THE O SCALE RESOURCE

NEWS, REVIEWS, INFORMATION TO USE

Volume 7 No.6
July/August 2020

7 YEARS STRONG!

New Tracks - On3 Railroading
2 Rail a Rail King-MTH Tank Car
Building Bulletproof House Cars
Remembering Claude Abernathy's
Virginian, N&W And Seaboard Railroad
Sanmore Subdivision Construction Update
And So Much more...

O&S Scale Midwest Show

It's September! Time to kick off your modeling season!

The best of O Scale and S Scale in one Show

September 18-20, 2020

WYNDHAM Indianapolis West 2544 Executive Dr. Indianapolis, IN

DEALER SETUP

Friday 4pm - 9pm

Saturday 7:30am - 9am

SHOW TIMES

Saturday 9am - 5pm

Sunday 9am - 2pm

Room Rate $125.00* per night (until 8/21/20) Reference O/S Scale Show when calling

***Based on availability**

317-248-2481 / 877-361-4511

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Make checks payable to: Model Railroad Resource LLC
Mail registration form to: 407 East Chippewa St
Dwight, IL 60420
Or register and pay online at:

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

 # Of 8 ft. Tables ____ $50.00 ea/$60 after 8/1/20 **$_____**

◯ O Scale vendor ◯ S Scale vendor ◯ No preference

Number of add'l registrants ____@ $25 each **$_____**

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

Name: _____

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Name: _____

TOTAL AMOUNT ENCLOSED: **$_____**

(No refunds after 8/20/20)

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

OScaleMidwest.com or SScaleMidwest.com

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

THE O SCALE RESOURCE
NEWS, REVIEWS, INFORMATION TO USE

Published Bi Monthly

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July/August 2020
Volume 7 No. 6

Owner / Publisher
Amy Dawdy

Managing Editor
Daniel Dawdy

Advertising Manager
Jeb Kriigel

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

Front Cover Photo

New woodchip silo on the Serge Lebel's Canadian National Railways Sanmore Subdivision

Rear Cover Photo

A view of Al Judy's Crooked Lake Railroad that he designed and built.

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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.

From the Publisher's Desk

Some good news for a change!

First off, the O & S Scale Midwest Show in Indianapolis will go on this September 18-20, 2020. Please sign up if you have not already done so, either on-line or download the form under the Registrations tab on the Website. Register early if you can. We really need to see just how many people are planning on attending.

Please also make your hotel reservations on-line under the Registrations tab on the Website. The money you may save by staying at other hotels is minimal. Every room night is important for us to hold prices. We look forward to seeing as many of you as possible.

Click here to register for attendance and or tables.
Click here to download the printable form for attendance and or tables.
Click here to make your hotel reservations.

The next good news is that there will be a March O Scale Meet again in 2021! The new Website is https://marchmeet.net/WP/ and has all the information for on-line registrations for both the show and hotel.

I think many of us are getting a bit "stir-crazy" after months of not being able to go out and get to shows, see friends in the hobby, or just get out in general. Things are improving, and depending on whare you live, pretty much open. Please help by supporting our advertisors as well as your local hobby shop if you can.

There is a plan in place to help get the word out on O scale as well as centralize content. Please check out O Scale Central's update here. It's time we all got involved.

This issue is a big one with a great look at On30 (Today's Narrow Gauge for Many Model Railroad Builders) modeling in the New Tracks section.

We look back at The Virginian, N&W and Seaboard Railroad created by Claude Abernathy as seen through the eyes of his son, C. Ashley Abernathy, Jr.

We again visit Serge Lebel's Canadian National Railways Sanmore Subdivision for a construction update. Serge has been busy and also has some great tips.

Also in this issue, building bulletproof house cars by George Paxon, 2 rail a Rail King-MTH tank car by Brady McGuire and so much more.

We hope you enjoy this issue and tell your friends. If you have not signed up to be notified of new issues please click here and do so.

Happy Reading & Happy Modeling,

Dan Dawdy

NEWS YOU CAN USE

Richard Rands from Berkshire Valley Models has some new products. Up first is their #260 Water/Sprinkler Wagon.

Used throughout the world to deliver water to businesses, homes, and to machinery. Also, the sprinklers helped keep down the dust on dirt streets and clean brick pavement. The #260 Water Wagon is a white metal and laser cut wood kit. Decal is included. Driver, horses, and mules are available separately.

Also new are some detail parts. #665 Small Tool Boxes, 4 per package and #666 Horse Collars, 4 per package in 2 styles.

See their Website for these and all their great products.

Bill Wade from B.T.S has a new kit available called Granny's Attic (#17309)

The building was once a small garage that went out of business during the Depression. As things got better, an older gent and his wife purchased the building. She ran an antique store on one side and he repaired furniture on the other.

Laser-cut basswood, plywood, and cardstock with detail casting make up the kit that has a scale 27' x 31' footprint. The HO model is shown and detail casting vary between scales.

See their Website for more details.

New from Woodland Scenics: Utility System coming soon for O Scale.

The NEW Utility System allows you to install utility poles to your layout in minutes. The Pre-Wired Poles and Transformer Connect Sets are simple to install and enhance the realism of any layout. The system is loaded with details and is designed to work together with placement in mind, so there's no guesswork for you. Simply drill holes, then slide the poles and plant them in place!

There are three products in this new line that will be available for N, HO and O scales.

Pre-Wired Poles - Single Crossbar
Pre-Wired Poles - Double Crossbar
Transformer Connect Set

Keep an eye on their website and social media to learn more about the products as information becomes available.

Mr Muffins Trains announces a Custom Run O Gauge Operating Water Tower by MTH. Decorated for the Monon. $149.95. Sould be arriving in October 2020.

Original - will be just as it comes from MTH.

Weathered - once received from MTH, the water towers will be hand weathered by Mrs.Muffin.
Features:
Intricately Detailed ABS Construction
Fully Assembled
Fully Painted
Motorized Water Spout Lowers and Raises
Digital Gurgling Water Sound Effects
Unit Measures: 7 1/2" x 11" x 10 1/4"

See their Website for updates.

Dylan Lambert from Lambert Locomotive Works is proud to announce what they're calling Operation Salvation.

Salvation's goal is simple; to devise a repower kit for the Bachmann On30 Railtruck to allow it to be rebuilt in such a manner that it can operate in a reliable fashion. The original design comes from the mind of Marco Lux, a customer of LLW's from Switzerland. This under-frame drive kit is his design, as he managed to identify the parts that could make it work, and designed the original mechanism frame. What you see in the pictures are his original effort,

although we've made a minor change to allow an existing rail truck axle that (once regeared) can just snap into place on the mechanism, the fact of the matter here is that Marco basically has cured the mechanical ailments of the On30 Railtruck.

Each repower kit will consist of a nylon-printed mechanism frame, a can motor, shaft adapter, and replacement gears. The whole package will cost $39.90.

Also, we have added yet another fine kit to our lineup. Some of you have probably heard the name Tom Yorke before. Tom has long been a fixture in the modeling community, with many kit designs to his name. And after reaching an agreement with Tom, I'm pleased to report that Lambert Locomotive Works has acquired the ownership and production rights to his Junkyard Dog locomotive kit. Based off of a Porter design and meant to be a conversion for the Bachmann On30 trolley mechanism, this will be another fine addition to your locomotive roster.

They are presently on track for an August release should all continue to go according to plan. Preorder status will be announced on our Facebook page at https://www.facebook.com/LambertLocomotive/

Available for Pre- Order Coming Late June Shipping Mid July. See their Website for more information.

Richard Segal from Right On Track Models has a new building kit on the way. S.L. Holt Machine Co. Kit Features:

- Laser Cut Wood with tab and slot assembly, NOT A BOX OF STICKS
- Injected Styrene Doors and Windows
- Real Scale Rolled roofing
- White Metal And Resin Detail Parts
- Full Color Step By Step Assembly Instructions with Photos
- O Scale footprint 61/2” deep x 11 3/8”

Bill Basden, Delta Models writes: There will be several new castings in the works. I have decided to make a extensive series of parts for the Santa Fe full length dome cars.

These will be issued over the next 3 to 6 months and will be based off the brass models that have been done by Midland Reproductions. They also did a slumber coach as well. There will be about 20 to 30 items for interiors.

This has been sparked from the recently acquired Midland Dome which has been partially started. I will

complete the caran and detail it out. Interiors will be added.

See his Website for more details.

Scott Mann sent in a list of updates.

New Items for Sunset Models and GGD are:

BUDD Slumber Coaches (Encore Run): Amtrak Phase III, B&O, CB&Q, MOPAC, NP, NYC, Undecorated

FROM SUNSET MODELS: AMTRAK E60 ELECTRICS on different phases and schemes, see our Website.

News From Sunset Models and GGD :

EMD F3s Arrive June 10th, Fully Reserved. Maybe enough for a short 2nd Run. Put your orders in.

NP North Coast Limited is Done, will arrive in August.

D&RGW L-105 Finishing Up, will arrive in August.

Ted Schnepf of Rails Unlimited has two new freight cars. Announcing two new Southern Pacific, end door, automobile cars.

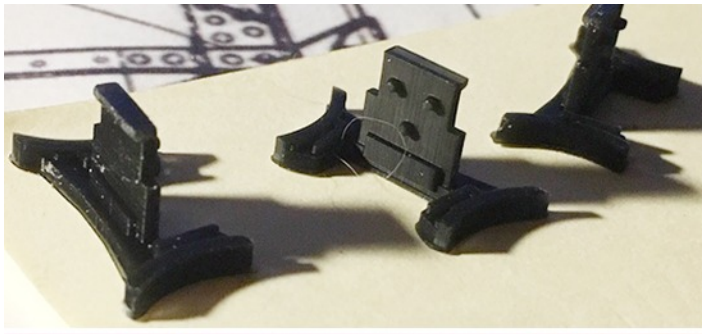
The one pictured below is a SP class A50-4, a 40', single sheathed, auto car, with end door. The model was built by George Podas.

The second car is also SP, class A50-5, a 50' end door auto car, also singled sheathed. model built by Paul Hecht. Both cars built in the 1920's and ran into the 1950's. Both models have end doors for loading long bulky items, like roof trusses, machinery, fire engines and other products. SP subsidiary TN&O also had some of these classes.

I also have brass **etched Carmer** coupler cut levers for both models.

Both cars are in stock and ready to ship. See Rails Unlimited's Website for these and other cars and supplies.

Ted also has something very new and cool. Here are the 3D printed brake shoes for Athearn trucks. Am selling 40 of them, enough for 10 cars for $25.00 plus $4.00 shipping in US. These are not yet on his Website, so Email Ted at railsunl@sbcglobal.net for more information.



New arrivals from Atlas O: 53' Jindo Container Pacer

- Side corrugations with an 8-55-8 arrangement
- Front wall with 10 vertical corrugations
- Roof with 6-54-6 corrugations
- 1-3-1 beveled doors
- Placard Holders on front wall, sides and door

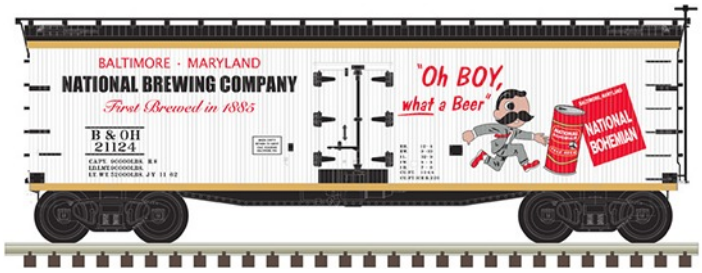
Jindo Features :

- All steel corrugated design
- Separate door bars
- Accurate lower rail for the 110" IH version

- Two roof variations
- Accurate painting and printing

Also some new paint schemes in their Master Line of reefers.

This highly detailed model is based on the 40' wood refrigerator cars built by Pullman for the Northern Refrigerator Car Co. in 1930. With its



rooftop ice hatches, USRA-style fish belly underframe and vertical brake shaft, it is representative of the thousands of similar cars that were built during the "Billboard" era of American railroads.

Available in 2-rail as well as 3-rail, these ready-to-run reefers have state-of-the-art detailing and construction.

Click here to see the other new paint schemes.

Canadian National Railways
Sanmore Subdivision

Construction update

A year for revelations

By Serge Lebel

For those of you who have built a layout, I am sure you will understand me when I tell you that if building a layout doesn't challenge you, it will not change you. Building a layout is more than putting tracks and structures on a sheet of plywood... It is a never ending learning experience. For me, this learning experience has been concentrated around the skills, the determination and the tools to make this happen. When you are building a layout, you are not always "working on the layout", but you are always working towards the completion of the project. This brings a good share of challenges, both on and off the layout, but these past few months have brought on a new level of challenge...

Like most of you, my life was affected by the Covid-19 pandemic. My wife lost her job temporarily, but fortunately I was able to hold on to mine. Still, this changed our financial dynamic and with all the uncertainty, I was forced to cut back on my hobby expenses. This turned out to be quite the revelation for many other possibilities I was just not aware of because of my spending habits. Here is how the last 12 months of my layout's construction evolved.

Back in July 2019, I was in the middle of my detection, signaling and CTC project. This was better explained in a series of articles on the subject which followed throughout that year. Well, one year later, I am happy to tell you that this part of my project is now completed and working like a charm. I hope some of you

did take the time to experiment with signaling, and that you are having as much fun as I am.

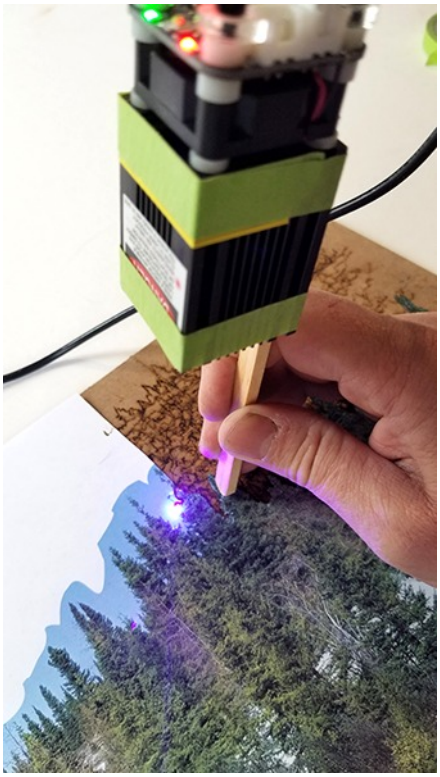
The beginning of the next phase...

Finishing the signaling system also meant I had to finish all the fascia on the layout. This makes the layout feel more complete, and in my mind, this step is the start of the scenery phase...one of my favorites. Here are a few photos of the fascia construction and finishing.

Being a bit of a methodic person (in my head at least!), I figured the next logical step in building the scenery would be to have a finished backdrop so I would not have trees or structures in my way during the installation. Knowing approximately what I want to do with my landscape and structures, I decided to install a printed photo backdrop all around the layout... All 400 feet of it! Yeah, I know what you are thinking: this guy has more money than brains! So, armed with my phone and a few sandwiches, I went hunting for local sites that would offer great views of mountains, rivers, and roads. I then downloaded these

photos to the computer and edited them to create a long scene that would flow from one area to the next. Then, it was time to get this thing printed. Based on an estimate I got from a local print shop, my backdrop printed on adhesive vinyl was a project of about $3600. As crazy as it sounds, I was willing to go that far with my project just so I would have something I would be happy with. But just as I got my first sample of material from the print shop, we got hit with the Covid-19 pandemic and everything closed for an undetermined period.

Realizing the scope of what was happening, it did not take long to figure out that the expensive backdrop was no longer a possibility. Since this was the next step in my project, and not wanting to stop working on the



layout, I decided to do a simple test with one of my photos, by printing it with my home printer (it prints 11" x 17" paper size) and gluing it to my blue painted backdrop. As if I needed another reason to do my own prints, it turned out that the adhesive vinyl sample I had from the print shop was not meeting my expectations. The print quality was great, but there was a slight glare to the finish, and after about a week, the print was pulling off the painted backdrop. So it looked like I would need to try something that would allow for me to use glue to apply it to the backdrop. Photos below shows the vinyl backdrop compared to my homemade paper backdrop.

I had seen a few modelers do this before, but there was always the issue of the blue printed sky not matching the blue paint on the wall. Trimming the sky out of the photo seemed like an impossible task, cutting around every tree top, branches and other details using an X-acto blade. The best tool for this type of detailed cutting would be my laser engraver, but designing a file for every sheet of paper made no sense... Until I had the brilliant idea of using the laser unit as a "freehand tool". Looking on-line, I discovered you can buy cheap diode laser engraving units. These are not very powerful (mine is a 500mW), but they are powerful enough to cut through paper like butter. Using this unit as a freehand tool (you can buy just the laser head with a power transformer), it allowed me to easily cut all around the trees and remove any blue printed sky. Eureka!! I never thought it could be so easy to make your own backdrops!!! Here is how I set this up:

I purchased a 500 mW but I think a 1000 mW would be better. I found this one on Amazon for $63.

Because the laser head has a focus lens that is adjustable, I tried it out by setting the focus lens to

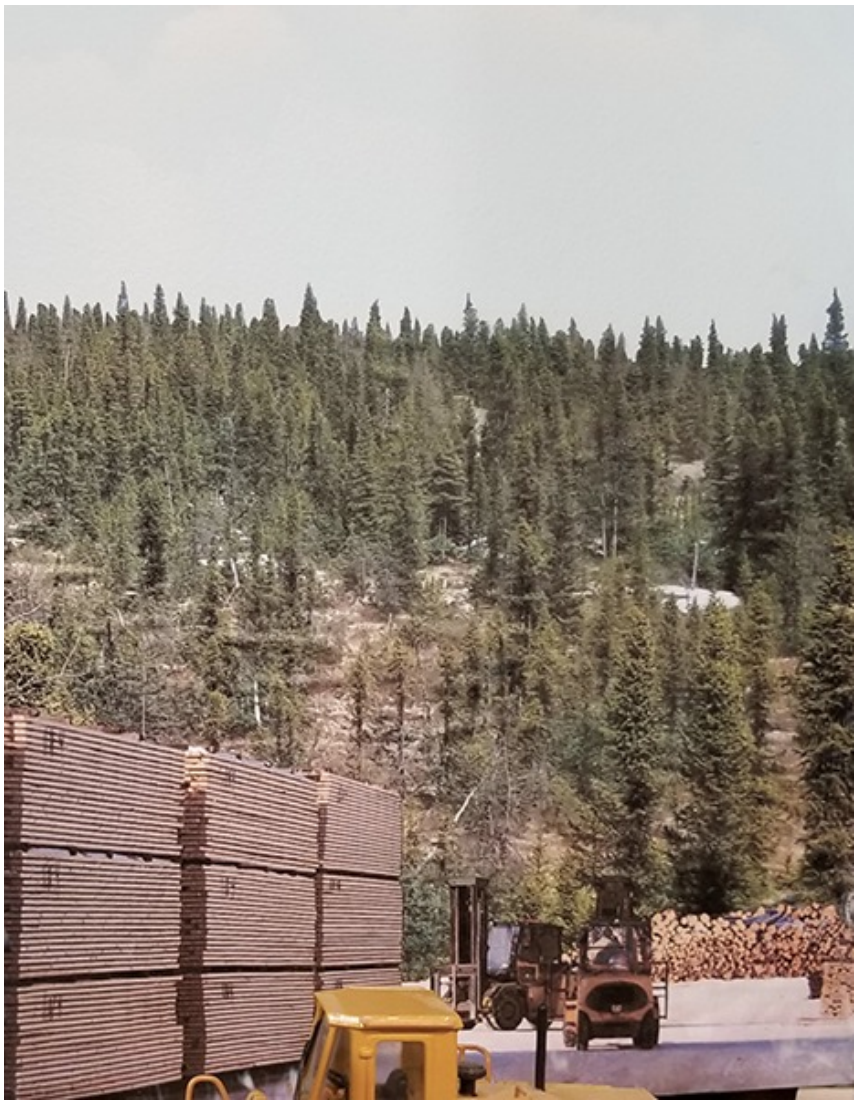
the mid position, and found the right distance from the paper to get a clean cut. I then taped the unit to a small stick at the correct distance.

If needed, the lens can now be fine-tuned by turning the focus adjustment for that perfect small pointy (hot) dot. The purpose here is to have a very narrow and precise cut.

Using sun glasses to protect my eyes from the bright light emitted by the laser and a small fan to drive away the smoke from the burning paper, I simply followed the tree tops. The cut is like magic... simple, easy and clean!

The only thing you have to look out for is to keep your fingers or hands away from the laser beam. It is not powerful enough to cut through skin, but you will feel the burn!

In some places, I used two, sometimes three different photos and layered them in order to get more



distance, detail, or to create a specific scene like this one in my lumber mill yard.

Once I had all my sheets cut to shape, I painted some clouds on the blue backdrop, using some white spray paint and “floating masks” made with paper cut to shape with the freehand laser tool.

I then glued my paper prints with matte Mod Podge. I used a 4 inch rubber roller to apply the prints the same way you would apply wallpaper. This ensures all the air bubbles are forced out and it presses out the excess glue.

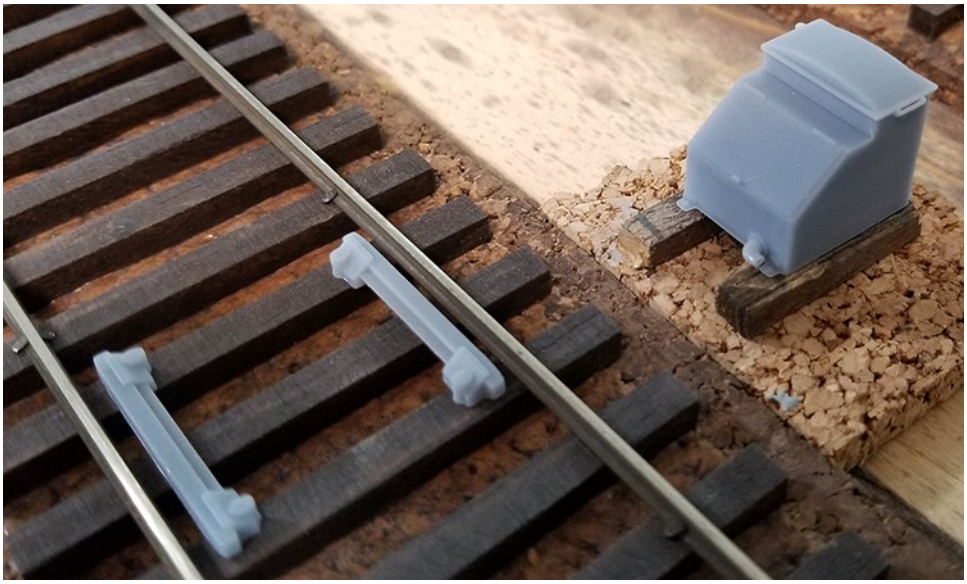
After letting this dry for 24 hours, I rolled on a coat of mat Mod Podge on top of the entire backdrop. This top coat brings out the color from my paper prints, makes the fragile tree tops stick better to the backdrop, and it acts as a sealant in case some plaster or paint should get on the prints when doing the hardshell scenery later on. This makes building a realistic photo backdrop possible at a fraction of the original cost.

A new tool for the workshop...

Back in June of 2019, I had purchased an Elegoo Mars 3D printer. This new technology is evolving very rapidly and there are several avenues you can take with 3D printing. I chose resin printing over filament as it looked to me like it was better suited for making highly detailed miniatures.

Up until now, this type of printer was limited to a very small build plate (unless you want to pay big bucks for a commercial outfit). But now, they are coming out with larger printers that offers even better quality, still at very reasonable prices.

3D design and printing is something totally new to me, and I was a bit intimidated by the entire process. I knew there would be a learning curve to this, and that I would need to take some time away from the layout to get this new tool running. On-line tutorials were a big help, along with on-line groups, and after a few weeks, I was already designing and printing my own original parts. I designed parts for a bridge project (bridge shoes and tower footings), turnout snow blowers, flange greasers, and a bunch of other stuff.



For those of you who are not fans of computer design, there is also an entire world of 3D files you can get on-line (Thingiverse is a good example) for detailing your layout, which you can modify and print yourself, then paint/finish them any way you want. Most downloads are free, but you can leave a small contribution to the designer as a thank you (well worth it when considering the time invested in designing these!). Here are some figures and animals I downloaded and printed. Once painted, the quality of the details

really comes through and makes this “homemade” product a cut above anything you can buy off the shelf. Photos on the previous page show some of my own prints next to a figure (at left) purchased on-line.

I think this is the tool of the modern model railroader and one that no workshop should be without. Don't let this new technology intimidate you... If I can do it, anyone can!!

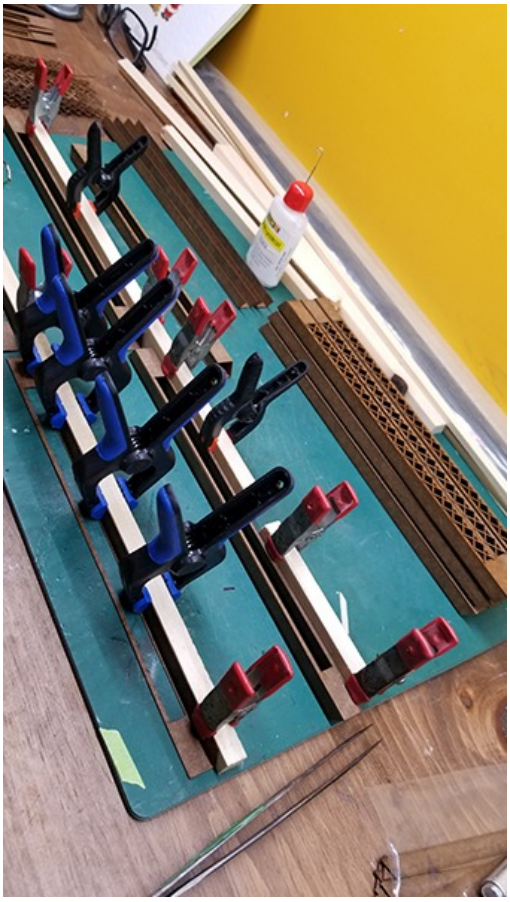
Scratchbuilding structures for the layout...

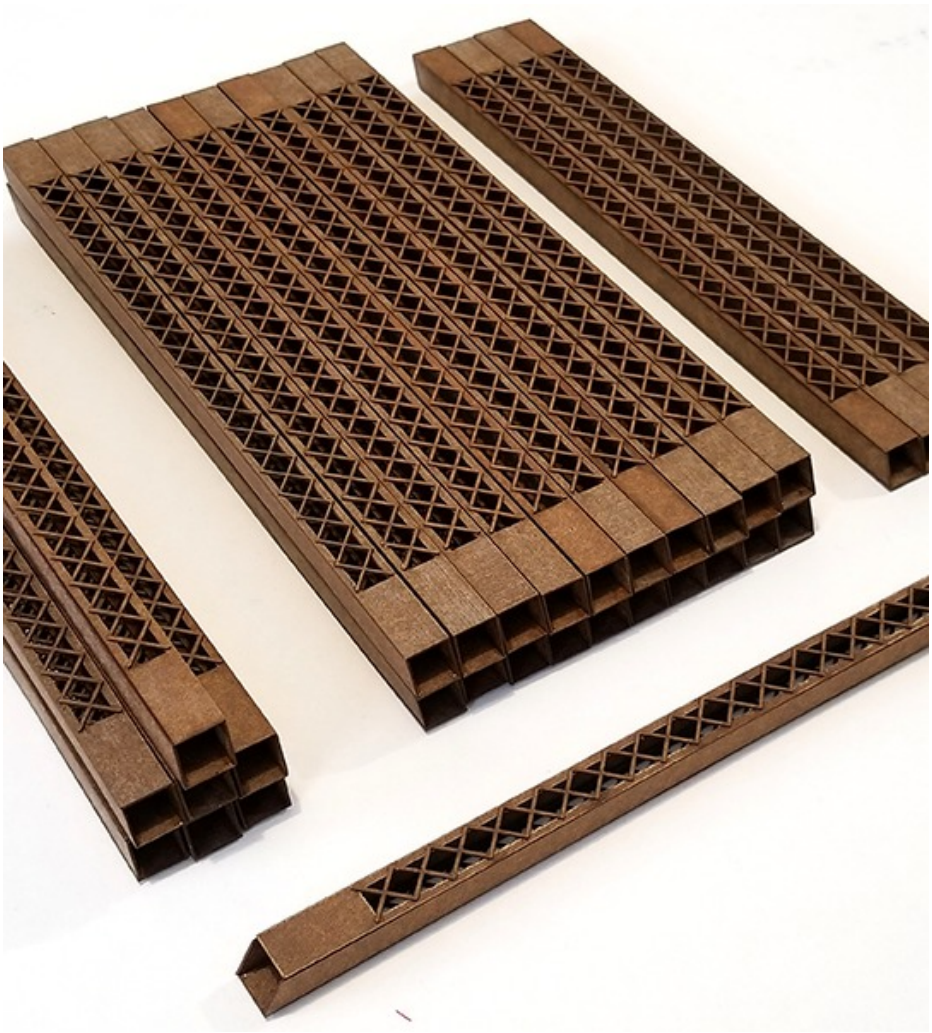
When I decided to move to O scale after 30 years of model railroading in other scales, I decided I would make this layout a totally unique project. This meant scratchbuilding most, if not all, of my structures. I never purchased a single structure in O scale, nor had I ever scrathbuilt one, so for the moment, all I have as a reference is one Atlas bridge. Having plenty of experience in scratchbuilding in N scale, I am amazed at the level of details one can add to a structure to make it look real. But my mind is not yet used to this large scale, so I do a lot of mock-ups before getting a structure built. So, not counting the small bridge I built last year, here is my very first large O scale scratchbuilt structure:

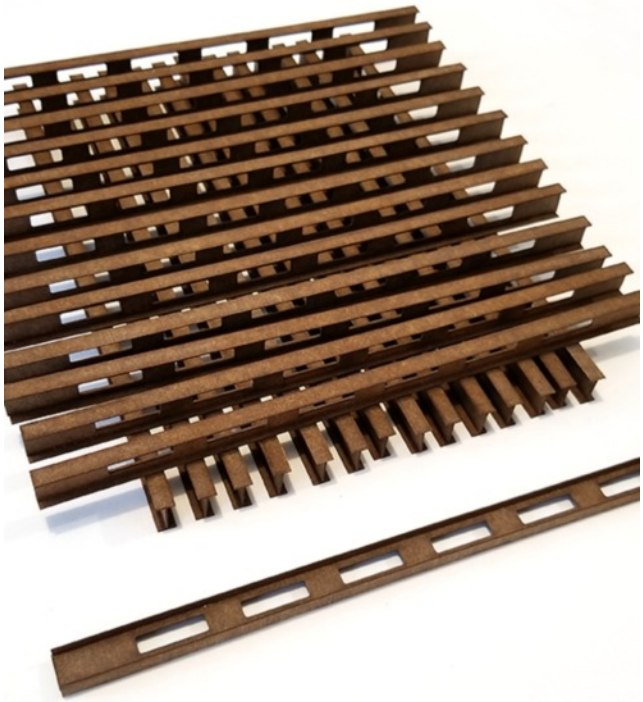
This one is called the Kermit bridge. It is not based on any prototype and the name comes from me being a french Canadian, which some folks jokingly call a frog. I also thought the name Kermit was very fitting for my bridge project, as it would span a large area of frog ponds and bogs on my layout.

The bridge was designed on the computer, and all the parts were lasered out of laserboard. Laserboard is a paper based product that looks like cardstock, but it is coated with some type of resin. This makes the material water and

solvent proof, and slightly stiffer than plain cardstock. Here are some of the parts I cut for the body of the bridge:

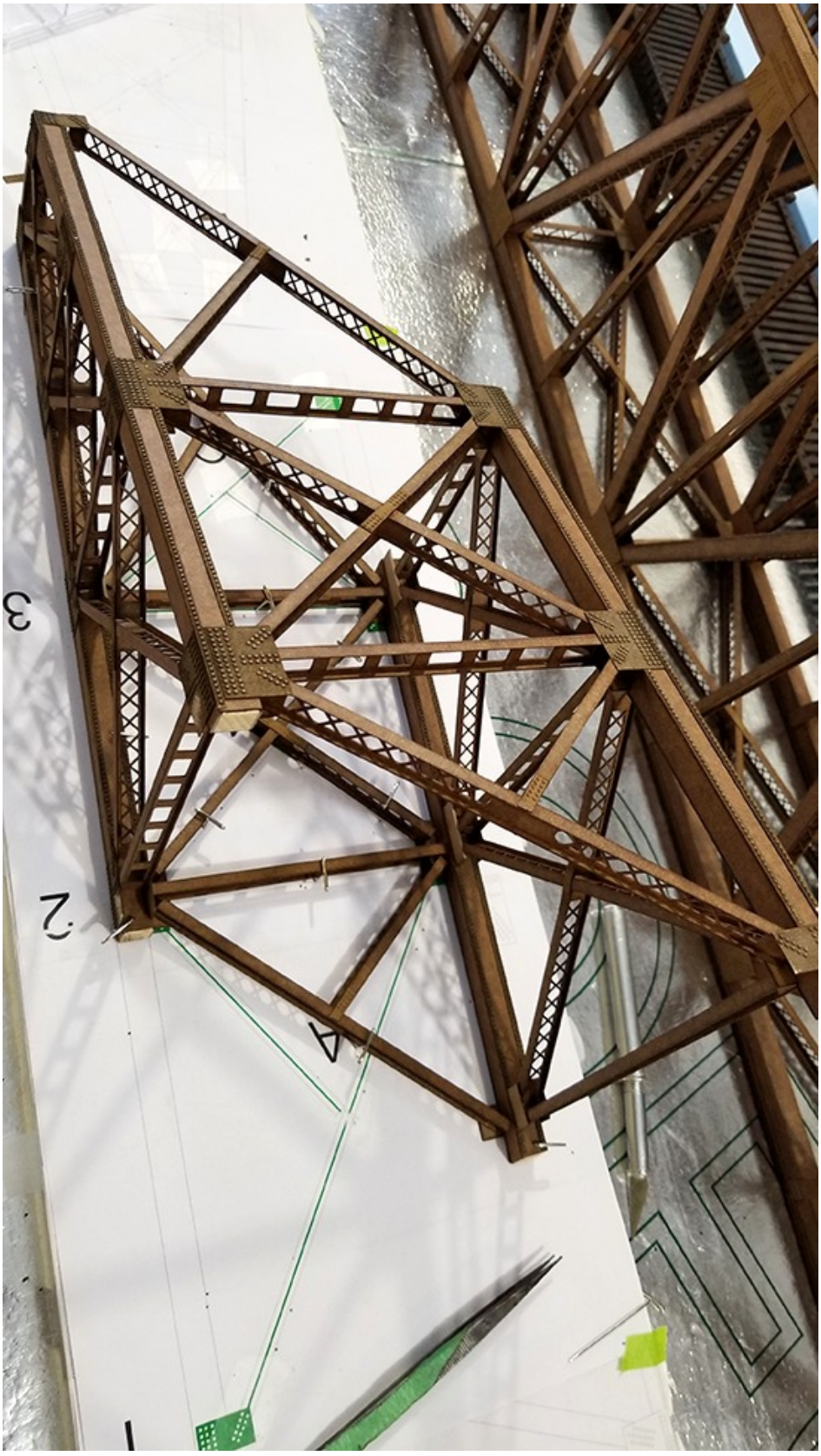






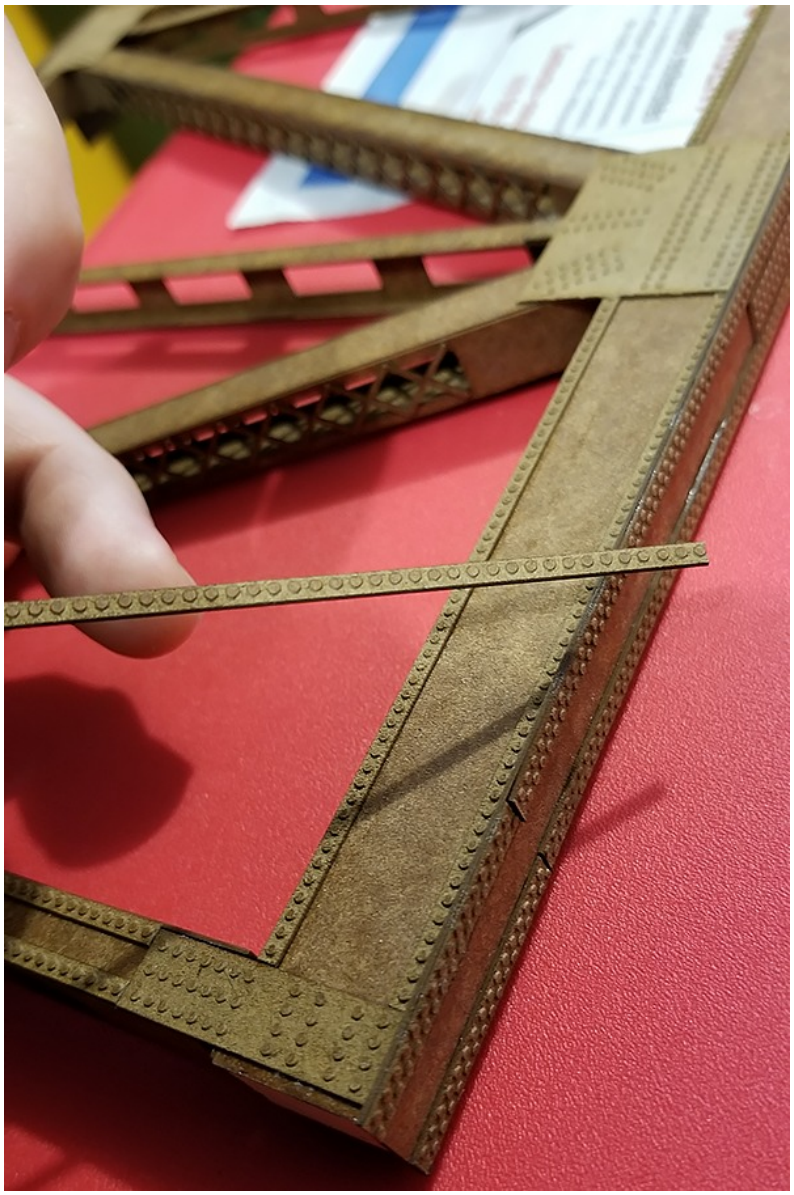
Once assembled, the laserboard is really strong and holds it's shape. Since this job was done in a reverse engineering way (I draft a part, then cut it, assemble it, then re-design the final part with all the adjustments made), I had to work in sub-assemblies until I was satisfied with the final result, then move on to the next sub-assembly.

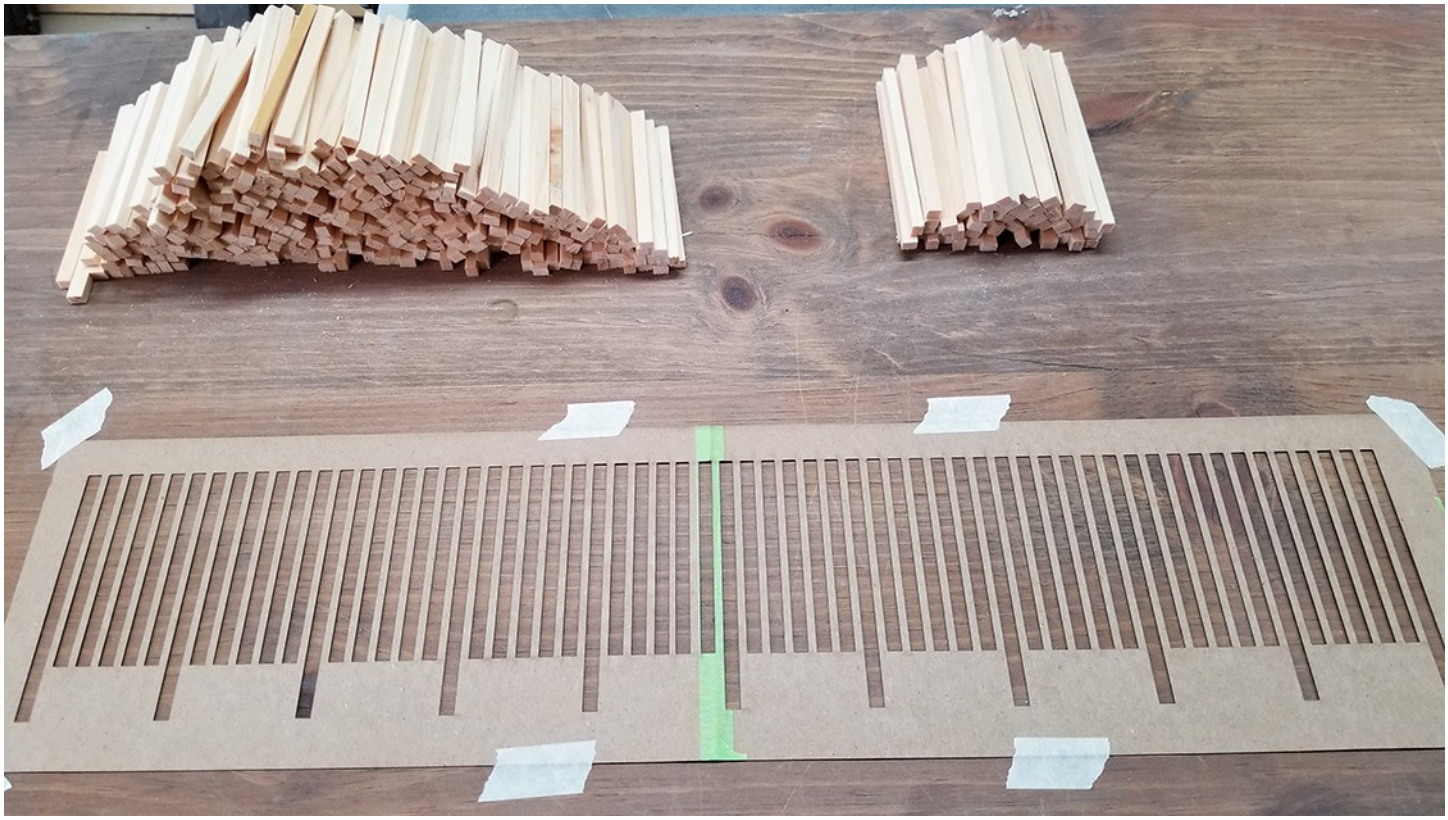
Here are the pre-production parts for the towers. These were done the same way, designing from memory as there are no such bridges in my area. Once I was happy with the looks of it, I cut all the final parts and assembled the towers.



I then did a second layer of design to the entire bridge, this time working on adding details, such as rivets and plates, all lasered out of the same material.

Once the body of the bridge was assembled, it was time to build the deck. For this, I cut some wood for the ties and made a template for spacing. I then glued the ties to a set of long strips of wood for support, as I wanted to assemble the deck in a single piece for stability.





Since I did not want to spend too much time on this deck, I decided to design and engrave the bolt details right in the wood instead of drilling and gluing hundreds of bolt castings. At first, this looked kind of odd, but once painted and seen from a few feet away, the bolts can look quite convincing.

Adding to the deck were my homemade laser cut tie plates, rails and walkways (which are also recycled cereal boxes).

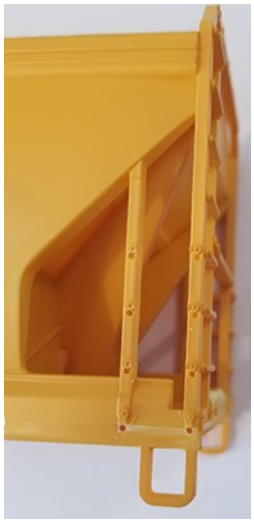
I then painted the bridge and built the bridge abutments and retaining walls out of scraps of wood I had in the shop. Adding a thin coat of plaster to the wood and sanding it gave me the surface I wanted in order to create the look of concrete. I even cut out a few edges here and there and made some re-bar out of brass wire.

Source: Internet search, photographer unknown.

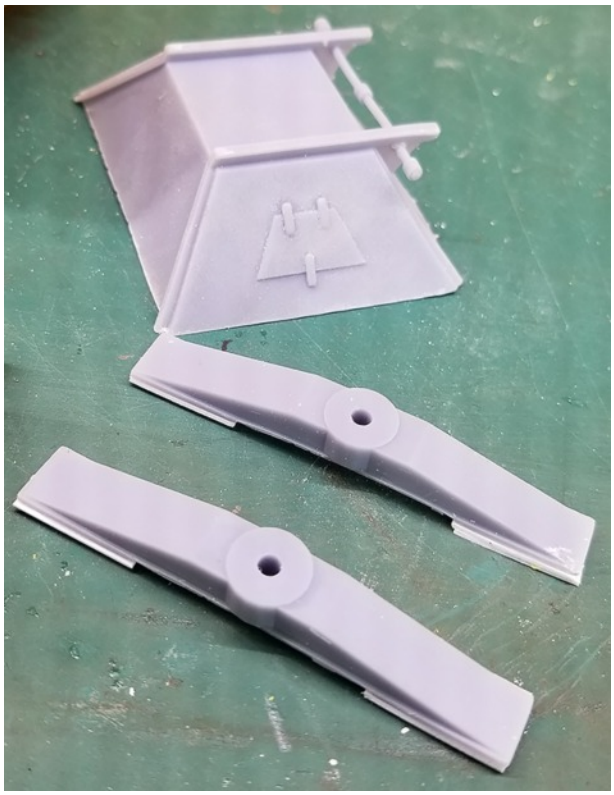
Adding to the fleet of rolling stock...

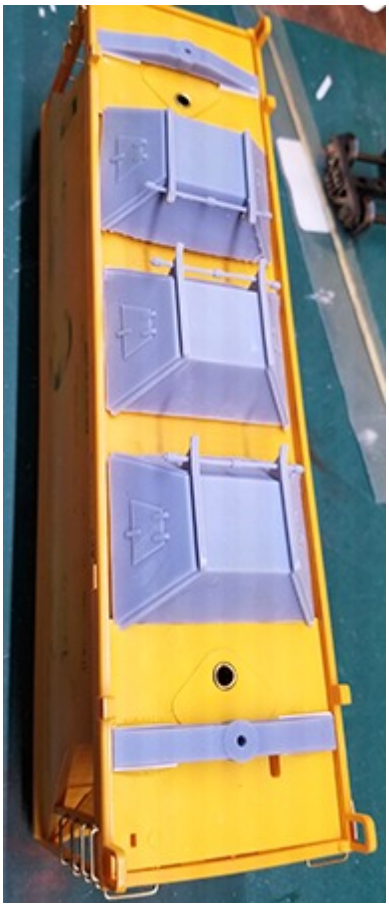
Of course, not a year goes by without me having some sort of car or loco kitbashing project, and this year was no different. I still have about 9 locos that need to be modified and painted, but for some reason, I just was not feeling it this time (not counting all the money needed to buy all the DCC decoders, speakers and various small details). Looking at prototype photos, I came across some Canpotex potash hoppers. I always liked these cars, and I don't recall seeing any in O scale, so I decided to make some as a side project on a budget.

For these, I used some old Lionel 3 bay hoppers. I did not want to spend a lot of money on the cars and did not mind taking on a bigger project. The Lionel cars I used are what I believe to be an old tooling, probably as early as the 1980's. They had molded-on grab irons and ladders that made 1970's N scale look like finescale! Also, the roofwalk was a solid piece of plastic, and the trucks were attached to the car in a way I had never seen before... They did not use a bolster and center pin, but instead they were hung from the rear end of the truck. I guess they were designed that way so they could swing better around sharp curves, as these were 3-rail cars. Looking at the prototype, I also noticed the hopper gates under the car were nothing like the Lionel cars I had, so I knew I was in for a lot of modifications. Here is the original Lionel car I used:



I will not make this entire article about how I modified these cars, but in short, what I did was to remove and discard the roofwalk, the hopper gates and the trucks, and cut-off all the ladders and grab irons. I then drilled holes and created new ladders and grab irons out of brass rods.





I had to design a new roofwalk and supports, which were then lasered out of laserboard.

Using my 3D printer, I designed and printed truck bolsters and hopper gates.

I then designed and printed my own Canpotex decals with 6 different car numbers.

Once the cars were painted, I applied the decals, and installed new trucks and Kadee couplers.

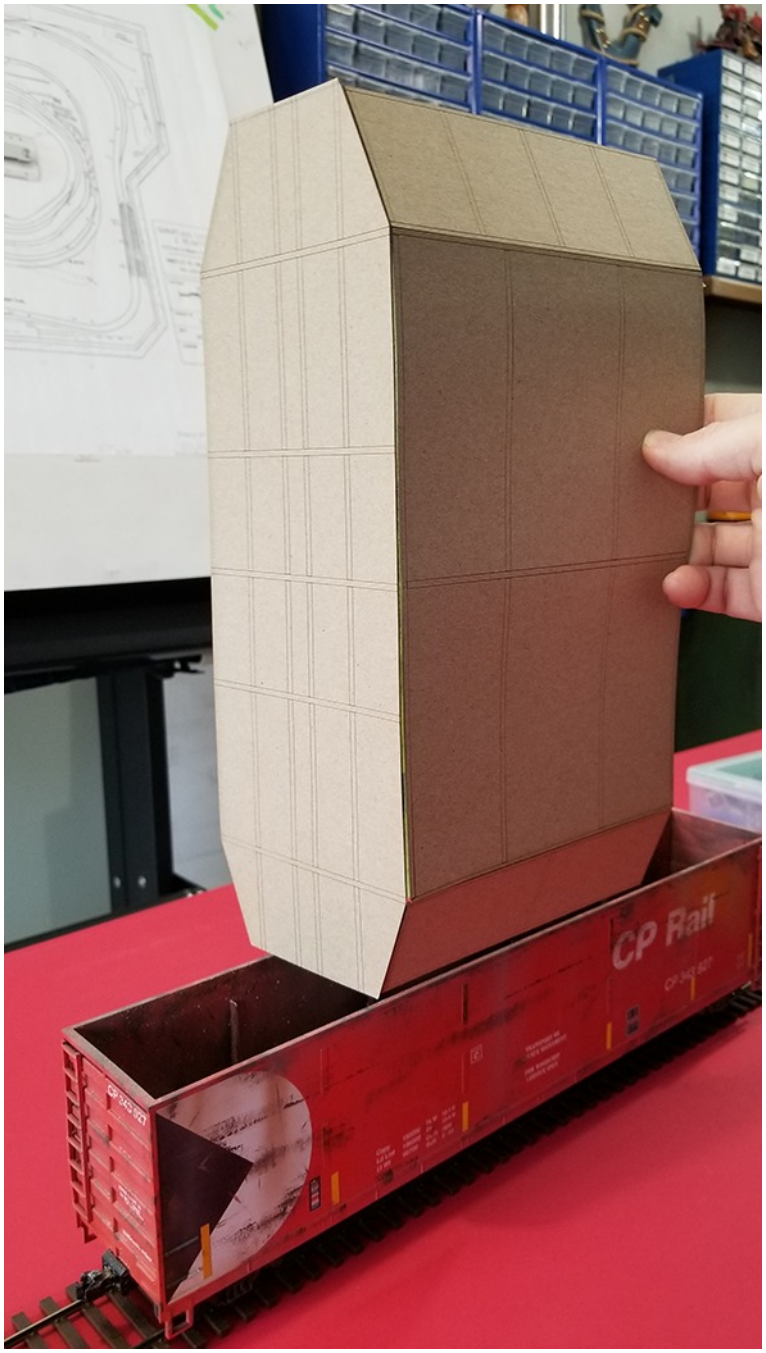
I then weathered the cars...

On the next page, you have a side-by-side comparison of the Lionel car.

Setting up for live loads...

Having satisfied my craving for some kitbashing (at least for the moment!), it was now time to move on to yet another scratchbuilding project. If you recall one of my earlier construction progress reports, I had modified and painted some MTH hoppers to create my own version of a CP Rail woodchip hopper. I had mentioned back then that my plan was to have live loads on my layout, where I would load the cars at the mill in Taganish using a flood-type loadout silo, and empty the cars in a scratchbuilt rotary dumper. Well, I have not given up on that goal, and this year I decided to get the loadout silos built.

Again, don't go looking for a prototype for this type of woodchip silo, I am quite certain you will never find it. I guess you could say I am a bit of a “fart in the wind” when it comes to designing something for my layout. I design what I need, and don't even worry about the prototype aspect of things. If it serves the purpose and



looks like it belongs, it is good enough for me. And in this case, the need was to have a silo that could hold enough material to fill 9 large MTH woodchip hoppers... But it made a lot more sense to have 3 smaller silos that would hold a 3 car capacity.

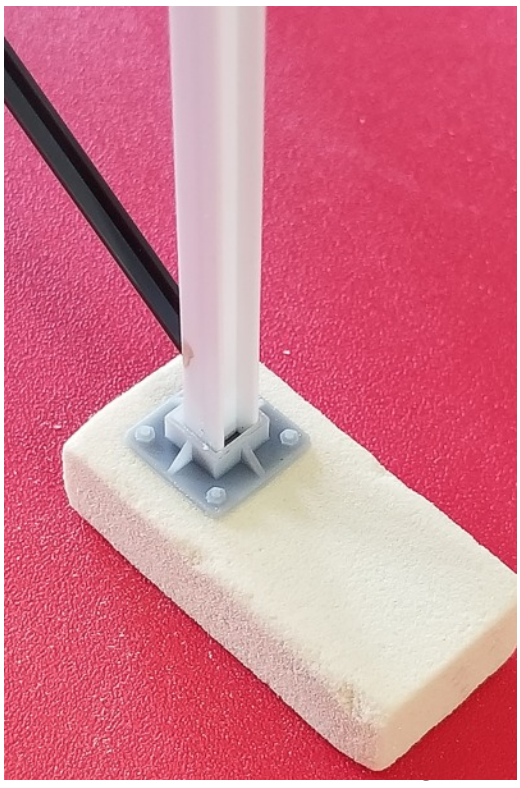
Looking at woodchip silos on the web, I created a design that would replicate this type of equipment, but in a “large capacity” format. Using my good old laser engraver, I then cut the sides of the silos out of old cereal boxes and did some testing.

After I was convinced the design would work, I made enough parts for 3 silos and assembled them. I made an opening at the bottom of each silo that would have a slide gate as a control device.

The interior of each silo was designed so the material would flow towards the bottom gate. I made these with cereal box cardstock, which has a slippery finish that was sprayed with silicone.

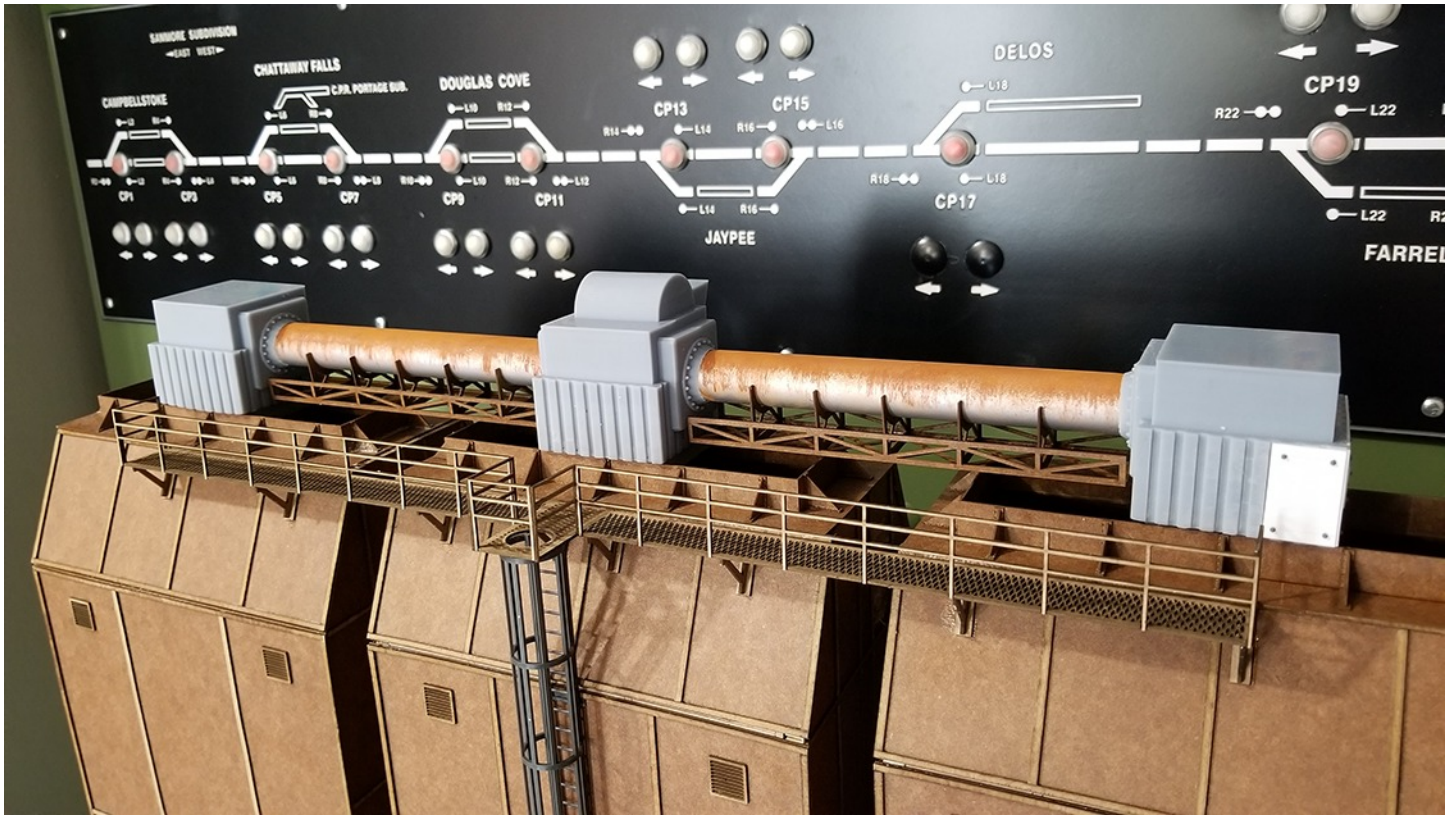
I decided to use a small servo motor to activate the gate at the bottom of each silo. Servos are very compact and fit anywhere. They are also programmable so you can set the exact travel of the actuator for fine-tuning the flow of material.

Once these were built, it was time to build the supporting structure, which was made from Evergreen styrene shapes. Using my 3D printer, I made some saddles to anchor the structure to the concrete foundation. I also designed and cut the rest of the details on the supporting structure and silos.



3D design and printing was used again (I told you this tool is a must!) to create some sort of vacuum or conveyor thingamajig (ok, I don't know what it is or if it even exists, but it looks good!) to install on top of the silos to move the woodchips from the mill to the silos.

The conveyor support is made from laserboard, while the large diameter pipeline is nothing more than old copper pipes painted and weathered.



I then added some other 3D printed details like the electrical junction circuit box, which was fitted with steel rods to represent the pipes for the electrical wires. I finished the model with Plastruct ladders and cages. A fresh coat of paint (I used automotive basecoat) and a touch of weathering made this structure ready for the layout.

And the learning never stops...

As with all projects on this layout, I put myself in a funny position as now that this is done, I need to find a way to control the servo motors under each silo so I may load my cars. And this is how I am ending this progress report, by showing you that the learning never stops. Now I have to buy an Arduino micro controller and learn how to write code or program so I can control the flow of the chip loader. I will also create a realistic control panel with switches and lights, placed on the fascia of the layout near the silos. This will be fun to create, and even more fun to operate. Learning the Arduino will most likely change my hobby once again, as it will open up a world of possibilities in animation and control... and the evolution never ends. I can only hope there will never come a day when I no longer have something new to learn about this hobby!


Rail
CP 343 930
Capy 195000
Ld Lmt 195300
Lt Wt 65700

All back issues of The O Scale Resource Magazines are available here! Read on-line or down the PDF for off-line reading.

THE VIRGINIAN, N&W AND SEABOARD RAILROAD
CREATED BY CLAUDE ABERNATHY, RICHMOND VA

By C. Ashley Abernathy, Jr.

Claude Abernathy

A few months ago, a train buddy of my father and I were talking about trains and my dad's layout. One day we will move on, and our families will ponder as to what to do with all the years of fun and joy amassed in the basement, garage or spare bedroom if allowed! My father Claude Abernathy passed away in 2016. This certainly is not a sad story, it's one that I am excited to share. I need to tell a short story to set the mood, and have an an opportunity for Dad and I to tell story of a great layout.

Claude was an only child, born in Virginia in December, 1939, and grew up in Blackstone VA. He lived on the family farm for a while, which is now part of the lands owned by Fort Pickett. He would tell me all kinds of farm stories, of how his aunt would prepare a Sunday meal by heading out to the back grabbing a chicken by the hand, and then having fresh chicken for dinner. Yes, I left out the details in the chicken cooking story! There were many other stories, like working in the fields, learning to drive tractors, raising some cattle, and mostly farming tobacco. It was here that dad's love for trains began.

He would tell me of falling asleep to the Virginian steam trains that would rumble by the family farmhouse which was shared with his aunt. One of my favorite stories of that time, and he would tell over and over as I know it, was a precious memory of his childhood. He would listen and watch each night for the steam trains from his open bedroom window. He would fall asleep each night watching the steam trains go by the house. The line was so close to the house he said that on occasion, he could see the fireman open

Some of the many scratch built HO cars that Claude built before moving to O scale.
We'll look at more of these in the pictorial section at the end of the article.

the boiler doors and shove in more coal as the freight trained rumbled by each night. I can only imagine what that must have been like seeing multiple trains each night as this was towards the end of WWII, and then shortly later with Korea.

Around age nine, the family moved to what you could call the suburbs of town, a small neighborhood on the other side of the post and just a mile or so east of Blackstone, VA. Claude was like most boys in those days and spent much of his time exploring in the woods, riding bikes, playing Cowboys and Indians, and playing baseball. By the time he entered high school, the family had moved again about 20 miles south to the town of Alberta, VA. It was here that I think dad's interest in railroading peaked. The Virginian line ran through the town and he was just five houses away from the tracks. He was older and in high school and recalled a summer derailment just outside of town that blocked the main street crossing for a few days up from his house. It was one of the freights hauling Florida oranges from what he recalled. By the time the railroad got the cars back on track, much of the cargo had been plundered by the locals. He wouldn't say what more happened other than they drank a lot of orange juice that summer.

He was very athletic in his high school days, lettering in football and baseball. After high school, he left the small town for the big city of Lexington, VA to attend the Virginia Military Institute. After graduating from VMI in 1963, he spent two years on active duty with the Army in the Air Defense and Artillery areas. By 1965, dad and mom settled down in Richmond, VA. He retired in the late 90's from a long career with the Virginia Department of Transportation as a Safety Engineer. He had previously retired in the mid 80's achieving the rank of Lt. Colonel in the Virginia Army National Guard with over 22 years in active, reserve and guard service.

In 1966, we moved into our first home. I don't recall the exact date, but sometime around 1972, dad added a free standing 14x20 garage. Now he had space for his first layout, and he obviously had been planning for sometime to build his first model railroad.

Dad had two best friends that were also into trains, and every Tuesday night for over 35 years, they would "play trains" as my mom would say. They would rotate their meetings and help build each other's layout. By the time we moved again, his first HO layout was never finished. It was rather high from my 12-year-old point of view. However, he did manage to begin his collection and establish a running railroad void of scenery.

In 1976, we moved to a larger house almost in the same area, and now Dad had a basement of which half was a train layout. We began building a huge L girder style table 15x50 HO layout. Once again, dad completed the track, wiring and some basic scenes around the coal yard and engine service area including a large roundhouse. He never really had a theme or copied a specific railroad. He exclusively modeled the N&W, Virginian and Seaboard lines. I even managed to build my own 4x8 layout with a few hand-me-down engines and cars from dad. I had a nice town, road, small refinery, loading facility, scenic hills and it was all complete. I was most proud of my lighting of the town street and buildings. I loved the night scenes. This was great experience for me as I learned problem solving and electricity building my layout as a middle schooler.

His love, I think, really was in modeling the cars and figuring out how to make the layout run. If he couldn't find a particular hopper, he made a dozen. Need a wood sided caboose of a particular era, he made five. Box cars, refers, gondolas, and flat cars were all the cars he made. He even made an entire N&W maintenance train because he wanted it; because no one made them.

Sadly, this layout wouldn't last long, and I have yet to find any pictures of it, UGH! By 1982, we had taken it down sold off much of his collection to another friend augmenting his railroad. Dad took a break from trains and decided to test his modeling skills in RC planes.

He was an expert builder, but I think he lacked the confident flying skills to take all that hard work and takeoff and land properly. So, a couple years later after this brief fad, he moved back in the railroading of O scale. All coordinated to coincide with me moving back home from college (VMI '87) to help build another layout – great plan! This would be the last and longest standing one. Like the HO, sets this railroad had the same kind of scenes, logging with a narrow gauge, a coal mine, a huge yard and Maintenance of Way facilities, small town and bridges and rolling countryside.

I believe dad envisioned recreating scenes he saw in his younger days for his layout versus a strict recreation of a particular railroad and or specific route. Such scenes as a coal mine, a logging operation, a huge trestle bridge, a town, a large switching yard, crossings, stations, loading docks, and so on. Images of railroading in what he saw in his youth. Anything from the ending days of steam and the beginning of the diesel era. As he began planning and collecting his fleet, he pretty much settled on a 1950-1960 era. He amassed several brass engines from Sunset, Overland and others. He also had several Weaver, Atlas and a couple other diesels that I was always fond of watching taking a curve with a heavy coal load.

I recall several planning sessions with his buddies. Making plans, laying out scenes and determining the curves so the largest of O scale engines and passenger cars could navigate., Like his HO railroads the Virginia, and N&W were his favorite with a selection of Seaboard engines and cars. He got immersed in the details as one would say. He and his buddies wanted particular hoppers or gondolas or engines too. I believe the last model he spent a long time on was helping Sunset come out with the (2 and 3 rail) Virginian 2-10-10-2. They would gather photos, plans, letters, and any document available to fully document the car they wanted. I know Rich Yoder Models made at least two cars based on his work and Sunset made two engines. I think there was a caboose in there too somewhere.

While the railroad was never completed, it was totally wired. I think he had five working blocks with proper signaling. All the trains could run and was a site to see three long trains run at the same time. He had time to add some scenery including all the rock backdrops, Yard, crew homes, some shops and other engine support structures.

Not only was coal a major fascination, he was also into logging. So one end would be a mine with coal tracks and large buildings, and the other a logging operation with, you guessed it, an ON30 logging operation with track, cars, and another railroad within a railroad.

My armor modeling hobby with Tamiya's fantastic line of 1/48 scale models from WWII made me the perfect builder of several of his excellent flat car loads for an impressive Army train. At some point in his military career having actually loaded military vehicles on flat loads, he knew how they were chocked and tied down. With a couple nice books on the subject and his memory, he was able to create some fantastic loads. We had a great time doing this for the few I made for him.

One of his last projects was decking out the passengers, dinner plates, wine bottles and tables decorated with flowers for his Golden Gate Powhatan Arrow Train. I think he spent months on this trying to get it just right scouring the Internet at my house, I might add, and trying to find as much modeling aftermarket items that could be used.

I want to thank Rich Yoder for encouraging me to write this up and share my father's work. A special shout out to Dan Dawdy for allowing me to take a year and then some to finally get all this complete. It was a great journey and one I know he was pleased with. The joy comes from building and the small group comradery he had with his best friends. To Bill, Bill, and August, thanks for being there along his journey. Dad was always very secretive about his hobby and work. He wasn't part of any club; it was just him and his three buddies that all had a great time together "Playing Trains".

Editor's note: What follows are pictures, first of Mr. Abernathy's scratch built HO cars, and then moving around his beautiful O scale layout.

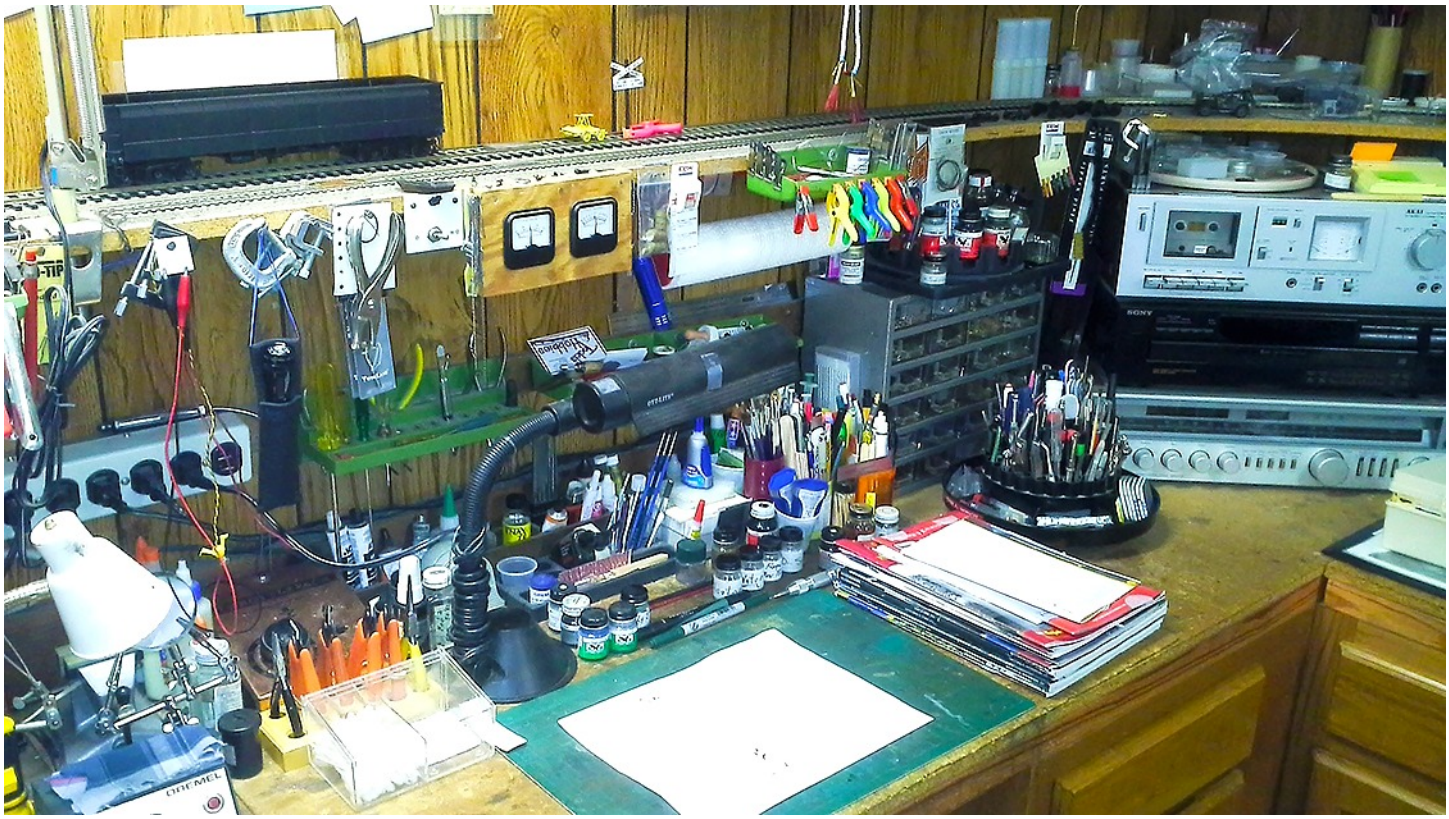
Scratch build HO gon.


NOR FOLK AND WEST ERN
N & W
CAPACITY
1980 CUFT
HM
76020


N & W
517121
LT WT 42500
M OF W
KITCHEN
NORFOLK
&
WESTERN
RPKD 10-46


NORFOLK AND WESTERN
N & W
N&W
72946
CAPY 110000
LD LMT 128000
LT WT 41000
NEW 4-34
CUFT 1973
RLT 4-34
HK

Workbench & Reference Areas



One can never have too many reference books and magazines.

Editor's note: **Ashley is wanting to sell the layout (track, electrical, some structures and scenery). People can contact him at his email below.**

Please serious inquires only.

caabernathy123@gmail.com

Coal area, one of his first scenes on the RR

Amazing level of detail throughout the finished scenes.


PTN 11-42
H-2

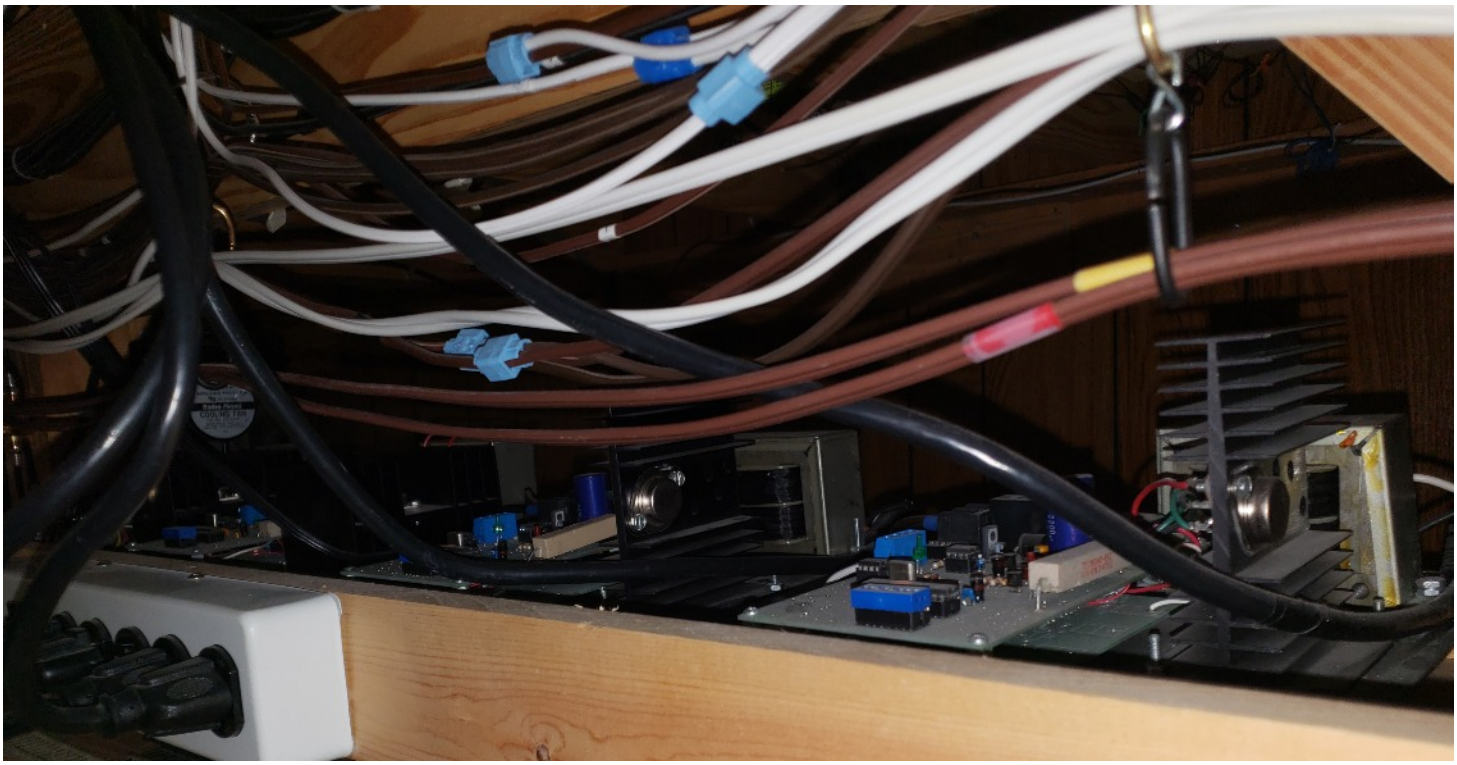

ROYAL CROWN

Staging area of buildings, scenery items ready to go. This was to be a small freight warehousing like area just below the branch line.

A look up further down the track with the main line and a passing track.

Right side of the railroad looking back into the yard area. The tracks here were intended for coal loading tracks from one or two coal mines that intended to fill this area.

The Underbelly of the layout



Some of the transformers used to power the railroad. Never could figure how Dad could plan, wire and work this power plan, yet needed his grandson to work the VCR!

About half way down the railroad looking underneath. He arranged wiring through loops (shower curtain hangers) that would carry wiring for specific purposes. 1st loop main power, 2nd secondary lines, 3rd branch lines, 4th switches and so on. This made trouble shooting easier.

I believe this was a metal toy approx 1:43 scale. This made for a perfect Army Grader. Claude made over a dozen specialized cars with dozers, tanks, and trucks. Tamiya's 1/48th armor model line of kits as well as aftermarket items made for excellent flat loads.

The Big Virginian 2-10-10-2 by 3rd rail. One of the last models Dad collaborated on was with 3rd rail to produce back in 2011 or so. Also noted in the picture is a special water tender he had made. Click on the link below. Dad's thank you letter is also posted. (Thanks Matt!)
http://mattforsyth.com/?p=1203

Looking around the bend from the end of the engine yard. Part of the Army train and unfinished foreground.

The bull dozer was a 1:43 metal toy, while the 155mm Cannon was a 1:48 model kit from the 1970's.

Looking back from the engine yard towards the front in an earlier picture.

Close up of structures ready to go. So happened the freight station kit was one I made for the layout back in High School – about 30 years ago.

Some of the many controls that helped manage power and control traffic.

More power controls, army train, and a small church that has an interior light and a light over the porch (obscured by the loade)r.

At the bottom, a closeup of some of the fine engines from his collection.

The beginning of the Company home row of buildings below the rock backdrop. The small hand car shed was lighted and with a complete and detailed interior made by me from actual N&W blue prints back in my high school days!

Three of the five company buildings he mass produced over a month or so. Each house was lit, however, he sectioned off the location so it looked like different lights were on in different rooms versus one light shining through all windows.

Above: One of my favorite kits was the Tamiya CCKW with a CMK Le Roi Compressor and the CMK Resin 600 Gallon fuel trailer as a flat car load. I got to build this and Dad painted. A fun tag team effort.
Below: Another closeup of the coal yard park-n-ride. Note the MOW car on the middle track. This is one of two my father scratch built using original plans as a guide.

On Building Bulletproof House Cars

By George Paxon

Some of the challenges in model railroading are:

(1) to build cars that will withstand the rigors of operating for years,

(2) contain all the detail that is possible, and

(3) still make construction fast and easy.

The three objectives seem at most times to be mutually exclusive.

And fast is relative. Most of us are looking for the detail that makes our models convincing and realistic. Such details will take time and there are few methods for hurrying along that part of building good models.

But, we can hurry the early part of the construction of a model while still ensuring it will be robust enough to withstand many years of service on our layouts. This will leave us more time to concentrate on the time consuming detail work.

I use laser cut MDF carcasses on many models to achieve both the speed during early construction while making the model fairly bulletproof as well. There are other benefits as well.

This approach does not suit every model. Open cars such as gons and hoppers are not well suited to this approach since the thickness of car sides would be considerable over scale. I use thin styrene sheet for such car sides. And unfortunately these cars are considerably more fragile than those using my MDF carcass approach.

An MDF carcass is definitely a good way to start most any house car. Even house cars with windows can use this approach. To keep the thickness of the car sides from being an issue near windows, cut the window opening much larger than needed in the MDF subsides and install window frames from the inside of the car. The skin, car siding, can then have the windows cut to be correct size. The thickness of the MDF is not apparent with this approach. You can see the oversized window holes in Photo 1 of the box motor.

Photo 1

One of the great benefits of using laser cutting technology for making the carcass parts is that they are accurate, and the completed carcass will be dead square. This is essential particularly for a wood car because if the basic car body in not square and sides plumb, the board(s) at car corners will have a taper from top to bottom on the car side and/or end and illuminate and even amplify your error in an most unwanted fashion. When knocking up car bodies from wood cut on my table saw in the dark ages, these squareness errors were always an issue. Much care and rework was required to get a square car body. The accuracy in the table saw was just not sufficient for such work. At least not on my table saw. Of course I bought it used over 40 years ago so that may have contributed to my problems I guess. It is not much of an issue keeping the car body dead square with laser cut MDF carcasses.

Some photos of in-work and finished house cars are provided to show how the assembly goes with the laser cut MDF carcass. I use a tab and slot approach to get a tight fit as well as maximum glue surface for a rugged car body.

Look at the photos of IRP 201 and ME Ry 612, Photo 2 and 3. Both these box cars are modeled with sag due to the loosening of truss rods and fatiguing of frames over time. I have a weakness for sagging cars, so I like to include this feature occasionally. Might be because of my narrow gauge roots.

Photo 2

Photo 3

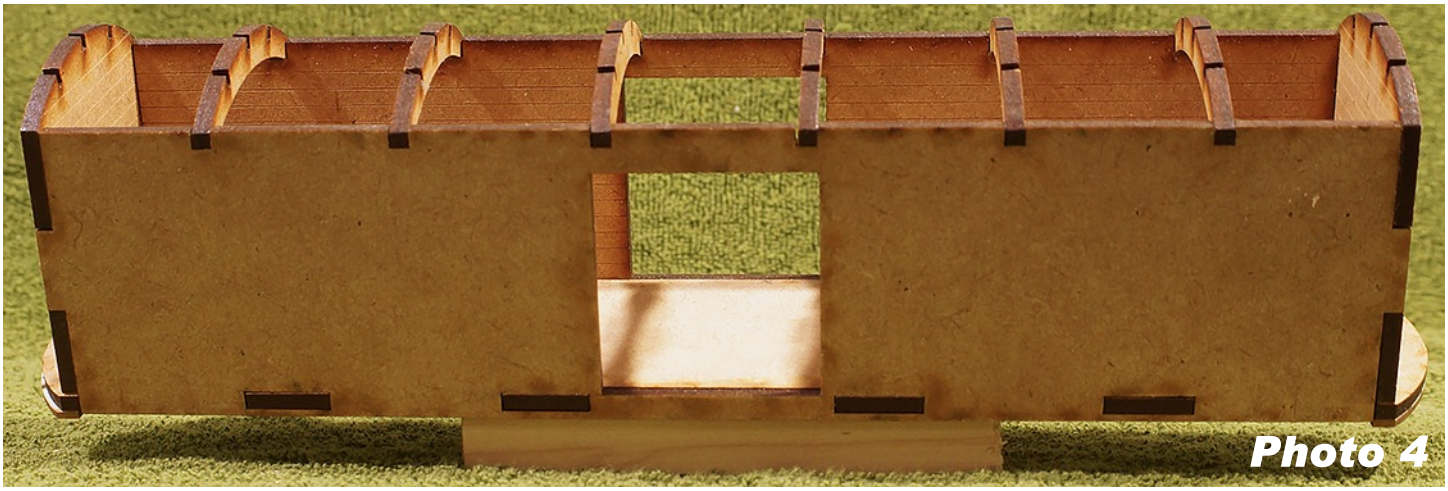
Prior to moving to the laser cut MDF carcass method, getting the sag in a car was hard work. I once cut side, intermediate and center sills to length and then soaked the sills in water for days. While still wet the sills were clamped to a purpose built jig to hold the sag while the sills dried for a week or so. These curved sills were then

used to build the car. Wood floors and roof stock when used were similarly soaked and clamped for days and days on end. Sometimes when all these parts were done and ready to start model construction, they had approximately the same amount of sag. And sometimes they did not. Sometimes they came out of the drying jig with a bad twist and were throw aways requiring another attempt to make the part. And occasionally, after the model was completed, the wood would attempt to return to its original straight shape and pop loose glue joints while shedding various parts off the finished car.

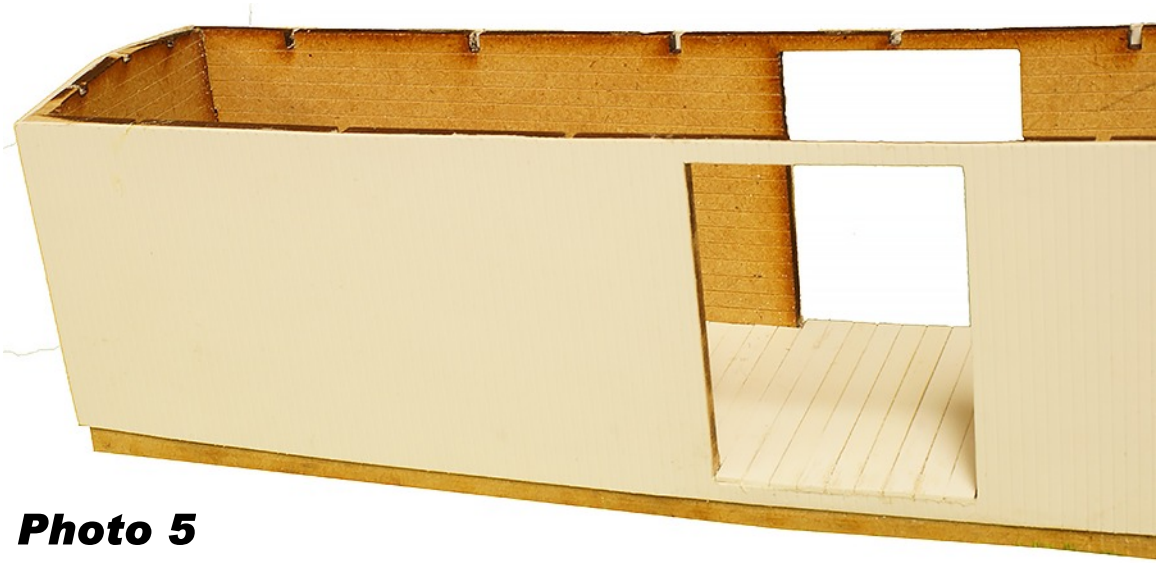
With the laser cut MDF parts, the sag is simply drawn into the sides or side sills and tabs provided for the floor. The tabs and slots provide strong glue joints with the floor fitted into them. The sag is accurate and permanent.

For a house car, such as IRP 201, the tabs were cut in the side as rectangular holes rather than slots with the side extending down below the floor to form the side sill. The tabs were aligned in a gentle arc and locked the sag into the floor. The same gentle curve was used on the bottom and top of the car side.

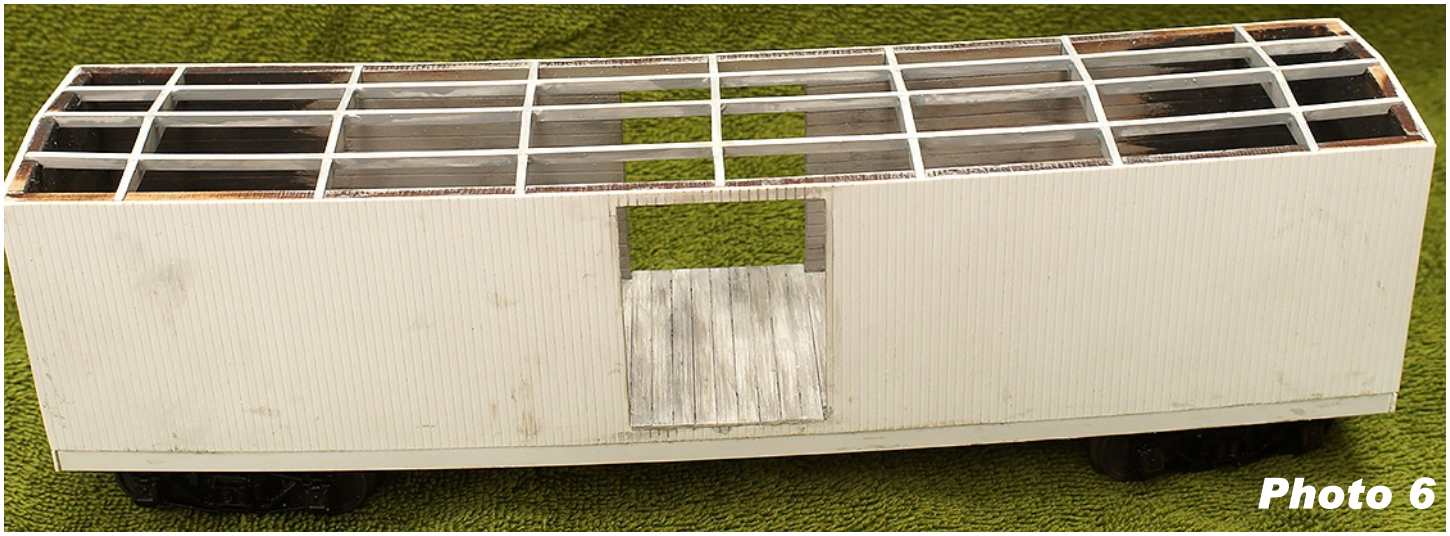
See Photo 4. This car is straight sided and without sag, but you can visualize how the tabs and slots will hold a sag in the floor reliably and permanently. This car has heavy oversized carlins as it is not intended to be detailed inside. Not sure then why I scribed the horizontal inside lining boards.



As can be seen in the under construction photo of IRP 201, Photos 5 and 6, after slightly over length car siding is laminated to the MDF subside, the sag can be sanded at the top and bottom of the sides using the subside as a guide. It's very easy to get the sag exactly right at both the top and bottom of the car.



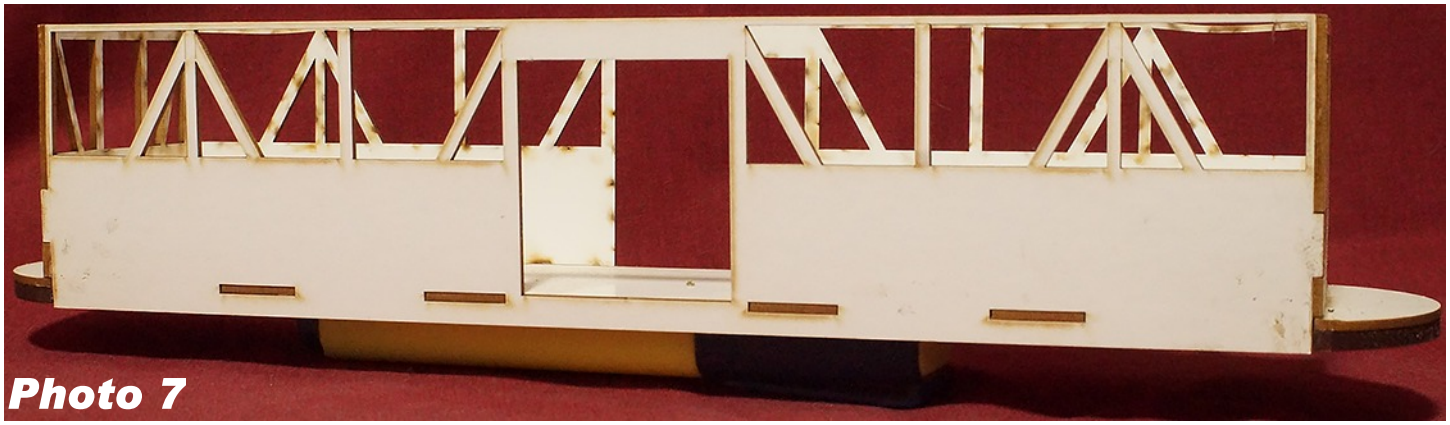
Another nice feature made easy by this approach is building a scale car roof. Again, from the photos of IRP 201, you can see notches 1/16 inch wide cut into the subsides and sub ends into which styrene carlins and purlins, to support the roof, are placed. And, Photo 6 shows the carlins and



purlins installed. Scribed styrene was applied over this as roof boards in two sheets. The bottom sheet has the scribes down and the top sheet had the scribes up so the board joints were visible both inside and on top the car. The car doors were left wide open, and the interior detail can be seen and appreciated.

I used styrene for the carlins and purlins on cars with styrene roofing and sagging frames. It makes it a simple task, with reliable results, to glue the styrene roof sheeting to them. The styrene to styrene bond insures the roof boards stay in place and maintains the sag of the car top. I would not trust a wood carlin/purlin to styrene joint using a contact adhesive or ACC to hold down the roof boards on a sagging roof structure. I paint the purlins and carlins, but sand their tops after to insure a good styrene to styrene joint there. You can see in the car construction photo that I was in the process of painting these when the photo was taken. The paint job at this point was still a bit messy. But as you will see, this detail looking through the car door, the paint job does not need to be perfect as paint errors are not easily seen inside the car once the roof is in place.

You will note that for IRP 201 the interior car lining extended from the floor all the way to the roof of the car. This was a grain car and full interior lining was common in grain cars. For many box cars not intended for grain use, the cars had the lining only extending about half way up the car sides and ends. This is easy to do with laser work as well. See Photo 7 of the carcass for a car with the diagonal and vertical car side bracing showing above where the lining will stop. You could add the vertical tension rods to your car side framing if you have a mind to do so. For this car, instead of using 1/8 inch thick MDF for the subsides, I am using 1/16 inch thick card as I wanted to keep the thickness of the car side close to prototype. The car is intended to have open doors. Once the lining is installed on the inside of the card and the vertical scribed siding on the outside of the card, the side thickness will be about right.



IRP 201 and Indiana Railroad 657, Photo 8, both had steel side sills below the wooden car siding. To model both these, the sides and side sills are cut from one piece of MDF. Then thin, .020 inch thick, styrene strip

overlays are used for the side sills; and thick, .040 inch thick scribed sheet used for the car siding. Any required rivet detail can be pressed into the thin styrene side sill overlays before they are installed on the model, or they can be added using decal rivets at any time.

Photo 9 is a model of an outside frame car. Here the carcass was cut much narrower and the car sides and steel framing built over the MDF sides to produce a strong and durable model of what could otherwise be a very fragile car.

One criticism I have had from one of my rivet counting and perfectionist modeling friends is that the MDF makes for oversized car sections such as floors. Look at Photo 10 which is an in-work shot of the underside of IRP 201. The underfloor includes almost all the detail one would find underfloor. You will note the floor board detail. For such floor you can scribe the underside of the floor to get this detail. Then add thin individual floor board to the inside of the car, topside of the floor, as you can see I did with the model of IRP 201. The only real compromise is that I do not make the floor sills as deep as they should be. This compensates for the additional floor thickness. But the fudging here is not readily apparent and does not make it more difficult to include as much detail as you chose to add to a car.

Although this approach makes house car, box and reefer construction easy and durable, the technique can be applied elsewhere. Some of the photos show a caboose, Photo 11, using MDF sub walls and floor. Photos 12,

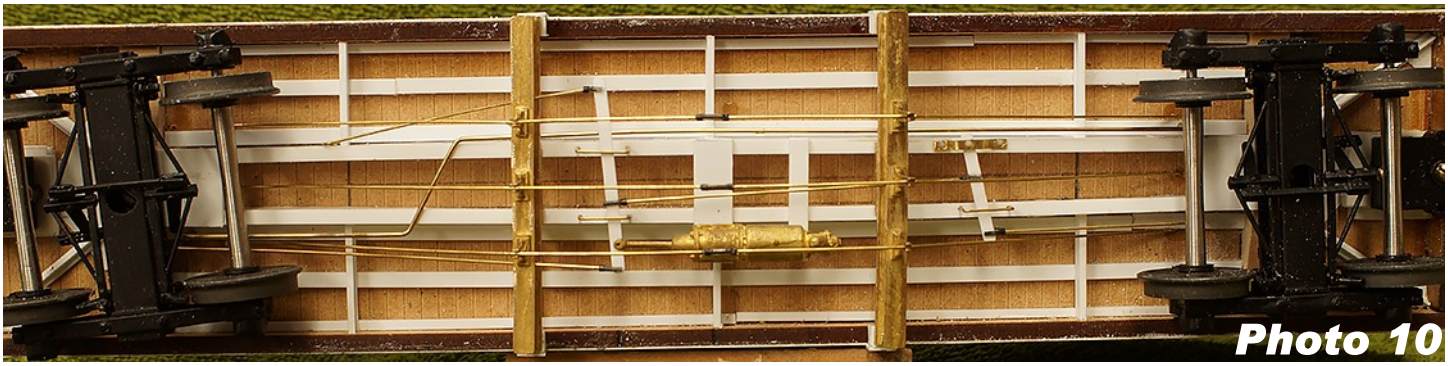


Photo 10

Photo 11

13 and 14, illustrate the build process of a little 4-wheel rotary plow. All these cars, and the box motor in Photo 1 with interior painting in process, have windows and the method discussed above was used to keep the sides from appearing too thick.

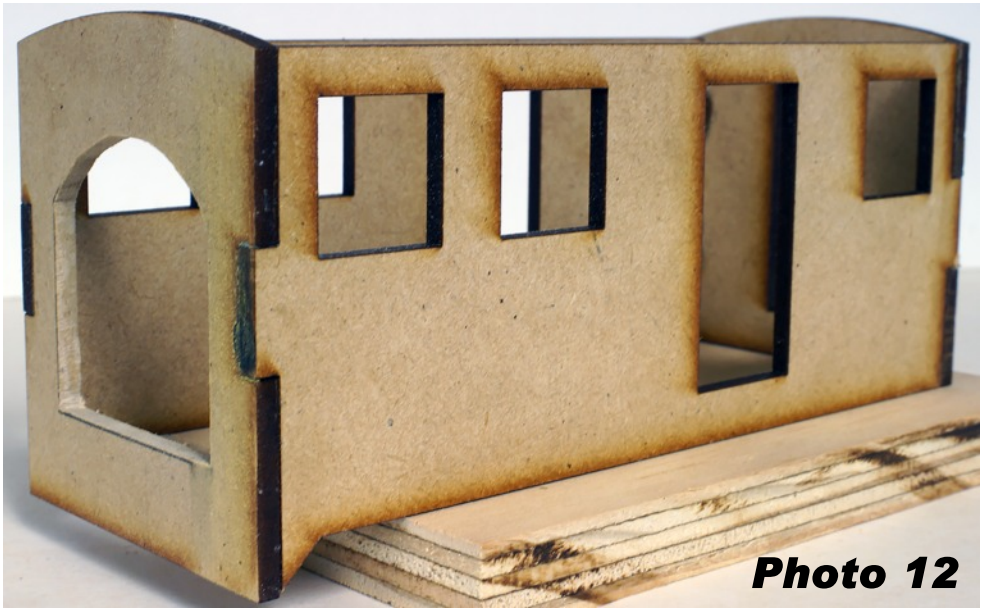


Photo 12

Even the little ME Ry X7, a tool car in our work train, was made using this approach. See Photo 15. The floor of the car, and the body that formed the box on the back half of the car, were both cut from MDF. To model the area where the siding was torn away and the car framing shows, the MDF sub-side was cut away, the bottom of the siding framing member showing through the missing external siding was glued to a few horizontal boards, that represented the inside lining of the car, and this all was glued to the

Photo 13

Photo 14

inside of the car subside. The siding on the outside of the car was then distressed to model the side-swipe damage.

This is a worthwhile technique to adopt. It requires only simple drawing skills and access to laser cutting services. It provides quick and strong foundations for dead square models of house cars, and other appropriate cars. The resulting carcasses can then be detailed to suit most any discriminating modeler up to and including the most pedantic of rivet counters I know. The few compromises that are needed are worth it to have a fast method for getting a robust and accurate car body to the stage where you can add the details to your heart's content.

Mentor Definition: A Trusted Counselor or Guide

By Contributing Editor Jim Kellow MMR

Our Twice Weekly "New Tracks ZOOM Mentoring Meetings, and On30 (Today's Narrow Gauge for Many Model Railroad Builders)

Why do I write "New Tracks" articles and host Zoom Meetings, and why should you want a mentor? Answer: To help you "become a better model railroad builder".

You may be nervous to ask another modeler questions about something you want to understand. But how else will you learn? I believe asking a person for help is the greatest honor you can bestow on them. There's nothing to be nervous about.

You may be hoping that someone you admire can give you the confidence to build a model, but I believe "trying and building" is the only way to develop confidence in your own modeling abilities.

After all, a lot of modelers you read about can become your mentors if you just ask them questions about their modeling, and try their advice on your next build. Also, as I was recently reminded, don't forget to give feedback to the modeler who gave you the advice. That will help continue your conversation and cement your personal relationship.

Therefore, ask questions of other modelers to develop your modeling skills and techniques, and build models to develop your confidence. You will definitely "build better models". So, please continue reading.

"New Tracks" ZOOM Meetings to meet, talk with, and learn from other modelers and maybe find a mentor.

I recently participated in my first ZOOM meeting hosted by Chris Lane, Sr., the Editor of "The On30 Annual", for members of the Mid-Hudson On30 Facebook group. I have been a member of this group for several years, and have previously profiled some of the members in my "New Tracks" articles in this magazine. Some other members are included later in this article. If you have not yet signed up to get you free issue of *The S Scale Resource* magazine and *The O Scale Resource* magazine delivered to you by email, I suggest you consider doing so. I don't want you to miss any of my articles!

I had never actually met any of the modelers in the Facebook group. ZOOM's Live video conferencing ability to bring together people, from all over the world, who can see and talk to each other in real time, puts a face and voice to their Facebook posts, and makes me feel I know them a little bit better.

I immediately started thinking of the possible "New Tracks" mentoring opportunities. Modelers and manufacturers could be featured in a ZOOM meeting with other modelers who are interested in talking to them about their skills, techniques or products, as well as asking them questions about modeling issues they are trying to solve in their own projects.

In a ZOOM meeting, you are not just watching someone, you are participating with them and the other modelers who log into the meeting. Every interested modeler is able to log into the meetings and participate. We can learn from and help each other, and that is what I call mentoring. Sound good?

We immediately found many talented modelers who liked the idea of sharing their skills and modeling techniques, and who were interested in being a “Featured Modeler” in one of our "New Tracks" ZOOM Mentoring meetings.

We currently have two meetings a week, on Wednesday and Saturday evenings at 7pm EST. All the details and log in information for each meeting is posted in the Events Section on my, Jim Kellow MMR, Facebook page. https://www.facebook.com/Jim-Kellow-MMR-107123997469688/

All you have to do is go to my Facebook page at the scheduled time for the meeting and click on the posted link. We are trying to make this as easy as possible for everyone. We look forward to seeing and talking with all of you in future meetings.

I think our ZOOM meetings may be a substitute for some of us to be able to sit by the side of a talented modeler, watch him/her build a model and learn why he/she is building it the way they are. I was lucky to have the privilege to be able to sit with my mentor for hours at a time each week and do this. He also always gave me projects to do between our meetings and then gave me feedback on my efforts. Now I look forward to these ZOOM meetings providing me that kind of hands on learning experience to improve my modeling projects. Join us and see what you think. You may be surprised at what you get out of the meetings.

By the way, if you miss a meeting, you can see a video of it on my Facebook page. Some modelers have expressed their concerns about not being able to participate in the meeting because they live in various parts of the world with very different time zones. We hope posting videos of the meetings will help partially solve the time zone problem and provide an opportunity to at least see what went on in the meeting.

If we find there is sufficient demand for Live meetings in other time zones, such as the U.K., Australia, and the Far East, areas in which we are currently investigating and looking for local Co-Hosts, we will try and provide Live meetings in those areas. You will just have to let us know that you want a Live "New Tracks" ZOOM Mentoring meeting in your time zone, or you are interested in being a Co-Host, by contacting me either by email jimkellow@oscaleresource.com or by leaving a message on my Facebook page.

We look forward to seeing you soon and hearing your feedback so we can include your suggestions and ideas in our "New Tracks" ZOOM programs.

Now let's turn to our On30 Discussion.

On30 (Today’s Narrow Gauge for Many Model Railroad Builders)

I recently had a Modeler ask me to write about his modeling interest, On30. This got me thinking about how and why On30 got started and narrow gauge in general. The more modelers I talked with, the more I got interested in writing about On30. Thus, this article just kind of developed by itself.

It was not long ago that narrow gauge modelers did not really talk much about On30, it was all about On3. I forget exactly the date, but about 30 or so years ago the *48Ft/O Scale News* magazine started including On30 as an official part of its publication. The magazine even included On30 on each of its front covers, so everyone would know that On30 was officially a part of O Scale.

At the time, I was the Magazine's Contributing Editor for "Traction" and wrote the “Singing Wire” column. I was somewhat surprised, to say the least, at On30 being included so prominently. Today, I understand why It was done. Although I still think they should have also included Trolleys on the front covers. Oh well!

After some conversations, I think we need to look at three factors to understand the attraction and growth of On30. 1.) The cost of On30 modeling compared to other narrow gauge scales. 2.) The variety and amount of HO track, switches, models, locomotives and cars, that are available for building On30 models. 3.) Modelers whose eyesight is not as great as it used to be are modeling in a larger scale.

These factors, to me at least, help explain the growth in On30 modeling and the significant role it plays in today's O scale and narrow gauge model building community.

But what is On30? Is it changing? Are there two On30s?

I believe there are two On30 modeling scales emerging. One I will call Fine Scale, the other Regular.

When I first heard about On30, all I heard was that it used a HO chassis, wheels, and track with O scale bodies, figures, detail parts, and structures. It was O Scale narrow gauge. Wikipedia's definition of On30 is: "On30 (also called On21⁄2, O16.5 and Oe) gauge is the modeling of narrow gauge railways in O scale on HO (16.5 mm / 0.65 in) gauge track in 1:48 scale ratio by American and Australian model railroaders, in 1:43.5 scale ratio by British and French model railroaders and 1:45 by Continental European model railroaders (excluding France)." This is what I consider to be Regular On30. And what I think many modelers would also call On30.

Recently, I had a modeler in Australia tell me about "On30 wheels" being different from regular HO wheels. Never heard this before so I asked him where I could get On30 wheels. He immediately said Bachmann On30 models have the correct wheels for On30 models. So, I guess if you are a Fine Scale On30 modeler, you use Bachmann wheels not HO wheels?

Naturally, I knew a while ago a track was marketed specifically for On30 modelers that was different than HO track, so certainly Fine Scale On30 modelers used that track. Then I saw a Facebook post about scratch building a modified O scale water tank to fit the smaller On30 narrow gauge locomotives. Specifically, the post said: "If I built it O scale for standard gauge it would be enormous for the tiny On30 locomotives which are narrow gauge. The On30 locos are much shorter and smaller so the tank needs to be built so it can be closer to the track with a smaller spout that is lower to the ground. Essentially this would be perfect for S scale, which is what I used to model in, but found to be way too expensive." I never heard about this kind of modifications for a regular O Scale model to fit On30 modeling before, but if you are a Fine Scale On30 modeler, it makes sense to me.

Anyone else have examples of Fine Scale On30 modeling? I would love to hear about them as I am beginning to feel that there are more I have not yet heard about. Are there modifications made to O Scale locomotive superstructures for On30 from regular O scale? How about modifications to passenger or freight car O scale bodies? Are tunnel entrances different for On30; how about clearances on each side of a track, minimum and standard recommended curve dimensions, etc.? Are the standards for On3 and On30 the same?

Seems to me the On30 modeling community has really matured and some modelers are developing specific standards for the scale. I think this only spells more success for On30 as more modelers recognize the standards and start getting more manufacturers offering products meeting the standards. Congrats to the modeling leaders in On30 that are advancing these On30 standards. I would appreciate hearing your opinion about the future of On30, especially with new Manufacturers like Dylan Lambert who is really aggressively using new technology like 3D printing to easily convert HO sized models into unique On30 models.

To further understand On30 and how it got started, I asked a friend and well known On30 Modeler, Allen Littlefield, to provide us a historical perspective of the beginning and growth of the On30 world. You have met Allen before as I profiled him in the March/April 2018 issue of The O Scale Resource Magazine. I also asked Allen to give us his opinion as to why, since Sn42 and On30 both use HO track and mechanisms, Sn42 did not take off while On30 did? I believe you will find his comments interesting.

Sn42 vs. On30 by Allen K. Littlefield

Since both scales use HO track, 42” in S and 30” in O, one wonders why one has taken precedence over the other? I will offer my observations, but first should give you a bit of background on my Sn42 self and history of On30.

I started out in the hobby, as did most, with a train under the Christmas tree. My train was an O scale Lionel, but a few kids in the neighborhood had the American flier S scale two rail set. The third rail in Lionel always made for good running, but was still an eyesore. Later, in my teen years, I switched to HO gauge after seeing the Varney ‘Little Joe’ switcher in the local hobby shop window. The smaller scale allowed more modeling per inch and was relatively inexpensive. Over my adult years, RR modeling was touch and go and I even tried Sn2 modeling using HOn3 track and mechanisms and scratch building most rolling stock. I even had an article in the July/Aug. *Narrow Gauge and Shortline Gazette* on the subject. This adventure became a bit frustrating, and I dropped out of the hobby once again. My first attempt at On30 was back in 1987 when I built a Forney type loco using a HO A-3 switcher as the mechanical base and using larger O and S scale domes and appliances to finish it off. This loco was also published in the *SL&NG Gazette* back in 1987. I languished again until 1999 when I decided I needed a train to go around the Christmas tree once more. At the local Hobby Shop I found a Bachmann On30 set for around $100 that included a Mogul, three passenger cars plus track and power pack. That purchase got me back into the hobby big time and I have been building On30 locos and rolling stock ever since. The known history of On30 dates back to 1932 when the late Hugh Boutel started using O scale locos on HO track. I am sure in Europe there were similar modelers that took this route. Go to On30 History Chronicles on Facebook for further reference.

Now to the subject at hand: Both scales use relatively inexpensive HO track and mechanisms for motive power. O scale conversions require larger boilers, cabs and appliances to achieve the narrow gauge look. S can actually utilize existing boilers with just a bit larger cab and appliances to achieve the same goal; therefore, being a bit less expensive than the O scale approach. So I must assume the cost of either is inconsequential.

Next would be the gauge of the track: Using S standards 42” is 6” wider than the 3’ gauge Colorado roads, EBT and others. A bit wide looking but still acceptable. The 30” gauge in O scale can be used to model ‘up’ to a 3’ layout or ‘down’ for a 2’ pike. The relatively smaller 6” error, if you will, is a bit less noticeable in the larger scale. Therefore, On30 offers a broader range of modeling of historical roads along with many plantation and industrial roads that were actually 30” in gauge.

Overall size: S buildings are smaller than O scale thereby offering more modeling in a similar space. Contrary to some opinion, On30 is still O scale of 1/4” to the foot, not a bit smaller. So the size factor advantage falls on the side of S scale.

Availability of used equipment: There was more O scale produced than S scale and you can usually pick up some good bargains at yard sales and train shows; whereas, S scale models are usually found at a premium.

Bachmann On30 offerings: When Bachmann introduced the Kincaid Village sets, it opened a door for the viability of narrow gauge modeling in O scale. Under the direction of the late Lee Riley On30 really blossomed when they started offering actual 30” prototypes along with 2’ renditions and a variety of rolling stock. Nothing close has ever been marketed by any S scale manufacturer. PBL offers Sn3 wonderful models, but at a premium.

The final reason that I postulate is the “Freelance” factor. I know personally that I like aspects from many narrow gauge railroads and like to incorporate what I like about each into my own fantasy RR. If I restrict myself into trying to model a particular RR, I then must ONLY model equipment found on that RR. Whereas freelance allows me to incorporate various equipment from any of the other narrow gauge operations that I

choose. This freedom factor liberates the imagination and leads to more enjoyment, at least in my experience, than a strict adherence to single RR. I can run Forneys with plantation tank locos and gas/mechanical units if it pleases me. I think that On30 lends itself to more freelance as you can model 3', 30" or 2' using the same basic track more than Sn42 would allow. Not to say some fantastic modeling has been done in the S scale variations.

So this is my take on the question. I am sure others will have differing opinions, which makes for good conversation and speculation.

Thanks, Allen, for your viewpoint. OK, so I am convinced that On30 now plays a very significant role in the O Scale, and the narrow gauge world. Let's meet some On30 modelers and a new O Scale manufacturer. By the way, if any Sn3, On3, or On2 modelers want me to write about their scale and gauge, please contact me and I will be glad to focus on your particular interest in the narrow gauge world. My email is: jimkellow@oscaleresource.com

What follows are profiles of On30 modelers who you can learn from, and maybe even be fortunate enough to have one of them become your mentor. But before you meet, them I want to introduce you to a new manufacturer for timber modelers I believe will interest all O Scale modelers. Please meet Jozef and his company, Kanuck Valley Models.

Jozef Van Eenbergen.

I got into the hobby thanks to my dad. He always had an N scale layout while we were living in The Netherlands. After growing up, I traveled a fair bit before settling in Canada. I happened to live close by the trains and was amazed by the size difference between Europe and Canada when it comes to the trains which reignited the modeling spark.

I have the advantage of having 10 years of experience in the Visual Effects industry where one of my jobs was 3D modeling, so it became a great fit for me as things picked up in the 3D printing world.

All of a sudden I was able to design and build the things I'd been wanting to build for years with very little limit to the imagination.

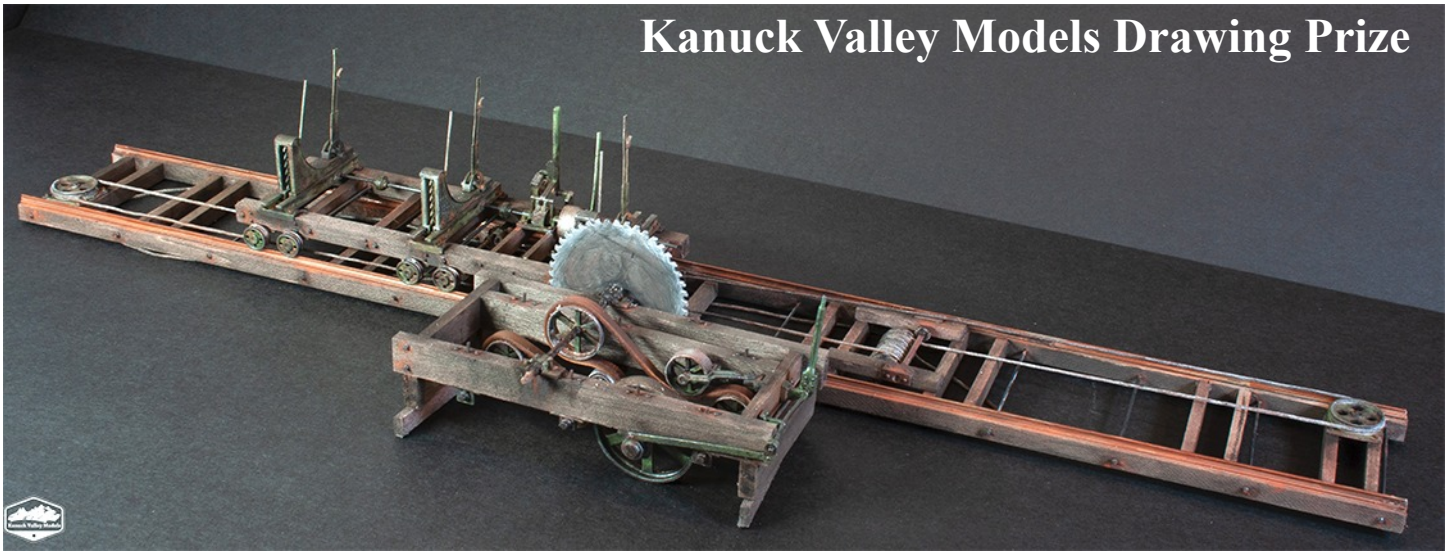
I joined a few groups on Facebook and posted some of the work and people were asking if I could print it for them, and that is how Kanuck Valley Models was born.

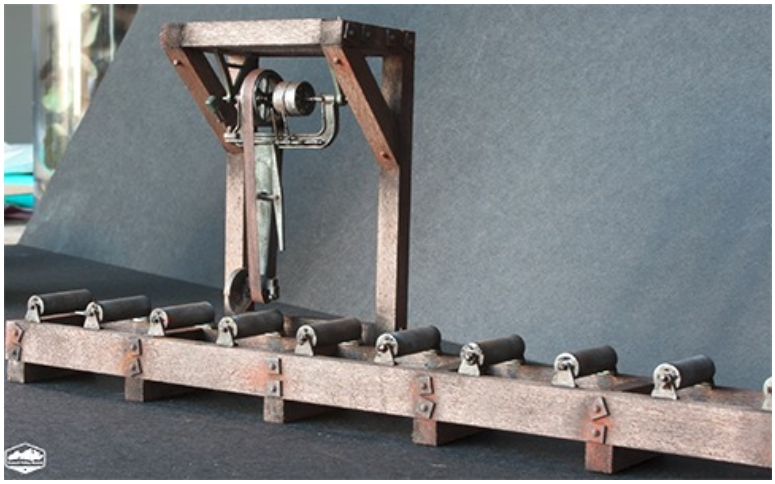
As I am originally from The Netherlands, but also lived in France the word Kanuck (with the older spelling, a old term in Canada for Dutch and French immigrants in Canada a century ago) seemed a perfect name ☺.

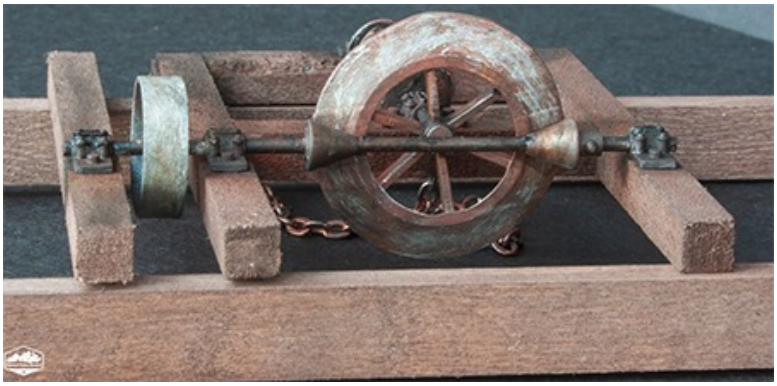
For me, it is really important to provide good instructions, and I spent a fair bit of time making the manuals and technical drawings that go with it. Having made kits when I was younger, I found that the kits I enjoyed most were the ones with good instructions yet left freedom to use your imagination, and that is what I strive for with the kits I have been selling.

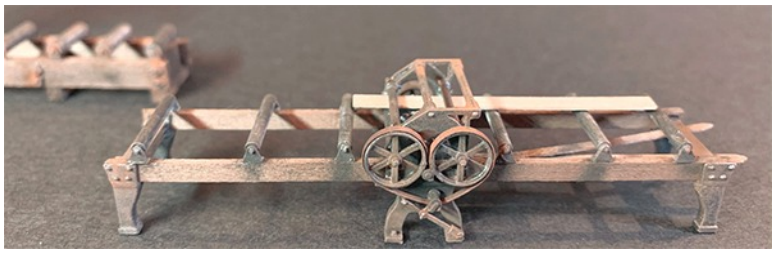
Cost is another important factor, and I try and keep the kits accessible for a larger audience, but without skipping on the details, which is something that is made easier with 3D printing as the details achievable feels greater. That being said, there are some parts, like the pulleys and wheels, that I am curious to cast, but that is a plan for somewhere in 2020 to see how much detail I can get out of those.

I have spent the last few weeks building and designing the additional machinery that compliment the existing saw mill kits and hope to launch about 5 new kits in the next month including an edger, log haul, live rollers and transfer skids.









I have also been working on some On30 disconnected log bunk rolling stock and hoping to also finish off a Shay Class C. The Shay is a kit I hope to be able to offer, but it involves a fair bit more of mechanics that I want to get absolutely right before offering them.

A bit more in a concept phase are crew and characters for the sawmill as well as the building itself.

I personally have switched to On30 recently. I started out in HO, but loved the slightly bigger format and On30 allows me to keep things still fairly contained as a large space for a layout I do not have.

When it comes to other modelers, I love helping out and providing tips, and although I am still fairly new, the things I do know I love to share. For the kits, I stay available via Facebook or Email or Etsy (the webshop platform I do all of my sales on as it is a safe and secure platform for buyer and seller) and provide additional instructions if needed or replacement parts or photos from the assembled kit. I build all the kits at least once to make sure the instructions and drawings and prints all fit.

During our conversation, I suggested Jozef offer a Contest Drawing where one lucky Modeler will win one of his. sawmill kits in O scale. He said: "I can offer the sawmill kit in O scale. It is a three part kit with the carriage, track and saw husk". Sounds great to me. Thanks Jozef for your interest and help, and good luck to all of you in the contest Drawing.

How to Enter Jozef's Kanuck Valley Models contest: Modelers fill out form, agree to use the models and write an article on their experience that I will include in one of my future "New Tracks" articles. I look forward

to see how you use the sawmill kit in your modeling. I will include the photos and your comments in a future article so all of us can see your modeling.

Please visit the Etsy shop: https://www.etsy.com/ca/shop/KanuckValleyModels as well as my Facebook page: https://www.facebook.com/KanuckValleyModels/

Thanks so much Jozef for your help and interest. I look forward to seeing your future products. You can contact Josef at Jozef_Van_Eenbergen@sscaleresource.com.

Now please meet some other very talented and creative On30 modelers. I am sure you have heard of most, if not all, of them. This is your opportunity to get to know them and possibly have one or more become your mentor.

Al Judy

My interest in trains started very early in life. My aunt would babysit me on a regular basis. She lived right beside the B&O main line and her husband worked for the railroad. We spent many hours watching trains, and as I got a little older, she would let me use her Brownie camera to take train pictures. Because of this early interest, my parents got me my first train in 1960 at the age of three. It was a Marx tin set that I about ran the wheels off of over the next few years. Then in 1964, I got my first scale model train: a Tyco New Haven passenger set in HO scale. My interest continued to grow with this more realistic train. Not long after this, my father took me to see the layout of a friend's brother. It was a B&O HO scale layout that filled the second floor of a 3 car garage. We walked in the room and there on the layout, winding through the mountains and valleys, was a 100 hopper coal train being pulled by double headed EM-1 Mallet locomotives. The rest is history…

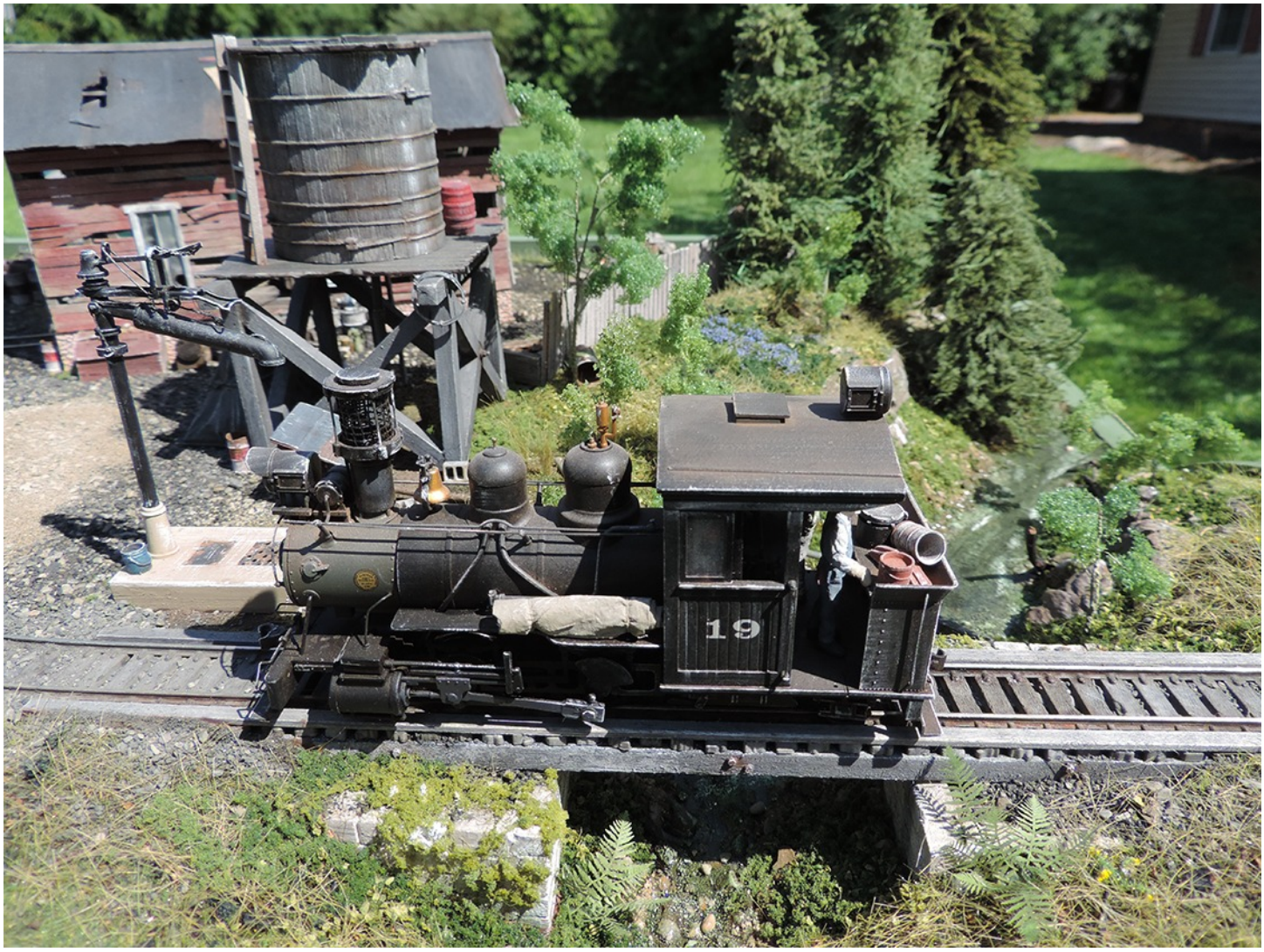
I was hooked! By age 12, I was painting, decaling and weathering my equipment. Back in the early 70's, there were no commercial products available for weathering like there are today. So with the help of my middle school art teacher, I came up with my own weathering techniques and style. Many of those techniques I still use today. In the early 1980's, I decided to take it a step further and opened a hobby shop specializing in model railroading supplies only. I operated and grew Al's Trains of Johnstown, Pa for nearly ten years until the advent of the Internet and direct Internet sales which quickly made the small brick and mortar stores obsolete. For the next decade, my modeling was restricted to personal work only as life, work and space would allow. In the early 2000's, as life was starting to slow down a bit, I picked up a couple of pieces of On30 equipment and immediately fell in love with the gauge.

These days, I am an On30 modeler first and foremost. Although, over the years, I have had hands on experience with nearly every common scale from N to G, I have always had a love for freelance and narrow gauge modeling. I always felt restricted when modeling a proto type railroad. The artist in me wanted to do my own thing; run whatever equipment I liked without being told “that's not prototypical”. For me, that just takes the fun out of the hobby. The saying in On30 modeling is “there are no rules” which describes my type of modeling perfectly. I find the backwoods look and feel of On30 aesthetic appealing, while also finding the larger scale easier to work in, as my eyes and hand dexterity wane with age.

A scene from my last On30 layout.

Operations on the On30 Hillsgrove Timber line.

Currently, besides my own modeling, I build structures and layouts for others. Recently, I have completed several layouts in On30, 3 rail O gauge and HO in the Central Pa and the southern NY region. Some of which I have also had magazine articles published detailing the building of or the operation of the completed layout. I also do a lot of model railroad photography. My photos can be seen on many of the more popular Facebook



Another view from the On30 "End of the Line" module.

model railroading pages and groups. On occasion, I have sold my photos to magazines for use as banners for staff articles or calendars. Although I have done a few, I am not a fan of writing "how to" articles, due to the fact that no matter the subject there are always several, if not many, other ways to achieve good results using differing techniques.

As for my modeling style and techniques, most have been self taught and learned through experimenting and trial and error. Growing up in a rural community long before the Internet, this was my only option. As I stated above, when I started, the availability of weathering products was extremely limited. So, over the years, I came up with homemade concoctions that I have continually developed and improved to get the results I do today. My favorite weathering is done using dry paint pigments and dry brushing to get that well used and the minimally maintained look of backwoods logging and mining railroads. Structures fell under the same lack of availability as most other modeling products in my parts unless you mail ordered from a magazine ad. So, scratch building for me started very early in my travels through the hobby. By the time I had the hobby shop, I had a work table right on the sales floor where customers could sit and watch, ask questions and learn building and weathering techniques from me as I worked. On Friday evenings, we offered clinics presented by other established modelers in the area covering a wide range of topics. At the shop, mentoring was available nearly every day on just about any topic within the hobby. As for my scenery, I'm lucky enough to have been born with some artistic skills that allow me to remember scenes and reproduce them on a scale basis. Once again, trying many different products, both commercial and home grown or a hybrid of both, in order to get the look I want.

Above left: Interior view of the Scratch built 1:48 scale locomotive shop.
Above right: Scratch built 1:48 scale locomotive shop.
Bottom left: Scratch built, 40" long, 1:48 scale mill building.

Along with my modeling, I spend several hours per day, administrating Facebook modeling groups and pages that I have developed. Groups I started include “On30 Railroading”, “On30 and On3 Market Place – Buy & Sell” and “All O Scale Model Railroading”. I also played a large part in the development of the 16,000 + member group “Model Railroading”. These groups are comprised of well over 20,000 unique members which affords me an excellent opportunity to learn and share techniques and ideas with other modelers. But the thing that I am most proud of is, the founding and development of the Harrisburg Narrow O Summer Meet. I started it 8 years ago as the Lycoming On30 Summer Meet. Starting out small, it grew each year as we added new vendors and attracted more guests. In 2019, I moved to Harrisburg, Pa and revised the meet to include all gauges of narrow gauge O scale and the interest level exploded. It is now the largest event in the

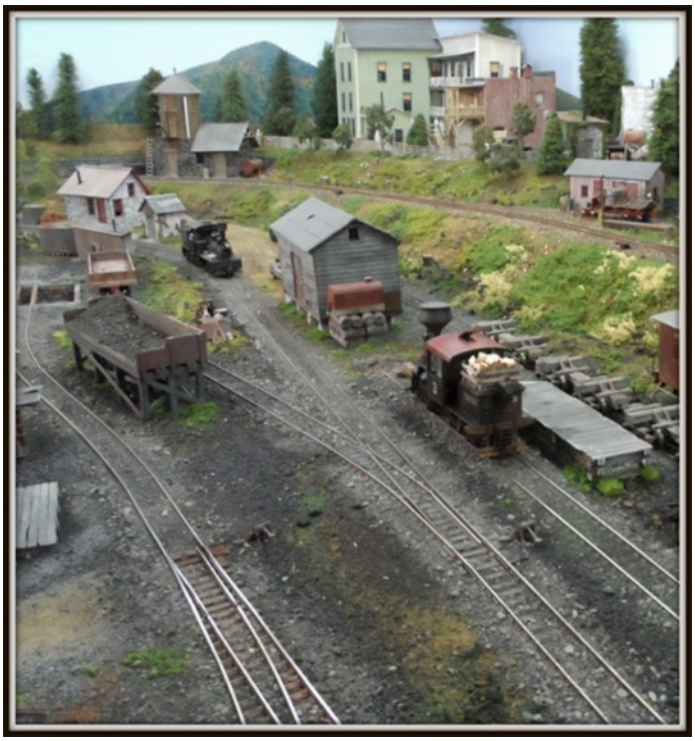
Bachmann On30 Climax that I detailed and weathered.

country for O scale narrow gauge modelers. Drawing guests and vendors from all over North America, and for 2020, we already have reservations for several groups joining us from the UK and Europe.

After decades in the hobby, I'm still learning new things, trying new products, and finding many ways in which to keep the hobby fresh. I have used my experiences to help several small businesses within the hobby get a start, develop and grow. I am currently working with young modelers locally helping them navigate some of the obstacles in the hobby that can stop a new modeler in their tracks. Finally, I'm sharing as much of my work as possible through online forums, doing clinics at shows and by answering any and all questions that come my way through social media, emails and even good old fashioned phone calls. My hope is that my photos and work will inspire others to try new things and continue to grow within the hobby that we all love so much.

If you think Al can help you with your modeling please contact him at Al.Judy@oscaleresource.com.

A view of Mill Creek Junction on my current layout which is still under construction.



On30 geared locomotives on the previous Hillsgrove layout.

By the way, Al recently participated in one of my “New Tracks” Zoom Mentoring meetings and discussed his upcoming Harrisburg Narrow Gauge O Scale event planed for this September. Because of the virus, this might be the only narrow gauge event this year. I use the word "event" rather than show because it seems to me Al is trying to make this much more than a show. He wants you to actually get a chance to meet manufacturers and suppliers, and be able to sit and talk to them or watch as they build one of their models. Also buying from them is OK. Al told me “We will have some of the top O scale narrow gauge vendors in North America joining us, and there will be ongoing clinics throughout the event and great home style food available both days.” He also said that: “you should be sure to visit the display layout room where you can view, photograph and chat with the builders of any of our ten guest layouts.” Lastly he said: “the facility provides a great space so the aisles are extra wide and plenty of room for just plain old "visiting" with other modelers”. Sounds to me like a great “event”. Everyone please be mindful of necessary virus precautions and stay safe.

Al's comments came during the Featured Modeler, Kevin Macomber, Zoom discussion, and announcement about his financial support for Al's event. Kevin told me later that as soon as he completes his relocation to Pennsylvania, he is going to look into developing a similar event using Al's template for all O Scale modelers.

Please note that while I say Al's template, let's not forget the original blueprint and philosophy behind this type of event belongs, in my opinion, to Allen Littlefield and his twice a year Mid-Hudson On30 Group meetings. Al's event is essentially an expansion of Allen's meetings. Check out their Facebook page for more information.

Larry Knapp

I have been in the hobby around 50 years now – boy I’m getting old… I started when I was I was eight. I started in OO then moved through HO, Hoe, Hon3, N, and G, not in that order. I have now settled on O Scale Narrow Gauge.

I have been learning by trial and error and then came the Internet and so many modelers willing to share. I have picked up many techniques from the http://www.railroad-line.com/ and have shared many as well. Now you can also find so much information on Facebook. The best part about these forums are people are willing to help. I have made many friends worldwide who push me, help me and even help me find items at train shows that I need.

I settled on ON30 and O-16.5 due to the ability to have locomotives no longer than some N scale locomotives, but that have the room to add weight and DCC components.

I currently have a finished Micro Layouts and a bunch of others Micros that I have laid track for that I pull out every 6 months or so to mess with.

I am also currently working on a Modular WWI railroad.

Below are links to more of Larry’s pictures as well as full discussions from forums:

A small distraction - Estrella Copper Co.
Corps of Canadian Railway Troops – Europe 1918

I have 8 feet of finished Mining Modules that I did for the 2011 NNGC in Hickory, NC. Pictures by Ed Trexler:
http://images110.fotki.com/v109/photos/2/1709102/10053615/DSC_1735-vi.jpg
http://images54.fotki.com/v627/photos/2/1709102/10053615/Image3-vi.jpg
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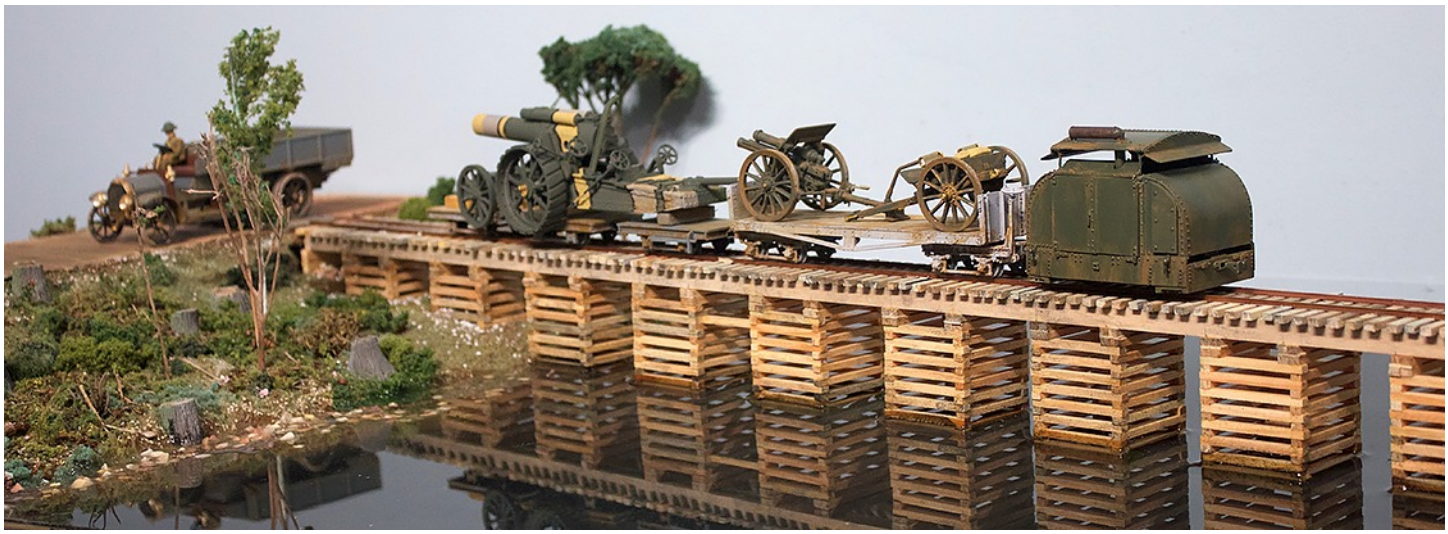

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http://images114.fotki.com/v75/photos/2/1709102/10053615/Image2-vi.jpg

This is a diorama I finished:

30's Gas Station - 10th Anniversary Challenge build

Tips for building mini layouts and dioramas:

The best tip I have for a mini layout is just try it. If you don't like it, you are not spending a fortune. The second tip is tight curved track needs to not have kinks or uneven curves. The best way to avoid this is to find a plate or pot lid that is round and the right size then form the track around the lid.

Thanks Larry for your interest and offer of mentoring help. Please don't hesitate to contact Larry at Larry.Knapp@oscaleresource.com if he can help you in your modeling.

Frederic Morin

I'm french and I'm 43. I live in France, near Clermont Ferrand (where Michelin tires were invented).

I've been modeling trains since I was 7 years old. I began by modeling french trains with a basic layout in HO scale, an oval... It was a kid layout implemented with basic techniques. I improved my modeling technique by reading Railroading Magazines and watching tutorials on the web.

Here are some of my builds. Many of them show the process:

Tagish & Marsh Lake Railroad – Restart
Woodchuck rail bus build
Ore bin build thread
Tagish & Marsh Lake Railroad Phase I
Tagish & Marsh Lake RR – Town Diorama
Name the crew of the Tagish and Marsh Lake RR
BVM 18' Hunkered down box car build
Mocaleva Model Works Gas Desiel Switcher Kit
Two a month by the end of the year challenge
Building Short Passenger Cars
ON30 Plastic vehicle kit challenge
JY Coal Mine
Railtruck from Walmart 1/48 military truck

The areas I can help other modelers by mentoring are: Fixing Locomotives – I wrote several SBS instructions for this as well as installing decoders in older locomotives.

Bachmann Shay Gear Replacement SBS
Bachmann Davenport Gear Repair SBS
Replacing Gears How To - Bachmann Railtruck
Bachmann Climax Gear Repair - How To
Bachmann Rail Bus Gear Repair
0-4-2 Porter - DCC install - TCS M1 decoder
Cool turntable for a Porter

Below are some pictures of a Micro build:

At 20 years old, I started to build a big N scale layout in a club. The theme was a french line between Volvic (same location as the mineral water) and Charbonnières les Varennes (it's where I live).

I also started to scratchbuild many N scale models, specially diesel railcars (as Micheline) that were not produced at that time.

In 2008, I started to model US model trains for two reasons: It was more economical for me to buy DCC sound model in USA, and as a French modeler, I have always been in love with US trains.

So I started to modeling an On30 layout: The Fraggle Rock Lumber Co., a timber railroad located in the Oregon state during the 50's. This scale is just perfect for me because I love detailing, and I'm fan of atmosphere of old steam locomotives like Shay, Heisler, Climax....

I'm building a modern era N scale layout too. It's located in Oregon state too, precisely the Southern Pacific Cascades line. Construction is less advanced, I've just finished fixing tracks. For this layout, I used 3D printing details to figure all tunnel entrances and snowsheds. I have also built an Amtrak Turbotrain.

I don't have a special mentor, I am inspired by Chuck Doan, Luke Towan, and all fine modelers.

I can help by mentoring in: scratch building models, composing and weathering a scene, all weathering technics apply to wood, plastic, etc.

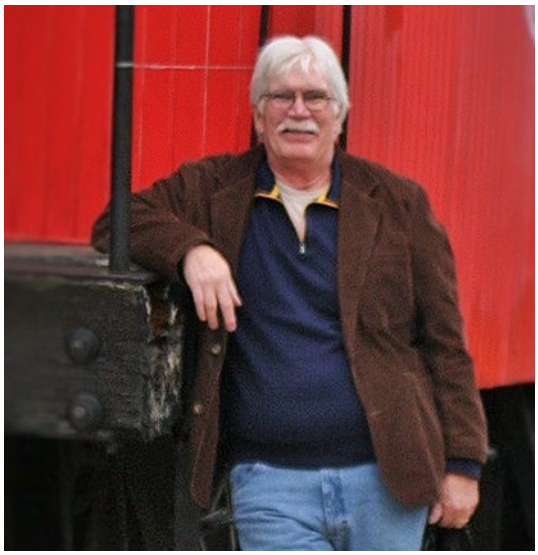
Please contact me at **(Dan give him email)** if you think I can help you with your modeling.

See my Facebook page: https://www.facebook.com/The-Fraggle-Rock-Lumber-Co-Railroad-665508016860487/

Facebook page for my N Scale Layout : https://www.facebook.com/The-Southern-Pacifc-Cascades-Railroad-Line-%C3%89vocations-847052838737251/

Howard Greenfield

As a kid…A Lionel train set from an uncle for Christmas/Hanukkah with add-ons through the years was what I wanted. As I got older, my interests turned to model building, particularly aircraft and then cars. As an adolescent, then a young adult, everything changed to school, sports and girls, with model building and trains falling by the wayside.



Fast forward to age thirty, a married man with one daughter, and another on the way. About a month after our second daughter was born, I suffered a CVA, commonly known as a stroke. Most of the residual effects resolved relatively quickly. With the exception of lack of feeling in my left hand along with some partial paralysis. As I am left handed, this was particularly disconcerting. To help with my rehab, I returned to model building in the hopes of regaining control of my fine motor skills and use of those fingers lacking sensation. As I progressed, model building became boring. Yes, they were nice, but once done, they did nothing but take up shelf space. It was then the light bulb went off. Trains allowed me to build, and they moved! Not to mention the various facets of the hobby to work on. From there, the return to model railroading had begun. And my ongoing rehab

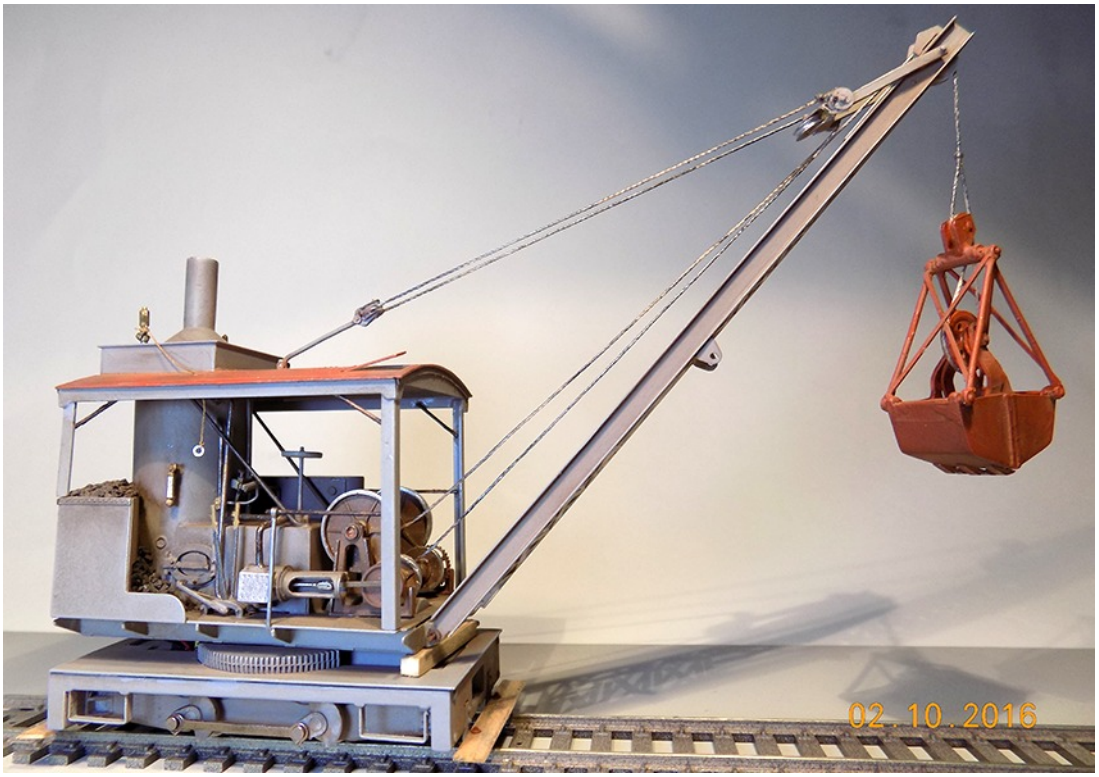
became much more enjoyable. Not to mention, here I am thirty plus years later still involved in the hobby, still enjoying the ride.

Early on, I concentrated in HO Scale. HO had become the driving force of the hobby with numerous manufacturers of locos and rolling stock, buildings and scenic products. *Model Railroader* and *Model Railroad Craftsman* magazines were the major sources of info.

I began planning a layout, and built a platform for under the holiday tree. I also thoroughly detailing locos and rolling stock with the many aftermarket parts available. I began to build buildings for the platform, and a 10

Calm Before Diorama. 12 x 12 On30. Various manufacturers.

Fire Wagon. Heavy bash. Wisemann frame and power components. Matchbox Fire truck cab, numerous manufacturers details.



On30 Ditcher. Bachmann On30 Davenport power, Backwoods Miniatures Ditcher body kit.

foot by 2 foot HO switching layout. I remember articles in *Model Railroader* about detailing the Atlas Switch Tower and 9 inch Turntable. Now, I was detailing buildings. Scenery came next. My teachers and my mentors were in those pages, the monthly columns were my textbooks.

As life would have it, and our family grew to three daughters and a son, the plans for a large layout were shelved with hopes of continuing at a future date. But, my building and enjoying the hobby never stopped. I dabbled in Large Scale

2 ft. X 4 ft. Shelf layout/diorama with modified/freelanced Gallows TT from Peco On30 TT. Enginehouse Classic Miniatures. Detailed Bachmann 2-8-0 Consolidation.

which was kid friendly, while the little ones were enjoying their years of exploring and learning. I went back to HO for a bit, and had an N scale layout when, unfortunately, our marriage broke up. Later on, I returned to Large Scale where I, after much deliberation, took a saw to an LGB loco to Americanize a European steamer. My first real kitbash. And it turned out really well. From there. I began to do more builds, bashes and detailing projects, becoming more confident with sawing, filing, and cutting.

As life would have it, changes were on the horizon, and, in my late 40's, due to moves in my job, and relationships, I set aside large scale. My enjoyment of model railroading remained and I began collecting O scale/gauge as a nod to my beginnings in model railroading. O scale also afforded me the chance to set up and run trains on the holidays.

The kid in me always enjoys the memories of trains around the tree.

Following, yet again, another job change, and move, I was exploring the shelves in a local hobby shop when I happened upon a whole section of a new line of On30 trains. O Scale, Narrow Gauge. I was very much aware of narrow gauge modeling, and the expense involved in that facet of our hobby, but these models were affordable, green box Bachmann. I did some research, and figured I'd give it a shot, and bought a trolley set for around the next iteration Christmas/Hanukkah tree. I was hooked. My next purchase was a BLI 2-8-0 with DCC and sound. Fast forward to today, I have been happily engaged in the On30 world.

My enjoyment of On30 modeling is multi phased. It's O scale, which allows me to incorporate many aspects of O scale modeling. Think buildings, scenery, details, etc. In a layout, you can work your O Scale trains into an interchange depot/yard with a Narrow Gauge mining or logging line, and vice versa, by adding an interchange track with your Narrow Gauge line. Another plus, you can get a lot of layout in a smaller layout due to the smaller size of Narrow Gauge locos and rolling stock. Speaking of locos and rolling stock, prices are much more affordable than many of the O scale offerings out there today.

Water Wagon. Morgan Hill Models wood tank car freelance bash of a fire train water tank car.

But, my favorite part of On30 modeling is the pure fun of it. My initial exposure to the gauge was through various sites and groups online. There was a whole lot of fun going on out there! Bashes, slicing and dicing, builds, conversions and more. Much of it done with a certain amount of artistic license involved. Rivet counting was frowned upon, freelance designs and builds were encouraged. And the builds and bashes were extraordinary. The camaraderie was awesome. Guys like Verne Niner, Dave Wingrove, Alan Carroll, Tony Burgess, Allen Littefield, and Les Davis and their builds and bashes inspired me to further expand my imagination and skills. Independent, small kit manufacturers like Dallas Mallerich and Pete at Backwoods Miniatures provided great kits for conversions and bashes. There are some great and talented new providers today, supplying us parts in resin, wood and more recently, print mediums. Recently, there seems to be renewed interest in On30.

Many modelers in other scales across model railroading have been joining our ranks. There are many varied reasons for the switch. Many are avid builders who are bashing or scratch building locos and rolling stock, both prototypical and freelanced. Again, with the introduction of laser cutting and printing, as well as resin casting there are lots of options for builders. Size is also a factor, it gives the modeler the opportunity to work in O scale, but with the smaller locos and rolling stock, they model in smaller spaces. Cost is also a major factor. On30 products are normally less expensive than larger scale offerings in rolling stock and locos. Many building

and scenic products are also less expensive. Many modelers are moving up from smaller scales because of the level of detail that can be achieved. Oh, heck, I'll say it…I can see what I'm working on much better that the smaller scales! And a whole bunch is here for the fun of it. Our imagination is our guide. There are no real rules, just enjoyment. Rivet counters? Not so much.

Over these past 14 years, I have honed my skills to the point where I am receiving positive comments and feedback on my builds and bashes. I'm not a scratch builder, other than maybe a small building addition. I find myself bashing a prototype into a near representation in Narrow Gauge. I also bash some "what ifs" for

Fix It Wagon. Heavy bash. Bachmann On30 Railtruck (basket case, non running). Mount Blue Models tool car modified to fit Bachmann HO powered 70 ton Switcher chassis, powering the Fix it wagon unit.

fictitious lines. Then, there are the fun builds…most of my modeling was learned the good old fashioned way, reading lots of magazine articles and working up the wherewithal or mettle to put knife, glue, and paint to a new project. It was tough to find mentors in those past years unless you were able to find local modelers to learn from hands on work. The Internet has afforded newcomers and old-timers the opportunity to reference a ton of materials from master model railroaders and model builders, most of whom willingly share their experiences and techniques. The mentoring project here, on these pages, offers a unique opportunity to work with many modelers whose work we admire. I am more than happy to help my fellow modelers by sharing experiences and knowledge of the past 30 plus years. Together we can ensure continued enjoyment of model railroading. I have a whole lot of fun in this corner of the hobby, and I truly enjoy being a bit off the wall at times.

Got to get back to the Lytum & Hyde Explosives boxcar build…..and then there's that loco bash on the drawing board. Cheers!

You can reach Howard at Howard.Grednfield@oscaleresource.com. Get in touch if you have questions or believe he can be of help to your modeling.

Dana Russell

I was inspired to become a modeler - and specifically a railroad modeler - by the work of my maternal grandfather. During the early 1960s my mother and father were raising a family while living with my mother's parents in their home. My grandfather passed before I was born in 1962, but he left an interesting legacy of model railroad paraphernalia including modeling tools, half-finished locos and rolling stock, several issues of *Model Railroader* magazine from the 1950s, and the skeleton of a just-started HO layout.

Looking through the black and white photos in the pages of the *Model Railroaders*, I could just imagine the steam engines

chugging up through the mountains that had been constructed by the modeler. How exciting that must be!

My dad further fueled my interest in railroading and modeling in general by setting up a 1/32 scale slot car track and HO train layout on a 4x8 sheet of plywood in the basement for me and my brother. He also built a number of plastic model airplanes for us, and coached me through building a Guillows Beechcraft Bonanza balsa kit that he gave me for my birthday.

Dad was also the leader of our Cub Scout pack and made sure we had opportunities to build and compete in Pinewood Derbies and Estes Rocket contests. I learned most of my model building skills from my dad, through trial and error, and later, from magazines like *FineScale Modeler*.

During my later childhood years and into my teens, my brother and I built many plastic models, mostly of WWII aircraft. Until he went to high school, my brother and I shared a room with 1/72 scale WWII fighters hanging on fishing line from the ceiling, duking it out in dogfights over our heads. While I continued to dream of a model train layout, finding the space and funds to make it happen always prevented it.

After attending college, getting married and raising a family of my own, I finally decided in 2009 (with much encouragement from my wife, Kim) to start a layout in the basement of the home we had bought a few years before. I've always liked the looks of steam-era narrow gauge logging railroads; and after re-discovering what was going on in the model railroading scene at that time, I decided I wanted to model a narrow gauge logging operation in On30 (On30 is O scale equipment operating on HO scale standard gauge track that represents real life 30 inch narrow gauge track). It was that year that I founded the Drowning Creek Lumber Company and began the On30 layout that would represent it.

On30 was (and still is) the ideal scale and gauge for my goals. It combines the narrow gauge backwoods look that I love, the simplicity of operation on HO sized track, and the (relative) availability of motive power and rolling stock in that scale and gauge.

Tighter radius curves and smaller equipment than standard gauge O scale also means that you can get more in a smaller space. I was also inspired to choose On30 in 2009 by the "kitbash" modeling I was seeing in the *Narrow Gauge and Shortline Gazette*, where modelers were converting HO scale locomotives into beautifully quirky On30 engines.

While there's much left to do on the Drowning Creek layout, I've had opportunities to model a number of different things in building it. I've done everything from designing a track scheme based on prototypical

logging operations to building an L-girder framework to support the layout. I've learned about and installed electrical track wiring and alternative battery power and remote control of locomotives through "deadrail" mechanisms. I've built structures from kits, "kitbashed" kits into new and unique structures, and built others completely from scratch. I've built rolling stock from kits and from scratch. I've built trees and modeled rocks. And most recently, I've turned a couple of HO scale locomotives into On30 beauties.

These days, I improve my modeling skills and learn most of what I need from the Internet. There are tons of articles out there on any modeling subject you're interested in – from construction, to tools, to painting and weathering. But perhaps the most useful to me are the Facebook groups supported by like minded modelers.

Today I'm a member of seven or eight of these groups; and as I run into things I haven't done before or want to ask a question on the best way to accomplish something, I find that there's always at least one member of a group (and usually more) that is willing to share his or her expertise.

One of the best things about model railroading is that there are so many things you can work on. If you get tired of making trees, you can go build a box car. Spreading ballast not doing it for you? Spend some time weathering that run down cabin.

The challenge with model railroading, however, is that modeling can require many different skills and techniques that might take years to learn on your own. The bright side of this, though, is that model railroaders in general are a kind and generous bunch, and are willing to pass on what they know to others who are searching. I encourage all of those who love the hobby like I do to not only take advantage of the modelers (including me) who are humbly willing to share what they know, but to pass on what they have learned to someone else.

Please contact me at Dana.Russell@oscaleresource.com if you believe I can help you with your modeling.

Edward Traxler

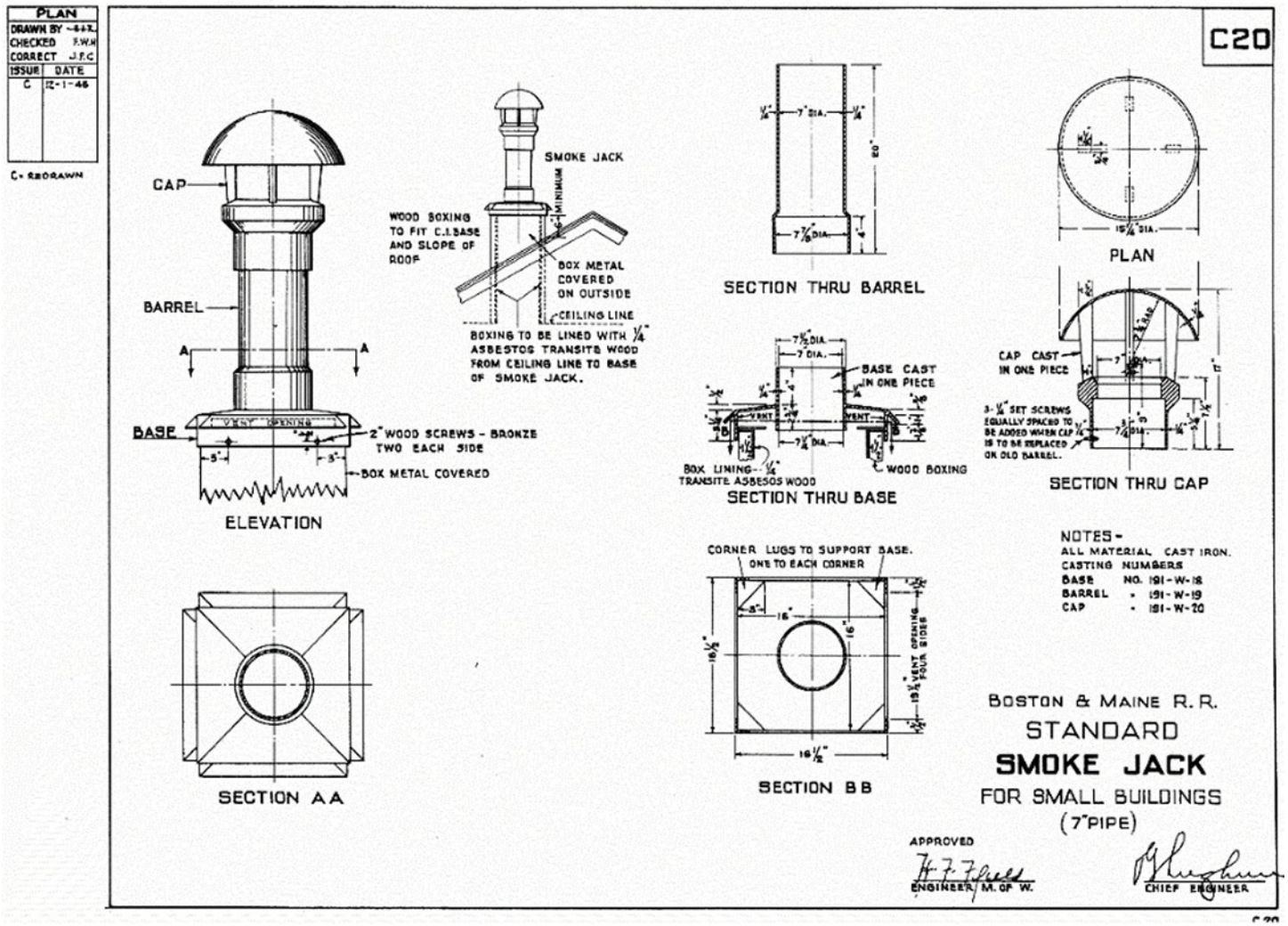
Edward is a very talented 3D printing modeler. I asked him what he would need to create a 3D printed part. He replied:

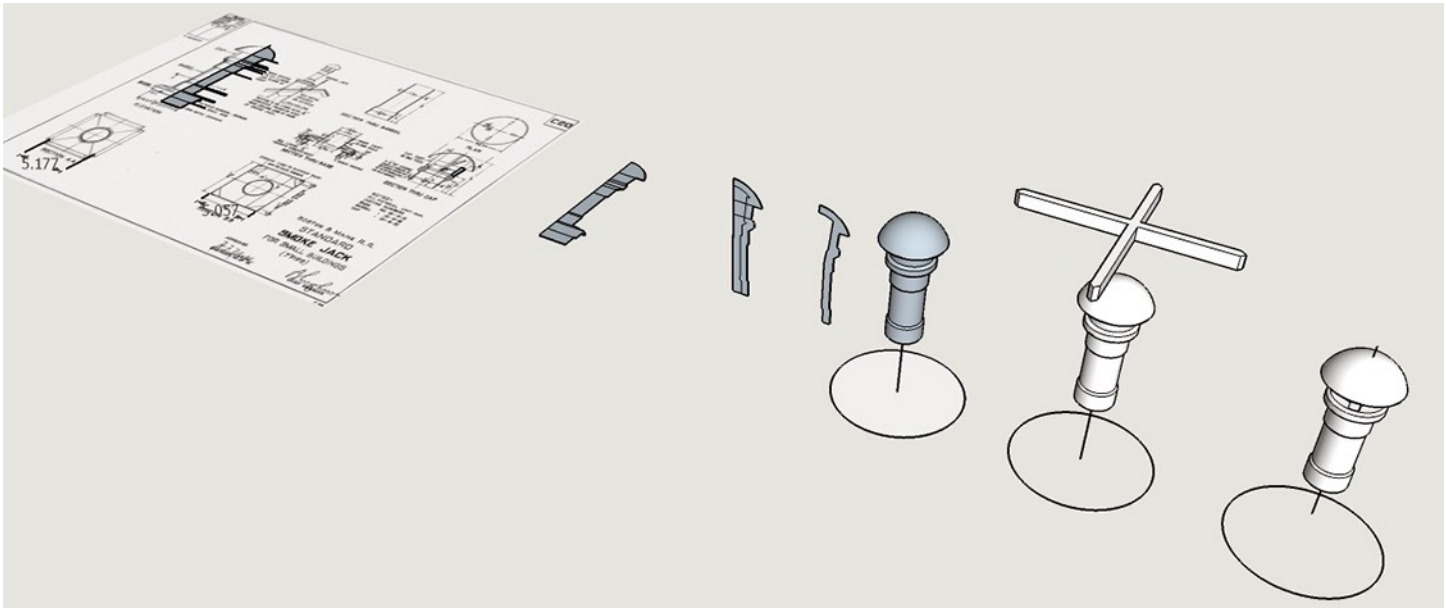
"There are several things that someone would need to supply me with for me to create a 3D model. I get two kinds of people .. those who will ask me to "make XYZ in HO" .. and not supply with so much as a photo.

Then there is someone like Stephen Milley, who wants me to create a Smoke Stack in HO .. and possibly other scales. He supplied me with this diagram .. this has everything I need. In fact, I used this by importing the diagram into Sketchup where it acts much like an object on a separate layer. I can trace over the side view .. well .. which I did to create a half-section of the stack.

Here's the process .. not too hard with a good diagram. You can see on the far left the diagram with the smoke stack traced to the C/L. Next to the right is it pulled away from the diagram .. next positioned vertically and a .6mm offset to create the walls.

The next image shows where I deleted the unwanted inside bits and only leave the shell. I then spin .. or 'lathe' the half cross section to get the 3D shape. From there I continue to refine the model .. the cross shape you see has a wall thickness of .6mm .. and I intersect it with the model to create the bits that hold the dome from the body.





On an aside, I generally use Shapeways to create my 3D models since in addition to being relatively easy to upload the files, I can add them to a store and sell them to people. I have also used Walt Gillespie of Rusty Stumps for some pieces (we barter .. I do some of his 3D CAD and in return get “stuff”). There is a difference to some extent between designing a model for production at Shapeways and with having Walt print it .. that being the difference in the printers used.

On the flip side is that person that, I guess, expects me to come up with everything .. doing all the research.

Sometimes the hardest thing is simply making people understand that ..the old programming term GIGO .. Garbage In = Garbage Out applies to this too.

The layout is really small being originally two On30 modules. You can see the joint between the modules just to the right of the cement 'thang' .. this was created just to hide that joint. There is another 8' of the other leg of a 'L' shape shelf layout .. and that is that.

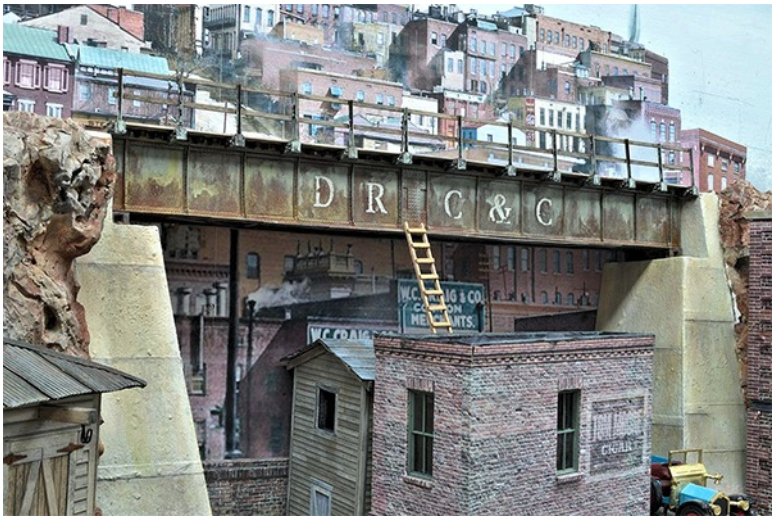
This is Jukes Boat Livery, a cardstock kit from Clever Models with the cardstock laminated to foam board substructure. The bridge in the rear is scratch/kit scratch built using the side plates from a HO Central Valley Model Works Plate Girder Bridge. Abutments are cast from plaster. The beer bottles, crates and rowboat are 3D prints I designed and printed at Shapeways.

The other thing that is hard to explain to people is that I have to work within the resolution of the printer. Example: Most of my models are meant to be printed in Shapeway's Frosted Detail plastics as they have the best resolution. This isn't always true .. I will reply to that in a bit ..but .. 'normally' (I think that using the term normally for this is much like referring to Military Intelligence .. but I digress)

Road crossing. The wood beams are O scale ties from Fast Tracks re purposed. The Dome Head Drive Spikes were created from 17 Ga. galvanized wire I got from Lowes.

The Frosted Detail plastics have a MINIMUM WALL thickness of .3mm.. they say. I have had much better success as far as software checks with a .31mm thickness – my best guess is that the software checking has rounding errors on curved sections. That is the minimum resolution of the printer. This is too thin for most purposes and I usually make my own minimum wall thickness twice that at .6mm .. otherwise the part is simply too delicate and breaks.

So .. then I have to explain that .. NO .. I can not make the part SCALE thickness because it falls below the minimum the printer can print at successfully. The design at this point is often more



City Bridge where my On18 lines crosses (the story being that it had been constructed for a 3ft gauge line that went belly up. Backdrop was created from various photos from Shorpy and Sketchup structures. Bridge is scratchbuilt with details 3D printed. Abutments are made from styrene. The two buildings you see are 'Kit Scratched' (wooden) or Scratched up from Clever Model kits or texture sheets.

Front side of Wise Engineering Works. Left to right .. bottom of electrical poles, ducting, pipe ..the fittings are my O scale fittings. The two 'thangs' hanging on the wall are .. whatever you want them to be. I call them "gizmos" .. a better term might be what Hollywood calls a 'greeble' .. basically .. a shape that looks interesting. The pallets are Rusty Stumps, the tarp is made from 2-part modeling putty and HVAC unit Rusty Stumps.

artistic than anything else .. you have to make the model 'appear' correct or at least acceptable. That smoke stack has four metal tabs that hold the top off of the body .. creating the openings at the top. I made these tabs .6mm in the model .. about 0.023" .. almost 2 inches thick in HO. Sometimes I have to speak .. really .. slowly .. to make that point.

Does this answer at least some of your questions about what is needed for a model? I am sure it has probably generated more questions. I tend to do that when rattling along."

Thank you, Edward, it helps me, and I hope the readers, understand your process. Now I want you to meet Edward.

I retied from the US Army in 2006 with 20 years of service. I had a 15 year break in service from 1972-1987 .. then got out of active service in 1999, went into the Reserves, got mobilized in 2001 .. which means I served in Vietnam, Desert Storm, Germany, Korea, Kuwait, Afghanistan, Uzbekistan .. and bunch of places in between.

I think that creates a very laid back individual when it comes to modeling .. I just enjoy the modeling and never get very serious

I built model cars and airplanes as a kid .. just the junior modeling everyone seems to have done. I was always interested in art .. drawing for example so my modeling has always been from the point of an artist.. my modeling has always been more about texture and color than whether all the nuts and bolts are in the correct position and placement.

I did build a 1:35 Tamiya M60 tank when I was in Germany (I was a tanker), but that was pretty much it until after I retired. For a few years, I was in to 1:1 modeling .. I was really in to my 350Z creating a custom bumper for example.

In 2010 (ish) I got into the hobby by building some On30 modules. I had poked around a bit with HO, but since I like scratch building I opted for 1:48.

My On30 module group, Carolina On30 Conspiracy, showed at the 2011 NMRA Narrow Gauge Convention in Hickory. When I returned home, I stuck my two 4ft modules on my bedroom wall to create an L-shape layout, and I have been using that since as a test for my modeling.

All the structures are scratch built with various "walls" glued to a foam board substructure. The red brick structure .. "Wise Engineering Works" appears in several of these photos. It is laser cut O scale brick sheet from Rusty Stumps. The gray brick building is paper brick sheet printed on my cheapo Cannon printer with stripwood 'concrete' work. The green structure is "Widget Supply" with printed cardstock clapboard. The chiller is scratchbuilt .. with the pulley etc. printed on my Prusa i3 MK3 FDM printer. Windows and doors are all Tichey.

I like research. I am not one of those that just asks "how to do this.." .. but use books and the Internet, forums, modelers to watch and learn from. I think I have the ability to visualize how shapes come together in my mind .. have artistic talent .. am technically proficient in many areas (I was a machinist for 5 years) .. can sense when texture and color is working and when it isn't. So the last 7 years or so, I have been using my little layout as a place to learn.

Did you have a mentor or just trial and error?

No mentor physically .. but there are plenty of mentors on the net.

I mostly model in 1:48 scale. That is simply as I mentioned earlier, I like to scratch build and I simply was not happy with that in HO .. I found that O scale allowed me to do pretty much what I want. I have done some HO modeling .. mostly for friends and ventured into 1:24 for a contest for The Whistle Post forum. Honestly .. if I had the room I would model that scale. I love it.

I am always happy to share what I know .. painting, weathering, 3D for example. I am of the firm belief that sharing knowledge is the way to go.

If you believe Edward can help your journey please contact him at Edward.Traxler@oscaleresource.com.

I can kick off my mentoring with a link to my personal website .. The Deep River Railroad. I had to restart my website as the Internet Monster ate my old one. I have started to put up posts on my structures so there are plenty of photos there. Click here for link to the structures page.

My 3D stuff is mostly at my MicroMimesis website. My intention is to 'cross pollinate" between my Deep River Railroad page and MicroMimesis .. by showing the models up close with text and photos and linking to the store.

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 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.

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.

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

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.

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.

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.

earlier time. But I couldn't resist completing a Silverton Northern railbus 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.

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.

Carl Rowe

I am a musician by trade. Model railroader for 5 years. I’ve been a trumpet player my entire life. I’ve performed in orchestras and bands in every state except Alaska and Hawaii and many countries across the world. At the age of 72, I’m still very active as a professional.

I had Lionel as a youngster, bought a Tyco set in the early 70s, then gravitated towards FSM kits. I quit model building in the 1990s. I happened to see an On30 Bachman Shay in a Facebook article and bought one. This was in 2015. I soon was building kits that seemed relatively simple. Then I discovered Sierra West kits with their wealth of detail and I was hooked.

At first, trial and error was the order of the day. I bought a lot of cheap paint and brushes and thought I could just be “artistic”. I then learned to really follow directions and pay attention to what really fine modelers were doing to achieve good results. Sierra West has a forum that is chock full of great info. I now look at

color and depth of detail in a different way.

Did I have a mentor or just trial and error?

No mentor, but I study what I think looks good and try to copy or improve on that.

I model in O scale because of the size. At age 72, my eyes don't want to focus on details in a smaller scale. I find great therapy in painting detail pieces and putting together kits that have size to them.

I am willing to help other modelers with

learning basic skills of kit assembly as long as the kits are craftsman type wood and metal/resin kits. I enjoy treating each piece of wood individually and seeing the result.

Thanks, Carl, for your interest and help. If Carl can be of help in your modeling he can be reached at carl.rowe@oscaleresource.com.

That is all for this "New Tracks" article. I hope you enjoyed it and have found some interesting ideas for your modeling. Maybe even giving On30 a try? Any comments or suggestions for the next article will be appreciated. Please contact me at: jimkellow@oscaleresource.com Also please go to my new Facebook page: Jim Kellow MMR and like it so you can get the current information on our "New Tracks" ZOOM Mentoring meetings, and we can stay in touch between articles. Please also leave your comments, suggestions, and ideas on my page.

Thanks for reading this far. Time for me to be off to the work bench. Good luck with your model building and have some fun going down some "New Tracks".

2 Rail a Rail King-MTH Tank Car
Correct the too high bolster height
Install scale wheelsets and Kadee couplers

by

Brady McGuire, P.E. Ret.

I model the Pennsylvania Railroad in southwestern Pennsylvania from Pittsburgh to Connellsville, circa 1957. My 2 rail O scale PRR Laurel Valley Secondary represents the 45 route miles between these two cities. I am always looking for rolling stock that complements the industries on my railroad.

While attending a recent train show, the lettering on a Rail King-MTH Modern Tank Car designed for the 3-rail market caught my interest. The GATX tank car leased to Cargill was lettered for Pure Cane Molasses service. I was needing molasses for my Hines Feed Mill operation located in the town of Moss Lake, PA. Molasses is often mixed with livestock feed. See photo 1.

Five year old PRR class ES12m #8523 (1200 hp. SW-9) delivers rebuilt tank car GATX 91395 with another load of Pure Cane Molasses for Hines Feed Mill in Moss Lake, PA on Brady's PRR Laurel Valley Secondary. The MTH 3-rail market designed stub sill tank car was modified in two evenings by Brady's shop forces. The ***too high bolster height*** *was reduced, new scale wheel sets, Kadee couplers and grab irons were added. Hines Feed Mill is a slightly modified and painted older Lionel elevator kit. The building was set on a stone foundation and an interior wood floor was added. The Butler bin is an early Ertl product.*

The modern version of the stub sill frame design tank car was beginning to be built again in the late fifties; therefore, this car design is appropriate for my time period. The first stub sill cars were built in the 1880s. The 1957 Car Builders' Cyclopedia shows one frameless tank car. This car will definitely represent the most modern rolling stock running on my 1957 era railroad.

The lettering shows this GATX car was built in Butler, PA which is also a maintenance base for GATX leased cars. Butler is just north of Pittsburgh, so it is in my neighborhood. The welded and insulated tank appears to be about 14,000 gallons capacity. The lettering notes heater pipes which are needed for a viscous product like molasses. The post 1967 built date and DOT data lettering on the model are too modern for my time period, but for now it will be OK. I'm getting to the point that my old eyes can't read the fine print anyway.

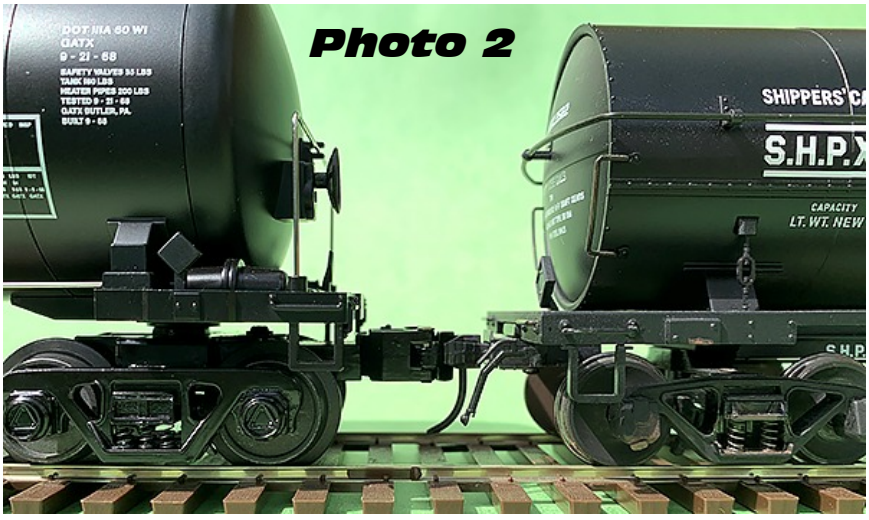
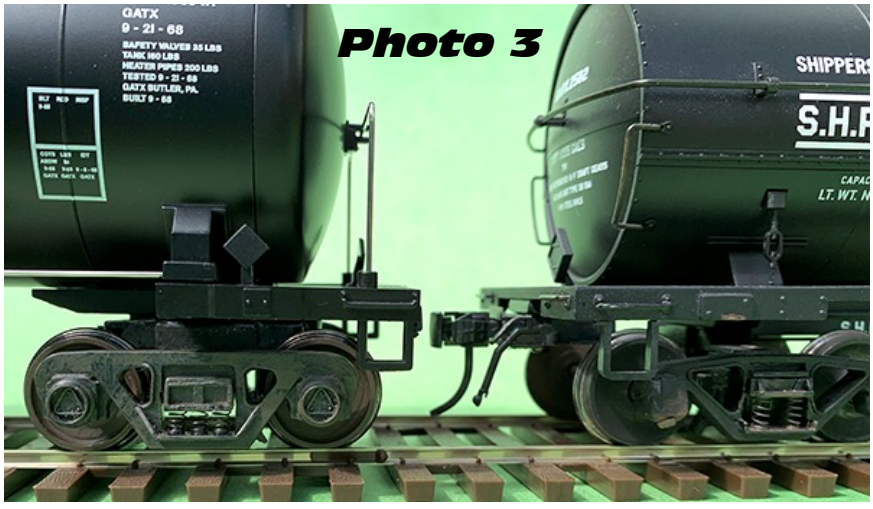


Photo 2: As purchased the MTH 3-rail market designed tank car on the left sets too high compared to an Atlas O scale tank car on the right. Easy modifications described in the text to the trucks and their mounting up into the frame will reduce this extra height.

Photo 3: After the simple modifications to the trucks and their mounting described in the text, the MTH 3-rail designed tank car's new lower bolster height is achieved. Rebuilt tank car on the left. now compares favorably to an Atlas O scale tank car on the right.



The model measures 39 ft. long by 9 ft. 6 inches wide. Overall, the model compares well to an Atlas O 11,000 gallon tank car except for the **too high bolster height.**

Adding scale wheels to the MTH trucks and Kadee couplers to the stub end frames looked easy enough, but the car body sat a noticeable 8-9 inches too high. Photo 2 shows the height difference before modifications to the MTH tank car compared to an Atlas O 11,000 gallon tank car on the right. This photo clearly shows why my new acquisition looks too high and toy like. How to fix this problem is the purpose of this article.

Photo 3 shows the height comparison after changing the truck mounting by recessing it up into inside the frame so that it lowers the tank car to the proper height.

Getting started: To see what's going on with the factory truck mounting, remove the trucks and stub sill frames from the tank body. The MTH metal trucks are screwed in from the top of the end frames thus the end frames have to be removed from the tank car body with the trucks still attached. Hidden below each truck are three small screws. Remove these screws and the end frame with the truck comes off the body. Now unscrew the trucks from above. Save the factory mounting screws. Remove the wire hand rails for now.

The Fix to correct the too high bolster height: How to lower the car body about 8-9 inches? Refer to photo 2. I studied how the model's metal trucks were mounted in the plastic frame and determined an easy fix to gain the reduction in height desired. The small boss on the truck centers and pivots in a hole in the boss on the plastic frame.

The Fix: Remove this boss on the plastic frame and open up the hole allowing the truck's metal bosses to recess vertically up into the frame cavity, reducing the overall height. Create a new plate to center and hold the

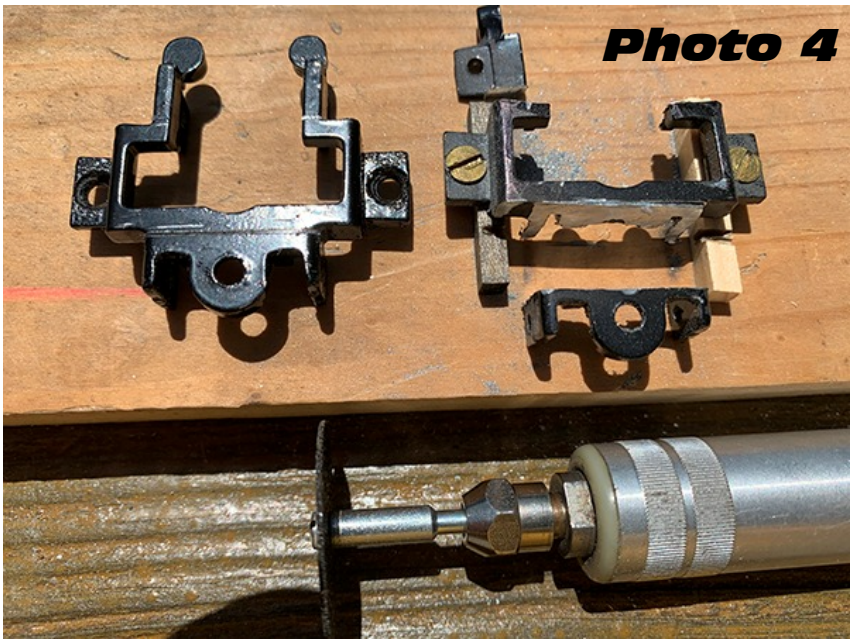


Photo 4: Remove the extra 3-rail coupler appendages no longer needed. On the right, the truck's center section is securely held down with brass wood screws while being cut with a Dremel rotary cut-off disc. O scale wood ties support the pressure of the screws to prevent bending or breaking the tabs.

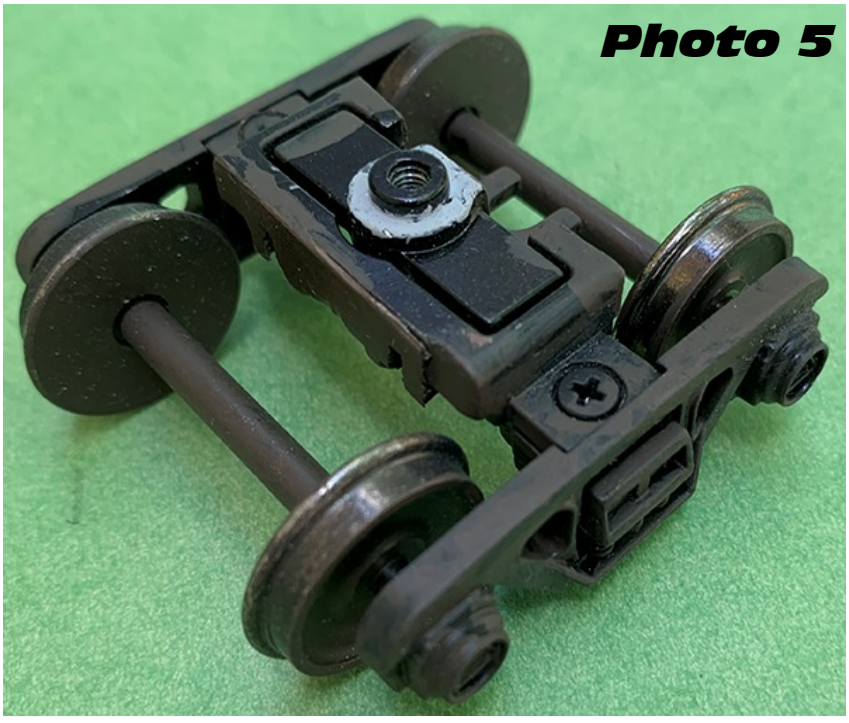


Photo 5: Finished upgraded truck. 3-rail wheels replaced with InterMountain scale wheel sets. The axles, wheel faces and side frames have been painted a dirty brown. 3-rail coupler removed and extra appendages cut off bolster center section. Top side of truck bolster has large boss painted light gray to show clearly in the photo. The smaller boss shows up well too.

small boss on the truck in place with the factory screw. Fix defined. Now execute. So off to the car shops for needed rework before this car can serve customers on my railroad.

The boys in the shop looked on with some intrigue as this was the first tank car they have seen constructed with short stub end sill frames mounted directly on the tank body itself. There was just enough stub sill on the ends to mount the trucks and to hold the draft gear for the couplers. The old timers thought for sure this frameless tank car design would certainly fail in service. "How can they build a car without a center sill?" they murmured to themselves as they walked off scratching their heads.

Modifications to the MTH trucks: Photos 4 and 5. I like the look of the MTH metal roller bearing truck sideframes that come with the car so I kept them. They also added some weight. To remove the 3-rail wheels, couplers and brackets, we must carefully disassemble the trucks to access the four small screws holding the coupler bracket. Tie a length of brightly colored thread through each spring before popping the springs out of the sideframes. This thread will save frustration if any of the springs go flying off your work bench. This thread trick has been around for at least 60–70 years or more, and it works every time. Save the bolster springs and screws and discard the 3-rail couplers and 3-rail wheelsets.

Photo 4. Cut off the appendages on the metal truck we don't need. Secure the truck center section to a piece of scrap wood clamped to your workbench. Insert an O scale wood tie under the tab next to the screw to support the tab against the screw pressure to prevent bending or breaking the tabs. Use two brass ½ long wood screws to secure the truck center section while cutting. Use a Dremel rotary cut-off disc to remove the appendages as shown in photos 4 and 5. Clean up any rough edges and paint dirty brown.

Reassemble the trucks with new InterMountain scale wheel sets and paint the axles and wheel faces a dirty brown. Photo 5.

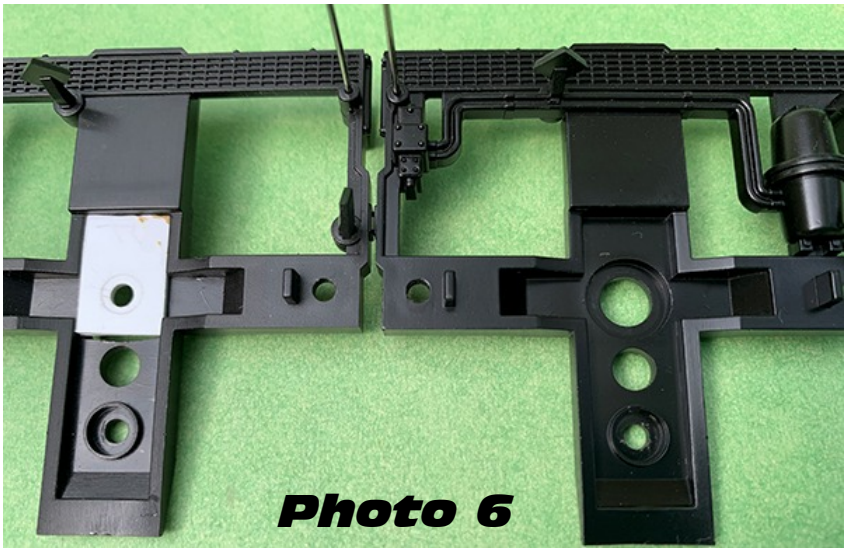


Photo 6: Top side of plastic end frames. On left, beginnings of the new truck mounting centering plate made from styrene fitted in to the frame. Center hole located and started but size not finalized yet. Unmodified factory MTH end frame on right.

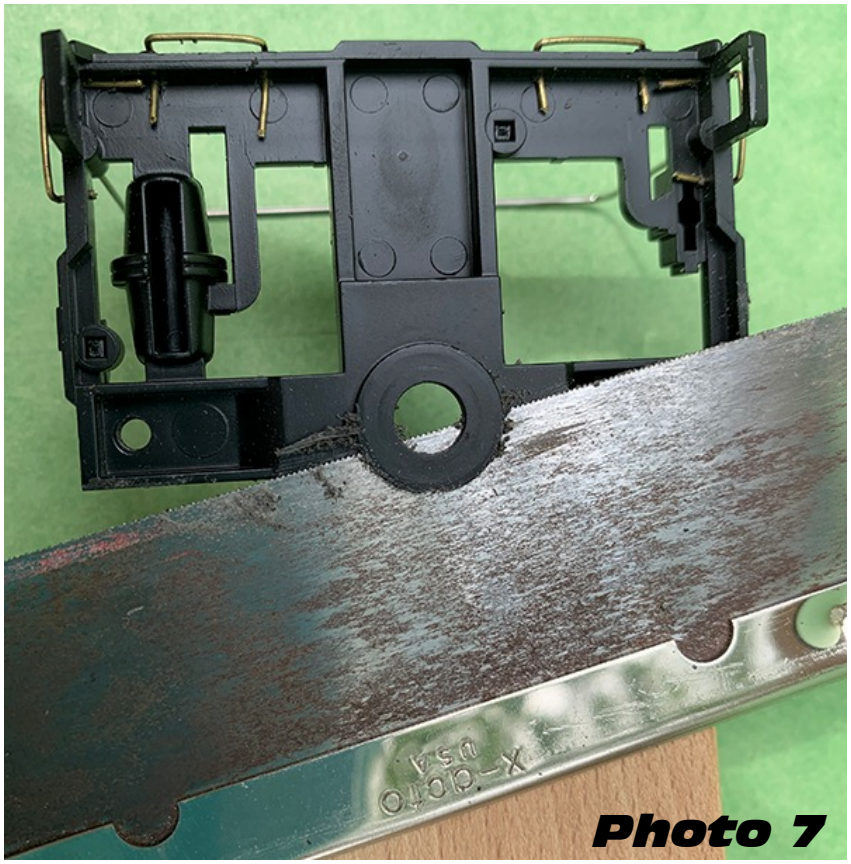


Photo 7: Underside of plastic end frame. Remove plastic boss with X-acto saw. Caution: do not remove this boss until you have used its hole to locate the new hole in the new centering plates. After removing the boss, the remaining hole is enlarged to receive the large boss on the truck. The rectangular cavity in the frame will be filled in with styrene to create a pad to mount our new Kadee couplers. New brass grab irons installed.

Stub sill frame modifications: New truck mounting centering plates: Photo 6. Fabricate two new styrene plates for up in the frame to center the small boss on the MTH trucks. Cut two pieces of .040 thick styrene 13/32 inch wide by 5/8 inch long to fit inside the frame. At this point, test fit only; don't glue it in place yet. Precisely locate a new center hole using the factory hole as your guide. Start small and work your way up to a 15/64 inch hole. Ream the hole slightly. Remove just enough material from this new plate to slip over the smaller metal boss on the truck bolster and rotate freely. DO NOT glue this new plate into the frame just yet. Set aside until the remaining modifications are made.

When working with bare styrene, I lightly roughen the factory surface with a Scotch Brite pad to add some etching. This helps paint adhesion later.

Plastic frame boss removal: Photo 7. Remove the molded in raised boss on the underside of the plastic frame. Saw off with an X-acto saw and clean up as necessary. Caution: Do not remove this boss until you have used its hole to locate the new center hole in the new centering plates. If you haven't already, remove and save the metal end rails until later. Now open up the remaining hole in the frame to just shy of 3/8 inch to just slip over the larger boss on the truck. See photo 8. Now the tricky part. The larger metal boss on the truck is not perfectly round and has a slight square extension to the rear. Remove just enough material from the rear of the new hole in the plastic frame to clear this square extension. The large metal boss on the truck should slip up into the frame and pivot freely. Photo 9. With this modification completed, do a final test fit of the new centering plate over the small truck boss. Photo 10. Now you can cement your new centering plates into the frame and let dry.

Height modification complete: Refer to photo 3. These simple modifications have removed just enough material to allow the metal bosses on the trucks to recess up into

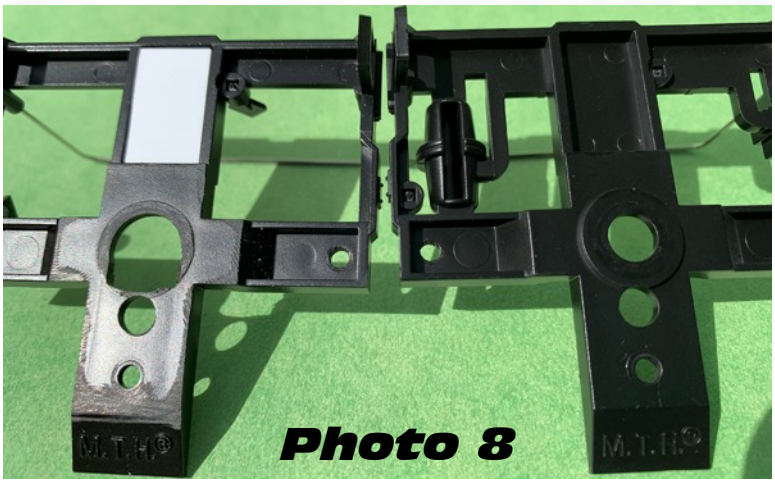


Photo 8: On left, bottom side of plastic end frame with boss removed. Center hole has been enlarged and shaped. New styrene pads fill in the rectangular cavity in the frame for mounting Kadee 805 couplers. Unmodified factory end frame on right.

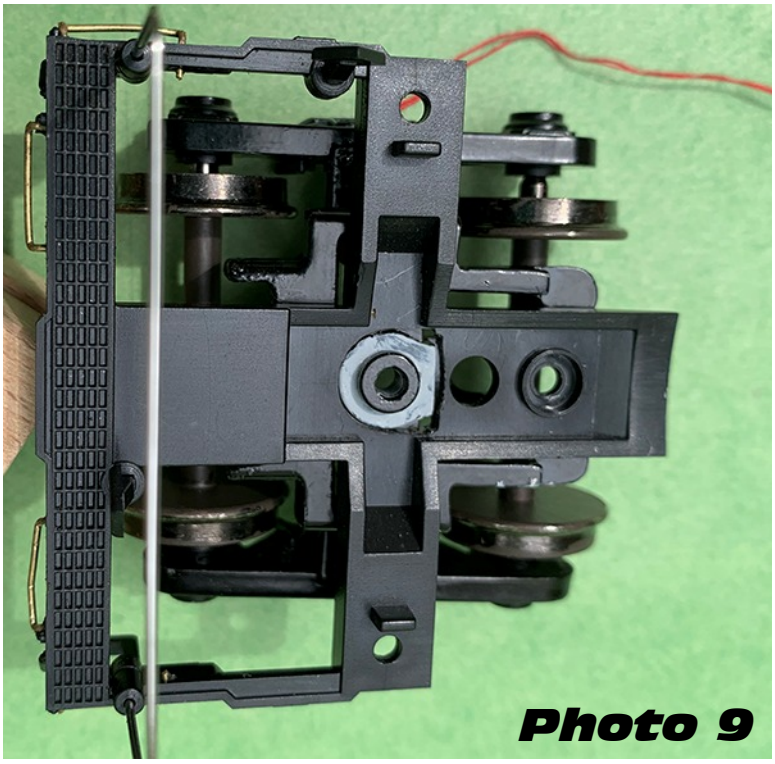


Photo 9: In progress photo. Top side showing plastic frame placed over larger metal boss on truck bolster. Metal boss painted light gray to show up in the photo. The hole is slightly enlarged to allow the larger metal boss on the truck bolster to slide up into the frame. Rear of hole squared off to clear boss extension. See text. I did this mock up to check the concept and the progress before cutting off the 3-rail coupler appendages. One of my brightly colored threads remains in a bolster spring as a reminder to wrap a length of thread through each spring during disassembly and re-assembly.

the frame. This reduces the overall height to what we want. Viewing the assembled car now set to the proper height is well worth the effort.

New Coupler mounting pads: Refer to photo 8. Cut two coupler mounting pads of .100 thick styrene 13/32 inch wide by 23/32 inch long to fill in the rectangular cavity in the frame. I actually built up my pads from .040 and .020 styrene as I had no .100 thick available. This will bring the mounting surface up flush with the end sills. Cement in place with liquid cement. After the cement sets, drill for mounting Kadee 805 boxes. I drilled #53 size pilot holes for #1 brass wood screws x 3/8 inch long.

The last upgrade – optional: As is often typical with one piece molded plastic tank car frames the grab irons are molded on, not added on. I replaced the eight molded on grab irons with brass wire grabs. I located and drill the new holes before shaving off the old grabs. This helps with placement and proper spacing. I left the sill steps as is. I saw no need either to upgrade the brake components as the factory air tank, piping and valve look decent enough. See photos 7, 9 or 10 for new brass wire grab irons.

Check the Car weight: At this point in the process, I weighed the car body and trucks and found it to be 11.5 oz. This is about 4 oz. less than the Atlas O tank car. Since I believe the Atlas O tank car is a bit too heavy I decided 11.5 oz. was good enough for now. The ends of the MTH tank body will slip out for access to the factory weight inside so more weight can be added if desired.

Last upgrade, Shiny hand rails Ugh! The shiny silver metal handrails on the ends and around the platform, and the safety rails along the sides of the car just scream TOY. Upgrade these shiny wire handrails to a scale appearance by painting them black. Lightly roughen with a Scotch Brite pad to add some “tooth”. I did the touch up paint by hand with a small brush.

Final assembly: Mount the modified and upgraded trucks with the factory truck screws up into the modified end frames and install on the tank body. Secure each stub frame with the three factory screws. I finished by adding a light coat of grime to the truck sideframes and then rattle

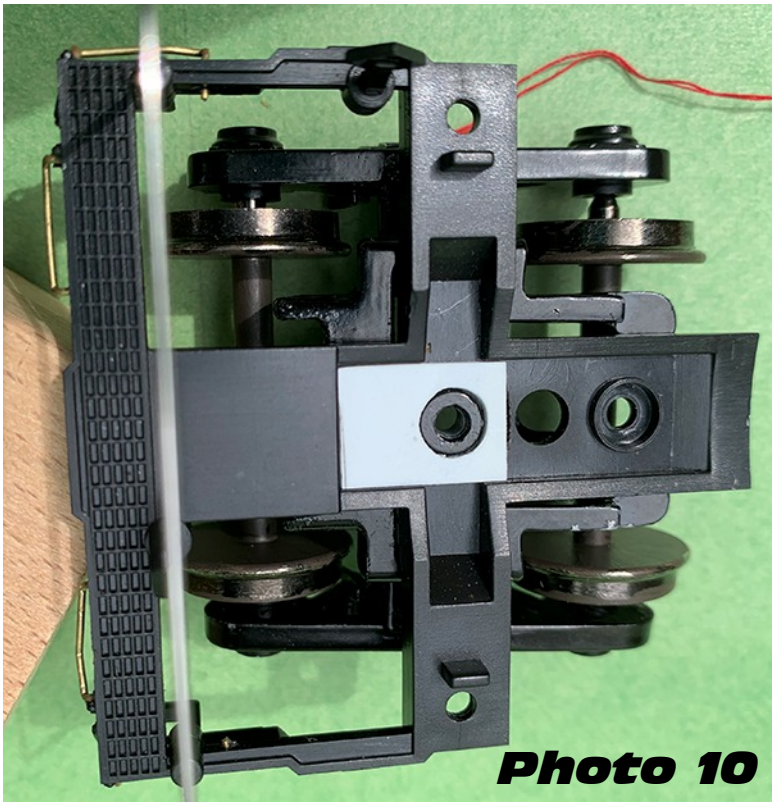


Photo 10: Another in progress photo. Hole in new centering plate opened up to just slip over the smaller metal boss on the truck bolster. Now that the new plate has been test fit, it can be cemented in place in the plastic frame. New brass grab irons added. Shiny wire hand rail not painted black yet. Brightly colored spring retainer thread is evident.

canned the whole car with Dull-cote. The car is ready to leave the car shops and return to service.

Final results: All of these modifications and upgrades may sound like a lot of work, but I accomplished all these tasks in two evenings at the workbench. It took longer to take the photos and write the text for this article than to do the actual modifications. I am very happy with the end results. The new lower position achieved from the rebuilt truck mounting allows the MTH tank car to now blend in well with my existing fleet of scale tank cars. No more "high riding odd duck" in that train that's clearing Pitcairn Yard, east of Pittsburgh, destined for Northfield Yard. Photo 11. Tomorrow the GATX tank car will be in the local turn to Moss Lake to deliver another load of **Pure Cane Molasses** to Hines Feed Mill. Refer to photo 1.

Parts List

- Rail King MTH Tank Car Item number 30-7062A Cargill Pure Cane Molasses
- InterMountain metal wheel sets No. IRC 20050
- Kadee metal couplers No. 805
- O scale formed brass grab irons
- Evergreen .040 and .020 styrene sheet

*Photo 11: Just from its recent visit to the car shops, 2-rail converted, rebuilt and upgraded GATX tank car in **Pure Cane Molasses** service, clears Pitcairn Yard on Brady's PRR Laurel Valley Secondary. The 14,000 gallon modern stub sill designed car is heading east to Moss Lake, PA and Hines Feed Mill with another load of molasses for livestock feed. Now the rebuilt and upgraded MTH 3-rail market tank car compares favorably with other scale 2-rail tank cars in Brady's fleet.*

TIPS & TRICKS

Have an idea for a different way of doing things? Something you built to make things easier around the workbench or layout? Let us know and we'll share with the world.
Send your tips and pictures to us here.

By Neville Rossiter

A simple way to do quick scenery, large or small, that's not just for this piece of wood. Foam is good, but I ran out of it so I used scraps of wood.

Two pieces of wood glued together then a profile is ground on a Linisher machine using a very coarse belt or forget the profile.

There is a lot more to this, The photos on the next pages will show the steps and the finished product on the layout. It took me 2 minutes to think about it, and 30 minutes to do it.

WHAT'S ON YOUR WORKBENCH?

By William Lubert

Well, I don't have a workbench. Ever since I built my first kit, it was on the dining room table. Today I work on that very same table. I do some of my computer work on the table as well. It was the Sep/Oct 2019 issue of *The O Scale Resource Magazine* that introduced us to a company called "WiFi Model Railroad LLC. They ran a contest in the "New Tracks" section offering a pcb to modify a DC locomotive to run using DC, DCC, or WiFi. As it turns out, I did not win the board, but it did kept my interest. After all, I already had plenty projects to work on. But I also did not want what others O Scalers had. Namely plastic diesel locomotives. Then I remembered all those AHM plastic steam locomotives I have, and hence the challenge was on. I ordered one of the DDLLHB boards and two DDLLHA boards. I also had to order from "NWSL" a new motor. Giving it some thought, I decided to try modifying a "Bachmann" On30 locomotive which uses DC as well.

Looking at the photograph included with this, you'll see two locomotives and parts from one. Upper left is a Bachmann Colorado & Southern 2-6-0 with the DDLLHB board. At the bottom is a AHM 4-6-0 with a DDLLHA board and new motor. Upper right is a AHM V&T 4-4-0 which I might put in the other DDLLHA, but I am not certain. What I need to do with these old AHM models is to get motors and gears. If I can't get the 4-4-0 running, I might try a old Walthers/All Nation gas electric (doodle bug). This fits that old saying " What is old is new again."

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

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.

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July 16-18, 2020: St. Louis, Missouri
CANCELED
For more information contact John Wubbel: cell phone/text message (570-580-7466) e-mail jwubbel@gmail.com
Website: http://sonc2020.com

Eastern PA 2 Rail O Scale Train Show and Swap Meet
Strasburg, PA
August 8, 2020
CANCELED
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 map

40th National Narrow Gauge Convention
September 2-5, 2020
CANCELED
St. Charles Convention Center, St. Charles, MO (Greater St. Louis)
Manufacturers exhibits, contest, home layouts, operating modules and clinics.
Email: 40thnngc@gmail.com
Website: http://www.40nngc.com

O & S Scale Midwest Show
Saturday and Sunday, September 18-20, 2020
Indianapolis, Indiana
This is a dedicated 2 rail O Scale and S Scale show; however, we encourage and welcome the many modelers and collectors from the 3 rail and high rail side of the hobby to attend. There are many aspects of the hobby, including building, scenery and more that applies to any scale. Moreover, this show is a great place to get inspired while meeting old friends and making new ones!
Website: oscalemidwest.com/
Email: info@oscalemidwest.com

Harrisburg Narrow O Summer Meet 2020
Harrisburg, PA September 18-19, 2020
On3 - On30 - On2 - On18
New Hope Church
584 Colonial Club Drive Harrisburg, PA
Email: millcreekrr@yahoo.com

Southern New England 2 Rail O Scale Show
October 3rd, 2020
161 Chestnut Street, Gardner, MA 01440
Train show with a large selection of dealers specializing in everything O scale! Ow5, Proto48, On30, On3. Free Parking and on site refreshments available!
Show Hours: 9:30am-3:00pm. Admission: $6.00 per person, $8.00 per family
Email: sneshowchairman@snemrr.org
Web Address: http://www.snemrr.org/index.html

Eastern PA 2 Rail O Scale Train Show and Swap Meet
Strasburg, PA
October 17, 2020
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 map

Winchester O-Gauge Continental and American Meet
Saturday October 17th, 2020
Kings School, Romsey Road, Winchester
Hampshire, SO22 5PN, UK
All O-scale: layouts, traders, societies, running track, refreshments
e-mail: jasond1947@gmail.com
website: www.winchesterogaugemeet.co.uk

The Cleveland 2 Rail O Scale Meet
Saturday, November 7, 2020
Cleveland O Scale Meet our 37th annual show
9:00 AM to 2:00PM at the UAW Hall
5615 Chevrolet Blvd. Parma, OH 44130
Admission $6, free parking, large facility
Please note show time changes
Dealer load in Friday 1-4PM & Saturday 7-9AM
440-248-3055 email j3a5436@gmail.com
Website: http://www.cleveshows.com

O Scale March Meet
March 26-28, 2021
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

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