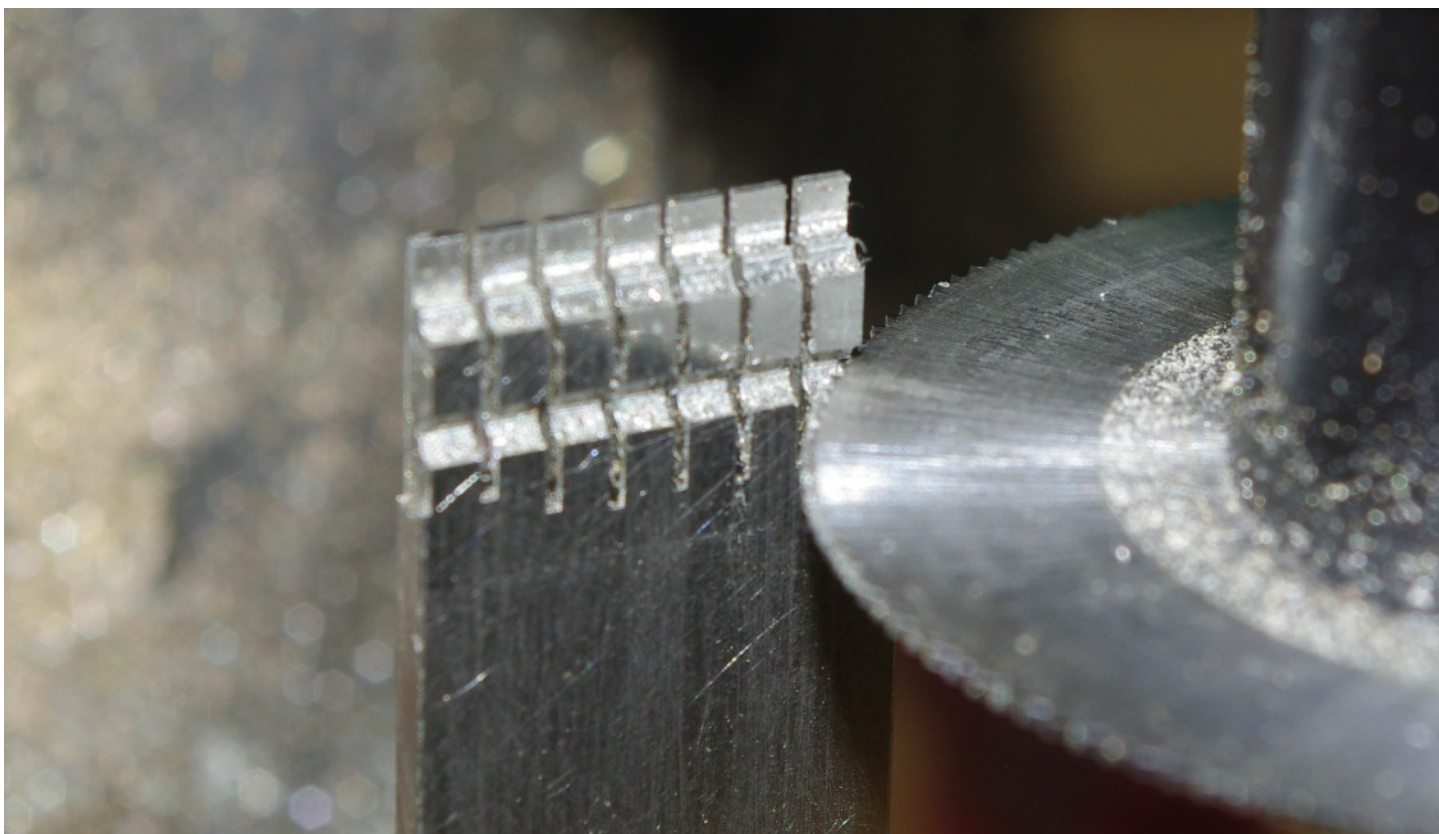
I fitted the caps and then drilled for the mounting screw and taped the hole for 000-120 screws. When I had that done, I drilled the pin hole with the cap in place. It took a little clean up to get a nice free fit in the cross head, but they work well.



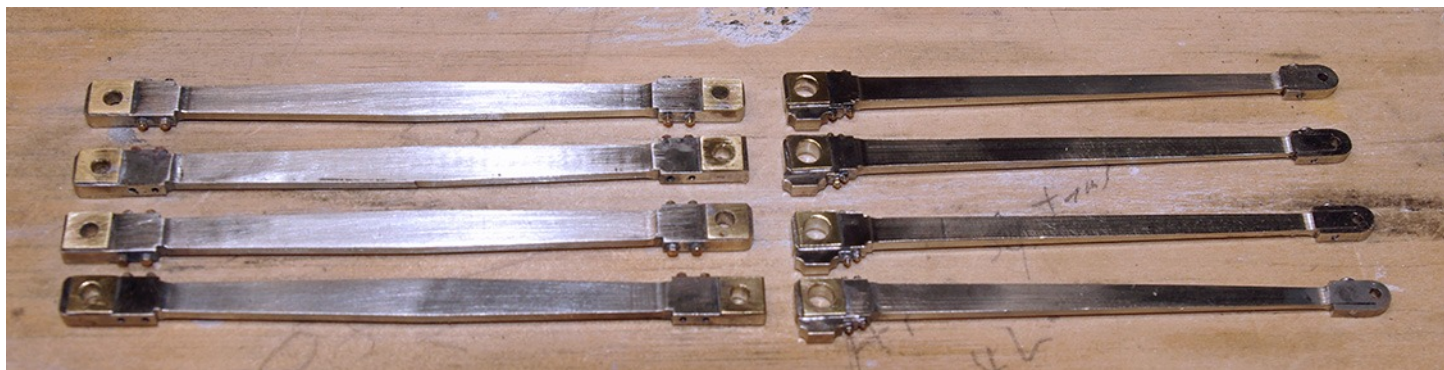
Here I am making the cellars for the main rods. I am making the profile on a piece of stock first as it is much easier holding the large piece of stock than all those little parts. When you are looking at making repetitive small parts like this, see if it can be done this way. You have seen me do a lot of this and I like the way it works.



The next step in making the cellars is shown above. I am cutting slots with the slotting saw and you can see the individual parts taking shape. Go slow with the slotting saw, low RPM and slow feed.



This is the last step in making the cellars. The parts are getting fragile now so use a thin slotting saw and go slow.



*These are the rods all done. See the cellars mounted on the main rods? The brass bearings look good also, and were much easier to make than trying to make brass inserts in the rods.
Below are the same rods enlarged.*



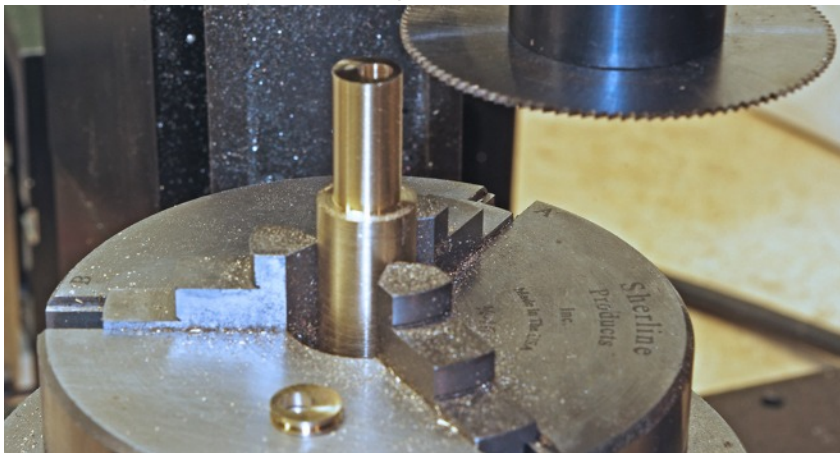
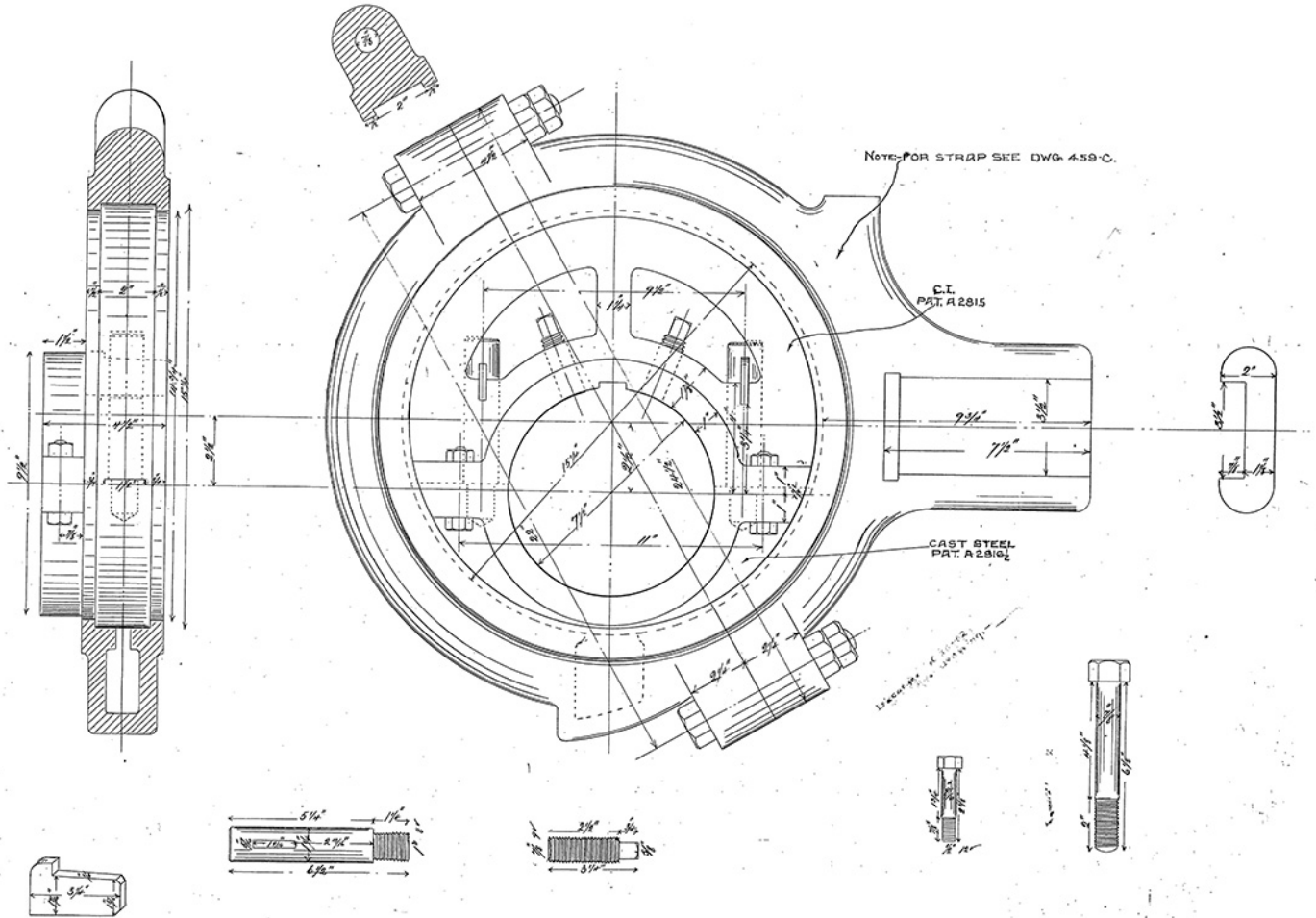
The Eccentric Straps

C S' P M & O

Standard Eccentric With McQueen C.&N.W. Strap
scale 6" = 1"

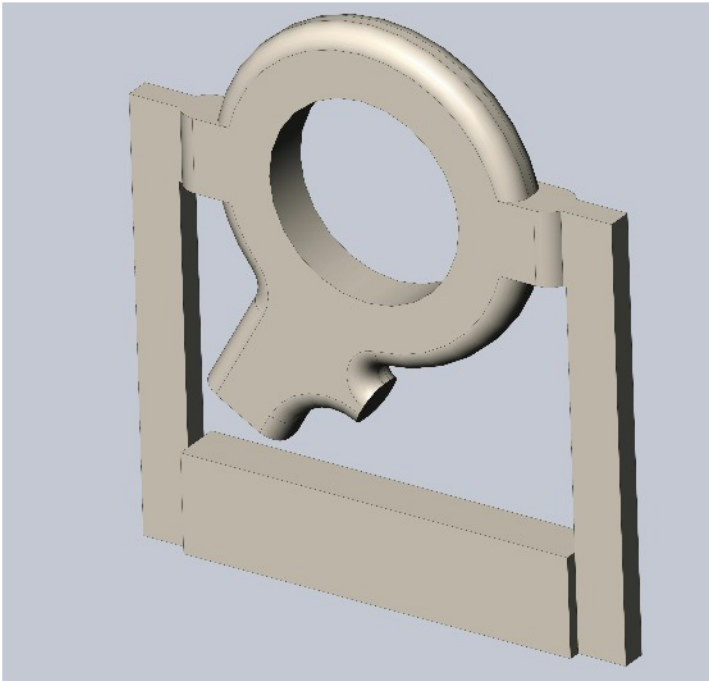
ENGS. 100-126-147-154-173,
July 1881 CLASSED E.G. 7-8.

Designed by J. S. P.
Drawn by E.

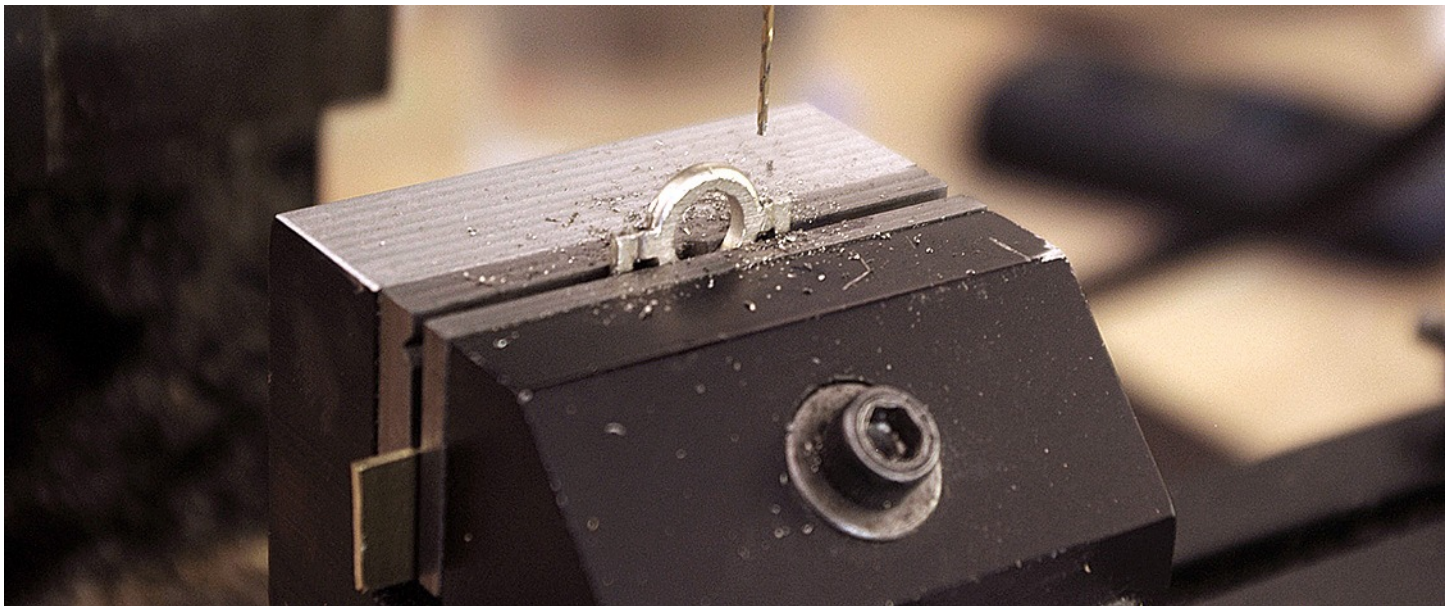


These are the parts I thought a lot about and how to machine them. Look close and you will see the strap wraps around the cam. To make this, I would need to have a very small tool to reach into the straps and cut a groove. This would be a difficult tool for me to make and to use. I decided to make the groove in the cam. That was easy. I turned a brass bar to the diameter of the cam and then drilled the axle hole off center. This was easy to do with a four jaw chuck in the lathe. I stood that blank on end in my

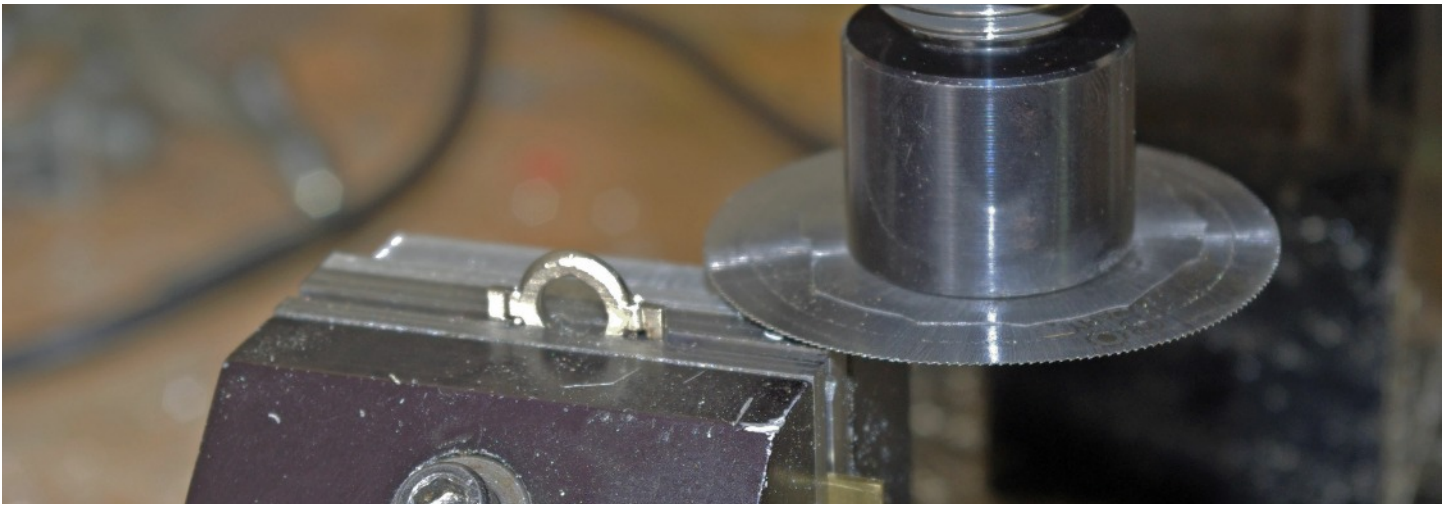
rotary table for the mill and cut the groove with a .030" slotting saw. It was easy to control the location of the cut and the depth. Then I cut the cam off using the slotting saw and made another from the same blank. Cutting the step in the strap was still a problem. How would I hold the parts in registration so I could cut from each side? I solved a lot of that problem by the way I designed the blank casting for these parts. I will show you how it worked.



I designed the casting for the eccentric strap to look like this. The bar across the bottom is parallel to the cut I will make to separate the parts. This also keeps the part in register while I drill the bolt holes that hold the two halves together. This worked well, and thinking all the steps through before I did anything helped a lot. These are small parts and very hard to hold, so my bar also doubled as a handle. You will see how this worked when we go through the steps.



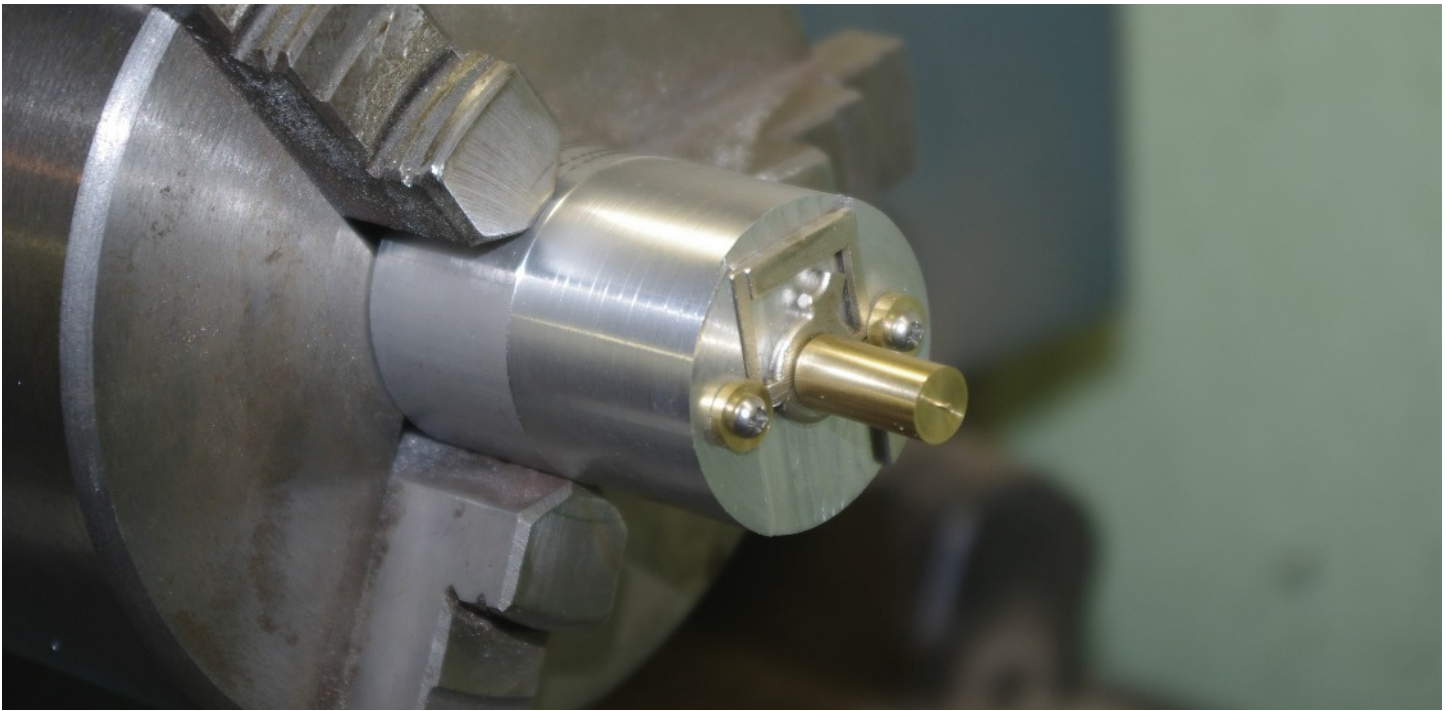
The first step in the eccentric straps was to drill the bolt holes that will hold them together. The casting is sitting on a thin parallel in the vise. The part itself is held tight in the jaw because the handle on the part was made the same thickness as the part. Drill the holes with the tap drill size for a 000-120 screw that will be used. After the part is split, you will drill out the one side for clearance.



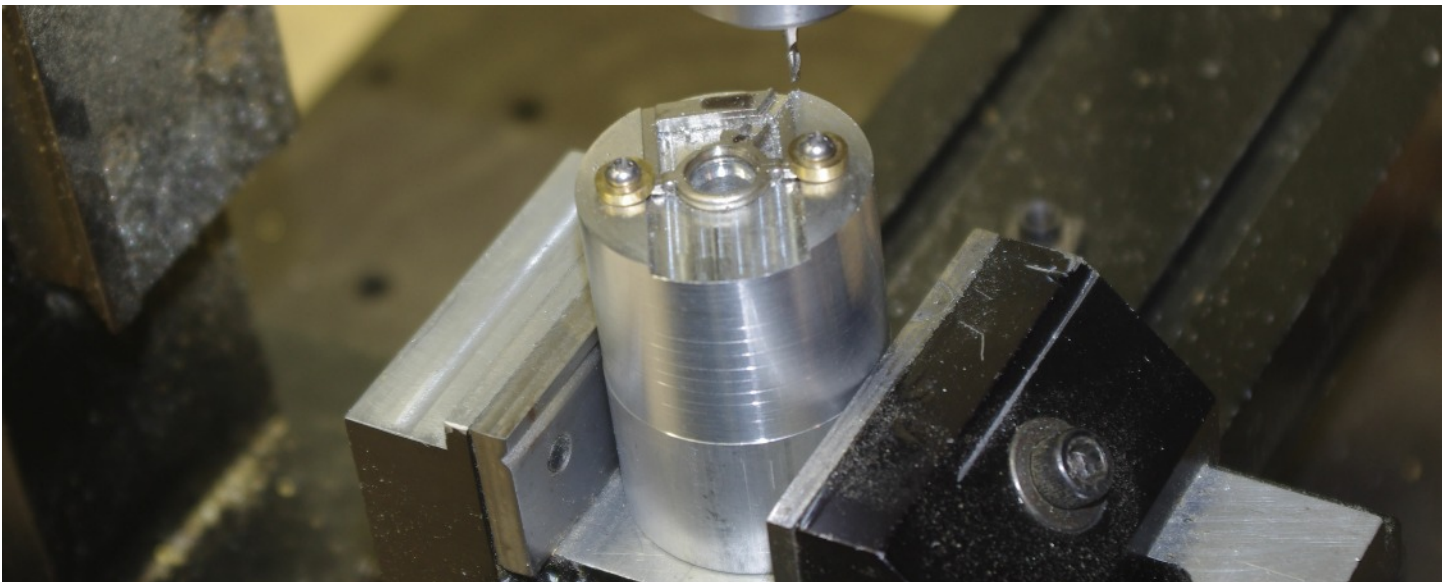
After I had the bolt holes drilled, I cut the casting into two parts. To do this, I used a .006" thick slotting saw. This thin saw was very flexible so I used part of an old broken saw in the mandrel to stiffen the slotting saw. After you cut the parts apart, you need to keep them together as a set. Drill out the holes in the top half for clearance and tap the other half. Screw the two halves together so you don't mix up the parts.



I made this fixture to hold the castings in the lathe. There is a hole in the fixture that is about the size of the hole in the casting. I made a plug to put in the fixture so the center of the casting hole is on the same center as the lathe. Note also that I have a slot milled in the fixture. This helps to hold the casting in place. The pin has two diameters on it, one for the initial hole in the casting, and one for the finished hole size in the casting. This is necessary because we will need to flip the casting in the fixture so we can machine a step on each side. The two brass washers hold the casting tight in the fixture.

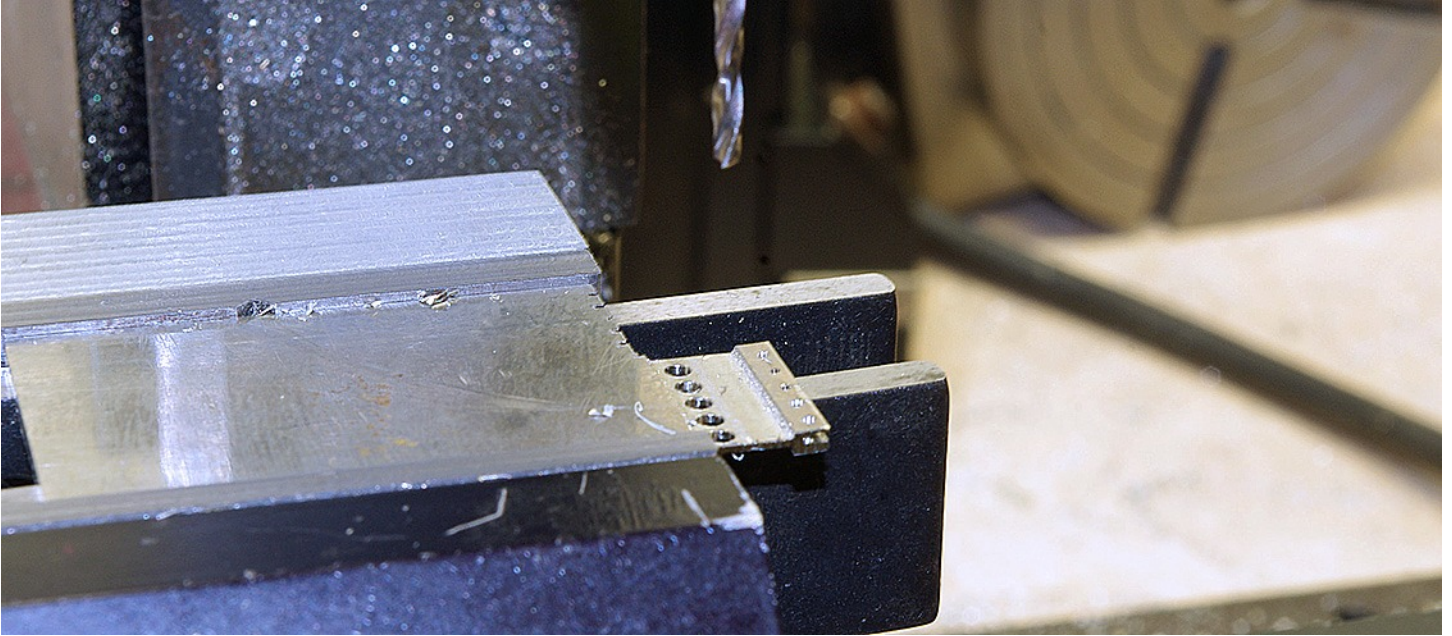


This photo shows the pin in the fixture. Once I machine the step, I will flip the casting over and relocate it with the pin to machine the step on the other side. Machining the step turned out to be tricky. I made a small boring tool to do the cutting and that was not hard. What I had to be careful of was slamming the lathe around and the thickness of the casting. To cut the step, I touched the face of the casting and then set a dial indicator for a cut depth of .025". I ran into trouble by hitting the casting too hard when I brought the tool up to touch the face. I would imbed the tool into the soft casting a few thousandths and that would mess up the depth of the cut. I needed to be more gentle. Also, I was machining a raw casting, and castings are not consistent. If I am cutting the same depth from each side, the step in the middle will be dependant on the initial thickness of the casting. The first four of these I made varied quite a bit. The next four were much better, and I made the first four over.

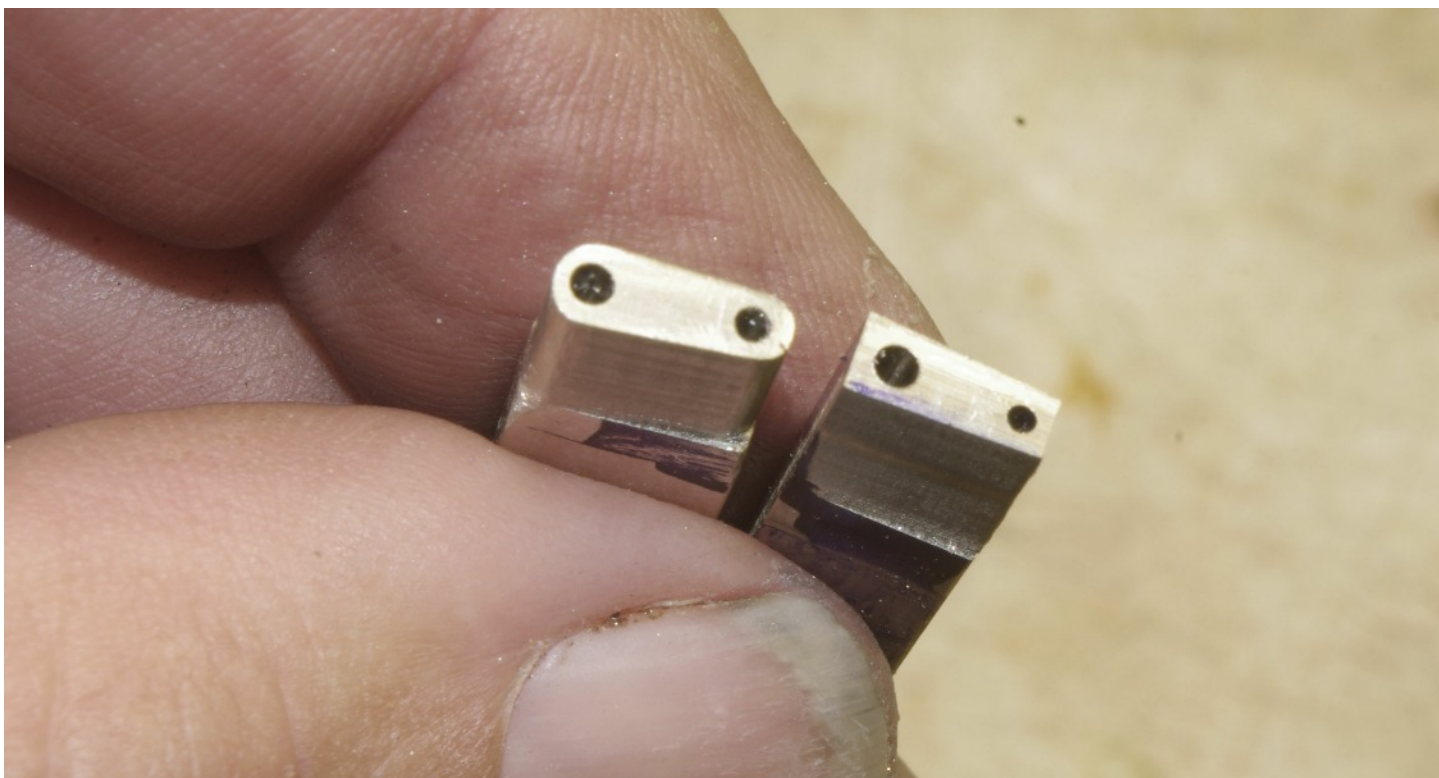


I was able to use the same fixture for milling the slots in the castings for the arm that goes to the link. These arms have a left and a right, and it was easier for me to have only one casting for the strap and just machine separate slots for the arms.

A Few Miscellaneous Parts



I needed to make some small links for the valve gear, and I made them by making a bar again and cutting them off. In the top photo I have drilled holes that I will solder tubes in later. The bottom photo shows the finished parts after I soldered the tubes in place. They are not bad and work, but I think I can do a little better. I have been learning a lot as I go and my accuracy is getting better.

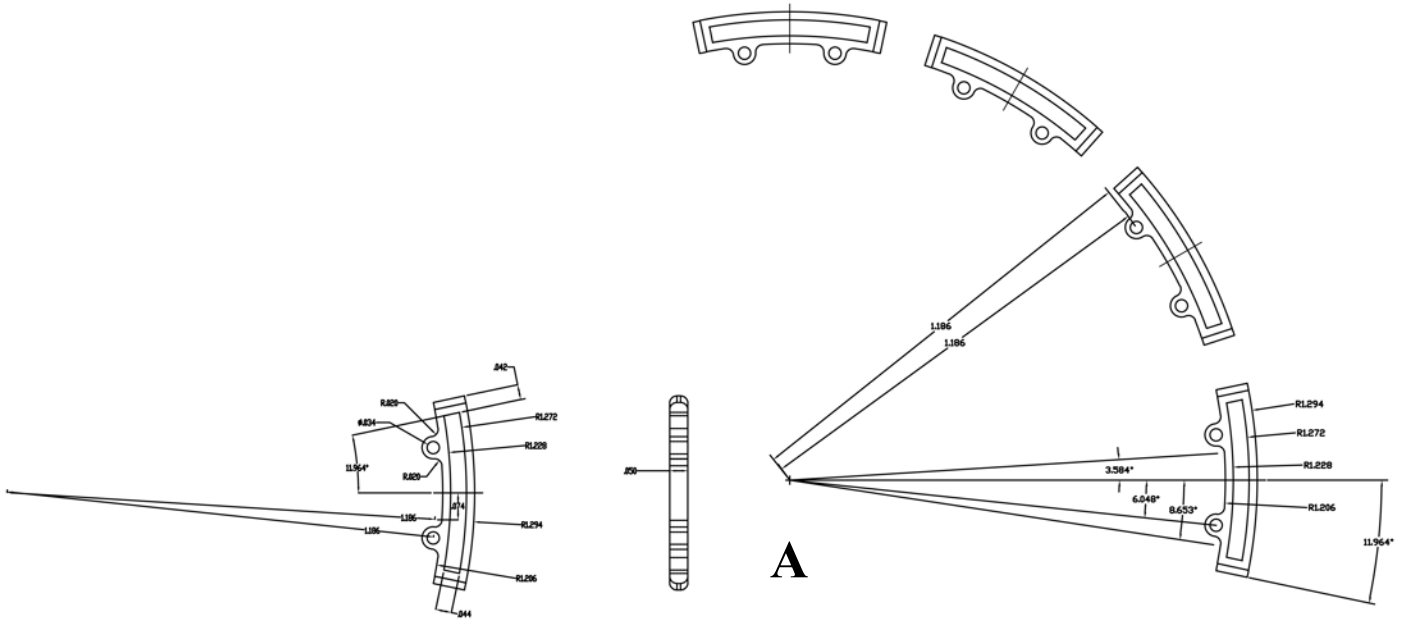


I needed to make some parts for the rocker shaft and this is how I did it. From a blank of nickel silver I drilled the two holes and then cut the taper as shown on the right. I filed the corners round with a file to look like the piece on the left. Then using a slotting saw, I cut the parts off in the mill.



The parts for the rocker shaft shown in the previous photo were assembled like this photo. I hard silver soldered one arm to a shaft first. Then I inserted the part in the rocker block and carefully soldered on the other half. I used hard silver solder paste and a very small torch. If you go quick, you can solder the arm to the rod before the rocker box on the frame gets hot and the whole mess is soldered together.

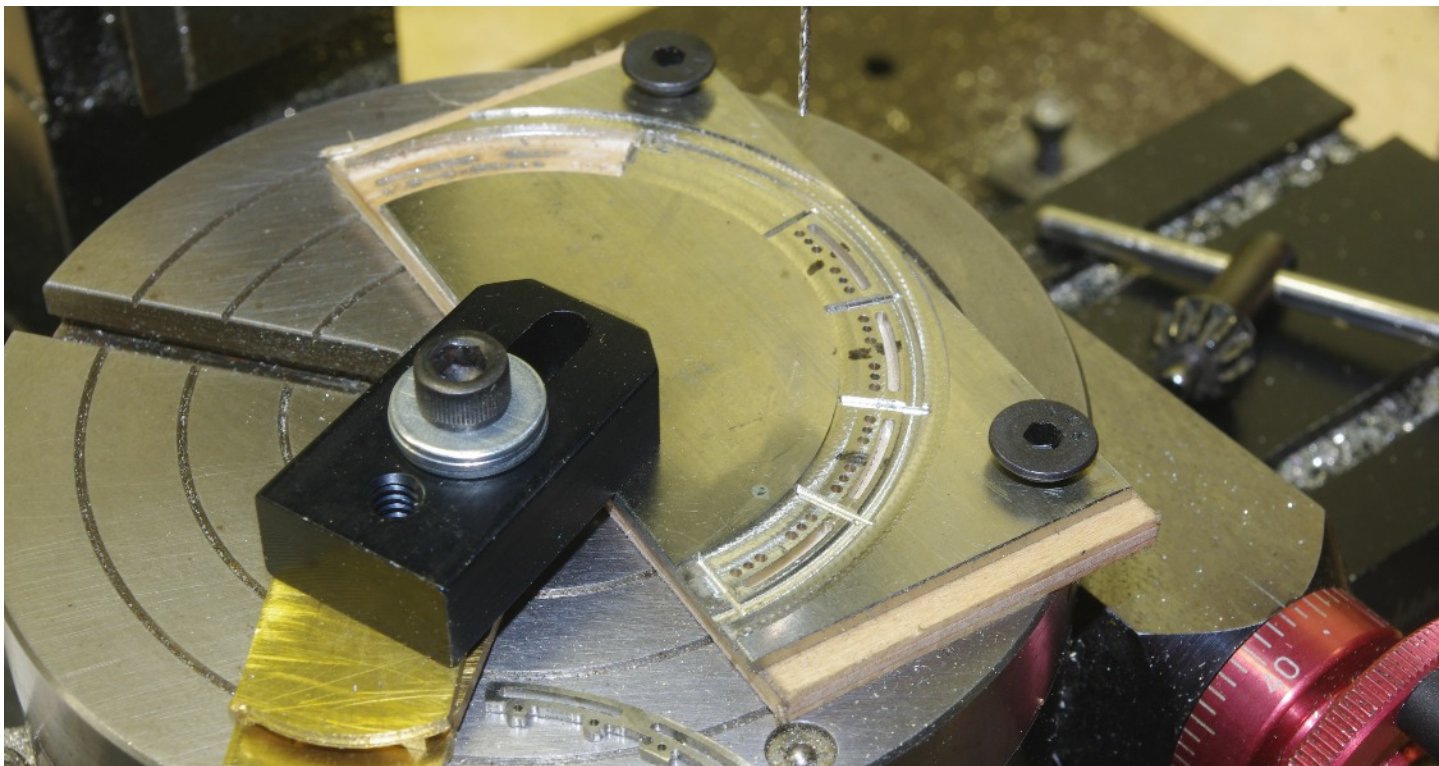
The Links



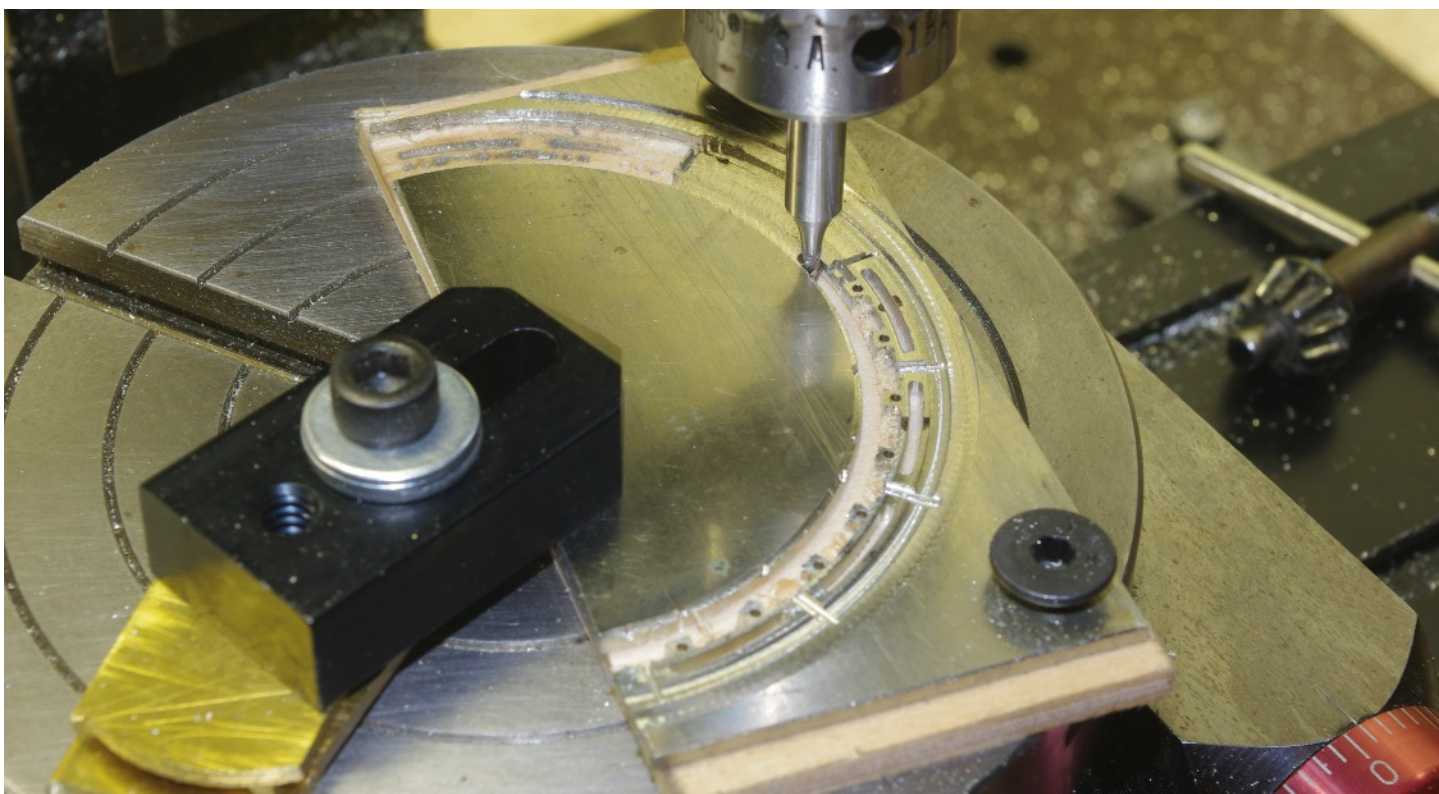
If you do not work with computer drafting, I would recommend getting some experience with it. I use AutoCAD, but there is less expensive software out there. I drew the link first as shown on the left. To machine these, I would use the rotary table for my mill. That was straight forward, but I needed four of these and that looked like a lot of set up for each one. I decided I would machine all four at the same time. I copied a pattern of the first one and made four parts that were all on the same radius and center. Then I dimensioned the parts. This is where the computer was great. It did all the math for me and gave me the dimensions I needed. I would start with a flat plate of nickel silver. Find the center of the rotary table in the mill. That will be point A on the drawing above. Find the 0 deg. on the rotary table next, and then bolt your work piece down. I drilled the holes first. Move the table over to get the correct radius and move the rotary table to the correct angle. Drill a hole and move to the next angle and so on. Then cut the slots. Lastly, cut some of the material between the parts. Now cut all four off the blank. See the next couple of photos.



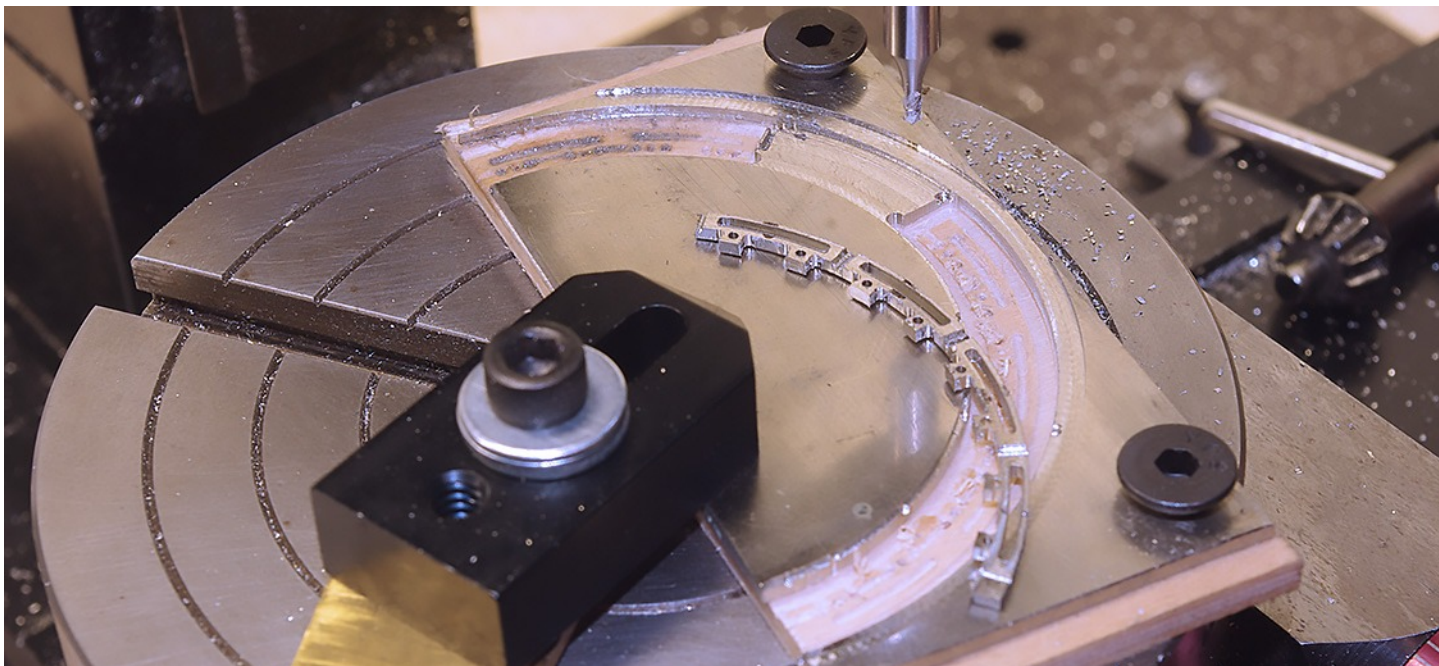
This is a finished link with the link block and hanger installed.



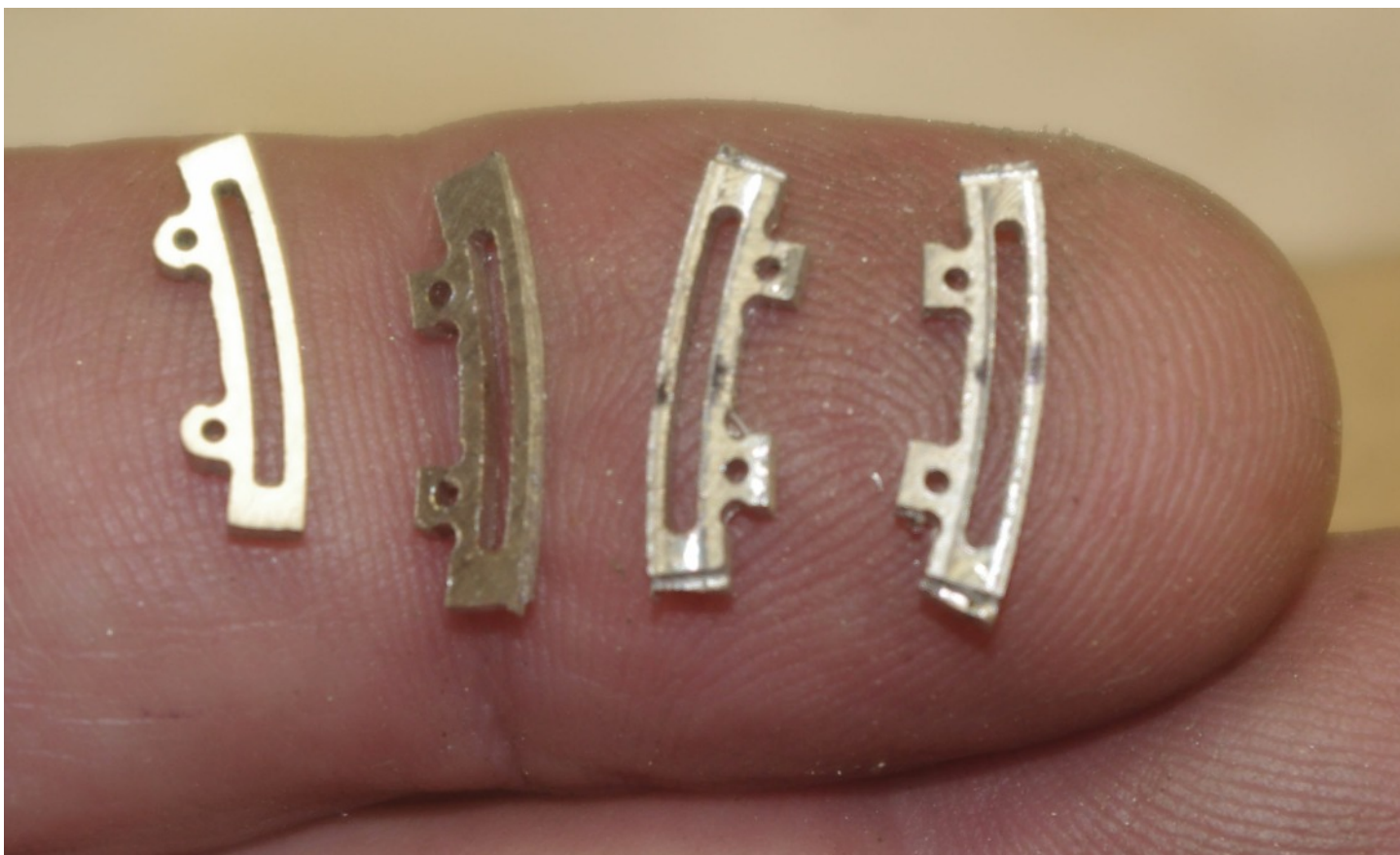
Here I have cut the slots and drilled the holes. I had to do this a few times before I got it all right. In addition, this was some of my early machining and I had trouble with getting good cuts. I realized later that my problem was that the "X" table was moving and I needed to tighten the gibs.



Here I am cutting out the parts. Do you see another one of my problems? Drill chucks do not make good tool holders. They are not concentric. Since I did these parts, I have purchased proper tool holding collets for the mill. They work much better.




Here you can see the group of four links cut out. This is after the third try before I had something that would work.



Here are the four links. They need a lot of clean up with a file. I have been getting better with my machining and I think I can do better the next time. I also need to fudge on some of the dimensions. Remember I was talking about prototype clearances and model clearances? When I put the arms from the eccentrics on these links, the link block has trouble clearing. I need to move the hole for the arms away from the center of the link on the next ones.

That's it for the valve gear. I was able to make it all work and you do see it working when the model is running. I made a short video of it running, and you can see it here [VIDEO LINK](#). I was working with very small cutters and they are all two flute cutters. You need to take light cuts, and lock down as much of the table as you can to prevent chatter. Another issue is these small cutters will flex, and depending on the cut will pull into the work or push away from it. Lastly, buying the proper tool collets helped a lot.

These models continue to be a good learning experience, and I am sure future models will be easier. I am working on the tenders now and will write something about them next issue. See you then.

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The Maumee Basin Lines

Photos by Amy and Dan



Mona and Warner Clark at the layout.

"The following story is of a memory of growing up in the small towns of the Midwest following WWII. This story is told via a re-creation in a model railroad built to 1 $\frac{1}{2}$ inch scale. (P-48) The MBL is modeled with characters, homes, businesses and facilities that played a roll in a boy's mentoring and affection for a period that we will never see again.... It may well strike a chord in your memories of the past. Much like Fontaine Fox's Toonerville Trolley this model is populated with folks and places you may have known by another name. Only those folks who cannot be associated with a surname are fictitious in this story."

The paragraph above is from Warner Clark's extensive handout telling us about his beautiful railroad and all the friends and acquaintances he knew throughout out his life. Five double sided pages filled with memories and layout features is a must read while visiting his layout.

Warner opens his layout for visitors during our O&S Scale Midwest Show. It's must see for its beauty, size and memories within. The following is again from Warner's handout. He says it better that I could.

"The Maumee Basin Line is composed of selectively compressed parts from three prototype railroads: one, the First Subdivision of Nickel Plate Road's Clover Leaf District from Toledo to Continental, Ohio; (70 feet continuous loop operation); two, the Northern District of the Detroit Toledo & Ironton's lines between Malinta and Champion / Denson, Ohio (27 feet point to point operation); and three, the Ohio & Morenci Railroad's line between Champion, Ohio and Morenci, Michigan (98 feet point to point operation)

The initial building effort is directed at the continuous loop NKP line, to be followed by the DT&I and finally the O&MRR. All permanent track is hand laid to P48 standards, and using A.R.E.A. or NKP track plans. Rail is nickel silver with switch and crossing components by High Sierra and Right-O-Way. Code 138 rail is used on NKP and DT&I mains, while code 125 rail is used in sidings and secondary lines for both roads. Track switches are either #8 or 10. Curves without easements are 60" radius. Curves with spirals are 64" radius. Cross ties are made from bass wood, sized 7" X 9". All track is laid on two 1/2 inch sheets of Homosote.

The O&MRR is a short line running over a former interurban railroad (Toledo & Western) which has had its overhead wire removed. The Line is hand laid track using code 100 rail and 6" X 8" bass wood ties. Switches are primarily #6 and main line curves are laid to a 62" min. radius. Street embedded trackage at Morenci will be code 148 girder rail with curves as tight as 40" radius. The O&MRR grade from Denson



As I wandered around shooting pictures Warner told Amy all about his life working for the railroads.

(lower level) to Morenci (upper level) is 3.4%. When completed, all carload interchange between O&MRR and NKP will need to be routed via DT&I.

Construction notes: Main level operation is at 39" off the floor; while the upper level is 58" off the floor. Over all size of 'L' shaped layout is 26.5 ft. by 19 ft. Power control will be provided by tether less NCE DCC. Switches are Tortoise powered by manual hand throws. Couplers are San Juan AAR Type E couplers. All three lines are run under timetable and train order. Layout operation represents decade between 1945 and 1955.

We wish to recognize several friends who have contributed their ideas, knowledge and skills to helping build the Maumee Basin Lines: Mike Calvert, Jim Canter, John Clark, Mike Cougill. Don Daily, John Eichman, Tom Fitzsimmons, Larry Fuller, Woody Grosdoff, Jim Harper, Kirk Hise, Carl Jackson, Jeff Kehler, Jeff Lang, Charlie Morrill, John Pautz, Craig Pressler, Col. John Reid, Chip Underwood, and George Wallace."

Not often do I say this, but sometimes it's not about the trains themselves, but the layout. Let's sit back and take a look at this fabulous layout. Also note that some of the sky colors were added by us here at *The O Scale Resource Magazine* to bring out more of the backgrounds.



To see more of this layout in our video from the O&S Scale Midwest Show. Click the picture to watch.











Amy was impressed with this way of “hiding” a pillar by using water tower images. When you are walking around it just blends in.



















TECHNIQUES TOOLS

AND OCCASIONAL

TIPS

By Paul Hemsworth

Currently, I'm working on a project that involves some fairly fine work with delicate .010" thick polystyrene. Thicker polystyrene and other materials also come into this project later. It occurred to me that some of the necessary techniques may be useful to new modelers. Bear in mind these are my methods. I know there are many modelers more skilled than I am who have better methods. In fact, it would be great if they weighed in with their methods so we could all improve. I model in 1/48th scale using Imperial measurements. For metric measurements, you will have to do your own conversions. When I convert, I call .040" one millimetre, which in 1/48th scale, is 2 scale inches. See table below.

Inches	Millimetres	1/48 Scale inches
0.04	1	2
0.03	0.75	1.5
0.02	0.5	1
0.01	0.25	0.5

These figures are not exact to the Nth decimal place, but are accurate enough for 99% of my modeling. Now that we have that clear, you know as much as I do. Having said all that, these musings are about techniques, tools and tips, so dimensions mostly are not relevant, with the possible exception of measurements used to make tools. With those I will do a conversion, but remember, these are for my projects. If you make something similar, your dimensions will be different anyway.

We modelers generally shorten the word "polystyrene" to styrene although this is incorrect. Styrene is the liquid monomer that is polymerised to create polystyrene. This is what we do in conversation, so I am using the abbreviation here.

As I said, this project started out working on 0.25mm/.010" styrene. There are three aspects to consider so I will deal with them that way. First is technique, second is cutting tools and third is cutting surface.

Technique

Even fine styrene is seldom cut all the way through. A technique called "scribe and snap" is used. A knife and steel rule are used to scribe the required line on the surface of the styrene. Depending on the thickness of the styrene, more than one pass may be needed. With .010" styrene one light pass is usually enough. After scribing the line, the styrene is placed on a flat surface with the line directly above the edge. Holding the sheet firmly on the table the overhang is then bent downwards so it snaps apart at the scribed line. Practice a few times before trying it on that critical part.

Cutting

First of all, fine work requires sharp, and fine, cutting instruments. Prevailing wisdom is to start with a new #11 modeling blade. Maybe I'm ham-fisted or plain clumsy, I don't know. What I do know is that within half-a-dozen strokes of starting with a #11 modeling blade the tip will break off. Gurus say, "Take a new blade." Were I to follow this advice I would spend most of my modeling life replacing tipless blades. And still I would have a cutting mat full of blade tips. These #11 modeling blades just don't work for me.

Allow me to clarify here that this knife is used only for fine work. For ordinary work, probably 90% of my modeling, I use an Olfa snap-off blade cutter. For heavy work, I have a bigger snap-off blade cutter plus several saws of increasing ferocity.

Because of the propensity of #11 modeling blade tips to break off, I use #11 scalpel blades in my fine modeling knife. Apparently surgeons, or perhaps their patients, are fussy about having scalpel tips left on (in?) the scene. Scalpel blades have the fragile tip shortened so there is less chance of it breaking off. This is still a fine blade, so some care is needed. Scalpel blades are available from graphic art suppliers. However, last time my graphic art supplier didn't have Swann Morton scalpel blades which I have always used. It had Feather brand graphic art blades. I bought a couple to try, but was disappointed. The tip shape was halfway between a modeling blade and a scalpel. Consequently, the tip broke off as can be seen in the photo.

Recently, I found that I had another Feather brand blade so decided to use it. Of course, soon I found the tip was missing. This time I had a thought, why not grind the tip to be similar to the tip of Swann Morton blades? I have done this and found this modified tip is lasting quite well.



On the bottom is the Feather brand graphic art blade with broken tip. The two blades on top are from a European hobby knife set. The bigger #11-ish looking one has a solid tip similar to the Swann Morton, while the fine one has a delicate tip similar to the standard #11 modeling blade. The red rubber grip stops modeling knives from rolling off the workbench.

Cutting surface

A self-healing cutting mat is the way to go these days. They seem to become cheaper every time I buy one. My reason for replacing a mat is usually that I've spilled paint or glue on the surface so that it is no longer flat. They don't last forever, but are worth the money. I have a couple of sizes for different sized projects, also some in the workshop and some in the house. My wife found out how much neater it is to cut wrapping paper for presents with a knife and rule than scissors.

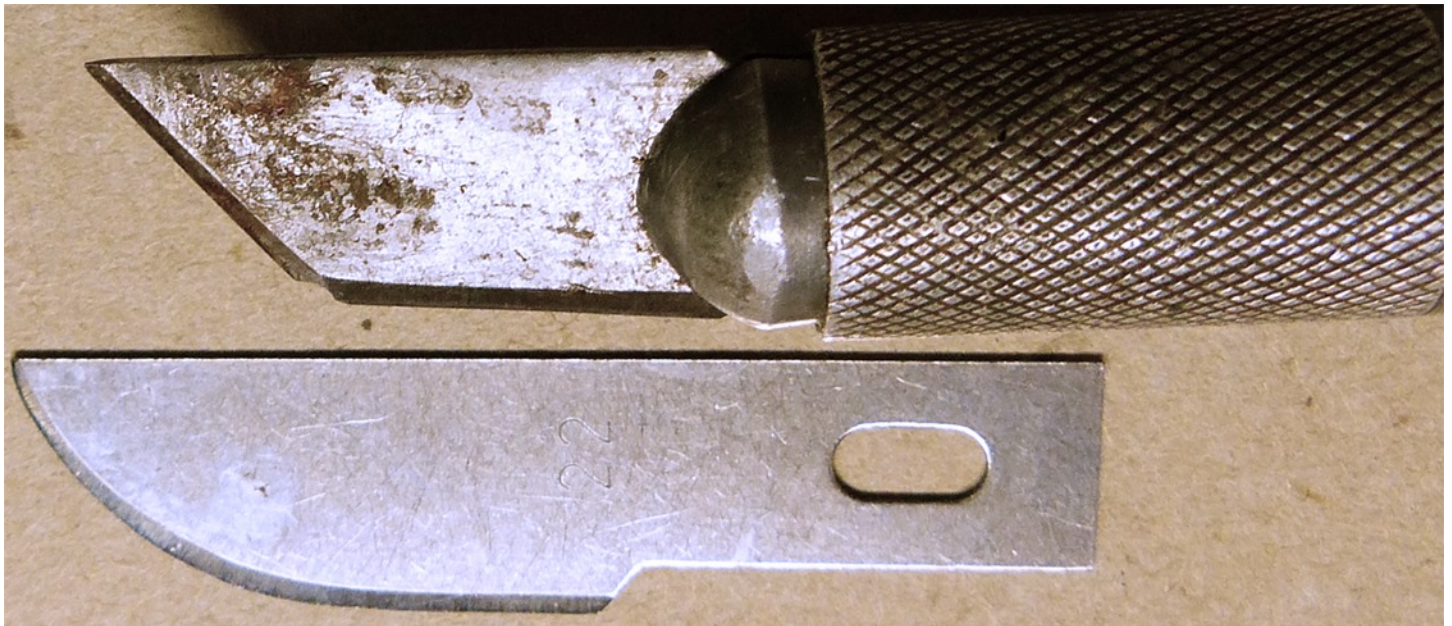
Marking/laying out

When laying out directly onto styrene, a knife is more accurate than a pencil. The line is much finer and the blade butts right up against the edge of the rule. This technique also works on brass if it has been blackened with a felt tipped marker. Yes, I have a scribe for brass. In fact, I have a couple of scribes. One of which is actually a modelling knife blade which I have modified. Pardon? When I bought this knife it had a #22 blade with a sharp, curved cutting edge. My very first modeling knife had the same shaped blade. It taught me that curved blades slide up out of the material and skate rapidly across the surface. Don't ask to see the t-shirt for that lesson because they didn't issue t-shirts then, but I can show you the scar 60 years later.

N.B. These days it is only simple shapes that I mark out directly on the modelling material. Complex shapes I draw in CAD, print out and stick to the material with repositionable spray glue. Then I can cut straight through the paper to the material. When all of the lines have been transferred to the material, the paper can be removed and the part cut out. This is fine when the requirement is only a couple of pieces. To produce multiple copies of a complex styrene part, the ultimate is laser cutting, and for brass it is etching. However, these require CAD skills to prepare the drawing. I've only had access to CAD for the last 15 years, so for 45 years before that I laid out directly on the material, first with a pencil then later with a knife. Many times marking out was done this way in multiples.

Please note that I don't attempt to cut through the paper pattern and the material unless it is a fairly simple shape and the material very thin. *e.g.* .010"/.25mm styrene.

This time I ground the curved cutting edge straight at an angle of about 45 degrees. The straight part of the old cutting edge is blunted. After a while I observed that the 45 degree blade makes a very sharp and strong point at its tip. When the blade is turned over the back of the point makes a great "scrawker" for styrene and



Before and after. Solder flux hasn't enhanced its beauty. The notch at the bend was to scrape a rounded edge on some project.

brass. Basically a scawker differs from a knife blade in that it doesn't force material aside causing ridges on each side of the cut, it removes a strip of material. It's called a scawker because of the noise it makes removing material. Besides this modified blade, I have other scawkers that were ground from broken hacksaw blades. I can't take credit for the scawker. It was in Australian Model Railway Magazine many years ago.

Yes, the "scribe and snap" method works as well on brass as it does on styrene. Of course, brass requires a little more elbow grease!

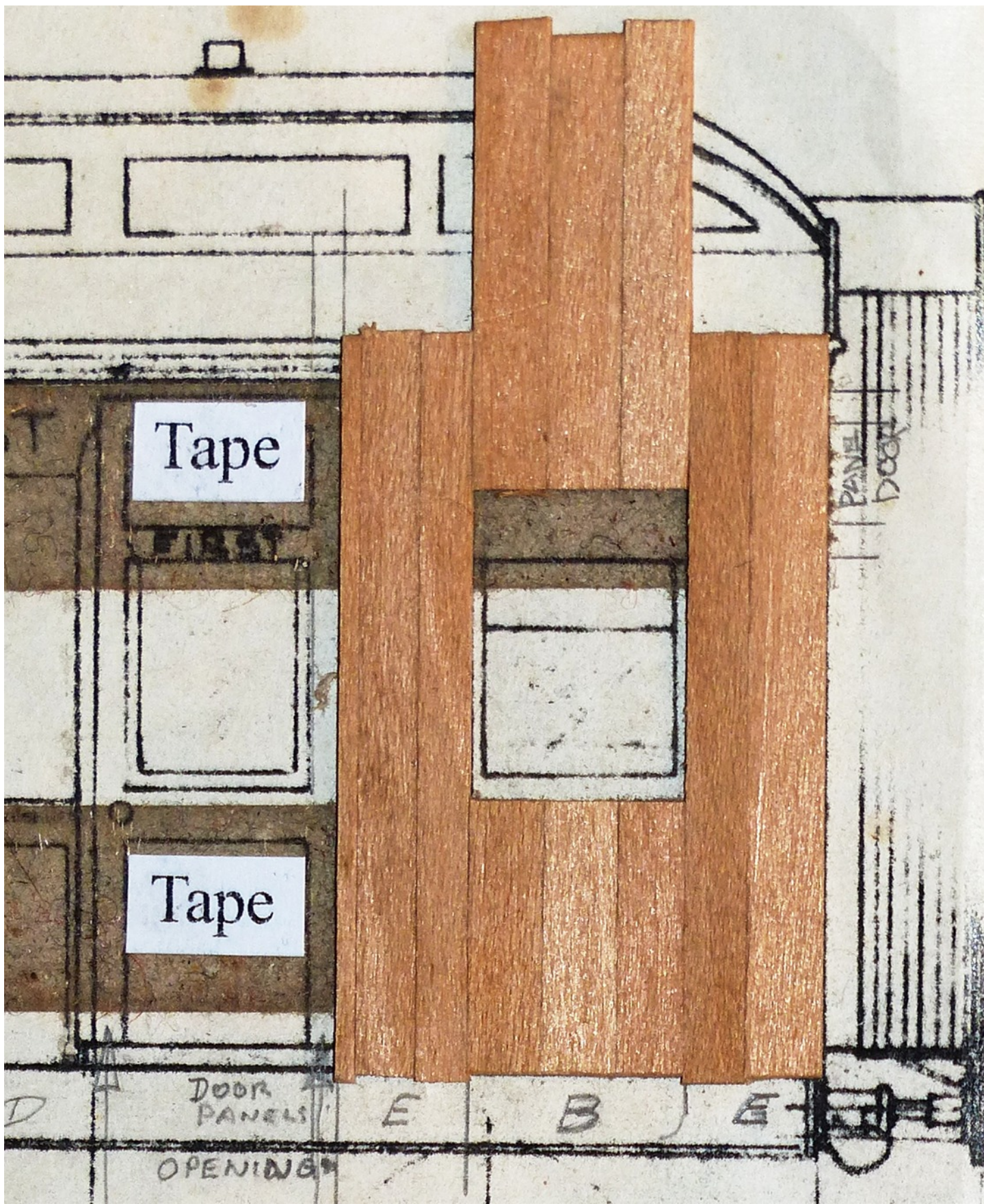


Scawker ground from broken hacksaw blade.

The Olfa PC-L plastic laminate cutter can be a scawker if you don't have the facilities or inclination to make your own.

Clear Double Sided tape

This tape is very handy for holding things without obscuring the drawing underneath. It makes a quick and dirty jig, mock-up or test sample. Unfortunately, the tape also collects and holds dust.



Recently, I found that I had another Feather brand blade so decided to use it. Of course, soon I found the tip was missing. Inevitably when cutting windows all are perfect until the last one! This sample was an attempt to find another way. This time I had a thought, why not grind the tip to be similar to the tip of Swann Morton blades? I have done this and found this modified tip is lasting quite well.

Cutting surface

Clamps

I have quite an array of clamps of various types. They vary from a bucket of 20 spring loaded plastic, through 2"/50 mm, 3"/75 mm and 4"/100 mm metal G clamps to 12"/30cm quick action clamps.

For a gentle grip on fine work I've found these hair clips really useful. They have other advantages besides being gentle. Firstly, they are light weight, a real plus when working with delicate parts. Secondly, they can be bent to hold oddly shaped parts in awkward positions. My recollection is that the wavy one at the back is the original shape. The others have all been modified for particular jobs. Thirdly, being stainless they don't become part of the model when used to hold small soldering jobs. Check out the "Beauty" section for something similar next time you find yourself waiting in the mall.



Magnifiers

The question, "What is the best magnifier?" leads to a lot of debate. My first purchase was an illuminated magnifying glass on a flexible stand. It was well over one hundred dollars in the 1970's. However, I found it almost impossible to work under the glass. Once again, maybe it was just me. I tend to use my ordinary tools for modeling. It is a little difficult to wield a 10"/250mm file under a magnifying glass. Strangely enough, after spending all that money I don't even remember what happened to that magnifier. Later though, I saw a binocular magnifier in an optometrist's window. It was less than one tenth the price of my glass on a stand. I snapped it up to try out. Back then it was used only occasionally. These days it's almost a fixture on my head when modelling. This is just my experience, others will tell you the opposite, for example, binocular magnifiers give them headaches. Somewhere I read that the lenses of binocular magnifiers must be spaced the same as one's eyes to prevent headaches. I've since checked this with my optometrist and he agreed so it is something to be aware of. I've not had a problem with headaches with my magnifier so I guess I was just plain lucky.

What I do know is that I used to get a sore neck after working for extended periods with the binocular magnifiers. This problem was resolved by building a small stand. This provides a small, raised working area that is about 5"/125mm above the work bench. That way I don't have to bend over as far thus saving my neck. It has a layer of Mylar to protect it from knives, saws etc. As can be seen it's all made from offcuts which governed the size. The stand also serves for holding hollow boxes, read "gondola/open wagon bodies".

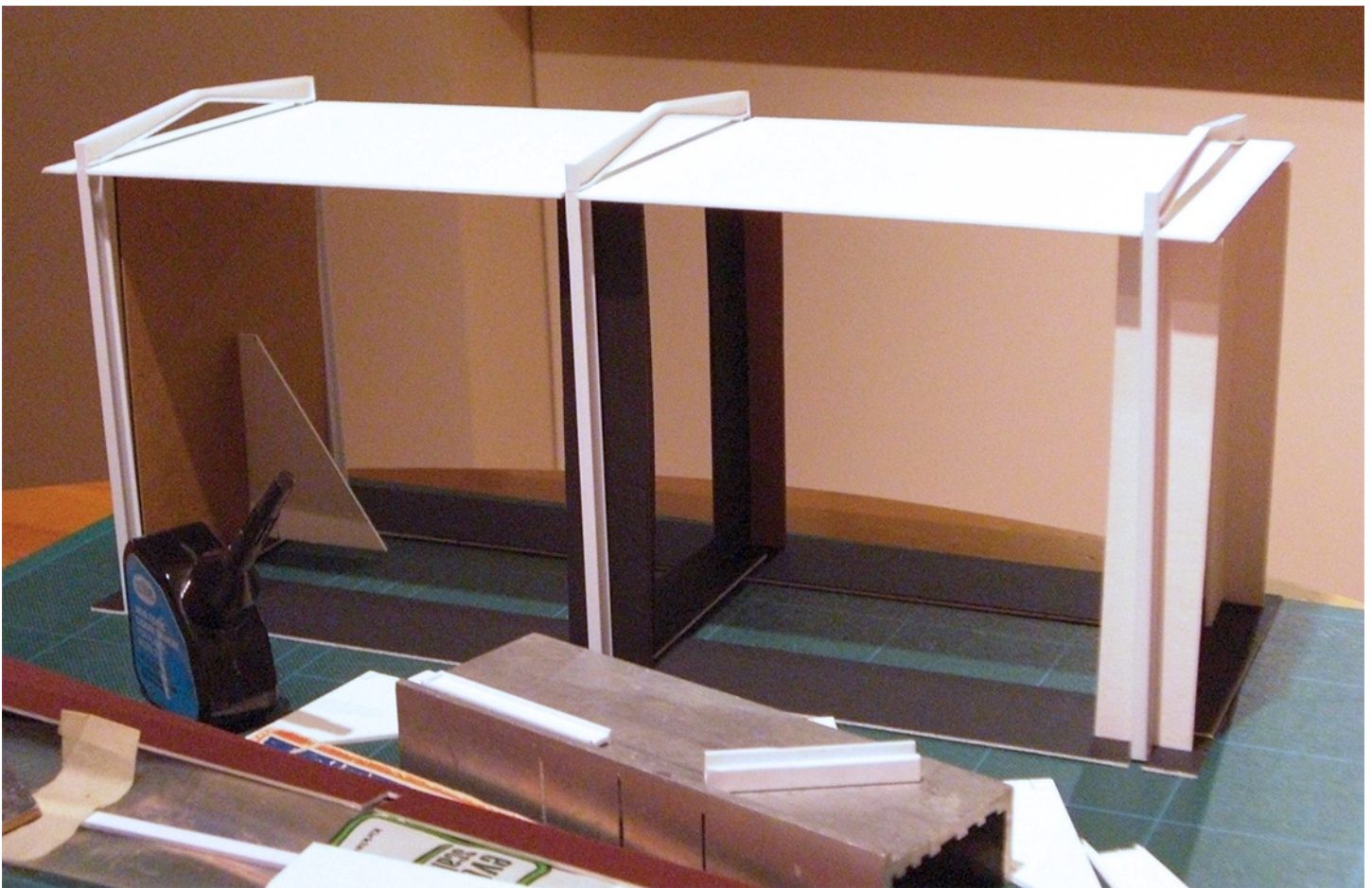


Mounting board

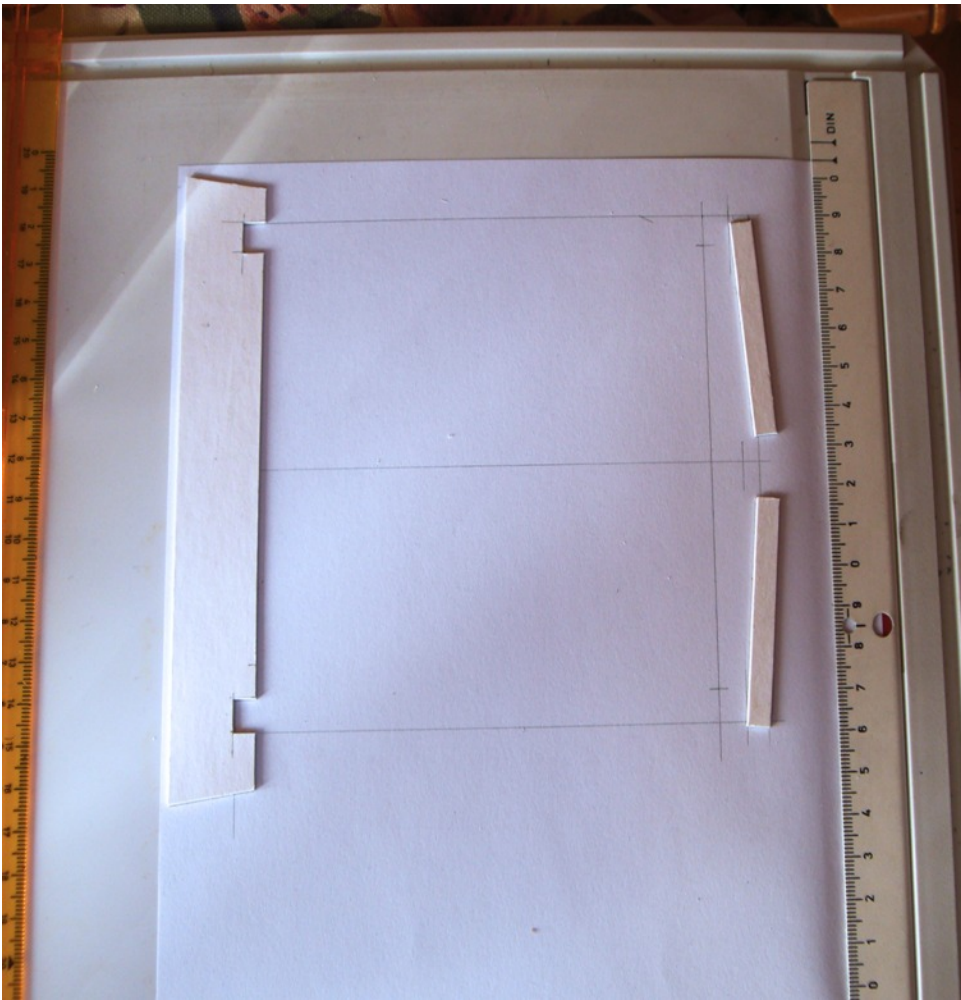
A good quality card is mounting or matt board. This is the kind that's used for framing pictures. It is a high quality board used with expensive paintings. It is acid free and so is expected to last around 200 years. About .060"/1.5mm thick, it is quite stiff and dense. Maybe because of its density, I've found that super glue works well, even though most super glues say that they are not to be used on porous surfaces. Any picture framer will have heaps of off-cuts in various colours, textures, sizes and shapes. I've found most are only too glad to be rid of some offcuts.

Jigs

This may not be the most complex jig I've ever built but it certainly is the biggest. It is made entirely of matt board offcuts from framing shops. Notice how simple the second jig is. It's just a couple of pieces of matt board attached to a paper printout with clear double sided tape. The notches position the bases of the two legs and the two lines keep them vertical while the two sloping stops keep the horizontal cross beam centered at the correct height. Yes, it's simple, but it ensures all the assemblies are the same size and shape. A jig is only a means to an end, so the simpler it is, the better it is. Modeling time is at a premium, don't waste it on overly complex jigs.



Sometimes things just don't go according to plan. In this case, I needed some cosmetic coil springs. They didn't have to function as springs, just simulate the appearance of the real thing. First up I tried winding brass wire around a drill shank, after annealing, of course. This worked but the helix wasn't very consistent. Digging in my screw stores I found a PK screw (PK stands for Parker and Karlin, the two blokes who invented self-tapping sheet metal screws) with the perfect diameter and thread pitch for this job. The brass wire was wound on the screw then cut to length with flush cut pliers. That didn't work. The completed springs didn't sit vertically, they needed to be cut squarely across so that the wire ends tapered just like the real thing. The Dremel with cut off wheel seemed a likely candidate, but holding the Dremel didn't give a square cut. How to present the wound wire to the cut off wheel squarely and consistently?



Quite a few springs were required, so a bit of automation was needed. What about copying a docking saw? A Dremel tool in its stand with cut off wheel would do the job if a jig could be fashioned to hold the coil for cutting. A longer PK screw of the same gauge could be screwed into a piece of 2" x 1" / 42mm x 19mm pine. With the wire wound on the screw thread, it could be fed into the Dremel mounted in its vertical stand. However, no local store had the required length of screw. Aha! Thin aluminium sheet would secure the screw and would only subtract 1/16" from its length. However, I was unable to find my stock of aluminum offcuts. I decided to try gluing two thickness of matt board. That worked. Next, I glued two more thicknesses of matt board underneath with a hole to clear the screw's pan head as the jig slides across the base plate of the drill stand.

This jig was used to produce the beams shown in the previous photo.



Notice how the screw thread holds the annealed wire securely while the cut off wheel in the Dremel does its job. The wire was wound into the thread then screwed up the required amount to be cut off.

Now it's happening. Whoops, that's the end of the brass wire. Rang the local hobby shop 1/2 an hour away, "Should be some here." was the reply?! At least an hour spent getting there and back, then may not have what I want. That's an answer? Don't think so. "Should be" didn't cut it with me. Copper wire! Five minutes walk away is an electrical wholesale/retail supplier. It had 3 core household flex with the two active wires just the size needed at 75 cents per metre/39". Back home I found the copper had been hardened by drawing so it, too, had to be annealed and straightened.

Anyway, wood to aluminium to card and expensive brass to cheap copper wire. Not exactly the path I had planned, but it's the result that counts and who can quibble about saving time and money?

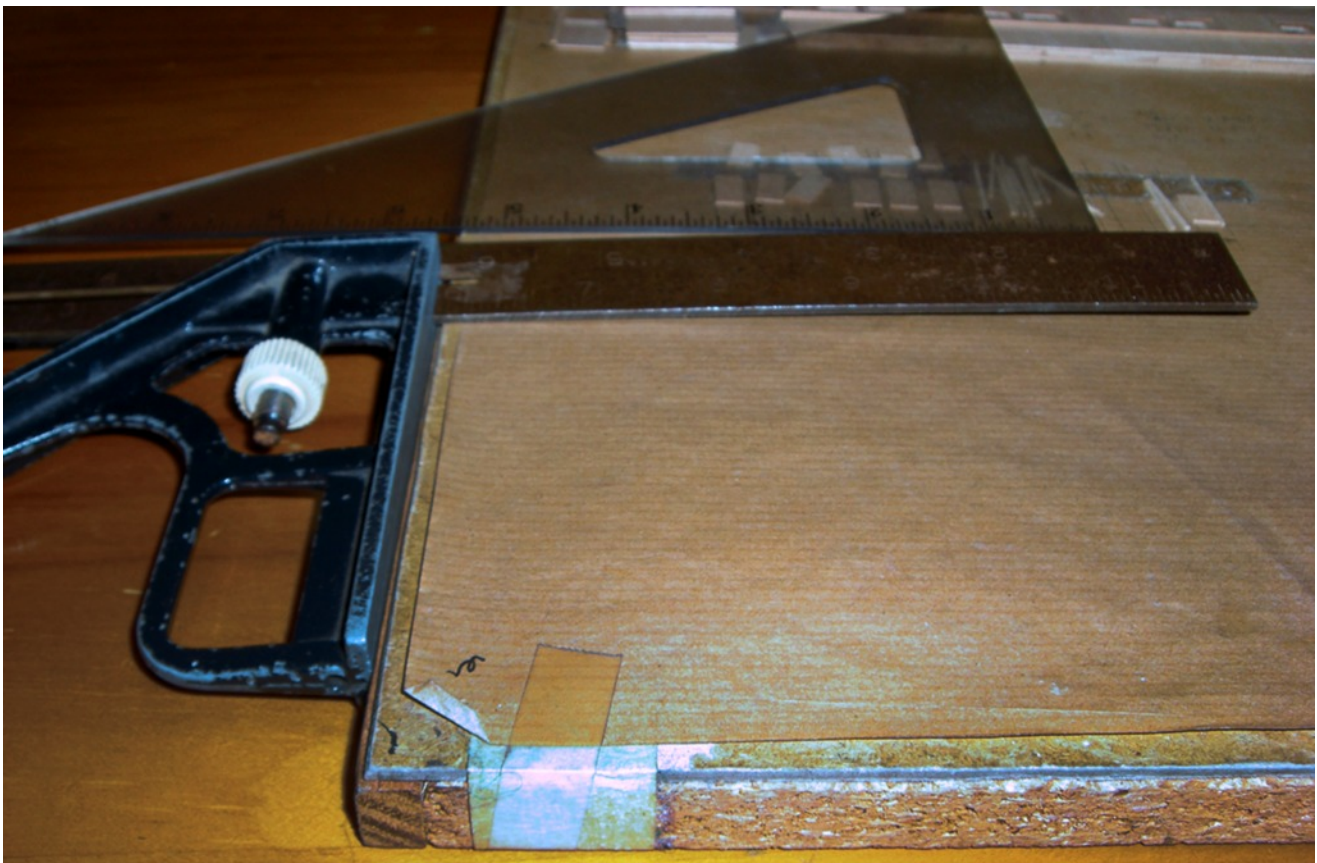
Drafting/drawing

In the background of some of my photos, a drawing board is visible. This is an A3 size Rotring Rapid. A very nice piece of equipment if you are used to drawing boards. However, the only reason this board appears is that my CAD program was having a hissy fit. In its day, the Rotring Rapid was fantastic, but that day was pre-PC. I'm not knocking the Rotring Rapid, but if you are thinking of doing some technical drawing these days, spend your money on a program rather than a board. For example, recently I needed an ellipse. It took about 10 minutes to draw and print out a perfect ellipse. With drawing board and T-square, it would have taken me at least half an hour to produce a far less than perfect ellipse.

If you don't want to buy a program there are freebies out there. One free download is [SketchUp](https://youtu.be/I_bJPNnO3HQ) which is especially useful if you don't have technical drawing skills. Check out this video: https://youtu.be/I_bJPNnO3HQ. Apparently SketchUp is now owned by Trimble. Recently I spoke with a modeller who had some rather nice 3D printed models He uses SketchUp to create files for 3D printing. Pity his models were only half the correct size (HO)!

Accuracy is not CAD's only advantage. It can scale drawings up or down. These days, even cheap A4 printers can tile their output. Tiling means that each A4/11" x 8" sheet has registration marks in its corners. Lining these marks up and taping the sheets together, like tiles, makes it possible to print even track plans full size.

A drawing board can be useful in other ways, though. An improvised drawing board is very handy for actual construction when a model has multiple verticals and/or horizontals. Models like these are completely ruined if everything is not square and parallel. Such a working drawing board can be cobbled up from an offcut of chipboard shelving. Chipboard shelving has a machined hardwood trim along the front edge and is supplied in a variety of widths. An 8"/20cm offcut of 12"/30cm wide shelving makes an A4/11"x8" sized drawing board. Fancier shelving has melamine on its faces and one edge.



Note the machined hardwood edge to the left of the masking tape holding the card.

Using my 30cm/12" tri-square as a T-square, it slides easily along the hardwood edge. Cheap 60/30° or 45/45° set squares align the verticals. I cover the working face of the board with a piece of thick, smooth card. The card is cut slightly smaller than the chipboard so it doesn't foul the T-square and then is taped in place. The card serves two purposes. Firstly, it protects the surface of the chipboard when cutting, soldering or drilling. Secondly, the chips in chipboard can deflect a knife blade leading to wobbly cuts even when using a straight edge.

Usually I tape a printout of the drawing on to the card and construct the model over it. In the photo on the previous page, I didn't have a printout so I taped a layer of brown/kraft wrapping paper over the card to draw guidelines on before constructing the model. Brown wrapping paper was the only large sheet of paper on hand at the time. Am I the only one who gets the urge to start a project when all the shops are closed, often for a long holiday weekend?

Mock-ups

Often I will make a mock-up or a sample before embarking on a complex project or a new technique. Mock-ups can be made from anything. Usually I look for something that I have on hand and that is cheap such as cardboard or balsa. Sometimes I'll have offcuts of more expensive materials that can be used. Occasionally I have bought balsa of a specific thickness to mock-up a project.

Sample

A sample is different. Its purpose is to see whether a particular material or technique will give the desired result. Instead of embarking on the whole project, a small sample is made up as a trial.

In this case, I am making a sample. The project as envisaged would require half a pack of Evergreen .060" x .250" strip. I had an idea of how to approach the project. To be certain though, a sample was made to try out the technique. Three pieces of .060" x .250" approximately 2" long were glued together to form a channel 3/8" wide x 1/4" deep.



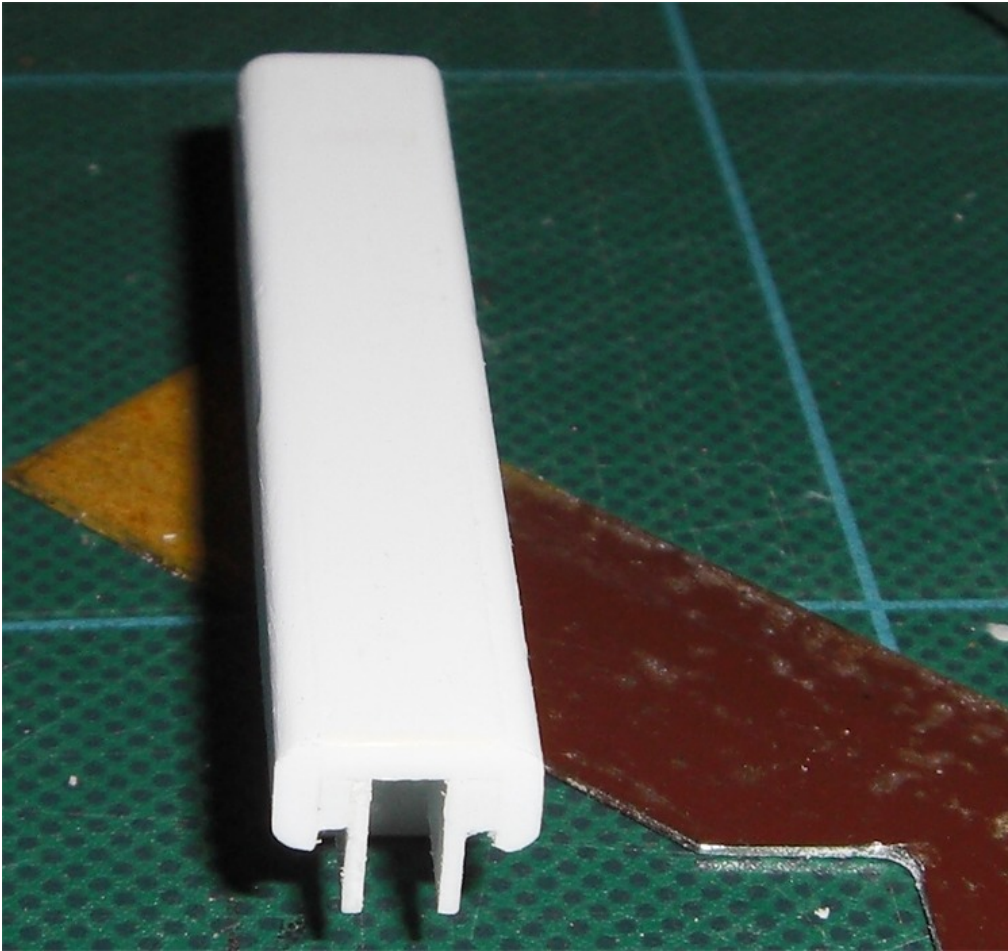
The channel is to have 1/16" radius on all four corners. A piece of 5/8" steel strapping (more scrap) was drilled 1/8". With the tri-square I marked tangents at 45 degrees.

Next, I cut out and filed the two sides of the triangle so they met up with the 1/8" hole. After filing these two sides, I used the file to break their edges. They are to act as guides. Only the remaining quadrant actually scrapes.

The scraper worked well but..... Firstly, I applied too much pressure and the channel collapsed. Secondly, the finished channel was too deep. So I went through the same process but used .060" x .188" strip for the flanges to make a channel 3/8" wide and 3/16" deep.

This turned into a good example of why it can pay to make a sample first. Half a pack of .060" x .250" Evergreen strip and a lot of time and effort could have been wasted.

Partially formed scraper. Also note the "scrawker" mentioned earlier.



Sample of roof vent with scraper used to round the edges.

Scrapers

With styrene it's often easier to scrape with a scalpel than to sand. Customised scrapers are great for rounding corners etc where the corner or other shape needs to be consistent over a distance. In the example above, the scraper was made from .020" thick steel strap. This is overkill, but it was on hand and the price was right. I have made scrapers from tinplate and used them successfully on styrene. However, tinplate cannot be drilled except for very small holes, *i.e.* less than a #60/1.0mm. The way around that is to punch the hole.

Punches

Hardware stores sell punches in a few sizes. Most of us already have a set of punches, but that's not what they are called. We call them drill bits. When a drill bit breaks, don't throw it away. Retain the shank and grind the broken end square

and flat. Don't make it too long. Drill bits are brittle, that's why it broke! WEAR SAFETY GLASSES! Mostly the part to be punched is quite small, so I use the end grain of a piece of 42x19mm/2"x1" dressed pine held in the vice. For a neat hole, it must be smooth end grain. Take a drill shank of the required hole size. Grasping the shank in a pair of pliers, place the end in position on your material, hold it vertically and hit the upper end with something soft like a lead mallet. Do not use a hammer! As I said, drill bits are brittle and can shatter, especially when hit with the hardened face of a hammer. When it shatters, shards are prone to fly in all directions with incredible force. It happens I have a couple of ingots of type metal which I use as a mallet to belt the drill shank through the material. Try to do this with one blow for a neat hole. Practice on some scrap before punching that treasured part. Punching will raise the edge of the hole a little on the underside. This can be smoothed with a file.

You don't have a punch the right size? Holes can be enlarged by inserting a rat tail file slightly larger than the hole and twisting the file counter-clockwise. This keeps the hole round and centered. Here's a tip for when the hole has to be enlarged substantially or the material is thicker than usual. Secure the part with the punched hole to be enlarged in the vise. Put the tang of the file in the chuck of a reversible drill. Set the drill at a very, very slow speed in reverse, gently insert the file into the hole and turn on the drill. Presto, you will be pleasantly surprised how quickly the hole can be enlarged and still be round and centered.

Magnets

Often when gluing or soldering parts at right angles, I've thought enviously of advertisements that feature steel bases with magnets that hold parts in place. Somehow the asking price has always seemed just that bit too high with exchange rates and postage costs. However, my current project is a little trickier than usual because one of the parts is not flat. Not only is it not flat, it has several protuberances. Specifically, the problem is to



The unusual suspects. Broken drill, "mallet" and scrap wood with end grain showing.

solder the front cab wall to the side walls of a Victorian Railways Y class diesel. This cab front wall has two bends, handrails and a door with a lock and handle on the outside. On the inside there are housings for the recessed sand filler caps. Add to these difficulties the fact that it is 2 5/16" wide, so a tiny little square of metal or whatever isn't going to do it. Also, the front wall had to fit into rebates in the sides. This required that the side be held securely so the front wall would sit properly in the rebate. My engineers square came to the rescue aligning everything, but how to hold all this stuff in place?



The 2"x1"/50mmx25mm shiny metal magnet is peeking from behind the handle of the engineer's square. The rear cab face rebate can be seen on the left below the square.

The answer was one of these new "rare earth" magnets. In my electronics catalog there was a range of magnets. Would I need the most powerful or the next down? In the shop, I couldn't find the most powerful one. On asking, I was told that it is not put on display because it "bites". Get a finger in between and it will take a piece out of the finger! As can be seen in the photo the next one down did the job easily and saved me \$10!

One cab side, which consists of two layers of .020" brass, was placed on a slab of scrap steel and the 50mmx25mm/2"x1" magnet set on top of it. Next, the square was placed on the magnet so that the blade of the square was in line with the edge of the rebate into which the

rear wall had to fit. Then it was an easy matter to hold the rear wall in the rebate and up against the square. That magnet locked everything. Nothing moved while being soldered. Even in the vertical, that magnet holds the engineers square and the cab rock solid.

Tools

Although I touched on tools earlier, I was reminded of their importance recently. Thirty odd years ago I was shown a pair of pliers used in the electronics industry. They were finely pointed and had a fine serration on the jaws. I bought them thinking that they might come in handy some day. Well, after I tried them they became one of my most used tools. However, years of abuse finally took their toll - the serrations and tips wore away. In search of a replacement, I bought several pairs of electronics pliers, but they missed out in different ways. Wandering through a hobby shop, I glimpsed a pair of Xuron pliers. They were pricey, but looked promising so I succumbed. Again, having used them, they have become a favorite. Sometimes you get what you pay for.

Recently I was reminded again. I turned on my digital calipers only to find there was no display. The battery had been replaced only a couple of months ago. Maybe I had put it away without turning it off first? Out with the old battery and in with the new. The display flashed when I inserted the new battery so all was good. However, when I tried to turn it on again, nothing. This was becoming annoying. I took the battery out again and inspected the battery housing. Aha, the little finger in the bottom that contacts the battery is flattened so it isn't making contact. I'll lift it a little so it makes contact. Maybe I'll even have to put some packing under it if it has lost its spring temper. Plink! That was the sound of the finger snapping off! Not only had it lost its temper, it had become brittle.

These examples aren't meant to tell you to buy the best quality tools. Usually modelling doesn't need industrial quality because the tool is to be used very lightly and/or very seldom. It's a matter of judgement whether to buy high or low. You will soon find out if you bought too low.

Happy modelling!



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Adding Depth and Life to the Layout with Shallow Structures

By George Paxon

Space is always a premium commodity. Even more so in O scale than for our peanut train friends. Some of you with lots of bread can build a larger train room that permits the modelling of longer and higher structures. But, unfortunately, your arms don't get any longer as your trains get wider and your layout room gets bigger no matter how fat your wallet. Those of us that model O scale need to develop devious methods to use our available space, particularly layout depth, more effectively.

One approach is to use shallow buildings where we can. Such shallow buildings can have fully detailed fronts but very shallow sides. Some can have considerable interior detail. Due to my short arms, limited budget and finite layout space, I have employed shallow buildings quite a bit on the Mountain Electric and previous layouts. Some of my shallow buildings have sides only ½ inch deep, some are over 6 inches deep and some are anything in between. The buildings have been basically sized to fit the specific location on various layouts over the years. The very shallow buildings are best placed near the backdrop where they are viewed from a distance and the shallowness is more difficult to detect. Or at least it does not distract terribly from the scene. And, if possible, the view of shallow buildings should be front-on only. This view control can be difficult to achieve sometimes. One approach is to place several such shallow building side-by-side, such as commercial stores or industrial buildings in a row, so only the buildings at each end of the row indicate the extreme shallowness.

But shallow buildings can look very dead and lifeless unless some provisions are made to inject a bit of life into them.

Just adding lights inside and outside shallow buildings does a lot to make them look lived in and used. But the lights inside can accentuate the emptiness of the building if additional care is not taken. Installing curtains and blinds inside the window glazing does much to add a lived-in look to houses and offices.

Sanding the back of plastic window glazing material to make the glass a bit translucent to dull the view into the lighted room will help keep visitors from noticing that a lighted building is empty.

Painting the inside walls of such lighted rooms with a bland color such as dark grey or even flat black will help to keep the walls and room corners from being obvious and avoid drawing the viewer's eye into the building where lack of detail can be detected. Plastic and resin buildings with interior lights in particular need to be painted on the inside to keep them from glowing like a run-away nuclear reactor as the light will show through many made of these materials.

For shallow industrial buildings, leaving a door partly or fully open can help, too. Such industrial buildings can be painted a flat black inside so no or little detail can be seen through the open door. Such industrial buildings with large open doors would be better with no interior lights. Some crates, barrels, boxes or even the outline of some sort of machinery can be placed just inside the door. Such detail can be painted a very dark color as well. These steps help add to the illusion of occupancy and use. A bit of detail just at the doorway seems to draw the eye of the viewer and helps keep the viewer from exploring further and detecting the emptiness.

In previous articles in *OSR*, I mentioned paper buildings by Clever Models. Using these is a great way to add industrial fronts along sidings. These can be very shallow as is the building in Photo 1. You have seen an earlier photo of Welded Wire Products before in an article on building flats and gons with interchangeable loads. To doll up this two-dimensional shallow front printed paper building, I added gutters, downpipe, outdoor lighting, left the large door ajar and painted the inside flat black. It is located approximately 24 inches from the viewer and the flat nature of the paper is not readily apparent after the 3D details have been added.

Photo 1



Where such shallow buildings are deep enough, installing some shop fittings, furniture, machinery, etc., as appropriate to the intended use of the building, will do the trick of adding life. You can put such items just inside the open door or behind the window glazing. Painting these interior fittings dark grey or black can help the view as well. Photo 2 shows a shallow fish and butcher shop on Main Street in Jacobs Creek.

Photo 2



This close up really shows off the misplaced wiring in the upstairs windows, so I need to rework that distraction. I could add some curtains and window blinds while doing that as well.

Using a wedge shaped building is a good way to transition from full buildings to shallow buildings. In wedge shaped buildings, one side of the building is deeper than the other. The deeper side of the building can be fully detailed inside with little to nothing in the more shallow end. The wedge shape is also useful in a row of such buildings to break up the monotony that can result from too many buildings of the same depth in the row. A deeper building can be adjacent to the deeper end of the wedge shaped building and then a very shallow building adjacent to the shallow. This also provides the opportunity for a spur track servicing an industrial row to diverge and follow the wedge shape and provide some variety and interest. Too much parallelism is boring on our layouts.

Photo 3 shows a general store then located on my old narrow gauge layout. I will find somewhere for this building on the new layout. I am still pondering how to easily de-westernize it. The right half of this building was a full-scale store with display cases, merchandise, shoppers, etc. The left half was a storeroom with limited detail of boxes, barrels, crates, etc. But the storeroom had enough detail to justify including a light in the room as did the store itself. The front of the building was approximately 6 inches wide while the back was 2 inches.

Photo 3



Photo 4 is also from the last narrow gauge layout. The far building was just a 1/8 inch thick MDF flat and all the detail was on the front porch with fruits and vegetables on display with shoppers and store clerk present. The building on the left was a fully detailed small bar. In between was a wedge shaped office building that connected the other two buildings. Photo 5 is a better view of the fully detailed and lighted bar on the left of this building row. And, Photo 6 is a close up of the flat at the right end of the row. To the left of the bar room, note the front of a barn cut from a Walthers printed background sheet. It was pasted to the backdrop. We'll talk more about this later.

Photo 4



Photo 5



Photo 6

COMPANY
Office



I would love to reuse this little bar on the current layout, but am baffled at how to make it look more eastern. Maybe a bit of rework and having it located near other non-western buildings will help it fit in. And I am pondering the need to change the roof from the Spanish tile to something more eastern.

A wedge shaped building row provides an economical, space-wise, transition from buildings with depth and those that have little to none.

When you have shallow buildings next to each other in a row, vary the building depths and stagger the front alignment where you have the space to do so and it makes sense. Usually buildings on a commercial street have their fronts aligned. But sometimes buildings are set back from this alignment. In Jacobs Creek on the ME Ry, the old town streets were very narrow. Trolley cars pass parked autos only with great difficulty. The town government voted to widen Main Street and has decreed that any new buildings be set back further to permit this future widening. Turini's IGA, Photo 7, is a newer building and it has been set back from the traditional alignment according to the new building code. This provides some nice variety and allows for signs on the protruding building sides.

For such a row of industrial buildings, add loading docks to some and not to others. Those without loading dock can be set forward so they load to freight cars directly through the doorways. Some loading docks can have an overhanging roof while other do not. This approach will provide the staggered front building line important to breaking up any monotony that otherwise might occur. The loading docks can be detailed with hand trucks, boxes, barrels, rubbish, trash can, coke machines, laborers, and other details. Add lights outside some of the buildings. Visitors can study such outdoor detail and not concern themselves with the shallowness of the structure.

For the J.C. Dunbar building in Photo 8, I made a discarded crate as a loading dock detail. In close up Photo 9, you can even see some of the crate nails showing. With this detail and outside lights, there was no need to worry about the inside of this shallow building.

Photo 7



Photo 8



Photo 9



And there is no law that says all the buildings on your layout must be 48:1 scale. By using smaller scale structures you can add the perception of considerable depth to the layout. Look at Photo 10. This was on my now-long-gone last narrow gauge layout, and was the town of Rattlesnake Flats. The foreground tracks and station were O scale of course. (You can see the station and area were still under construction when photo was taken.) All the building flats on the hillside, and the complete house model at the far right, are HO scale.



Just the front of some HO kits were used here. The remainder of the kits were given to an HO friend that needed the backs and some side walls for detail along yard tracks on his layout. The bridge that connects the foreground to the background was multi-scale: the right end was O scale and the left end, toward the HO storefronts, was HO scale. The bridge was built to manage the transition between the foreground and the background. The bridge narrowed from 4 to 2 inches and the height of the three pairs of trusses reduced as you moved from the O to HO world. At the O scale end of the bridge was an O scale vehicle. And at the far end and on the road and in front of the HO storefronts were HO scale vehicles. The distance from the O scale track to the backdrop would have been less than 6 inches.

To add life to the HO building flats in Rattlesnake Flats, appropriate holes were cut in the 1/8 inch thick MDF backdrop and lights placed behind the backdrop. The light then shined through some of the windows of these buildings as you can see in the photo.

Paper interior cutouts were used in a few buildings with large windows as described below as well. The viewing distance of several feet meant that such detail could not readily be seen, but the fact that there was some detail was noticeable and eliminated the empty building look.

And, notice how the hillside and the trees on it provides a nice barrier between the O and HO worlds and helps separate the scenes and supports the illusion of distance. The perception of considerable depth here was very good.

Putting Google to Work

Using Google to find photos of building interiors and fronts is a valuable resource tool thanks to the modern computer world.

I do Google searches for such terms as “old industrial buildings”, “old factories”, “old stores”, “old warehouses”, “vintage storefronts”, etc., which has yielded thousands of view of such buildings and building interiors. Most such photos found have problems and cannot be used, but many are very useful for modelling. Occasionally when time permits, I sit down at the computer and do such Google searches. Good photos found are copied and pasted into a file in my computer for later potential use.

I also search magazines and find good photos which I cut out and add to a file folder I maintain for such modeling aids. Many is the time I have received a severe tongue lashing from my domestic manager when she has picked up her latest edition of a magazine to find a gaping hole where such a photo has been liberated before she has had ample opportunity to read it.

I have used the photos thus found in three different ways.

First, if from the computer, is to print them and use them inside structures to provide internal building details. Such photos from magazines are just cut to size.

The second way to use Google photos is for entire building fronts that can be placed in front of, or on, the layout backdrop to add buildings, towns or industries and help add depth to the layout.

And, the third way is to identify interesting structures that need to be built for my layout.

Getting to the first use: I take several approaches to placing the photos obtained inside buildings.

You can mount such photos on the back wall of building rooms. A problem arises if the bare side wall of the room can be seen through the window. For very shallow buildings where the back wall is only an inch or so from the window, the photo can be mounted directly on the back wall. Another consideration is window size. If the photo is substantially larger than the window opening, and the distance from the window to the photo is not all that far, the side walls cannot be seen and the back wall mounting will work nicely. If these conditions are not met, I cut a piece of card the same size as the back wall of the room, then glue that card with the photo attached closer to the window than the room's back wall to eliminate the side wall view.

Mounting a good sized photo, but one with detail close to scale, that extends from floor to ceiling of the room on a curved card is a great way to deal with very large shop front type windows. By curving the card between the two front corners of the room, there is no side wall distraction. And, a fairly long photo with extensive detail can be effectively used. This works well with a wide shallow room since the gentle curve of the photo is not very apparent when viewed through the window.

If the interior can be viewed through a front and a side window, a card with the photo attached can be mounted on the diagonal from one room corner to the opposite so that the interior detail can be viewed through the two windows.

When the photo is of good quality and you want it easily seen, you can install an LED to light these rooms and make the photo more visible. The LED can either be placed in a hole in the ceiling above the room and very close to the front wall, or it can come up through the floor. Keeping it very close to the front wall will make sure the LED itself cannot be seen. I use a largish resistor, say about 1000 ohms, with a 12 volt supply, in series with the LED to reduce the current and light output as needed to make the view look right. Too much light in a small space such as a small shallow room is not good. You just want just enough that the interior is noticed and visible. You can adjust the LED resistor value higher or lower to get the effect you want. Also, some LEDs put out more light than others and you can select dimmer ones where appropriate.

Such lighting is not always required or desired. Where the detail on the photo is not all that great, avoiding lighting is the way to go. The photo provides some sense of occupation with large windows even without the lighting.

Photo 11



I would be very careful if using an incandescent bulb around card and paper due to the heat. Last thing your layout needs is a fire! With incandescent bulbs, provision must be made for ventilation to allow for cooling, and the bulb must be kept well clear of the card and paper. LEDs are safer and suggested. They also probably won't burn out in your

Photo 12



lifetime and will save the labor needed to change incandescent bulbs which do burn out with annoying regularity. There are some things to look for is such photos that you intend to use as interior building detail.

Using head-on shots where the two side walls are perpendicular to the axis of the photo is important. If side walls slant at odd angles to the axis of the photos, the view is distracting and very unrealistic. You want the view to be straight into the room as would be the case when you peer through a window or door into such a building. Photo 11 illustrates good perspective while Photo 12 is bad.

Look for photos where the size of objects in the photo are appropriate for O scale. This is particularly important if the photo includes a human figure or some readily recognizable object. An O scale human figure is approximately 1-1/4 to 1-5/8 inches tall in O Scale. Such a figure seen through a window or door should be somewhat smaller than this as the figure should appear to be further away from the viewer. Nothing could ruin the view more than an apparent 20 foot tall clerk or a 6 foot high Coke bottle inside a store.

What is most important is to create the illusion that the building is in use and contains things. With the shallow buildings near the backdrop, and often at arms-length from the viewer, the interior details of such building photos will be harder to decipher due to that distance. In these cases, the exact content of the photos inside the building is far less important. You would not want to use your high-quality interior photos in these distant buildings. Save them for a building that will be closer to the viewer and where the interior detail can be actually seen.

For the more distant building photos, try to stay with muted photos where possible when the photo details are not just so. Bright colors will tend to attract the viewer's eye more than pastels.

Also, buildings with small windows make it much more difficult for the viewer to see the specific details in the photo than would be the case with large windows. When the windows are very small and the building is a

distance from the viewer, installing the photo can be a waste of time. Simply lighting the room may be all that is required to give the building the lived-in look.

If the inside of the building is close enough that detail can be clearly seen, take some care to select photos that agree with your modeling era. I model the middle 30s, so I avoid using photos that have candy vending machines, televisions, and such obvious modern trappings that would not be found in my era. The dress of any human figures in a photo is another era issue if it can be clearly seen. Women did not shop in shorts, tank tops and flip-flops in the 1930s.

One ½ inch deep building in Celestown is Smith's Chevrolet. The car showroom detail is quite elementary and certainly not a work of art as you can see in this close up in Photo 13. A flat card just behind the window glazing had the showroom sketched in perspective and a photo of a period auto was glued over the sketch. But this shallow front building is located such that it is viewed when looking across an island from a distance of over four feet. The presence of detail is effective, but the particulars of those details is limited by the viewing distance. Only the auto on display in the showroom really stands out. And from the viewing distance this very shallow building appears to contain an interior. I have placed a working "neon" Chevrolet Used Car sign by Miller Engineering on the roof of this building and it attracts far more attention from viewers than does the car showroom anyhow.



For the second way to employ photos found on Google searches, we use photos of whole building fronts to create a sense of depth and background activity. These would be zero depth structures created by mounting such photos on card or hardboard, or just pasting them to the backdrop. They can be inserted in the background scenery and provide the illusion that there is more civilization out there somewhere between the foreground and the background. Such background buildings need to be much smaller than O scale to help add to the illusion of distance.

Relative size of doors should be the same if several such building photos are used together. This is not as big an issue with windows as they come in all sizes, but a standard personnel door in the U.S. is just about always 6' 8" high, so all buildings would need to have similar height doors. You can enlarge or shrink a photo somewhat using your computer printer to make this work within reason. If you try to enlarge a computer photo too much you will get an undesirable grain I suspect though. You can paste several buildings together in a row if the sizes are appropriate.

Avoiding bright colors and using photos of building in pastel shades is also important here to make these building appear distant.

Walthers sold backdrop printed sheets of city, industrial and country scenes and they still are available as far as I know. The buildings on these printed backdrops were sized for HO. But, they make excellent O scale backdrops with the smaller size going a long way to implying distance. The colors of these printed backdrops were generally good with muted tones. An exception was a "wild west" sort of street frontage with buildings that were in hideous colors. Detail was limited which also helped create the feeling of distance. I have used these by cutting around the buildings and placing them behind or between O scale structures. This creates the perception of additional buildings behind the more fully detailed ones in the front. This is a cheap and easy way

to add depth to the scene. By over spraying the printed backdrops, or any cut out paper buildings for that matter, with a light dusting of flat white, you can further add distance to them.

Look at Photo 14. Here the view is up the dirt road and into the town of Black Diamond on my last narrow gauge layout. On the right is the school house with a general store behind it. On the left was the Coal Company store and behind it was a small warehouse. These were the only buildings in this part of Black Diamond. The industries behind the four buildings were cut from Walthers printed backdrops and pasted to the wall. Distance from the track to the wall was less than 6 inches, but it looks much further than that.



Photo 14

For these exterior building shots, if more than one building is to be used, I believe it is particularly important for the photos to be head on shots. This means that a side wall of the building cannot be seen in such photos. Such head on photos will have no perspective and the top and bottom of the building front will be dead parallel which is what I believe is needed for such photos to be most effective.

A serious problem occurs when the photo on the backdrop has a side showing if it is located near, or in viewing distance, of a real building. Depending on which side of the real building the viewer is standing, one or the other side of the real building can be seen. But the same side of the printed backdrop building will always be seen. From one angle, both the real and printed building will have the same perspective. But when viewed from the other angle, the perspectives will be different and look very wrong. This is not a significant problem when the photo is used by itself though.

Multiple photos of buildings taken at an angle with a side wall showing probably could be used by a modeler with much more patience than I have, but there are issues if several such buildings are to be included. The angle of the side walls of each building would need to be the same for all buildings if the buildings are to appear to be in a row. In such a row of buildings sitting at an angle, each building would need to be a little smaller and in perspective with the previous building to look correct. It might be difficult to find several photos to use together that meet these criteria after they have passed other criteria such as appropriate era, muted color, size, etc. As I said, it would require the patience of Job, which I don't have. Using just one such building will work though.

It is possible to add the perception of an entire town or village off in the distance using this technique.

A stop on the Mountain Electric is East Monessen, where the ME Ry interchanges with the Pittsburgh & West Virginia Railway (P&WV). This extension to the P&WV was the last railroad built in the Monongahela River valley in the 1930s. All the flat land was previously spoken for, and the P&WV was forced to build on

the hillsides. As a result, it was nick-named the "High and Dry" because its location protected it from periodic flooding that occurred regularly on the Pennsy, B&O, P&LE, and Monongahela all located along the rivers. The P&WV crossed the Monongahela River on the bridge shown in Photo 15 and, as you can imagine from this photo, it was at this point very high on the hillside. This bridge took the P&WV from the Charleroi to the Monessen side of the river. From the East Monessen interchange location on the ME Ry, you can look west and down a valley toward the river town of Monessen far below.



On the layout, just a little of the town can be seen through the trees as shown in Photo 16. This is an extreme close up so you can see how it was cut and applied over the painted backdrop. The cutout is very small and less than 3 inches long. When viewed from the normal distance of several feet, the edges of the cutout are not really visible and the colors of the cutout trees blend with those on the painted backdrop.

Avoid photos with electric wires cutting across the front of the building. Many building photos have these since most towns had such overhead wires which invade

the photos with annoying regularity. Light and telephone poles in front of the building are also a problem. But if the photo is otherwise good, and you really want to use it, a shortish light or telephone pole can be disguised by placing a three dimensional tree just in front of the building photo to cover such a pole.

I have several excellent photos of very nice Victorian buildings I want to use that have modern automobiles parked in front. These photos can be used by cutting off the autos and using only the tops of the buildings. The missing bottoms of the building can be masked by another row of buildings in front of them, or having shrubs or other foreground three dimensional details placed in front to mask unwanted details.

TV antennas, satellite dishes, and window air conditioners are examples of items that turn up in many photos of building fronts that cannot work for my era. They may be fine for yours though. Usually, I can get rid of the TV antenna by cutting it off. And I have cut a rectangle in the window opening to remove an air conditioner and added some black paper behind the photo in its place successfully. The problem with the modern automobiles mentioned above could probably be solved by cutting out a photo of a vintage auto and pasting it over the modern one to salvage an otherwise great quality photo. I have not tried this yet, but I can see that it could work. This would probably be limited to getting rid of a lone auto in a photo. It would be difficult to fix a photo this way that had all sorts of autos of the wrong vintage. Getting an auto of the correct vintage, of the correct size, and sitting at the correct angle might be a manageable, although time consuming, challenge. Getting a lot of them, I suspect, would be too much to ask for.

Also watch for advertising signs, street signs, and other features that are not in keeping with your era. For example, in Pennsylvania in the 1930s stop signs were yellow – not red as they now are. And, I don't think there were any McDonalds, Starbucks, Subway stores or Interstate highway signs in the 1930s. This may seem like trivia to some of you, but it is such little details that make our scene accurate and believable. With a bit of thought and care these photos can really add to the quality of your layout.

To use these building photos, I cut around the building with a sharp modelling knife. Such a cutout building can be mounted on a similarly cut card if freestanding. Or it can be glued as it is right onto the backdrop and

Photo 17



Photo 18



blended into the scene with foreground scenery. This allows me to have only that detail that I want for the scene. Photo 17 illustrates this idea where a farm house is pasted over painted trees on the backdrop.

The third way I have used Google photos is as inspiration for model building. During my searches for modeling materials and ideas, I have found several photos of great buildings on the Internet that I just had to have on the layout.

See Photo 18 of an abandoned store building somewhere in Michigan. I needed an old coal company store for my town of Jacobs Creek. The building in this photo really hit my fancy. I used the photo of the Michigan building as a guide in building my abandoned

Photo 19



company store. Photo 19 shows my model which is a shallow building at 1.5 inches deep. All the building's depth and modelled detail is on the building front with nothing done inside at all. I back dated the gasoline pump to an older style to better depict my 1930s rural era.

Photo 20



And look at photo 20. This is a bar and eatery somewhere near New Orleans. It must be near New Orleans because of the Jax beer advertising. Jax was very local, would definitely not make it as a national beer as it was some of the worst stuff I have ever tasted. I think they made it from bayou swamp water.

But I really found this structure to be great, and used the photo to build a model as you can see in Photo 21. This is somewhat of a shallow building, too. It is actually right next to the old company store in Jacobs Creek. But

Frenchies has full interior detail with lights. The left side has a fully detailed small bar room with bar, bar back, stools, table and chairs, pot belly stove and bartender. The middle has a restaurant with tables already set for the evening meal. And the right is the add-on kitchen, and has no interior detail at all. I deleted the gasoline pump in front of the building as the old coal company store next door was going to have one there. The building varies in depth from 3 inches at the left to 2 inches at the right. Good interior detail was important here as the building is at eye level on a very narrow bit of layout and only 12 inches from the viewers face.

Photo 21



And since I model southwestern Pennsylvania, I changed the advertising on my Frenchies model. The Jax beer became a local brew, Iron City. The Iron City bottles were found on the Internet as well by another Google search. They were cut out and mounted on styrene sheet when building the billboards on the building roof. My bottles appear to be a little larger than the ones on the prototype structure, but things like this can happen when you drink red wine while modeling.

And by the way, just after I finished building my model of Frenchies, some inconsiderate fellow (Haw Creek Shops), announced they were coming out with a kit for the New Orleans version of the building in O scale. You cannot win them all!

Speaking of kits, sometimes when surfing the Internet, I run across an advert for a building kit on an Internet hobby site and think it would look good somewhere on the Mountain Electric. In this modern computer world, it is much easier to keep abreast of what is available in our scale than in the good ol' days. At one time we had to send off our pennies to far away places and order catalogs from all sort of suppliers and distributors to stay current with what was on offer in the way of ready-to-run, kits and parts. The Internet has made this much easier and quicker. If you see something in *OSR* that you like you can just click on it, get taken to the supplier's website, and read all about the product. We could not do that in the good ol' days!

Initially, on seeing a new kit offering, I sometimes get itchy to part with some cash and buy it. But often I force myself to go down and have a look at the boxes of unbuilt structure kits on a shelf in my workshop. So rather than buying another kit, I just use the photo of the kit to build myself a model of it. This saves me money and provides quite a few hours of modelling fun. And figuring out how to build the model; drawing, cutting or otherwise making the parts; and other such tasks; etc.; all provides quite a bit of mental exercise and helps to keep the old brain from turning to mush any sooner than it must.

The town of Jacobs Creek has several other scratch shallow buildings based on popular available kits. My Ned & Reds is a take on the Blair Line Models "Fred and Reds" O scale kit. I liked this kit, but just did not have space to accommodate the depth, so I just modeled the front of the building. Classics Miniatures once offered a



kit for the F.D. Work Hardware building in HO. This is a building that once stood in Telluride, Colorado. I modeled just the building front as C.D. Cork. Both my Ned and Reds, Photo 22, and C.D. Cork Hardware, Photo 23, have some interior detail. Ned and Reds uses a photo on a curved card for its interior detail as explained above, and it has interior lighting. The detail in C.D. Cork is just some shelves with merchandise on them placed just inside the large front windows. The rest of the C.D. Cork interior is painted flat black. No lights were added to the hardware store as I felt it would emphasize the shallow nature of the building interior. Both these buildings are only about 2 inches deep.

Photo 23



The lights on Ned and Reds outdoor sign are LEDs that actually chase, too. This is a real eye catcher for visitors and draws attention away from the limited interior detail.

A little further down Main Street in Jacobs Creek, we come to Turini's IGA Market and the Western Pa Cabinet Works. Both these were also inspired by kits. Frank's Market was an O scale assembled building, Photo 24, offered by Woodlands Scenics, and my Turini's IGA was based on it. A photo of an HO building in a Northeast Lumber advert, I think, provided the inspiration for the Cabinet Works. Photos 7 and 25 show

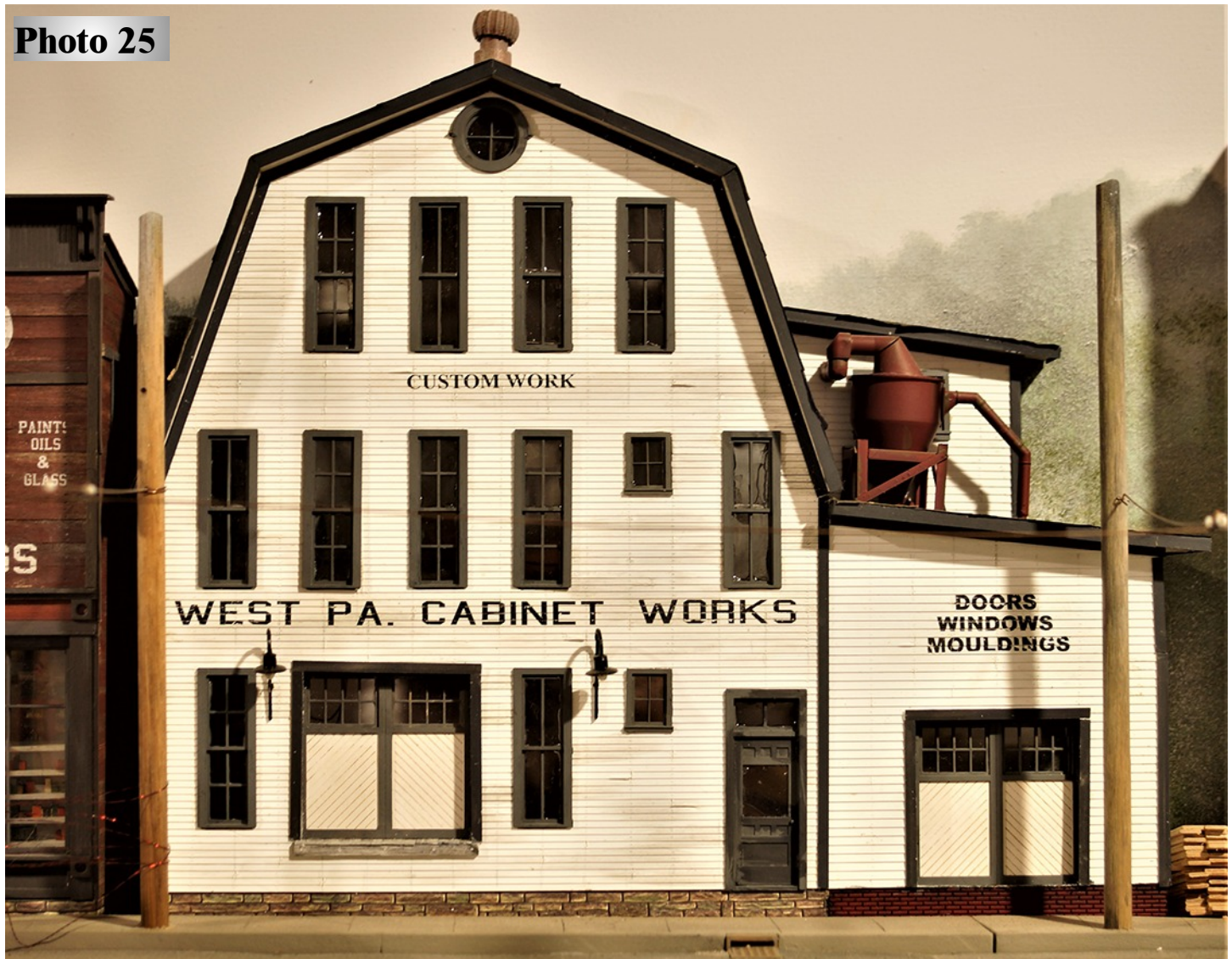
Photo 24



Turini's and Western Pa Cabinet Works. There are shelves with goods just behind the glazing inside the IGA, but no lights were needed due to the large windows. The IGA market details are mostly on the footpath with vegetables, the sidewalk elevator and the two fellows unloading a truck of arriving groceries. Well, actually one fellow is unloading a truck while the other fellow is sitting on his backside watching the first fellow work! (I moved the truck to give a better view of

the building.) For Turini's IGA, I did not see the need for interior lights as the details in front of the building draws the eye, and adding lights would only confuse that and probably emphasize the shallowness. The cabinet works has no interior. It has outdoor lights, and the turbine on the roof does rotate to provide some interest and attract attention. The cyclone on the right-hand roof top was an old Lionel part reworked for use on this model.

Photo 25



Using the shallow buildings adds quite a bit of perceived depth and helps to use available space much more efficiently. Dolling them up with photos and other details adds a used and lived in look. Unless your arms are quite a bit longer than mine, you may find the technique helpful, too. Give it a try.

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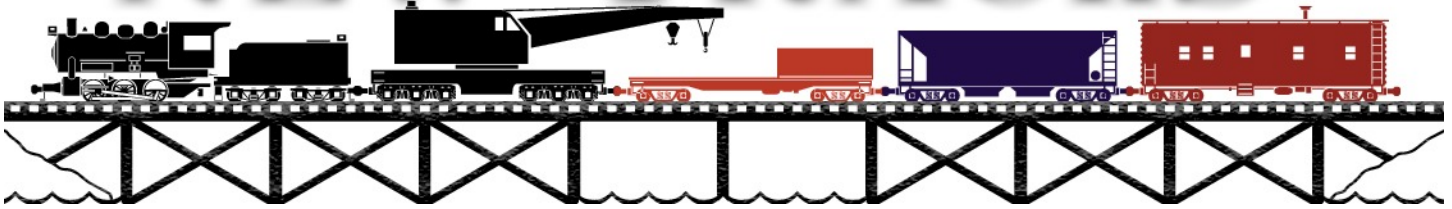
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Mentor Definition: A Trusted Counselor or Guide

By Contributing Editor Jim Kellow MMR



MODELING WITH MENTORING FROM TALENTED MODEL BUILDERS AND EVEN FROM MODELERS IN OTHER HOBBIES

Another Step Forward for “New Tracks”

“New Tracks” is now a member of the Hobby Manufacturers Association.

I am looking forward to meeting the manufacturers in various hobbies that can be beneficial to my modeling and become part of “New Tracks” articles and Zoom shows for you to meet. I have been very welcomed by the HMA, and look forward to being able to make a contribution to the organization. If you are not familiar with this organization, I encourage you to [visit their website](#) and see their new [YouTube video on Modeling](#).



Door Prizes on our "New Tracks" Zoom shows

We are going to have door prizes on our shows if companies want to provide them. Any company who wants to provide a door prize will be given 5 minutes on our show to promote their company and products. This offer will be limited to two companies per show.

If you are interested, please contact me either through my [Facebook page Jim Kellow MMR](#) or by email at jimkellow@newtracksmodeling.com. In order to win one of our door prizes, modelers will have to be watching the show live on either Zoom or YouTube. I will announce the randomly drawn winner on the show and provide an email address for the winner to use to claim the prize. It should be fun and an opportunity for companies to promote themselves and their products.

Subscribe to our Website and YouTube channel

Please subscribe to our website, newtracksmodeling.com, to get the latest information about what we are planning on our shows and get the Zoom and YouTube log in link. Also, please [subscribe to our YouTube channel](#), New Tracks Modeling, to get the notices about all our live streaming YouTube shows and our show videos.

Make sure to confirm your subscription to our website by replying to the email you will receive when you subscribe. Our thanks to Dan Dawdy's company [Ribbon Rail Productions](#) for designing and developing our new Website. A really great job.

Please also send the Zoom and YouTube log in links to your friends so they can also join in the fun of our shows. Thanks in advance for your help and support. Word of mouth is our best way to advertise our shows.

Want to have some extra fun? Volunteer to participate in or help produce our Zoom shows and articles

It can be a lot of fun. Everyone who watches our shows has a contribution to make. Offer your help in participating or making and producing our Zoom shows and articles. Any amount of time and help you are interested in providing will be greatly appreciated.

We need your help, and would welcome any help you can provide. Keep in mind that mentoring is a two way street. It requires communication between modelers who want to share their knowledge and skills, and people who want to learn their skills and techniques to improve their modeling. All skill levels are welcome and needed. Contact me at jimkellow@newtracksmodeling.com and let's discuss.

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[Rail Scale Models](#)

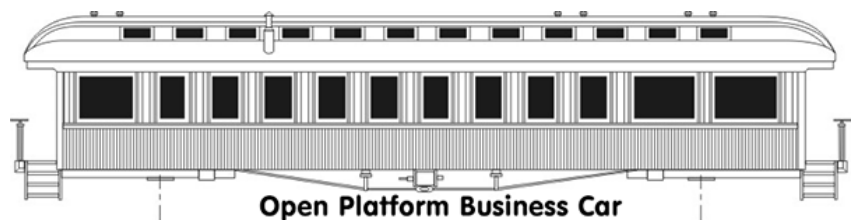


Starting Oct 6, Bill Davis is building a Rail Scale Models, Tobacco Barn Kit on our show. This is Bill's second "Build Along" project.

Stephen Milley, owner of Rail Scale Models, has given a 20% discount for the kit to modelers who want to "Build Along" with Bill Davis. The discount code is now set up for the Tobacco Barn in all four scales (N, HO, S, O) for 20% off MSRP. The buyer must use the coupon code **NewTracks (one word)** at the check-out screen. This code will be in effect from June 1 thru Oct 30, 2021.

[LaBelle Woodworking](#)

Starting October 13, Jim Murphy will be building a LaBelle HO "Business Car" kit. Order either the HO or O Scale Business Car saying it is for "New Tracks" and get a 25% discount. Jim is a very talented model builder and the LaBelle Woodworking Business car is a very special model. Also, Jamie Bothwell has done some fantastic videos on underbody passenger car detailing that are on our YouTube channel, New Tracks Modeling.



[All Nation](#)

Starting November 6th, David Schultz will build a All Nation Waffle side Boxcar.

Please welcome back All Nation to the market. It is a great name from the past in model railroading. John Wubbel, All Nation owner, told me: "I have 2 versions of this kit if I have not mentioned that to you already. I will send David the high end kit which sells for \$159.95 plus \$12.00 shipping and handling. This kit is more comprehensive with multiple roof profiles and inside interior walls with detail. This is not a trivial kit to put together, yet should challenge the entry level model builder with plenty of challenges and opportunities to innovate, and think through problems with the differing assembly approaches.



On the basic kit for \$109.95, plus \$12.00 shipping, I can give a 5% discount to your show participants. Make sure to mention "New Tracks" when ordering. However, I would strongly suggest putting in a reservation for a kit(s) as early in advance as possible so I can order enough filament material and start to manufacture the

product. I may not be able to take reservations on the high end kit because I cannot tie up the printer farm for extended periods of time since I have to make products for other customers. I will do my best to accommodate everyone who orders.

To order it, would be best that I get their contact information so I can simply invoice them on the basic kit and give the 5% discount if I know they are doing the build along with you. Payment can be made by check, money order, or PayPal using the friends and family transaction."

ITLA Scale Models

Starting on November 10, Nick Massey owner of ITLA and Bryan Schilling, a very talented model builder, will do a Build Along of a HO scale kit which was designed for the 2018 Fine Scale Model Railroad Expo as a Make-n-Take Clinic kit.

Nick told me it is an easy and quick build, this kit represents many of our ITLA design features and 3D engraved weathered masonry. Easily painted with rattle can spray paints and water based acrylics. It measures 3"L x 3"W x 4"H and can also be built as a background "Flat" 12"L x 0.5"W x 4"H with the side wall returns included. Multiple kits can be chained together! This kit matches our HO Olympia Tool & Die Co. kit perfectly. Multiple Roof Top & Wall details included...chimney, snorkel vent, HVAC ducting, Loading Dock Door,

Bumpers, Access Ladder, etc. Separate window headers & sills allow for mask-free painting. Knockouts include model bricked up doors and windows. Color instructions and sign sheet included (*signs will differ slightly from those pictured*).

Nick is offering a 25% discount on this model bringing the price to \$29.99 plus shipping of 6.99. A Discount code "newtracks" (one word) will be in effect from Oct 1st to Nov. 10th in order to get the discount.

Motrak Models

Starting October 20th on "New Tracks" a Motrak Models kit, Adamsville Depot, will be built in 4 different scales by 4 different, very talented and experienced modelers, Phil Edholm, Clark Kooning MMR, Bob Farquhar, and Greg Cassidy. The Build Along will continue once a week on our





show until it is completed. Thanks go to Jeff Adam who owns Motrak Models for making this event possible. Use code NEWTRACKS to receive 20% off the retail price!

If you want to see how a model is built in your scale compared to how it is built in other scales, these shows will be for you, plus you will see the various modeling techniques used in the various scales. Thanks go to Phil Edholm for suggesting this unique concept. I think this is a great opportunity to compare model building in different scales. I hope you will want to participate.

Banta Models

Starting December 1, Banta Models' Bill Banta is teaming up with Clark Kooning, MMR for a "Build Along". More details can be found on our [New Tracks Modeling Website](#).

Yarmouth Model Works

Starting January 5, 2022 Pierre Oliver owner of Yarmouth model Works will build one of his kits in a Build Along. This will be one of his new kits in O scale. Details can be found on our [New Tracks Modeling Website](#).

Conowingo Models

Starting January 26, 2022, Chris Course, owner of Conowingo Models, will be building one of his new kits in a Build Along. More details can be found on our [New Tracks Modeling Website](#).

More to Come

I hope you want to participate in the "Build Alongs". The modelers and manufacturers, who are making these events possible, are doing them to try to help you improve your skills and have more enjoyment and confidence in your modeling.

These Build Along programs are providing modelers, their own personal mentor on our shows. So if you have been sitting on the sidelines for awhile, or want to improve your modeling skills, give model building a try. I believe you will have some fun. It is really great to hear the enthusiasm and excitement from first time or previous armchair builders from their experiences by participating. Please show your support for these events by your active participation. Thank you. I am always looking for more modelers and manufacturers to be involved in future "Build Alongs" in 2022. I have two scheduled so far so if you are interested, please let me know. Remember, a model builder can select the dates, manufacturer and specific kit you want to build. A Manufacturer can provide the model builder or I will find someone to build their kit. Contact me at: jimkellow@newtracksmodeling.com

We have started several New Modeling segments on our Zoom shows.

Watch Me Build

These segments are meant for modelers to share their scratchbuilt, kitbashed, or kit building efforts and discuss their modeling skills and techniques so others can benefit. These segments can be for one or more shows depending on the details included for the model building presentation. You may never have shown your modeling before in public for a variety of reasons. I assure you, I think you will enjoy and benefit from participating in these segments. This is a new segment, and it will evolve over time, so please contact me with your interest and help me develop the segment. My email is jimkellow@newtracksmodeling.com if you would like to discuss your idea by telephone, you can get my contact off our website. October 6, 2021, Kris Blackmarr is starting his soapbox modeling series. This is great modeling from a talented modeler. Join us and see how he builds his models and why he calls them soapbox models.

I Have a Question

These segments are where viewers can ask modeling questions and get answers from other modelers on the show. It is a forum where viewers can help each other solve specific modeling problems or offer advice on modeling techniques. We have a form on our website you can use to ask your questions. This allows us to schedule the appropriate time for this segment on each show. So far, we have had various modelers offer to do segments to answer viewers questions and/or directly contact the viewer and provide the specific information needed. Don't hesitate to ask questions, after all, that is how we learn new things.

Remembering Old Kits

Modelers will be building kits from our distant past that are either no longer manufactured or hardly available. Kits whose names we may have forgotten, but when we hear their name again, bring back great memories from our youth and remind all of us what modeling used to be like. The first two segments had Martin Breckbiel, MMR building a Van's Car Shop and a Train Craft kit. As with our "Build Along" segments, these will also be recorded and available on our "New Tracks Modeling" YouTube channel. I hope you tune in to our Zoom shows and check them out. If you have an old kit and want go participate, let me know at: jimkellow@newtracksmodeling.com.

Let's Go to the Hobby Shop

Meet local hobby shop owners who may become your new best friend. I must admit, it has been a very long time since I have been to a hobby shop. So after floating the idea of asking hobby shops to appear on our show and getting positive comments from viewers, I decided to start this new segment.

Anita Walter from California was our first hobby shop owner on our June 9, 2021 show. I hope you were able to meet this lady who brought back so many great memories of past hobby shop visits for me. Actually, she planted this idea in my mind. If you missed the show, you can see a video on our New Tracks Modeling YouTube Channel.

Next you met Mainline Hobbies on July 28, Nick's Trains on August 7 and JB Trains on September 29. All of these hobby shops were recommended by viewers, and after talking with the owners, I certainly understand why I wish I lived closer to one of them so I could visit. I recently talked with the National Retail Hobby Shop Association and wrote an article for their publication called "A Modelers View" where I suggested they open their Association to Modelers. It talks about the importance of model builders and mentoring to the hobby shop industry and the issues that we both, modelers and hobby shops, have in common. It is scheduled to be published in the Association's October Magazine, "Hobby Merchandiser".

I hope it was very well received, and I look forward to having some of their members on future shows. The first member is the owner of Piggies Trains in Rohnert Park, California, who will be on our November 10 show. I hope it was very well received and I look forward to having some of their members on future shows.

If viewers have a hobby shop that they would recommend to be on our show, please let me know. There are not many hobby shops left around the country, and I believe they need to be recognized and supported. So please tell me about your hobby shop at jimkellow@newtracksmodeling.com, and I will ask them to be on our show.

Show us Your Modeling

We have a monthly Special "My Build" segment on our show where modelers can show their modeling. The next ones are scheduled for November 24, 2021, December 2, 2021 and January 19, 2022. To participate, all you have to do is send in a photo(s) with captions and your name to Chris Coarse at Chris.Coarse@newtracksmodeling.com to get included in a "My Build" segment.

Now let's meet some special manufacturers and enter to win their contest drawing, as well as meeting some talented modelers.

Nick Santo, owner of Decoder Buddy

Nick was an environmental analytical chemist and flight instructor who co-owned a flight school with his better half. Later in life he had the opportunity of becoming a student conductor and student engineer for a summer. He worked on GP38s and GP40s. He is now "retired."



He works out most days by walking, riding a bicycle or doing cardio in a gym. Electronics and photography are the other two major hobbies that he loves. In the winter, Nick and his wife of 43 years enjoy traveling to the warmer parts of the United States in their motor home.

Meeting people on the road is his favorite winter pastime, especially when it involves trains. Real trains and model trains have been a lifelong passion.

A Marx figure-eight layout on plywood at the age 4 and living on Depot Street listening to steam locomotive whistles were undoubtedly the seeds of Nick's interest. And he says: "I started my model journey when my father's father built a model railroad for me and gave it to me as a Christmas present. Every year, it grew and was grander. It had both

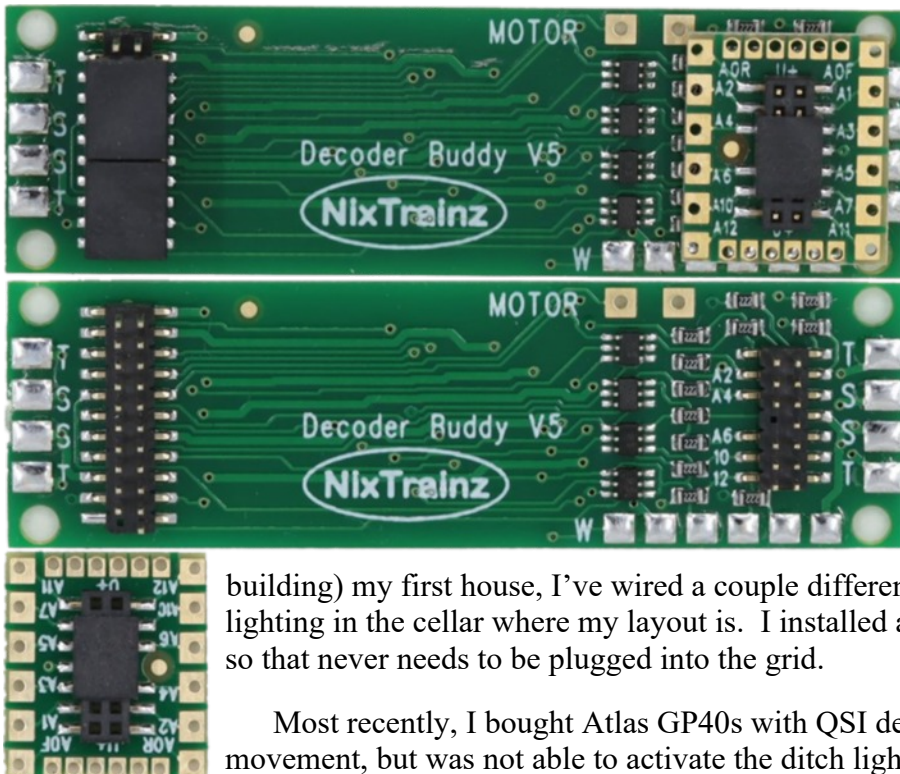
Marx and Lionel on plywood with structures and a mountain and two levels. It was great and served me well for many years. I wasn't far enough along to realize that the brushes in electric motors didn't last forever and had them replaced by a local guy who knew how a number of times!!! Toward the end of high school, I discovered HO and detail. College, job and building a house took time and finally I started back into the hobby. In 2001, we moved into a layout space with a house surrounding it that we call home now. This is where my current effort to rebuild parts of the Vermont Railway resides. I don't have a personal mentor, but do in terms of the model railroad publications. I have been a lone wolf forever, and when I started traveling in the winters, I came out and am a changed modeler. First hand looking at other's creations is both an inspiration and a chance for insight. It amazes me how other people have worked their railroads into such realistic levels and are so

willing to share their methods! It is definitely a "learn by being quiet, observing and turning on the idea vacuum cleaner."

My father worked for a company that made capacitors that went to the moon and back. He built the machines that made the capacitors. He knew and was friends with the electrical engineers who did the designs. Gib Green was one of the engineers and the person who showed me how to solder in early high school. He did me well! I have always been interested in electronics and aside from totally wiring (and

building) my first house, I've wired a couple different layouts and installed 12 volt LED lighting in the cellar where my layout is. I installed a complete solar system in the motorhome so that never needs to be plugged into the grid.

Most recently, I bought Atlas GP40s with QSI decoders. I liked the sound and the movement, but was not able to activate the ditch lights I wanted to install. I worked with QSI



solutions to no avail. I put the project on hold for a few years. I had a chance to think about model railroading again and was coming up on retirement. ESU had Select Direct decoders with places to solder more lighting functions. I got a couple and found they didn't fit into the space allotted for decoder. I cut the tabs off the ends of the decoders to make them fit and worked along from there for a while. One day one of the decoders didn't work so I asked if I could send the small "decoder" part back to ESU and have them take a look at that part.

Whew, they said OK so I didn't have to show them the modified motherboard. Within a few days I started to work on the Decoder Buddy and after a couple iterations it worked for me. It looked like a saleable item so I tried. So far it has been very well received in the HO community and should be considered in the S Gauge and O Gauge communities as well. With the new motor efficiencies the new 21-pin decoders, speakers, stay alives and Decoder Buddys should be a very good system."

At this point, I suggested to Nick he offer a contest drawing for one of his Decoder Buddy. He immediately agreed.

How To Enter the Nick Santo NixTrainz contest drawing.

To enter the NixTrainz drawing, each modeler must complete the form here. The winner agrees to use the prize of a Decoder Buddy and tell us about his experience using the product.



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NIX TRAINZ
DRAWING**

"For new products, I have decided to solder 0201 smd LEDs to 38 gauge and 40 gauge magnet wire for lighting. At the moment, they fit very nicely into HO standard locomotive and caboose lighting fixtures generally used for step lights, ground lights and high walkway lights. They also work well in N Scale headlights and ditch lights.

(They connect directly to the Decoder Buddy which has resistors for LEDs onboard.)

I have also made a controller with an Arduino for a wye that controls the far switch for continuous operation on my layout. It includes a crossing with lights and a bell sound and a grain store with elevator sounds and lights.

If I had a little extra time, I would work on a 36 hour day. 24 hours is always too short.....

My Website is www.nixtrainz.com, my Facebook page is at [NixTrainz](#) and I have a couple YouTube videos at [NixTrainz](#) also. Thanks, Nick, for all your help and support for my efforts. You can contact Nick at: Nick.Santo@sscaleresource.com.

Now please meet a very talented modeler who makes some fantastic trees. He was a Featured Modeler on my August 25 Zoom show. If you missed his excellent presentation about how he builds his trees and the material he uses, you can watch a video of his presentation on our YouTube channel New Tracks Modeling.

Please meet Roger Rasmussen owner Coastmans Scenic Products.

I spend about 75% of my modeling time working on my business, Coastmans Scenic Products. The other 25%, I spend working on my HO layout and 3D prints either for my layout or for future products for Costmans. Here and there, I am commissioned to do model projects, usually funded by a grant (Travel Oregon, for instance). I've done two projects for a local group, Cape Blanco Heritage Society. They manage the Cape Blanco Lighthouse and also an area here known as Port Orford Heads. I've done fairly large models for both places, one in S scale, the other in 1/624 scale.



History in the hobby: I have always loved the scratchbuilding associated with railroad modeling. When I was quite young, maybe 12 or 13 years, I remember I followed the “O Model Railroad That Grows” book from Kalmbach. I began to scratchbuild as I could not afford kits for my then 4x8 foot layout. Right away, I found scratchbuilding very exciting because ordinary items were totally different inside the realm of model making. In high school I forgot about this, distracted with everything. Later in my 20’s, I rediscovered this passion and started making models of real buildings. I did the Libby’s cannery in Kent, WA and I believe it’s in a museum there now. That was a huge wooden structure and soon after I modeled it, it was torn down. So I began modeling real buildings of historic value, and it seems they were falling as I modeled them.

But in my early 30’s while washing dishes, I was looking at a worn out green scrubber pad and thought, “this makes good Douglas Fir foliage”, and I stuck it on a chopstick. I always thought there were few good looking fir trees in between bottle brush trees and Pete Vassler’s Canyon Creek Scenics trees. (Which by the way are awesome to this day and totally outperform my trees!) If you haven’t heard of Pete’s trees, check them out on his website www.canyoncreekscenics.com. I saw Pete’s trees at an event in Kent, WA in the 90’s and I was indeed impressed. But I was sort of thinking about fir tree kits at the time, instead of making trees individually. I dabbled with the idea and even tried making a few kits, but it wasn’t until I met a guy that helped me build a few machines that I got started with Coastmans in 2010. Originally, I was just thinking about making the kits and maybe some trees that I could sell at swap meets to fund my own layout. Right about that time, the Internet really started to take off, and it became possible to construct a website without knowing HTML. So I was able to start doing sales online.

I don’t know how many trees I’ve made, or kits I’ve put together, but Coastmans provides me with about half my income at this point. I’m an RN with my own gig “on the side”. I’ve had a few “large tree” projects too, where the trees are over 25 inches. There’s no question at this point that I have made and sold thousands of trees.

How I learned to build: I’m self taught. I really enjoy how in this hobby, I would say one is expected to pursue other avenues and disciplines in order to acquire the knowledge and skills to meet the goal, that goal being to make the very best model possible of the prototype idea that “grabs you” the most. I don’t know of any other discipline like this one, that is a conglomeration of every other hobby. I’ve learned woodcarving, photography, photogrammetry, video, sales, Internet marketing, reading historical documents, 3D design & printing, computers like crazy, drafting, painting, airbrushing, and way more. But I’m not an expert in any field. You get just enough exposure to move you along toward the goal, but I think it comes down to learning to problem solve, and you build this mental toolbox that just keeps growing. At this point, I have to write notes for myself (I have a notebook now) where I record how to do something, because a year later, there is no way I’m going to remember how. There is too much going on!!!

Did you have a mentor or just trial and error? Trial and error, and reading from the magazines, certainly was how I approached everything early on. I didn’t feel I had a way to connect with other modelers, or was too shy to try. However, nowadays, if there is something I need to learn, I’ll use the Internet to connect (YouTube everything), or hitting up some of my woodcarving buddies to learn about the tools I need to make a certain trunk, or get the right color, or whatever it is. I have friends across several disciplines, from woodcarvers, 3D drafters, and surfboard shapers, so it seems somebody has had to solve a problem before me, you can count on it. I can’t stress enough, if you really want to break through in this hobby and come up with something new, you are stepping outside the hobby and bringing foreign ideas into it, I think.

What scale and why that scale: I tend to see everything through HO goggles, that’s my default lens. But certainly I’ve done models in other scales. HO was what I had as a kid, so there’s the fond memories and that’s what I gravitate toward. S scale piques my interest.

N scale would work perfectly in my home, but I really wanted the radio control battery operated system I've got now (Stanton S-CAB). For a one-modeler approach (I don't know about at a club), the battery-op really saved me (from the DCC world), which for some I understand is very interesting, but I didn't want to put in the time for it. I did, however, put a ton of time into my GP9 and so far it's the only running loco I have. It's the POTB Cow scheme, but I digress!

What areas will you help other modelers by mentoring? I think I have my expertise in the making of fir trees, but really only by the methods that I have pursued. There are other ways of making them out there and I haven't really tried all the methods or materials. I've probably tried a bunch of ways at one time or another, but because of Coastmans, I tend to make them a certain way. I think I'd learn a bunch from having somebody show me how to make a tree!

About my company: CSP is a one-person operation, and occasionally in the year, I get busy so I hire a buddy or two to help out. But mostly it's just me. I make the trees here at home, and I have a shop building I rent so that I can make all the saw dusty stuff like trunks and logs, the dye coloring of things, and the green branches over there. So for me, I spend time at both places. Someday, I hope to have all that consolidated under one roof.

One thing for Coastmans that worked out really well, just a lucky break really, is that where I live is home of the Port Orford Cedar tree. This is the perfect material for making model fir tree trunks. This is a "white cedar" material; it's actually a species of cypress. It is soft enough to take on the scribed "bark detail", but tough enough to hold up to the rigors of tree making. Because it is white, not red, it takes dyes and tannins. That was just a windfall (pun!), I had no intention of coming here for the material, I came for the windsurfing!

Coastmans does best if I'm attending to both the model railroad audience and also dipping into some other categories. I've done some artistic projects in the past couple years with the trees, such as an Internet commercial for X-Box video console machine and some rather fancy large Sequoia trees. Also, I've made myself available for model projects more on the architectural side of things, like for the museum projects, but those are rare opportunities these days. In the future, I'd like to pursue 3D printed models, as I find the computer work interesting. Again, it's the problem solving that keeps me going. However, I still like cranking out the tree trunks too! I just wouldn't want to have to do it all the time. I don't advertise right now. It seems that amongst this work and my RN business, I'm busy enough.

I really wanted to fill that niche in between the awesome Canyon trees and the bottle brushers, and with a kit so a modeler could make a bunch of trees at cost. I hope that's still the case (I think it is). One 7 inch CSP tree kit makes five good looking trees at under \$30.



Coastmans Scenic Products prize.

Products and services provided: Fir Trees, all Handmade USA. Fir tree kits, made in USA (but partially of foreign derived ingredients like coconut coir), all parts of the trees kits available separately, and a bunch of other scenery details like Hollow Logs, Bird's Nests, Stumps, StumpStuff, Forest Floor, Logs, and I have the KMP Kits for the historical logging equipment. I'm dabbling in some 3D printing ideas, but I don't have a true product offering yet. HO scale chainsaws? How about auto parts for a wrecking yard scene? I tend to work backwards: If I make it for my own layout, take a photo of it, and I like it, I tend to think

more about it as a potential product idea. I have a ton of stuff lying around like this, it just takes time and action to bring it forth into the product realm!! I did a whole 3D printed grain cooperative recently. Took me a year. It would be a great product as a kit, but bringing that about is...another year!

Contact and website, www.coastmans.com (for the trees) www.coastalmodelworks.com (for the architectural stuff and artsy) <https://www.etsy.com/shop/Natureshaper> (or just Google "Etsy Natureshaper" site for artistic stuff) <https://www.ebay.com/str/coastmansscenicproducts> (this is my eBay store) and Roger's email: coastmans@gmail.com phone: 1-360-820-3553

My future plans include keeping on with the trees and tree kits., And add new items to the line (I have a Ponderosa method fully developed and haven't even made them to sell yet). Also, explore 3D printing technology & options, possibly some metal castings based on that.

Pursuing more the artistic side of things with the trees, like on dioramas that can hang on walls. We'll see where that goes.

In talking with Roger, I suggested he offer a contest drawing for his trees. He immediately agreed. I think all of us would like to win some of Roger's trees.

To enter the Coastmans Scenic Products drawing, each modeler must complete the form here. The winner agrees to share his completed model with us in the future.

I look forward to seeing how these trees are used by the winner and sharing his information in a future article.

Pete Vassler

When I was putting this article together, I was told about a company in Oregon that I needed to visit. So I went to the Canyon Creek Scenics website.

www.canyoncreekscenics.com and immediately called and talked to Pete Vassler. To give you an idea of the beauty and artistic creativity of several of Pete's conifer trees, take a look at these. As far as I am concerned, these are all foreground trees, but Pete told me that one is a "background" tree. Can you tell which one? Pete is a great guy and a truly creative modeler. Thanks Pete for my conifer education. Please meet Pete and his wife Barbara.

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COASTMANS SCENIC PRODUCTS
DRAWING**



Pete & Barbara Vassler

I started life as Peter Vassler, but over time, people have referred to me as 'Canyon Creek Pete'. It has a nice ring, so am happy with it. My serious model railroading life began when I saw an N-scale train running around a Christmas window display in a shopping mall tobacco shop, and told my wife about how neat it looked. Lo and behold, in 1983 as a joke that Christmas, she gave me an N-scale starter set and informed me that the hobby shop had many more things that could be added to 'trick it out' Little did we know what this tricking-out would lead to.



Duane Cramer, the manager of this great little hobby shop, was very helpful in those early days, answering the myriad questions I had, and sent me home with the 50th anniversary edition of *Modelers Railroader* magazine. In this issue, I was introduced to the third of fourteen installments of Malcolm Furlow's building of his San Juan Central HO-scale layout. His amazing scenery and model building captured my interest totally. In short, I was hooked! So, Duane and Malcolm were my earliest of several mentors in this greatest of hobbies.

About 13 years later, we moved and my eyesight changed, so I needed to change scales. I considered both HO and O scales for a considerable amount of time, then settled permanently on HO scale. Later, I also settled on standard gauge logging, Washington state, rainy November, 1956. As my modeling progressed, I needed some nice conifer trees and couldn't find any I liked. Guys were making their own out of weeds, scouring pads and things—even bumpy chenille, if you can imagine what a tree looked like made with that stuff—yuck!

So, I set to making my own and achieved some success at it. Twenty-five years later with my wife, Barbara, we are still at it making conifer trees and forest floor items and offering them to the world via our website, canyoncreekscenics.com.

Additional information can be found at our website: canyoncreekscenics.com where we worked to provide all the information a customer needs including ways to contact us. In addition, all of our products are photographed with product numbers and prices, as well as our company history and future plans, it's all there on our Home Page:

<https://canyoncreekscenics.com/>.

You might mention in your article that if they order and like our products, they write and tell you.

During our conversation, I asked Pete if he would offer a contest drawing, and he immediately agreed. The prize will be a Canyon Creek Scenics 12-inch Conifer Tree that can be used in either S or O scale. Above is a photo of the tree. I look forward to seeing the winners use of the prize in his modeling and sharing it in a future article.

To enter the Canyon Creek Scenics drawing, each modeler must complete the form [here](#). The winner agrees to share his completed model with us in a future.

**ENTER HERE TO WIN OUR
CANYON CREEK SCENICS
DRAWING**

Being a long time member of the NMRA, I understand that mentoring is a big part of what we do, so I'd be happy to give those who ask some pointers on how to place trees on their layouts for the best effects, but like I mentioned earlier, I don't offer classes in modeling

scenery, etc., as there are plenty of articles and books on the subject. I can't improve on what others have already done in this area. We do have a Tips Page: <https://canyoncreekscenics.com/forest-modeling-tips/> that can provide some help to beginners. You might want to direct them in that direction.

Pete can be reached at CanyonCreekScenics@gmail.com. Thanks, Pete, for your help and interest.

Meet another talented modeler I met through a reader and immediately asked him to be in one of my articles.



George Paxson (Choo Choo)

I started my interest in trains just before I was born I think. First thing I remember was seeing a Pennsy freight in steam crossing the Main Street trolley tracks in my hometown. Would like this sort of view to be my last as well. Started modeling early. Had some Lionel and built cars from scratch to run on it. Always in trouble with my mother for pulling the truck from Lionel cars for my scratch cars. Got into narrow gauge in the 1960s. Was certainly a scratch builder's domain then. No commercial track, a few cast truck kits and some detail parts could be bought. There were a few locos, but you had to rob a bank to afford them. Just about everything needed to be built. Loved it. No one else had what you had when you were done. Still have my Kemtron shay and 2-8-0 built from kits. Still have my first scratch built car, too. I get these out of their boxes sometimes just to remember the good old days.

After pulling down my last double deck narrow gauge layout for a move, I made the switch to traction. Had bought some traction kits and a few brass items throughout the years and always planned to add some traction to the narrow gauge layout. But, as I was not getting any younger, thought it best to dive into traction with both feet and arms on the new layout while I still could. Having a ball with it. Lots to learn. Overhead wire is the biggest new item. Tracks in the street another area.

All my modelling has been O scale. (Is there really another scale?) Well, I lied just now. I was in HO for a week once in about 1968. We moved around in the military and I was not able to make much progress on a layout. At that point, I thought HO would be kinder. Bought a few kits and had a go at them. No fun at all, so went back to O and have always remained there since. Really like the bulk of O scale and the ability to easily add all the essential details. Like to be able to see the detail when done, too, and O scale is good for that.

Over the years, have known a few great modelers that were good to learn from. But, with moving around all the time, we were never in one place long enough to really benefit greatly. Mostly had to struggle with problems by a trial and error process that was probably more error than anything else. But if you stick with it, you get there in the end.

Lived all over the world as an engineer with the military and then with private firms after that. Came to Australia in the middle 80s for a year and a half contract. Been here ever since. Everyone's got to be somewhere, and this certainly ain't a bad place to be. Long retired now, so have time to get some modelling done when my wife isn't chasing me to work on her projects.



Above and next page are some of George's scratch built cars.



I remain pretty much a scratch builder. Do have some purchased brass locos and cars, but prefer to build them. Working on a 20 X 40 foot traction layout at the moment. Had to move the layout a while back still recovering from that, but it is coming along. The previously built overhead wire is a bit of a mess and reworking all that. I am re-homing both cars and structures from my ex-narrow gauge life to save time. But, it is sometimes a challenge to convert a Spanish, Colorado themed building into something that could have been in



Above: Interior of shop of logging line on old narrow gauge layout.

Below: On the main line of the old narrow gauge layout.



Southwest Pennsylvania where the new layout is based.

I am a big fan of the Pittsburgh area traction lines which include the Pittsburgh Railways and West Penn. Scratch building some of their cars as time permits. Other traction lines I am fond of include the Illinois Traction System and Sacramento Northern, so have built models of a few of their cars as well.

I enjoy writing for *OSR*, as I think it is a good rag and well worth going to the trouble of helping Dan and Amy with the publication. It is the major source of quality info for the O scale community now. As the mainstream mags are hardly more than N and HO Walthers sales fliers for ready to run stuff anymore, I think we need to work together via *OSR* to share our knowledge and keep the art of building alive and growing. While writing, I will also be trying to corrupt more modelers into moving over to the traction persuasion as I am finding it quite personally gratifying. With the limited supply of models now, O scale traction is the domain of the scratch builder as was narrow gauge in the last millennium. It's a great place to be if you really like to build! And the prototypical sharper curves permit you to stuff more action into a limited space.

There are not many traction modellers down my way. Not a great number in O scale either. We have a small group and get together and share info.

I am certainly happy to help anyone I can. And, I firmly believe that you can learn something new from anyone else as well. While no expert, I would have knowledge other could use just as I am sure I

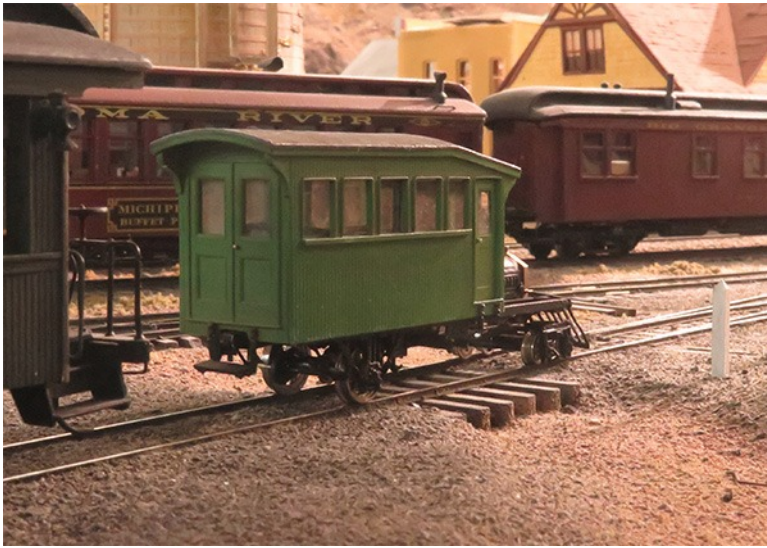
cold learn from them. If you think I can help your modeling please contact me at George.Paxon@oscaleresource.com.

George, nice to hear from a traction modeler. Like you said, there are few of use around. Thanks for your insights.

David Woodhead

I can trace my interest in narrow gauge to the summer of 1963, when several articles in the June issue of *Model Railroader* coincided with a family vacation to the Black Hills of South Dakota. There I saw three foot gauge steam and plenty of intriguing odds and ends, and I've been hooked ever since. Soon after, we visited Edaville and saw two-foot gauge – even more new horizons! The wide variety in the world of narrow gauge never ceases to amaze, and in my travels, (I'm a freelance musician) I've managed to get a cab ride on the Puffing Billy





The Silvertown Northern railbus was completed from a PSC kit, with Tsunami2 decoder (the "Baldwin and other" option which includes Galloping Goose sounds), a keep-alive and sugar cube speaker. Here it is visiting on Larry MacDonald's layout.



Visiting Hill City, South Dakota in 1963. I'm inspecting a C&NW two-foot gauge loco from a tie processing plant. Photo by Bill Woodhead, my Dad.

railway in Australia, spend a day on a mixed train in Newfoundland, and visit the two-foot lines of North Wales, most of the Colorado lines, and meter gauge in Switzerland.

So, what would be the theme for my layout? Early on I settled on the Eastern lines of Pennsylvania and Ohio as the style of railway I'd most like to model, including the Tionesta Valley, Ohio River and Western, Waynesburg and Washington and Newport and Sherman's Valley. They are all common carriers with a resource base in mining and/or lumber, running from a standard gauge interchange up into a wilder hinterland. There could also be daily milk traffic and coal is brought in to the local communities, patterns very common in the circa-1890s era I visualize. There's a look I'm after and I try for a "rightness" that comes from familiarity through print and travels, and all the locos and rolling stock are similar to examples on the various prototype lines. I like the challenge of finding appropriate models to portray this, and almost everything is kitbashed with that in mind, with the locomotives being either vintage brass or modified recent On30 offerings. Starting with a thirties look, like many in narrow gauge, I'm increasingly favoring the diamond stacks and wood cabs of an earlier time. But I couldn't resist completing a Silvertown Northern rail-bus with sound, the first internal combustion anywhere on the layout!

Why On3? I started in HOn3, influenced by David Steer and Bill Scobie when I lived in Ottawa, and was later inspired by a group of On3 modelers here in Ontario to move to the larger scale. The quality of their work and the detailing and better operation of the larger size really sold me, and I learned an immense amount hanging around with them. On30 was not widespread at the

time (around 1990), but even now I'd be more drawn to the more common (in North America) three foot gauge. It just looks more "right" to me, though I've certainly made use of a lot of On30 products, changing the gauge to suit.

In the last four years or so, two things have made a lot of difference. One is finally getting some "serious" scenery done on a significant part of the layout, making for a lot more impact when entering the room and enabling much more realistic and evocative photos to be taken. I've left the backdrop a simple blue and enjoy adding real sky in photos, which varies the feel of the photos considerably. The second is starting to use a switch-list app to organize operations, which really takes everything to new level in experiencing the layout as a functioning railroad with jobs to do and crews co-operating to get them done. Though there are only three towns on the point-to-point layout with a couple of single staging tracks, it's amazing how time slips away in the details of an afternoon operating session.



The Larrys - Barber and MacDonald - organize some switching moves at Windrim - this part of the layout was originally built by Stan Windrim, and some structures were acquired from Trevor Marshall.



Madoc and North Hastings 2-6-0 #4 departs Hackney with a short freight. This loco is a modified Bachmann mogul, with new PSC cab, pilot and all boiler details replaced to suggest the look of OR&W prototypes.

I tend to work in bursts when time is available, which goes against most advice that recommends a steady pace – many are able to work for say, an hour a day on their layouts, but I like to get hold of a project and try to see it through to some sense of completion and get that reward at the end. That said, there are always several projects simmering, waiting for attention! Everyone has a pace, and one thing that's important is to try and get that satisfaction in modeling, that feeling of accomplishment, even from a small task, that keeps interest up and frustration down. There is no end to new challenges, and for me another one right now is improving my metalworking skills, having acquired some new tools including a resistance soldering unit. I had some initial instruction from some old hands and am now practicing by using it on recent projects including that brass railbus.

If any of these topics spark more questions, I'm always happy to discuss model railroading by email – David.Woodhead@oscaleresource.com is where I can be reached, and my railroad web pages are at <http://www.davidwoodhead.com/page7.html>.

I had the pleasure of meeting David on my "New Tracks" Zoom show on June 2, 2020. Here is some additional information about his modeling he just provided.

With both live music and recording projects on hold since March of 2020, the time has been ripe for working on my On3 layout, and I have to say I've accomplished much more than I had in the previous five years combined. There was much progress in expanding the rolling stock roster, but I'll focus here on some scene development.

What project to tackle next? It's always good to start with looking at your layout and strengthening the weaknesses – make the worst section the best! It could be the place most ignored for the longest time.

I had a small industrial area that had been roughed in with spare structures and never properly thought through. Excellent - let's do it! I had a good central stone foundry in place (an old Korber kit) and added some background flats along the siding. Next I built a new feed and seed company from a resin Chooch general store and a Schomberg plaster silo, omitting the store facade and choosing yellow to draw attention as a centre piece. Most of my layout is muted browns and greys, so it was revolutionary to go for a strong colour there. Signs are still to be added, and I'm always moving the foreground machinery and details around.

One thing led to another and I moved to the right of the industrial area to the station and background hill behind the tracks. In spite of the layout being set in the rolling hills of Central Ontario, this area resembled some dry and desolate badlands – room for improvement! I had a station built by my friend Trevor Marshall just begging for a spot on the layout, and I built up the land contour to accommodate it supported on rock piers



made from broken bits of plaster rock castings, suggestive of the informal cottage-style construction common in the area.

This gave me a neat area under the station to place some discarded supplies and undergrowth, leading the viewer to wonder what else is under there. Nothing like a good mystery!

The greening of the background hill involved layering materials such as Heki teasable foliage mats, florists' moss, ground foam, some static grass in a few places, and a few areas of broken twigs and small trees. For the most part, I avoided large trees as I wanted a sense of space – fields receding into an indeterminate distance even though it is actually only four or five inches from the ends of the ties to the wall. I did place trees near the buildings, to provide a sense of scale and to hide that awkward place where the structures abut the background. Also, the texture of the hill was varied: some places were sunny grass, almost bare, others were scrubby brush and over to the left a denser coniferous forest with a darker, wetter look

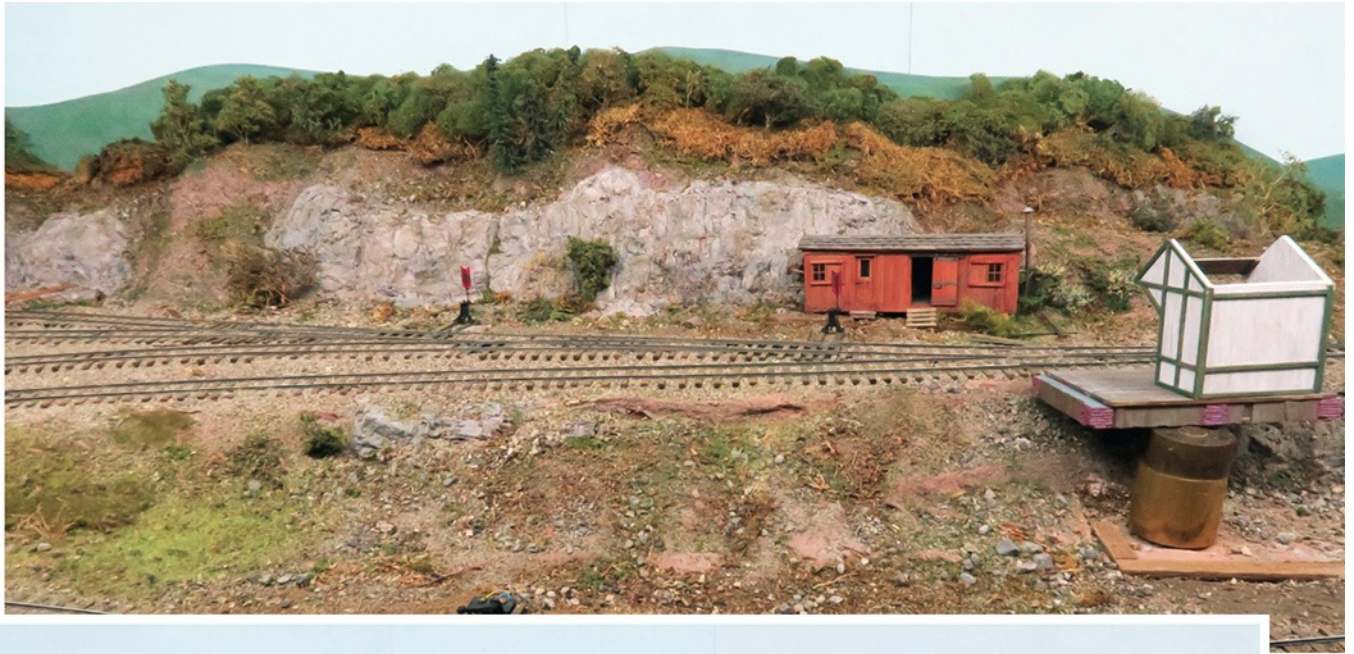
The engine house is scratchbuilt following a Newport and Sherman's Valley prototype, though it was sized to fit this tight spot on the layout. No plans were used, everything just had to fit and look right! The siding is from Mt. Albert Scale Lumber, and windows and stacks are modified Grandt Line. On the left is 2-6-0 #4, and #5, poking its nose out of the stall, is a modified Max Gray 4-4-0 brass model from 1964, fitted with Tsunami sound.

suggested the reason for the stream running under the tracks. Everything is held together with diluted yellow carpenter's glue applied with an eyedropper.



It was quite a different kettle of fish working on the next project. I had always liked a certain photo of the Vankirk passenger shelter on the three-foot gauge Waynesburg and Washington in southwest Pennsylvania. The whitewashed retaining wall, the man standing in the baggage door, the little shelter and curve of the hills sums up rural railroading in the 1910 era. It dawned on me that I had a spot on my layout that could hold an adaptation of this scene, and it could serve the employees of the Solway feldspar plant nearby. Plans for the shelter were in "Three Feet On The Panhandle", a great book on the W&W, so I started building.

The narrow vertical siding looked a good match for some Evergreen styrene passenger car siding on hand, so I cut interior and exterior walls, and primed and painted them with greys and browns, topped with tube acrylic white brushed on roughly. Trim is wood 2x4s, prepainted browns with a faded green top coat. The fit of the pieces is important here, and a light touch with the Ultimotion sanding tool is excellent for this kind of work. Basically, each piece is custom cut a little long and finely trimmed for a snug fit. From the photos, it looked like the prototype had small wood shingles on the roof – I had some old Walker styrene shingles that I prepainted and glued in place, but there are a number of other excellent shingles on the market now. The interior has a simple bench, and I'll add some signs and perhaps posters and a schedule board.



I took a drywall saw to the plaster scenery and cut a long hole where I wanted that retaining wall to go, leaving enough space trackside for some passengers to walk to the cars, and used rough cedar strips for the timbers of the wall. Basswood would look too “polite” here, I wanted some texture, and I stained the wall and “whitewashed” with drybrushed white acrylic. I patched up the landscape with various mixtures of sifted building-supply sand, my leftover-foliage container, some moss, air fern bits, small twigs, and commercial MiniNatur flowering shrubs.

The biggest change from the photos was adding some stairs – I realized my passengers had no way of getting up that steep hill! I made a brass cutting pattern for the rise and run I wanted, and cut styrene “sawtooth” tread supports, though the treads and visible outside pieces are all wood. Railings are brass wire, spiked to a piece of 1x2 in position for soldering with a trusty old Weller soldering gun, using tiny bits of pre-cut solder so as not to overwhelm the small wire size.

There you have it – now I’m looking at the rest of the layout and seeing all kinds of improvements crying out to be made.

Thanks, David, for your interest and help. You can reach him at David.Woodhead@oscaleresource.com.



Alain Kap

My name is Alain Kap. I am a Luxembourger, but live in Germany with my wife and teenage son. I also have two grown daughters. I have been a member of different model railroad clubs in Germany and Luxembourg. Member of the NMRA since 1993, I am also the president of the NMRA European Region since 2015 and Achievement Program Chair.

I have a widespread interest in modeling, ranging from plastic and military models to model railroading. My home layout depicts the Santa Fe Surf Line from Los Angeles to San Diego in HO. I also participated in different project layouts for exhibitions in On3/30 and 1/35 scale. I have built and operated several show layouts from Micro to Modular over the past 20+ years.

Although HO being my preferred scale, I also venture in O or even 1/35, which equals to 1 narrow gauge. The larger scale gives me more details than HO.

All my On3 models are scratchbuilt from scale lumber strips with plastic detail parts added. Today I would rather build a model from scratch than modify a kit. My layout gives me plenty of chances to do just that, because there are no kits for any of the scenes I build.

Novice modelers often look up to «experienced» modelers as if they were some kind of Gods or Untouchables. They lift them up to an almost unreachable podium instead of approaching them with their questions and search for advice. Magazine articles are a great help in learning how to do things, but as we said in the Boy Scouts, Learning by Doing is still the best way to refine your skills. It is like the things we learned in theory at school, and later in work life we apply the theory and become experts in a specific field. The same counts in modeling, whether it be model railroading, military or plastic modeling.

When I started in model railroading in 1989, I mostly bought ready-to-run stuff or built kits. This changed when I attended a clinic about the Achievement Program at the NMRA National Convention in Madison, WI back in 1997. I did not know how I would become an MMR someday, by living in Europe, but I knew that I wanted to hang one or the other certificate to my train room wall.

A fellow modeler from the Netherlands was already involved into the AP and he gave me the first helpful tips, which eventually led to my Golden Spike Award in 1998. A bit intimidated by the fine craftsmanship witnessed in the Contest Rooms at Conventions, my first Contest entries were two modified Athearn and Roundhouse cabooses that I upgraded with different detail parts. Of course the models did not receive a Merit Award, but the encouraging comments left by the judges showed me that I was on the right path.

Many models and contests later, my skills started to refine and I tried my hand on scratchbuilding things instead of altering or upgrading ready-to-run or shake-the-box kits. This definitely boosted my modeling. To create something from a handful of styrene or wood stock and sheet was absolutely amazing, and it showed in the scores also.

Although I had some modelers to ask for advice, they were not going the extra step that I expected, so I acquired most of my knowledge through trial and error. Carrying my models to a yearly convention, either in the US or in the UK, gave me plenty of time to correct errors or to build new models for next year, if they failed.

I became MMR #526 in early 2014 with 8 certificates. Meanwhile, I also earned the Official in October 2017 and Master Builder Motive Power in March 2018. Currently, I am working on the last Certificate which is Prototype Models. I may proudly say that it took me twenty years to work my way through the Achievement

Program by trial and error. Modelers in the United States may be more fortunate than I was in Europe, where American Prototype Modeling is still something exotic.

With social media nowadays, modelers have more possibilities to learn new techniques or to communicate with fellow modelers and search for help. Although I live a few thousand miles away from most of you, I will



Industrial Diesel in 1/35 based on an HO Model Power Plymouth powered underframe. Cab and hood are scratchbuilt from plain styrene sheet.



On30 M.A.C. Rail Car. Deck, cab, hood and tank scratchbuilt. Powered by a Bachmann HO Railbus.



On3 Snow spreader. Scratchbuilt.



Underframe detail of my scratchbuilt On3 Southern

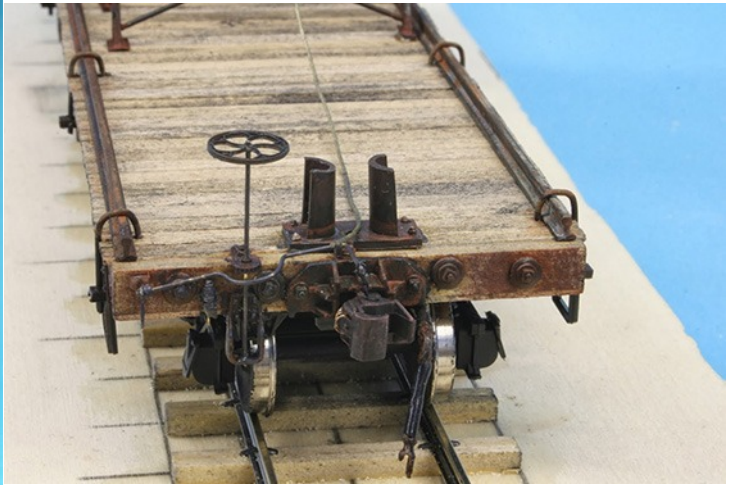
always give my best to answer questions through email. I would be offering mentoring help on rolling stock and structures and also concerning the Achievement Program of the NMRA. I have done almost all the certificates and might be of some help there as well.

Interested modelers may also consult my different blogs, atsf-surflines.blogspot.com or my-route-to-mmrb.blogspot.com

I hope you will contact me if you think I can help you with your modeling at Alain.Kapa@oscaleresource.com thank you for your insights and help.



1/35 scratchbuilt industrial diesel. Powered by HO Model Power Porter Hustler



Scratchbuilt On3 winch car details and car below.



Ralph DeBlasi

Who am I as a modeler? Well I am just about to turn 65! Damn, where did that time go! I have always been interested in trains since I could remember. Having the double track Lehigh Valley main line across from the home I grew up in made sure of that.

I am a CPA tax accountant so the normal winter months for enjoying the hobby don't work for me. I



have been married for 31

years to my wife, Sandy, the best hobby wife one could ever ask for. She understood the needs of my hobby and knew when buying our house the basement size mattered. She also lets me have a CTC machine in our non formal living room; and attends model railroad events with me. A keeper for sure. A spouse who understands your passion is an invaluable asset in this hobby. A real asset at train shows when I'm looking for something. She does not participate, but supports me. Ask my operators who love her food spreads at op sessions.

We have a 26 year old son, Dominic, who is in Law Enforcement, and have lived in South Jersey most of our lives.

I am a life long modeler and historian of the Lehigh Valley Railroad. From age two (1955) to age 14 (1969) I lived directly across from the double track Lehigh Valley main line in Cranford NJ. My maternal Grandmother lived next to an LV branch in anthracite coal country and my paternal Grandmother lived down the road from another LV coal branch. Growing up LV is all I knew and I dedicated my life to learning and modeling. I had a Lionel layout from age 5 to 12 then switched to HO due to the amount of rolling stock.

I chose HO back in the day due to size, cost, and availability of LV material, which was very little.

I can help mentor anyone because I am self taught. From learning to use an airbrush to hand laying track and scratching turnouts and crossings which I started at 16. I am self taught. A mentor could have saved me a lot of time.

If you believe I can help your modeling please let me know Ralph.DeBladi@oscaleresource.com. Thank you for your comments and help.



Ondra Mokry

This modeler is really something. I have never seen anything like the models Ondra builds. Enjoy. WW1 aircraft are on my Traction layout.



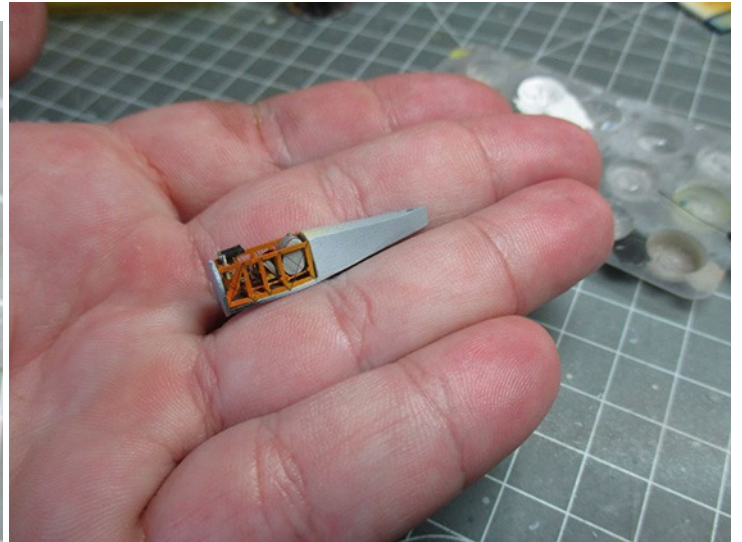
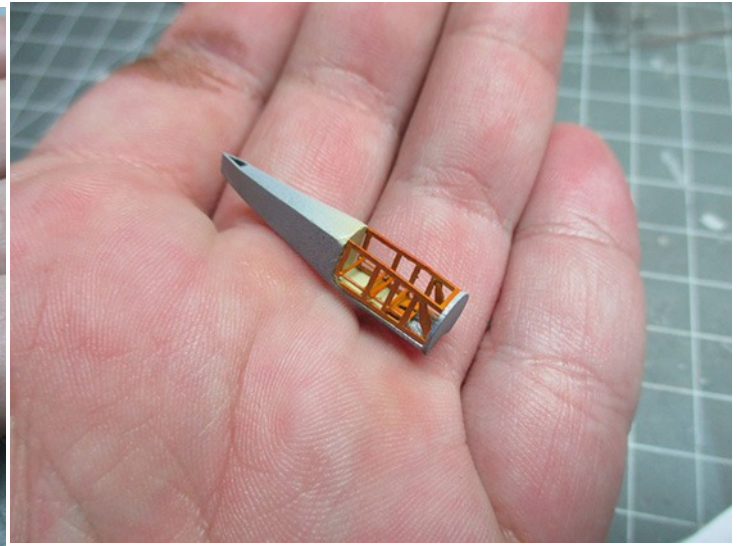
I am a WWI aircraft enthusiast and modeller, the journey to WWI scale modelling was rather long, though. I started scale modelling when I was about 8 years old, by then I was building paper card models of various subjects. Later on, I started designing my own builds (among others Star Trek and Star Wars vehicles) made of paper.

The next stage were subjects from WWII, both ground vehicles and aircraft (I build about 10 airplanes from WWII, among others P-38G, FW 190 A8 and Hurricane in 1/135 scale). These were also scratch built out of paper.

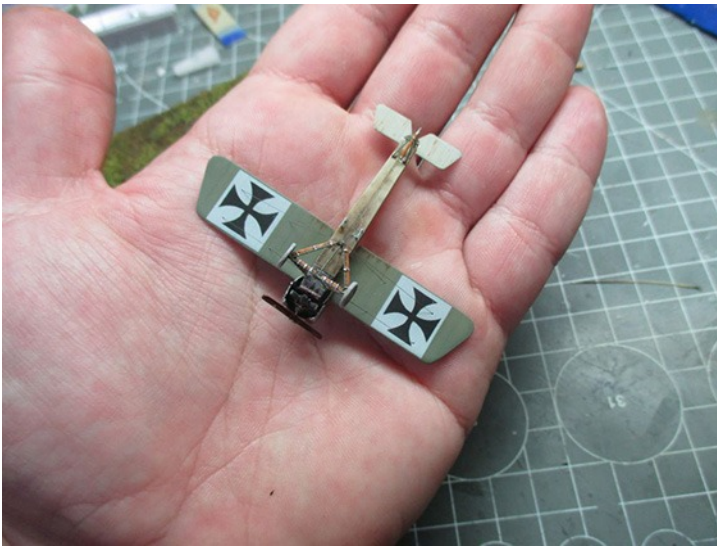
The breaking point came when I was 15 and saw the movie 'Aces high' depicting life of WWI pilots and since then I have been fully devoted to WWI aviation.

My first WWI model was Fokker Eindecker, again a scratchbuild made of paper. As I was gaining experience with the following models, I was adding new materials as balsa wood and copper wire. There was not much progress visible on these models.

What increased my pace of learning was when I got in contact with the Czech scale modelers community via an Internet forum. I presented there my build of Guynemer's Spad VII and received a lot of helpful comments and hints.



I also found two WWI modellers in the forums who became my mentors. Among other points, my mentors advised me to start using styrene instead of paper and balsa. The next milestone was moving from brush



painting to using airbrush. Of course there were lots of things I had to invent myself using the trial and error approach.

So far I have built 18 WWI subjects, all scratch build and in 1/144 scale. The choice of scale was actually simple, as I have always liked the look of tiny scale models (I started with 1/120 paper models). Among other reasons, they take very little space and from the very beginning I have known I want to build a lot of subjects. Another factor is, that while scratch building in 1/144, I have the feeling of creating something unique. Last, but not least, the most enjoyable part of each build is searching for ways to create better level of detail than on the previous build, using new technologies and new solutions.

If you think I can help you in your modeling, please let me know. Ondry.Mokry@oscaleresource.com

Some of us think we have trouble with details on our O scale models. After meeting Ondra, I will have to try harder working on my level of detail. What a mentor he will be.

Nicholas Kalis



My first brush with trains was when I posed with the last trolley car to leave New York City. I appeared with a model plane in hand (as contrast) in the center spread of the *NY Daily News*. I was three years old at the time. The trolley was on the line that ran over the 59th Street Bridge to Long Island City. This trolley would make a stop in the middle of the span so that passengers could alight and then take an elevator down to what was then called Welfare Island.

I received the proverbial Lionel set under the Christmas Tree when I was about 8 – 9 years old (it included an orange Lionel Lines diesel locomotive and a few freight cars); my dad added to it by buying me a box of used trains that included a steam locomotive. The next year, my dad bought my brother, Michael, a Gilbert S gauge set – to our disappointment, they were not compatible. Many of our friends had layouts they would set up after Thanksgiving and take down some time in January, as best I recall.

My first taste of building was a Walter's kit of a HO scale RPO kit that I built, spray painted, and decaled on my dinette table when I lived alone in Arlington, Virginia. It looked great due to taking my time, being patient, and a bit of beginners luck; I kept it for decades.

My interest in urban modeling led me to start the short-lived Urban Modeling Special Interest Group – past issues of our newsletter can be found on the web. I grew up near the tracks of the New York Connecting Railroad (jointly owned by the Pennsy and the New Haven). My interest in this layout led me to found the New York Connecting Railroad Historical Society which earned a devoted membership. I earned the Author Certificate under the NMRA Achievement program. While I am not involved in tinplate, I do enjoy subscribing to Classic Toy Trains.

I have written in a few forums about the need of the hobby to attract younger adults – aiming at children may not be the most productive avenue for us as a hobby. I have pointed to European exhibition layouts as the best route to get more people to build layouts. I have served as layout tour coordinator for my Division and

have learned that very few of our NMRA members, and I suspect non-NMRA members, have a layout or are even working on one. I feel published estimates of the percentage of us that have a layout may exaggerate the percentage of us that have a layout. I don't think surveys can be accurate when modern polling techniques have not been used (I once worked for a polling organization so I know a quality poll when I see one). Also, some exaggeration of the percentage of layouts occurs when we lump in categories such as "started as layout" – or some such other categories that really don't meet the threshold of a presentable, operating layout.

This possible exaggeration serves to encourage manufacturers. One hobby shop owner confided to me in a face-to-face chat that he was aware that many of his best customers were not building layouts but were simply stopping in regularly to see the latest new engines and rolling stock and just buying them to fill up a closet at home. Large basement empires are just fine with me, but we must get the message out loud and clear that there are alternatives to a basement empire. Take a look at the folks leaving an International Plastic Modelers Society event and you will see that most look to be about 30 years younger than the average model railroader – there is a thirst out there for model making; model railroading as a hobby could do better in slackening that thirst. Mainstream modeling magazines seem to be of little help. The mainstream model railroading press is working at cross purposes with its long-term interests. These publications seek, in the short term, readers who are wowed by basement empires. Problem is that *Model Railroader* has seen a steady decline in copied printed – this is their long term problem (I see that as a barometer of a problem – while others respond that this decline is simply that folks are getting their information elsewhere such as on the Internet).

Others may vehemently disagree, but I see the printed copies of *Model Railroader* as a very accurate barometer of the status of the hobby – it has outlasted so many other publications. Often when we see a published so-called small layout, it is a 4x8 or something close to that project. The young fellow we should be targeting does not have the room for such a layout. I see our target as the fellow who in his 20s was into fast cars, the opposite sex, and building his career. By his 30s, he has settled into an apartment or condo, or perhaps a small townhouse with his significant other and perhaps a young child. He wants to model so he has a small corner of a room with a tiny workbench. He joins IPMS or just builds plastic tanks, cars, etc. as a lone wolf. He has the room for an exhibition layout that he can hang over his workbench or store vertically somewhere and no more. And I am pragmatic, it probably is a fellow, somehow, the hobby fails to attract many women – it is their loss. I know we would like to add more females to our ranks but our outreach efforts are limited. Children for



Waipahu Engine House

the most part have limited financial resources and are at the mercy of their parents for finances; travelling to shows, open houses, hobby shops; and room to build a layout. As John Nehrich of RPI fame was reported to have said, emphasizing children in our outreach sends a counter-productive message to our wider target audience and that is that model railroading is somehow an infantile pursuit – that a model railroader is no more than a man-child who never grew up and is playing with toys. We know that is not true, but sadly that is the feeling in some quarters. We should not add fuel to that fire. Nor should we confuse people – who have conflated model railroading with tinsplate collectors and operators – about what we do. Model railroading holds great promise – yes, fewer of us today have opportunities to see trains in a local yard, but heck, when was the last time someone saw a tank rumble down their street? Yet, tank modeling is going strong.

I have had many mentors: First, Monroe Steward and a friend of his helped me tear down my first failed helix and helped me build a much better replacement. Monroe informed me that my first effort to spray paint a brass locomotive was a failure – he was right. Of course, I learned from trial and error. My advice to others is that you cannot proceed in this hobby until you realize that your trash can is your friend. By that I mean, one must not hesitate to trash failed efforts and start again. Put another way, growth in this hobby will only come once you can resist beating yourself up for failed efforts. The wooden trestle on my current effort is the fourth one I have built of this same prototype – my first three efforts were failures. Oh, and “failure” is not a dirty word. There may even be a payback in other aspects of our lives – accepting failure, learning from failure, learning to move on from failure, is a very valuable attitude.

I should mention that I learned from David Barrow and his domino concept. My friend, Ed Bjarnason, and I cut the benchwork for my second layout (domino construction techniques were utilized) in a trailer park. Ed had his woodworking tools stored in a shed behind his trailer and we would cut the wood outdoors. I write this to show others that where there is a will there is a way to get a layout built.

Other mentors have been the late Ted Tubbessing, Paul Dolkos and Doug Gurin. Paul shared with me techniques for improving two of my layouts. Jim Stapleton and Dick Kilday helped me build my Oahu Sugar Company. Another mentor has been Nigel Philips. Gary Eames meets with me for lunch and keeps me working on my layout with advice and encouragement.



Water Tower



I have sought to give back to the hobby by serving for many years as the Layout Tour Coordinator for the Mid Eastern Region's Potomac Division. Our division strives to have an open house every month of the year.

I recently crossed off a matter from my bucket list with a visit to England's Pendon Museum – it houses perhaps the best rural modeling ever accomplished. (Jim Kellow [profiled the Pendon Museum in one of his "New Tracks" articles in this magazine.](#))

My first real layout was an HO scale depiction of Sunnyside Yard in the 1960s – I chose HO scale for the availability of models. I probably should have chosen N scale. It basically ended up in the trash when I moved. My second layout was the LIRR Lower Montauk Branch, also in HO scale. My choice of scale was dictated by the wide choice of models available in HO. It took the cover of the September 2007 *RMC*. I sold two thirds of the layout and gave away one third to friend Ben Hom.

My third layout is the Fn3 Oahu Sugar Company. It has appeared as the cover story for Hince's *Narrow Gauge Downunder* of July 2018. I chose Fn3 because I wanted more reliable trackwork and trains than I enjoyed in HO scale. I visited Granddad's Hobbies and opened the box of On30 steam locomotive manufactured by Bachmann. I quickly realized that it was not going



to be much larger or operate much better than HO so the next thing was to try something that would run on Gauge 1 track. Then I chanced upon Bachmann's 1:20.3 locomotives which were very reasonably priced. As I was wary of dirty track and its problems, I paid someone to convert my two locomotives so that they would operate by battery. Ed McGill has been a loyal friend for decades helping me build all three of my layouts.

I am willing to mentor in: 1. building a model railroad and 2. building Scenery. If you think I can be of help to you with your modeling, please contact me at Nicholas.Kalis@oscaleresource.com.



Thanks, Nicholas, for your help and interest. You belong to a great NMRA Mid-East Region. I m a Life member of the region and miss seeing the members modeling since moving to Florida.

Ivan Stasa

I am mostly model railroader in HO scale, with modeling interest in plastic model building mostly cars in 1:24,1:25 and 1:12 scale, RC car racing and also RC boat sailing mostly in 1 :10 scale. Why all those scales...trains in HO are most interesting to see run, details are very good. Plastic models I love to build mostly in 1:24 scale, it's easier and military models in 1:35 scale.



My history goes far back in my childhood. My father gave me a model train when I was six. He himself was my first and only great mentor. He built mostly wooden ships from blue prints and some airplanes. But he was a very, very talented artist. He was an engineer and designer who could build anything. He was a master craftsman in all aspects of work. He taught me how to solder, weld and fabricate from metal, how to properly use all hand tools, and he made me learn to draw on a drafting table. The drafting table was in my bedroom. Life with him was not an easy one. His motto was : If you can't do it right, than don't do it at all. He was a perfectionist, and as you know, people like that expect much more than mediocre.

I mostly teach young children to model trains, cars, airplanes, and boats and how to use tools. We had a small display last week so I was busy with that. The airplane above was made by my 10 year old grandson Denis...

Please contact me if I can be of help you with your modeling at Ivan.Stasa@oscaleresource.com. Thank you for your comments and interest.



David Burn

As a young boy I was fortunate enough to have travelled right around India by steam train back in the 1970s.

I think this is where my interest in trains started, having my senses overwhelmed with coal dust in my eyes, traveling through long tunnels that completely blacked out the carriage, and bridges that would take the train over terrain that was unimaginable. I really enjoyed getting off one train only to get on another for the steep climb ahead. Trains to me work hard pulling large heavy loads, shunting in the yards all day, and when they are no longer needed, off to the scrap heap or restored for another days work to give another generation the same appreciation.

In my teens, I started modelling HO gauge on a small 6' x 3' piece of chip board that sat on top of a disused twin tub washing machine. The model railway was nearly completed when a bush fire swept through our property in Victoria (Ash Wednesday, 1983) burning the shed down along with the railroad. 35+ years had passed by and I decided to give it another go.

This is a Japanese On30 kit from Pair hands that I purchased on-line. It needed to have character so I added some extras bits and pieces that are highlighted in green on the bug.

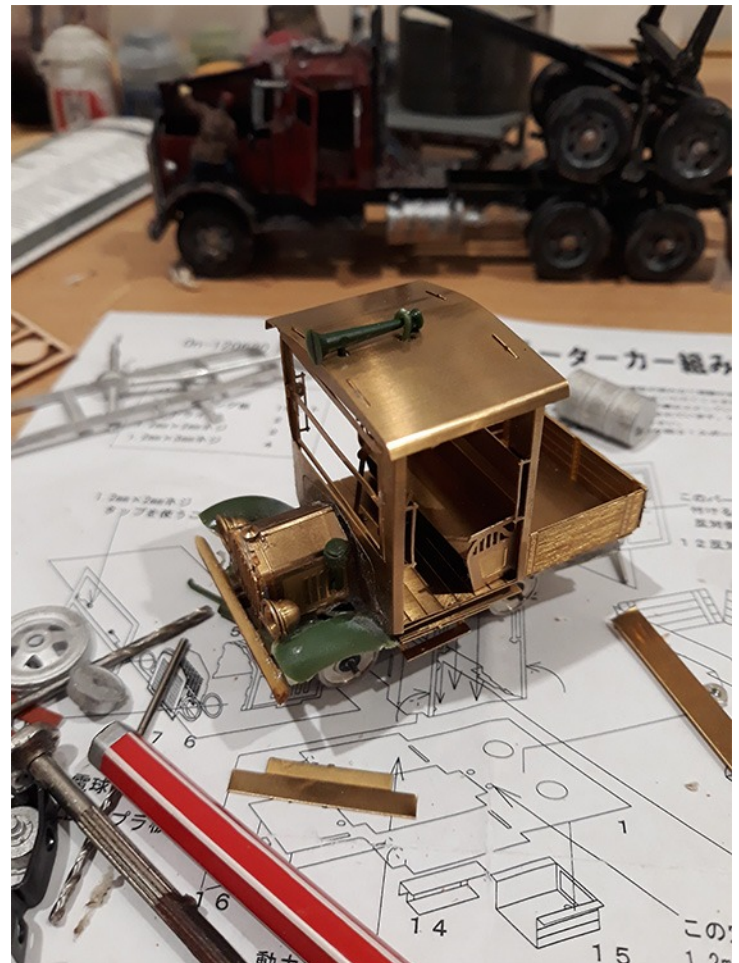
The end result can be quiet rewarding with your one of a kind engine driver. By carefully adding some plaster to the face and belly you can see how the engine driver is starting to take shape.

Sometimes you just need something a bit different so I grabbed a military figure added some plaster to the body plus head and then carved out and sanded the engine driver until he took shape. Also some kits allow you to move arms and legs into different positions so you can retro fit them to your engine.

Also pictured are some of the trees nearly completed. I hunted around stores looking through the craft sections until I found the foliage that looked realistic. You may want to add a few more colours to the leaves to represent the season of the year.

By adding a hole near the base of the tree trunk you can position some tree roots through the hole to give the illusion that the roots are travelling underground. You can also shape the base of the trunk with some more plaster giving the ground formation a more realistic appearance.

To make some gumtrees, I looked around in the garden to find some light branches that could be cut and used as a starting point for a tree trunk. To make the tree look more realistic I stuck some small twigs



onto the trunk and at the base to represent some tree roots. Then I used a plaster mix and filled most of gaps adding some saw dust shavings whilst the plaster was still wet. To finish off some, different paint colours are sprayed on and it's quite effective how you get a illusion of moss on the tree.



I wanted to model in a scale that was large enough for lots of detail without going overboard, and I also needed to have access to multiple kits in the same scale so I can kit bash and have lots of fun playing with my imagination. I decided On30 was my best option. On my layout, I want to have a river run by for a paddle steamer, and a mountain range so I can have bridges followed by a small town surrounded by thick native bush land. This will be a challenging as I only have limited space and to fit all these scenes in, and trying to keep it realistic will test me. I'm constantly collecting bits and pieces of anything that might be useful for my railway. That to me is so rewarding knowing that something classed as rubbish can be reused.

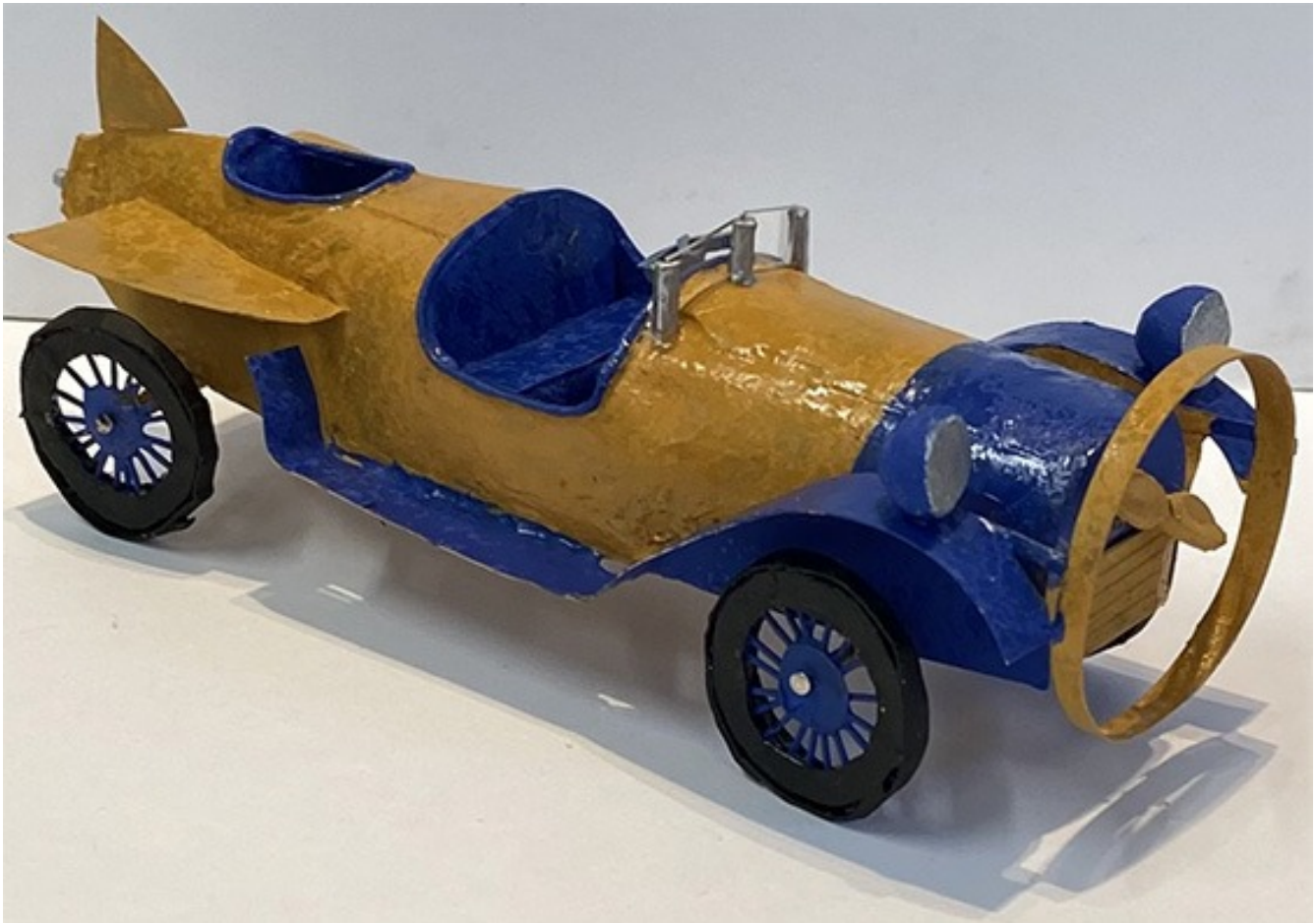
Slowly the layout is starting to take some form. To speed things up, an old table tennis table became very handy for the support base. L-Girder construction has been used to make the rail levels and the scenery will

be a combination of using various materials such as wire, foam, newspaper. I'm still learning and have adopted the whatever works approach. Most of the buildings will be scratch built along with the engines. If you think I can be of help in your modeling please let me know by email at David.Burn@oscaleresource.com.



Well that's it for this "New Tracks" article. I hope you enjoyed it and learned a little. Please follow my [Facebook page "Jim Kellow MMR"](#) so we can stay in touch between articles.

Also please subscribe to my website newtracksmodeling.com to get log in links to my Zoom events. Also please give me your comments, suggestions, and modeling ideas.





Time for me to return to my workbench.

Speaking of my workbench here are some models I recently built..

Prototype 1932 French Helicron, wood body with metalwork painted blue, wheelbase 109", prop 51". My model is scratchbuilt in brass. Wire wheels are brass and card. I did not have a model engine, so I covered the engine compartment and put in a radiator. Otherwise, the model is fairly representative of the prototype. I had a lot of fun figuring out how to build this model. Something different you will not see on many model railroads. My kind of modeling!

I could not resist scratchbuilding this 1930s truck in brass. Logs and wheels are card. A fun build for my Traction line.



My plantation just had to have a greenhouse. My model is made in card from a photo. Just need to get it located and filled with plants. I know, too much time on my hands! But I'm having fun.

If you have a photo of something a little, or a lot different or unique, please send it to me. I'm always looking for something to build.

Thank you for reading this far. I really appreciate it. As always, best of modeling to you. It really is fun. Thanks for reading this far. Good luck with your model building.

O SCALE SHOWS & MEETS

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

[Click here to send us your information.](#)

The Cleveland O Scale 2-Rail Train Meet

November 6, 2021 @ 9:00 am - 2:00 pm

The website (<http://www.cleveshows.com/>) has updated information on the show. The show will still be at the UAW Hall (5615 Chevrolet Blvd., Parma, Ohio 44130) and happen from 9am to 2pm. Admission is \$7.00. Contact Sam Shumaker at (440) 248-3055 for table and additional show information.

O Scale South 2022

February 26th, 2022

Atlanta, GA USA

Cross of Life Lutheran Church,

1000 Hembree Rd, Roswell, GA 30076

7th Annual Atlanta O Scale 2 Rail Meet; Sales Tables, Swap Meet, Modular Layout Display, Layout tour information at the meet. 9am to 2pm Saturday February 26, 2022, \$5 Admission (spouses & children free)/ \$25 per 8ft table includes admission, email or call 770-337-5139 to reserve tables/more info.

Email: daniel@southernoscalers.com

Web: www.oscalesouth2021.com

O Scale March Meet

April 1-3, 2022

Westin Lombard Yorktown Center

Lombard, IL

Under new management and new dates!

The March O Scale Meet is a 3 day gathering of vendors, customers, clinics, and fun held annually in March in the Chicagoland area. This is the Chicago O Scale train show you've heard of.

Website: <http://marchmeet.net/>

Email: ChicagoMeet@yahoo.com

Harrisburg All O Scale Meet

April 2, 2022

Sponsored by: [Narrow Gauge Modeling Company](#)

St. Thomas United Church of Christ

6490 Linglestown Road

Harrisburg, PA 17112

Strasburg 2 Rail Train Show

April 23, 2022

Strasburg PA

Strasburg Train Show: Two-rail swap meet at the Strasburg Fire Co, 203 W. Franklin St, Strasburg, Pennsylvania. 9 am-1 pm.

Admission \$5, wives/children/military w. ID free, tables \$25 for first table, additional \$20 per. Great food, modular layout, clinics.

Contact John Dunn (609-432-2871) [Click here for info.](#)

O Scale West - S West and Narrow Gauge West

May 27-29, 2022

Hyatt Regency Santa Clara (San Francisco area)

Website: www.oscalewest.com

Harrisburg Narrow O Summer Meet

June 10th and 11th, 2022

Sponsored by: [Narrow Gauge Modeling Company](#)

St. Thomas United Church of Christ

6490 Linglestown Road

Harrisburg, PA 17112

Strasburg 2 Rail Train Show

August 6, 2022

Strasburg PA

Strasburg Train Show: Two-rail swap meet at the Strasburg Fire Co, 203 W. Franklin St, Strasburg, Pennsylvania. 9 am-1 pm.

Admission \$5, wives/children/military w. ID free, tables \$25 for first table, additional \$20 per. Great food, modular layout, clinics. Contact John Dunn (609-432-2871) [Click here for info.](#)

42nd National Narrow Gauge Convention

September 1-5, 2022

42nd National Narrow Gauge Convention. Join us in the beautiful Pacific North West for outstanding clinics, world-class narrow gauge layouts, stunning modular displays, your favorite exhibitors/vendors, and The Contest. All under one roof at the chic Hotel Murano in downtown Tacoma, WA.

Email: registration@seattlenngc.com

Strasburg 2 Rail Train Show

October 15, 2022

Strasburg PA

Strasburg Train Show: Two-rail swap meet at the Strasburg Fire Co, 203 W. Franklin St, Strasburg, Pennsylvania. 9 am-1 pm.

Admission \$5, wives/children/military w. ID free, tables \$25 for first table, additional \$20 per. Great food, modular layout, clinics. Contact John Dunn (609-432-2871) [Click here for info.](#)

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