

October 2019 - \$2.99



MRH **RUNNING** #EXTRA

More modeling every month



Nick Campbell makes
More realistic recent-era boxcars
▶ **READ NOW**

ALSO in this month's edition:

- Pre-diesel freight cars
- Upgrading boxcar ladders
- Stripwood organizer
- Good MEK replacements
- ... and much more inside!

LANDSCAPE EDITION

 **SUBSCRIBE**

[INDEX](#)

[TABLE OF CONTENTS](#)



TABLE OF CONTENTS | RUNNING EXTRA

October 2019



RATE THIS ISSUE

**RUNNING
EXTRA**

Publisher's Welcome: Good MEK replacement ...

JOE FUGATE



Limited Modeler: Pre-diesel freight cars

JIM SIX



Imagineering: Exploring vintage kits, part 1

ROB CLARK



Weathering a modern boxcar

NICK CAMPBELL



Upgrading boxcar ladders

LESTER BREUER



Stripwood organizer

BILL OBENAUF



Ah-Hah Moment: Best acrylic gloss finish

JOE FUGATE

TABLE OF CONTENTS | MRH

October 2019



Editor-at-large Musings: Personal guidelines ...

ERIC HANSMANN



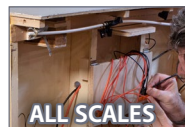
MRH Website this month: Cascade Line update, and more!

Compiled by JOE FUGATE



What's Neat: St. Louis RPM Meet

KEN PATTERSON



Siskiyou Line 2 wiring tricks

JOE FUGATE



Bruce Chubb's Sunset Valley

BRUCE CHUBB and JOE FUGATE



Add LEDs to your workbench magnifier

JIM JOHNSON



Santa Fe Citrus Line in a garage track plan

DON VAIL



Savvy Modeler online: Gondola dents

Compiled by the MRH STAFF



October 2019 news and events

RICHARD BALE and JEFF SHULTZ

MRHMAG.COM

 **REGISTER**
(free)

 **SUBSCRIBE**

[INDEX](#)

[TABLE OF CONTENTS](#)

PUBLISHER'S WELCOME

introduction



MRH Running Extra | October 2019

JOE FUGATE: GOOD REPLACEMENTS FOR MEK ...

★★★★★
RATE THIS ARTICLE

I USED TO RECOMMEND MEK IN QUART TINS

from the hardware store as an economical, excellent styrene glue.

But I also freely admit MEK is nasty stuff. It has a strong odor that can fill your workspace if you're not careful. Also if you get it on your skin, it doesn't feel good and can be an irritant.

As our society becomes more sensitive to toxic chemicals, MEK has started to make that list, and it's getting harder to find in hardware or paint stores. You may often find MEK substitute instead.

MEK substitute works fine – if you google the MSDS to get the ingredients, you will find MEK substitute is mostly Ethyl Acetate. MEK is nasty stuff, ethyl acetate is a much friendlier alternative.

ETHYL ACETATE

Ethyl acetate is what's in fruity wines that gives those wines the fruity taste, but it's a very small quantity. Also, your body makes small amounts of ethyl acetate as a byproduct of your metabolism.

That said, a can full of ethyl acetate is still a chemical with a strong odor. You need to treat it with respect, it won't do your liver any good if you drink the stuff! (Has about the same chemical hazard warnings as ethanol in industrial settings: ethanol = ethyl alcohol, with a common form you may be familiar with: high proof vodka.)

I've been using ethyl acetate (available in a can) as a replacement for MEK and I'm quite happy with it. It's also a much friendlier replacement for lacquer thinner.

PUBLISHER WELCOME | 2



\$19.95
✓prime

Ethyl Acetate
32 oz (945 ml) can



Shop now

1. Ethyl acetate is available on Amazon.



\$30.00
+\$4.99 SHIPPING

Butyl Acetate
16 oz (~500 ml) bottle



Shop now

1. Butyl acetate is also available on Amazon.

BUTYL ACETATE

An even friendlier alternative for MEK is butyl acetate. Butyl acetate is found in many types of fruit – it's what's in bananas that gives them their fruity smell, for instance. It's also used in cosmetics to give them a pleasant fruity odor. Butyl acetate is less damaging to your system if you do happen to drink it than ethyl acetate.

Butyl acetate can also be used as a styrene glue, but it acts a little slower than ethyl acetate. It has a more pleasant odor in concentrated form than ethyl acetate. But butyl acetate is harder to find and it costs more in smaller quantities.

If you don't mind a gallon size container, a very affordable source of butyl acetate is Sherwin Williams Prolane thinner, \$55 with shipping (43 cents per oz. compared to EA's 63 cents per oz. from Amazon).

WEB: www.skygeek.com/sherwin-williams-r6k18gl-polane-thinner-k18-n-butyl-acetate.htm

Give these alternatives a try – I much prefer them over MEK. ☑

THE LIMITED MODELER

column



MRH Running Extra | October 2019

JIM SIX ON PREPARING PRE-DIESEL- ERA FREIGHT CARS ...



I LOVE FREIGHT CARS, PARTICULARLY WOODEN cars of the 1890s through the 1920s. I call them classic freight cars.

As a model railroader building a layout set in the mid-1920s, I see freight cars as a key ingredient in setting the time of the layout. I need to have my fleet of freight cars representing this time. Photo [1] is from the Shorpy collection, and is an excellent example of typical freight cars of the 1910s and 1920s.

I cannot identify a single steel boxcar in this photo – I don't think there are any. Most, if not all appear to be wooden 36-foot cars. Even most of the roofs are wood and not steel. All but a few are double-sheathed types.

I do see three single-sheathed cars. There is even a “ventilated” boxcar in the mix. While not a freight car expert, I think this photo was taken about 1910 to 1915. Those were the days when our railroads were building America. They were not in decline.

Last month in *Limited Modeler* I claimed that it is not difficult to model the time before the diesel-electric locomotive. I know many of you may be skeptical of this or simply don't buy it.

► DOING MORE WITH LESS

THE LIMITED MODELER | 2

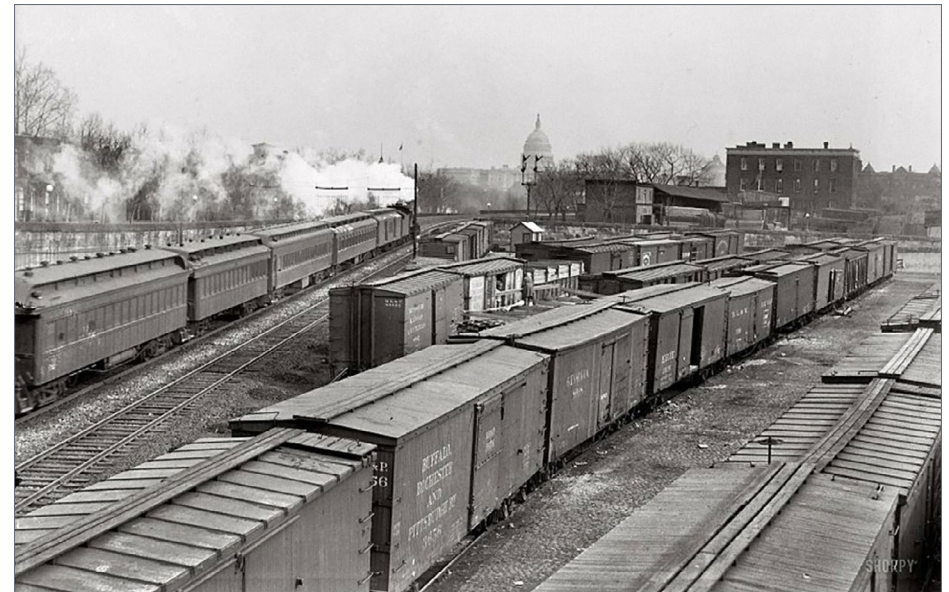
Over the coming months I hope to convince you otherwise. You might even decide to model a setting in the 1910s or 1920s.

Keep in mind, I am not talking about building display or contest models. Instead, our focus will be on building model freight cars to use and handle on your model railroad as they are on mine. Let's get started.

ROUNDHOUSE FREIGHT CARS

I want to start with a few Nickel Plate Road prototypes – both single-sheathed and double-sheathed versions.

The three models featured this month include a 36-foot double-sheathed car with truss rod frame, a 36-foot double-sheathed car



1. Classic pre-diesel freight cars circa 1910-1920. Harris & Ewing, photographer. U.S. CAPITOL. DOME FROM RAILROAD YARDS IN SOUTHEAST SECTION. District of Columbia United States Washington D.C. Washington D.C., 1917.

THE LIMITED MODELER | 3

with a fish belly frame, and a 40-foot USRA double-sheathed car with a fish belly frame – all NYC&StL prototypes prepared to represent how I believe they appeared in the 1920s.

The 40-foot New York Central boxcar [2] shows the NYC lettering that was implemented in mid-1936 when the railroad was reorganized from “Lines” to “System.” Still, these freight cars show that the steam era can be modeled using these Accurail and Roundhouse (NKP) freight cars.

The first model freight car we will look at this month is a 36-foot double-sheathed boxcar with a truss rod frame. See photo [3]. This car was not unique. Truss rod frame boxcars were the norm at one point early on.

Truss rods lasted long after the railroads first used steel straight and fish belly frames. They certainly make a great subject for a modeling project. While my model is not an exact replica of this



2. I made this photo several years ago using an iPhone 4, hence the soft image. The NKP car has since been upgraded and the NYC car is now property of a member of the MRH forum who lives in the deep south.

THE LIMITED MODELER | 4



3. Here is the prototype for the Roundhouse NKP model featured in this column. The model needs arch-bar trucks.

Nickel Plate Road prototype, I see it is pretty close, certainly close enough for a mortal modeler like me.

The model is a Roundhouse “old time” boxcar that was “ready-to-roll” right out of the box – well, sort of. If you look over photo [4] you can see that the model is nicely painted, has Kadee-compatible couplers, nice metal wheels, and a decent truss rod frame.

While the lettering is nice, I question the 8-19 build date on the side of the model. I would think the date should be sometime before 1910. The paint and lettering are nice. However, this particular lettering scheme was first applied in the very late 1930s so it will not work for any time before that. That is, if it matters to you.

When I bought the model, I was modeling the early 1940s, so it was just fine for me. But now I’m modeling the 1920s, so some changes needed to be made. I added the NYC&StL letters using decals that I had made. See photo [6].

Photo [3] shows a prototype NYC&StL 36-foot boxcar with a truss rod frame. It also has wood ends, as does the Roundhouse

THE LIMITED MODELER | 5

model. Comparing the model [4] with this prototype [3] I feel the Roundhouse model is pretty good – especially considering that it was tooled some thirty or forty years ago.

The lettering is good too, but there is one issue. The lettering on the left of the car sides is too close to the car end. It should be more centered between the end and the door.

One difference between the model and the prototype that drives my friend Ray Breyer crazy is that this model has but four truss rods, whereas the prototype Nickel Plate car had six. Please note that many prototypes had only four truss rods. So it boils down to just how picky you want to be.

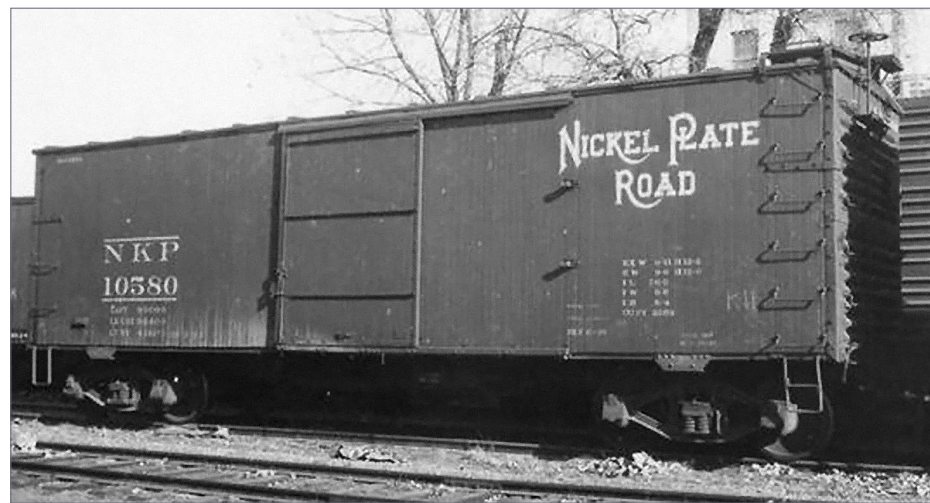
I am not going to be that persnickety. Remember, this is a layout model and not for contest or display.

Photo [5] is a prototype for the Roundhouse model. Comparing it with [4] you can see that the manufacturer did a decent job with



4. Here is the Roundhouse model right out of the box. Athearn sells it as a ready-to-run model.

THE LIMITED MODELER | 6



5. This is the prototype for the Roundhouse NKP model. This is a late-1930s to late-1950s paint scheme. Fortunately, the model has been released again (by Digital Fox Services) painted for the late-1910s through the late-1930s.

the model. Again, the only noteworthy exception is that the lettering on the left is too close to the end of the car.

You can also see that the molded-on grab irons at the right are slightly too wide. Missing on the model are the two door stops below the “N” in the NICKEL PLATE ROAD name. And last, the model does not have the roof walk end platforms of the prototype.

All of these items can be added if one chooses. When we get to the Accurail models shortly, you will see that the lettering is much more complete on the Accurail models – each of which was prepared from specific prototype photos.

This model preceded the introduction of the Accurail 36-foot models. I built it shortly after Athearn acquired the Roundhouse line when Model Die Casting (MDC) closed up.

THE LIMITED MODELER | 7

This Roundhouse model is not as nice as the Accurail model, but with a little work can be made into a credible prototype layout model. To be honest, I am really pleased with it. See photo [6].

Photos [6, 7] shows the model after I added the NYC&StL lettering.

Let's look a little closer. As you can see, the model has a truss rod frame instead of a straight or fish belly steel frame. I am hoping that Accurail makes a truss rod frame option for their 36-foot boxcars.

Ray Breyer and I are working to convince the folks at Accurail to make this happen. They could make the floor/frame available as a separate item to be used when building the kits we already have purchased. I am hoping this happens, because I am holding a few more of the Roundhouse 36-foot boxcars that I plan to work with pretty much as I did with this one.



6. This is the Roundhouse model that I built years ago but updated the lettering this summer. The paint and lettering displayed is appropriate for the late-1920s and 1930s. The N.Y.C.&St.L. lettering was added.

THE LIMITED MODELER | 8



7. Here is the Roundhouse model spotted at a local feed supply on my layout. That is an Accurail USRA 40-foot boxcar at the right.

The Roundhouse model has molded-on grab irons. They are slightly too wide and a little shallower than what you will find on an Accurail double-sheathed boxcar. I like the Accurail rendition better. The trucks are good, but of a later prototype than what was under these cars when built.

Many cars that survived to the late 1920s and 1930s had the trucks changed, which makes the included Bettendorf trucks work for the model. I plan to change the trucks on my models to the arch bar type sometime soon.

The prototype for this model was built before 1910 so they had strip board roofs. The Roundhouse model represents a nice strip board roof. However, Ray convinced me to change it to have an updated roof. Remember, I was modeling the early 1940s when I built this model. This was a simple change.

Since that time I changed to modeling the 1920s and have acquired many prototype photos and carefully studied them. My remaining Roundhouse boxcars will retain the strip board roof.

Here is how the roof was updated. First, remove the roof running board, then sand the paint from the roof. I did this by laying a piece of 240-grit sand paper grit-side up on the workbench, then wiping the roof back-and-forth one side at a time until the paint was removed. I did this precisely so I could cement sheet styrene to the surface. See photo [8].

Next I cemented a section of 0.005" Evergreen styrene in place. I cut the styrene slightly oversize beforehand. After the cement had dried I used a sharp X-Acto knife and trimmed it in place the exact size.

I repeated this for the other half of the roof. See photo [9].

It's confession time. Looking at photo [10] you will see that I am performing the roof conversion "after" the model had been built and weathered.

Please keep in mind that I did not learn about the roof issue from Ray until after the model was completed. I laid strips of Evergreen scale 1x2 on the roof as shown in [10]. Next I reinstalled the running board, then repainted and weathered the roof.

I did enhance the underside of the car by adding some brake rigging parts from the Accurail gondola kit. The sprue containing these parts is available from Accurail. This is probably not accurate for the prototype, but that doesn't matter to me. I was only after the appearance from the side view when on the layout. See photos [11] and [12].

The coupler box area was cut out and prepared from new coupler boxes. Kadee #153 short-shank semi-scale couplers were installed. See photo [13].



8. The roof modeled by the Roundhouse boxcar is a strip board wood roof. Ray Breyer talked me into modernizing the roof to represent a steel sheathed roof that was common by the late 1920s. I removed the running board then sanded the roof.

Looking at the photos you can see that the Roundhouse has nice stirrup steps. However, they are fragile and one broke off. I formed a replacement from strip brass and installed it by drilling two mounting holes and using super glue.

Before moving on to our next model I'd like you to look at [14] which shows the completed model and one right out of the box. After looking at this photo is there any doubt in your mind why we weather our freight cars and models in general?

You can clearly see the difference between the two models. You can also see that the Roundhouse model right out of the box is a nice model, and in fact most model railroaders would be pleased with it if nothing more than weathering were done to the model.

I just checked my inventory of Roundhouse freight cars, and I have two more Nickel Plate Road models among them. I plan to complete them in the configuration they come in with the strip board roof. That is, they will pretty much represent as-built prototypes, but with arch bar trucks and Kadee #153 couplers.

ACCURAIL FREIGHT CARS

Now it's time to turn attention to the Accurail models. Accurail's steam-era freight cars are my personal standard for freight cars. In fact, at least 75% of my freight car fleet is made up of Accurail models. Accurail offers its double-sheathed 36-foot boxcars in four variations.



9. After sanding the roof I fit a section .004" sheet styrene to each side of the roof then cemented them in place.



10. Here is the Roundhouse NKP model with the new roof installed.

- 1300 series, 7 -7 steel ends, fish belly underframe
- 1400 series, 7 -7 steel ends, straight underframe
- 1700 series, wood ends, fish belly underframe
- 1800 series, wood ends, straight underframe

With these four options you can model the most common boxcars of the 1910s and most of the 1920s. In many cases these prototypes lasted until nearly 1960 in revenue service. Many lasted into the 1970s in maintenance-of-way service. With well over 50 of them, they make up the backbone of my freight car fleet.



11. I also added detail to the underside of the Roundhouse model by adding brake rigging from Accurail. Available on their website.



12. This photo shows why I added the brake rigging.

THE LIMITED MODELER | 13

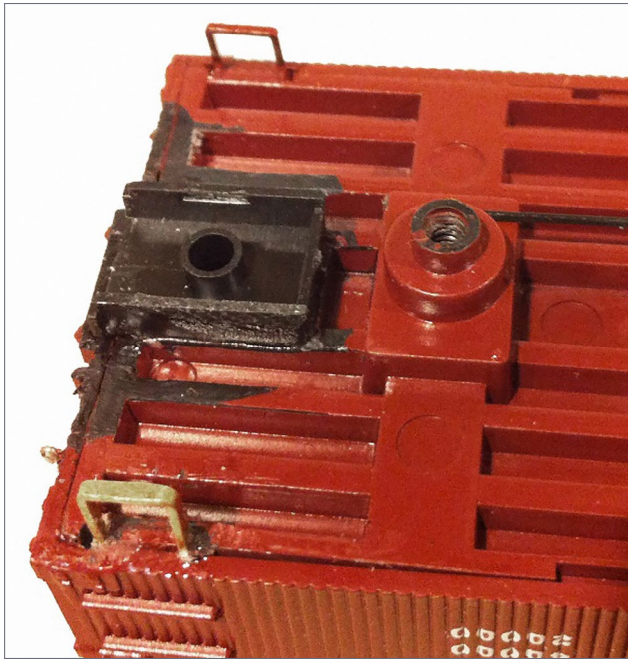
This next model is an Accurail model that represents a prototype double-sheathed boxcar that came along a few years later than the model we just addressed.

The Accurail Nickel Plate Road 36-foot boxcar is offered lettered just like the Roundhouse model; that is, it represents the prototype as it would have appeared in the late-1930s and 1940s.

Ray Breyer and I both model the late 1920s so we talked Digital Fox Services into offering the Accurail model lettered for the 1910s and 1920s. The model is Digital Fox Services #10629 should you be interested.

If you need to order any you can send an email to digitalfox@digitalfox.com. They will take care of you.

Photo [15] shows the kit we will be using. It has a build date of 10-16 printed on the car side. The lettering graphics are perfect



13. I cemented Kadee coupler pockets in place to house Kadee #153 short-shank semi-scale "whisker" couplers.

THE LIMITED MODELER | 14



14. This photo shows the completed Roundhouse model coupled to one that is right out of the box. We *need* to weather our models!



J. Fugate

WEATHERING: THE MOST IMPORTANT DETAIL

If there's any one thing you can do to make your models look more realistic, it's weathering. Jim Six's side-by-side photo [14] dramatically shows the difference weathering can make.

Savvy modelers know that weathering makes models look more detailed than they really are. It's one of those great "expert tricks."

To be the most effective with your weathering, learn the art of subtle realistic weathering by using reference photos. Just pick a car of that general kind (boxcar, tank car, and so on) that has the weathering pattern you like and then aim to duplicate it as accurately as possible.

Avoid overdone "rust bucket" weathering unless your particular modeling subject demands it.

If you do nothing else, weathering all your cars and locos (and learning to not overdo it) is the least expensive and the most effective detail you can add.

THE LIMITED MODELER | 15

as is the artwork, for the model was made directly from prototype photography – as are all of the Accurail 36-foot boxcars.

Both the prototype and the model have 7-7 steel ends. Believe me, Accurail did their homework in preparing the tooling for these models.

Photo [16] shows a prototype for the model we are about to build. It is a really close match for the Accurail kit that Digital Fox decorated for us. The prototype in the photo has Bettendorf T-section “HGC” trucks. We will be using Kadee #1572 trucks with metal wheels. These trucks are a perfect match for this prototype. Kadee #153 semi-scale short-shank couplers will be installed.

I don’t know if you can see in photo [16] that the stirrup steps are different at each end of the car. At the left, the stirrup is just a single hoop without an intermediate step. At the right, the stirrup has an intermediate step.

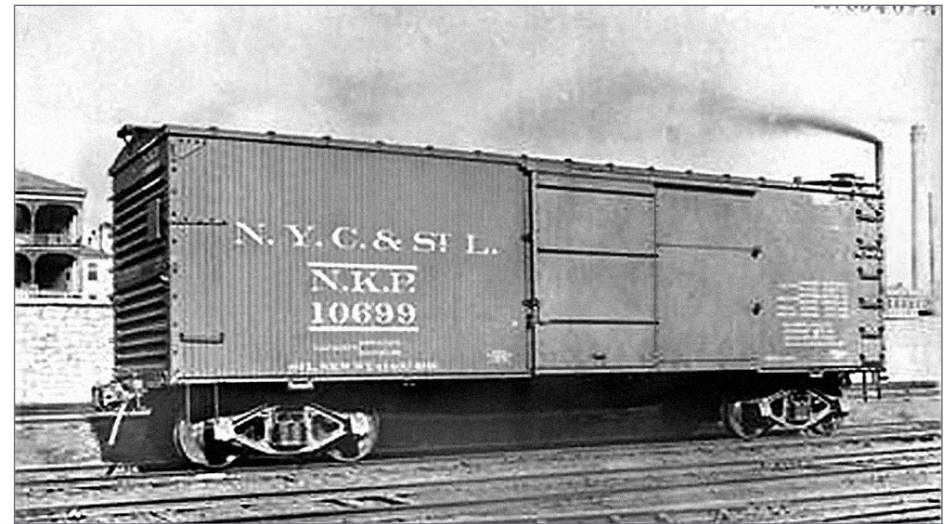
The Accurail kit comes with both versions so there will be no problem matching the prototype.

Photo [17] shows the entire kit including the Kadee Bettendorf T-section trucks. As you can see all the details needed are included but they are done in such a way that only a minimum of assembly is required.



15. Accurail kit we’re using.

THE LIMITED MODELER | 16



16. Prototype for the Accurail kit we’re using.

The brake rods and cranks are all one piece. There are two sets of stirrup steps, one set with the intermediate step and one without. The brake wheel is simply amazing – very finely scaled.

I used my de-spruing nippers to remove the parts from the sprues. The first step was to insert the one-piece brake rigging into the two frame halves.

I can see where this might be tricky, but if you look at the instruction sheet carefully, you will see how to orient the frame halves relative to the brake rigging. Once oriented properly it fit together perfectly. Simple!

The next step was to fit the frame cross-members to the two frame halves. I started at the center and alternately worked my way to the ends. I snugly pressed each in place, then applied a drop of liquid styrene cement where each cross-member fits to the frame halves.

Photo [18] shows the assembled floor/frame with brake gear and rigging. Putting this together was a very simple task.

The kit includes a steel plate for a car weight. This needs to be affixed to the top of the floor/frame pictured in photo [19]. I used Woodland Scenics adhesive cement to do this..

You don't want the weight to later come loose in the car and rattle around. Let the contact cement air-dry for a while before fitting the weight to the floor.

When the contact cement turns clear it is time to lay the weight in place. Do so as carefully as you can because it will be difficult to adjust its position afterward!



17. Entire Accurail kit unassembled with Kadee replacement trucks shown.



18. Assembled Accurail underframe.

With the floor/frame in place the next step is to install the Kadee couplers. For operability and realism I use Kadee #153 semi-scale short-shank couplers. They work well and look good. See [21] and [22].

Also note in those photos that the included stirrup steps have been installed at the four corners. They are simply the best. No metal stirrups even come close to the realism of these parts. They also are really break-resistant.

Photo [23] shows both models coupled together. The Roundhouse model on the right represents an older prototype than the Accurail model, and accordingly I have weathered it more; the Accurail model less so.

You don't want to have the all of your freight cars weathered the same, nor should so many be "over-weathered" as seems to be popular among model railroaders today.

I weather in moderation. I used to over-weather but no longer.

THE USRA DOUBLE-SHEATHED BOXCAR

The last car we will prepare is an Accurail 40-foot double-sheathed model. These cars were built as early as 1917, with

THE LIMITED MODELER | 19

some lasting until sometime around 1950. Our model will match prototype boxcar NKP 11040; see photo [24]. This photo shows a Nickel Plate Road USRA 40-foot boxcar as it appeared after the late 1920s with both the NYC&StL lettering, and the Nickel Plate Road slogan on the car sides.

Accurail has offered its kit painted to represent both this earlier scheme and the later simple 1940s lettering scheme. Note that there is but one grab at the left end of the car. Remember, the second grab iron was not mandated until the 1930s. The Accurail model has two grabs, making it post-1920s, but you would have to be a real purist to let this bother you.

I did not notice this on the model until after it was finished. Sigh ... So, I will have to carve the top one off each side of the model and do some touch-up. That must make me somewhat of a purist, but not so much so as *MRH* editor Eric Hansmann!



The Accurail USRA 40-foot double-sheathed boxcar is a good model right out of the box. I view it as one of the

19. Weight with contact cement in place. Let it dry until clear before placing the weight on the car floor.

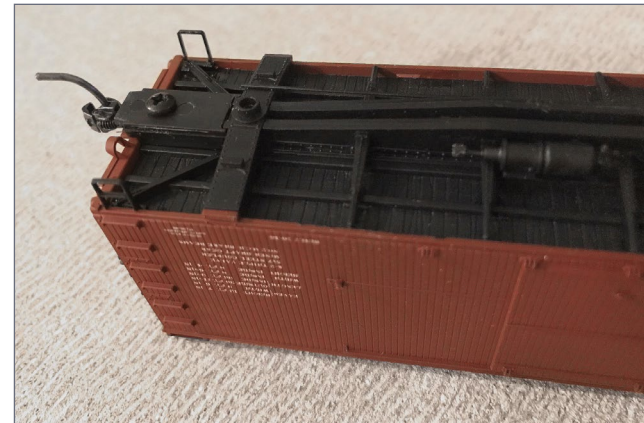
THE LIMITED MODELER | 20



20. Floor inserted into the car body.



21. Couplers and stirrup steps installed onto the car.



22. Closeup of the stirrup steps.

THE LIMITED MODELER | 21

first of Accurail's current generation of refined kits. This is a great model to work with. I have done less to this model than most any I have built in the past 50 years. See photos [25] and [26].

As I am typing this text I noticed the Bettendorf T-section trucks under the prototype in photo [24]. I will have to swap out the trucks under my otherwise-completed model with Kadee#1572 Bettendorf T-section trucks like I used with the 36-foot Accurail boxcar featured above.

My NYC&StL 40-foot boxcar is a factory-painted Accurail model that I assembled, installed metal wheelsets and Kadee #153 couplers, then weathered. That's all. In spite of having no added or adjusted detail, I see this model as a very credible prototype model that is great for layout use. Sometime in the future I will add a pair of roof walk grab irons and a pair of cut-levers, but that will be all.

I won't walk you through the step-by-step of this model because it is even simpler to assemble than the earlier Accurail model, and is pretty much the same. Photo [25] shows the model before



23. Finished and weathered Accurail car #10629 coupled to Roundhouse car #10755.

THE LIMITED MODELER | 22



24. Prototype photo of a 40-foot USRA double-sheathed boxcar.

weathering and [26] after weathering. What say you?

Before closing, the last photo [27] shows the prototype Nickel Plate Road USRA 40-foot double-sheathed boxcar in the simplified 1940s paint scheme.

Accurail also offers their kit painted in this variation of the Nickel Plate lettering scheme.

See you next month with more car modeling fun for the “limited modeler!” ☒





25. Unweathered Accurail model.



27. Nickel Plate Road USRA 40-foot double-sheathed boxcar in the simplified 1940s paint scheme.



26. Same model as [25] only now weathered.

Did you know
there's an
MRH/RE index
available?

CLICK TO FIND OUT MORE



IMAGINEERING

column

MRH Running Extra | October 2019

ROB CLARK EXPLORES THE FASCINATING WORLD OF VINTAGE CRAFTSMAN CAR KITS ...

★★★★★
RATE THIS ARTICLE

I LIKE BUILDING STUFF RATHER THAN JUST opening a box and having an instant model ready to place on the railroad. I also like using components made from wood or metal which have a nice “feel” and were the materials used to build the prototypes in earlier times. These two objectives, combined with some teenage freight car kit-building nostalgia, led me to sourcing and assembling “vintage” car kits [1].

A few years down the line I decided to share my experiences and my discovery of manufacturing developments that show how far this type of kit has come since the 1950s. I hope to inspire you to follow new modeling opportunities or perhaps (and just as usefully) confirm that this approach isn't for you.

I think there is a perception that old kits are inferior in many ways to modern offerings, so let's examine that issue first. I don't pretend that these models come close to the detail levels of modern resin or plastic kits. As an Imagineer, I have a tolerance for prototypical inaccuracies and the rule of “good enough” works well for me [2].

► EXPLORING THE CREATIVE SIDE OF THE HOBBY



IMAGINEERING | 2

I also find the charm of vintage kits transcends the lack of detail, but I accept that this isn't for everyone.

However, I find that the balance between the elements of construction fun, construction time, cost, and most importantly, modeling satisfaction of these kits is very favorable. I get great satisfaction in working with wood and metal – perhaps because the materials are closer to the prototype.

LET'S GET STARTED

I'm going to wander through many aspects of vintage kits and look at historical improvements. I'll document some interesting issues and construction tips while building an HO scale Silver Streak box car [3].



1. Many of us have a cupboard or shelf that looks like this. It is easier to buy kits than to build them. The result may be a backlog that can seem like a mountain to climb, rather than boxes of fun opportunities.

There's nothing quite like the musty smell when you first open the box of a vintage kit. I guess it's a combination of the materials used and the box they come in, combined with the years of different homes the kit may have had. Sometimes I find historical evidence of purchase dates; the bill from the original model shop, or parts wrapped in the pages of a desk calendar. The price tags are eye openers, too!

If you have built a plastic or resin kit you will find these wood and metal kits a different experience. Although some cast parts may be included, you actually make many components using raw materials. I find this very satisfying – it's initially daunting but rapidly becomes fun. It encourages customization and can be a gateway to scratchbuilding.

It's only a small step from putting together a “box of sticks” type of kit, to sourcing the materials for your own project. You can then go as little or as far as you like when it comes to detailing – particularly with the underbody.

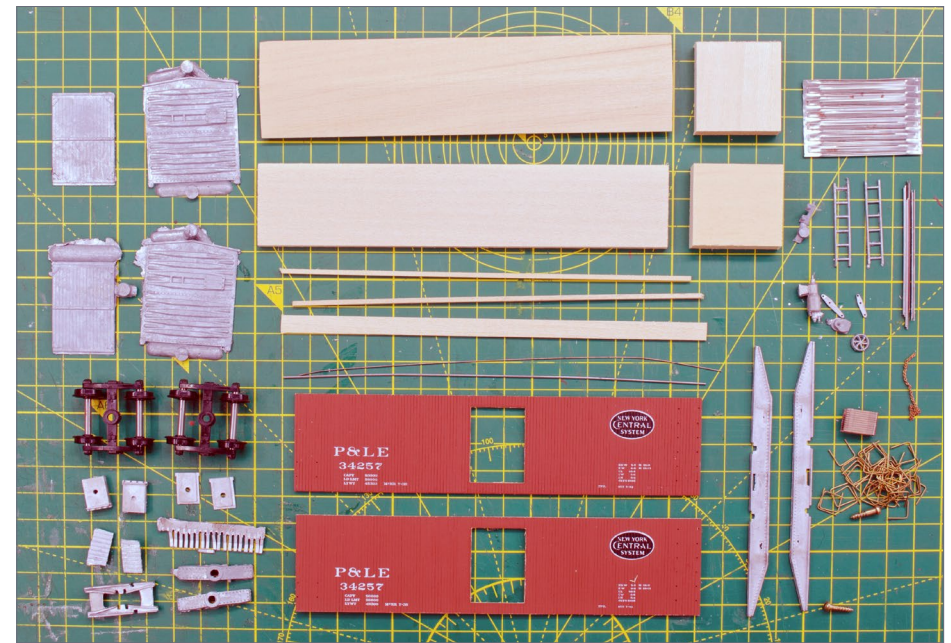


2. Here is an Ambroid Western Union material car, a vintage wood and metal kit. I hope you agree that this looks the part when suitably painted and weathered.

SOURCING CRAFTSMAN KITS

How do I get my hands on this kind of kit? The LaBelle Woodworking Company is probably the only volume HO scale wood craftsman car kit supplier remaining. Ye Olde Huff and Puff ran a few of the other lines (e.g. Mainline, Silver Streak) but they are no longer in business. I have heard a rumor that the company may restart under new ownership, but no web evidence of this exists as of this September 2018 writing.

I am based in the UK, so old US kits are scarce. eBay is my primary source, and rather than run through the pitfalls of auction bidding, I urge you to read the 2011 *MRH*



3. A Silver Streak box car kit has a milled wood carcass, neat silkscreen-printed siding, a selection of detail castings, and plastic trucks. Note the stamped seam caps at top right. This is an ideal “starter” kit, easily obtained and with very few pitfalls.

article (issuu.com/mr-hobbyist/docs/mrh11-05-may2011-ol?viewMode=presentation) that Joe Fugate wrote on this topic. Fewer bargains are to be had these days and there is a need to research before buying. Don't expect to pick up vintage kits on eBay for peanuts – those days are long gone. The stock of unbuilt kits sitting on dusty shelves will diminish, and many of these items will never be manufactured again, so the rarity and potential cost can only go up. That's certainly the trend I have seen, and I don't expect it to change. So, if you want to buy, buy now. Try one out, and if the bug bites then get more while you have the chance.

Always review the pictures carefully before bidding because sometimes the kits have been started. This usually isn't a big problem – just be prepared for some rework. These partial builds are often sold because the kit builder got out of their depth and messed up. You might find the kit instructions are missing, in which case (if you model in HO scale as I do) visit hoseeker.net where there is an extensive archive of old documentation.

Tools

The tool set for vintage kit building is relatively simple [4]. Files and a craft knife are great for cleaning up castings. Use old blades to remove thin flash. Needle files are good for cleaning up wood, although my preferred tool is an emery board. These have a natural rigidity which helps to “sand square,” and have coarse and smooth sides. Pin vises and small drill bits are needed to drill holes for grab irons, truck bolster screws, and coupler pocket screws – hence the screwdrivers included among the tools. Scissors are good for making templates, and in the case of the Silver Streak box car, removing the stamped seam caps from their supporting frame. A pencil is useful for marking where stuff should be located.

I use three types of adhesives. For general construction – solvent based, which is good for a quick bond but can be a bit messy, and a



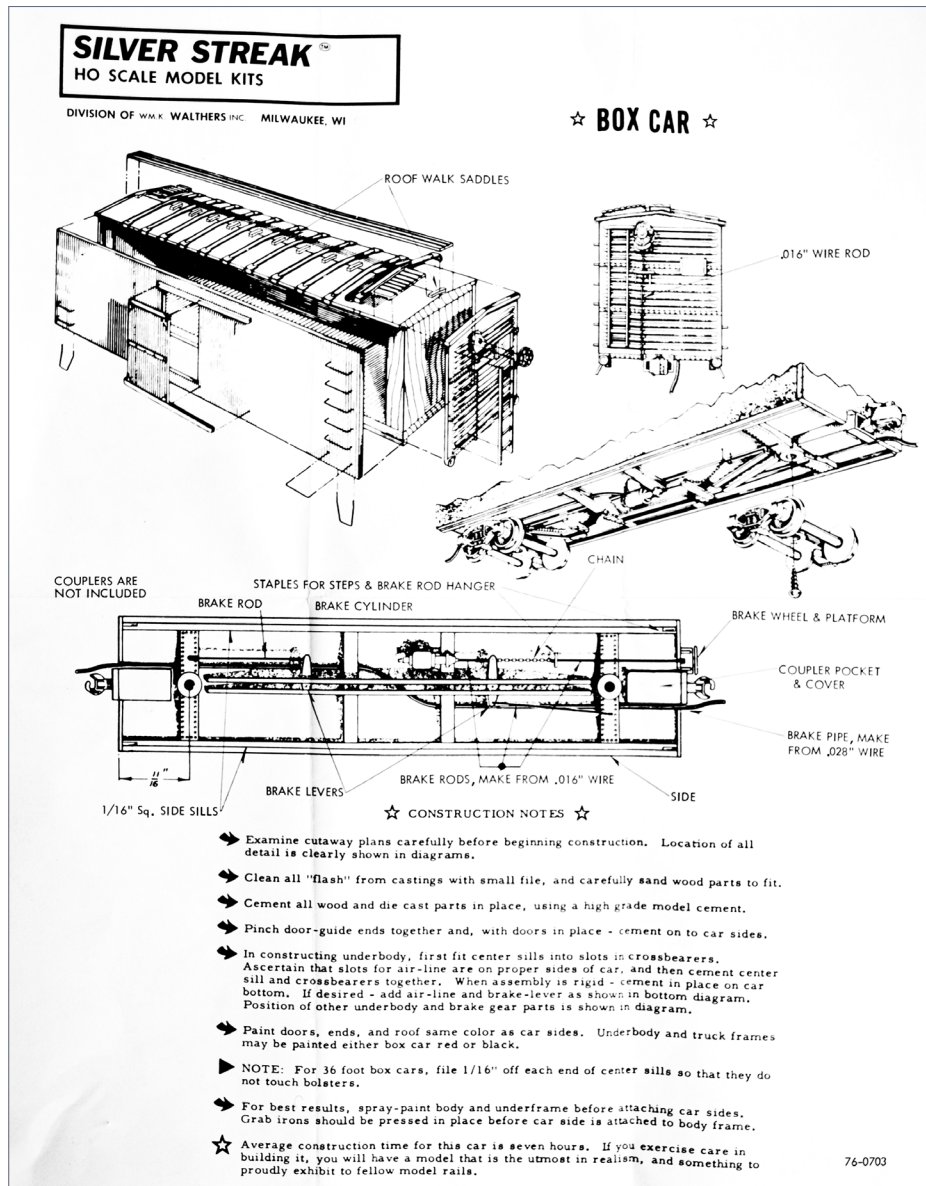
4. The tools are common with nothing unusual. There's a good chance you have most of what you need to build a vintage car kit. Buy high quality tweezers to avoid frustration when handling small parts.

solvent free version which is better for precision work but needs a longer curing time. Cyanoacrylate (CA) is good for metal-to-metal joints and for “stiffening” fine wood details.

INSTRUCTIONS – WHO NEEDS ‘EM?

The section title above is a bit tongue-in-cheek, mostly because of the hugely variable quality and quantity of instructions with craftsman kits. At one end we have a single sheet with some bullet-point instructions and a few not-to-scale pictures [5]. At the other extreme we have detailed scale drawings and multiple pages of piece-by-piece assembly.

Paradoxically I find that for a beginner, simple instructions are better. A “sea of words” and extreme detail can confuse rather than assist an inexperienced modeler. After many years of kit



5. These Silver Streak gondola instructions are basic, but adequate for the simple kit. Spend time identifying all of the components and to clearly understand how things go together.

construction, I prefer a good isometric drawing, combined with some exact scale elevations and use my experience to decide construction sequence and method.

Isometric drawings show the construction in 3D perspective [6]. These are great for visualizing how the kit goes together and when drawn to scale, have the advantage that measurements of verticals and anything along the primary 30-degree line will be accurate.

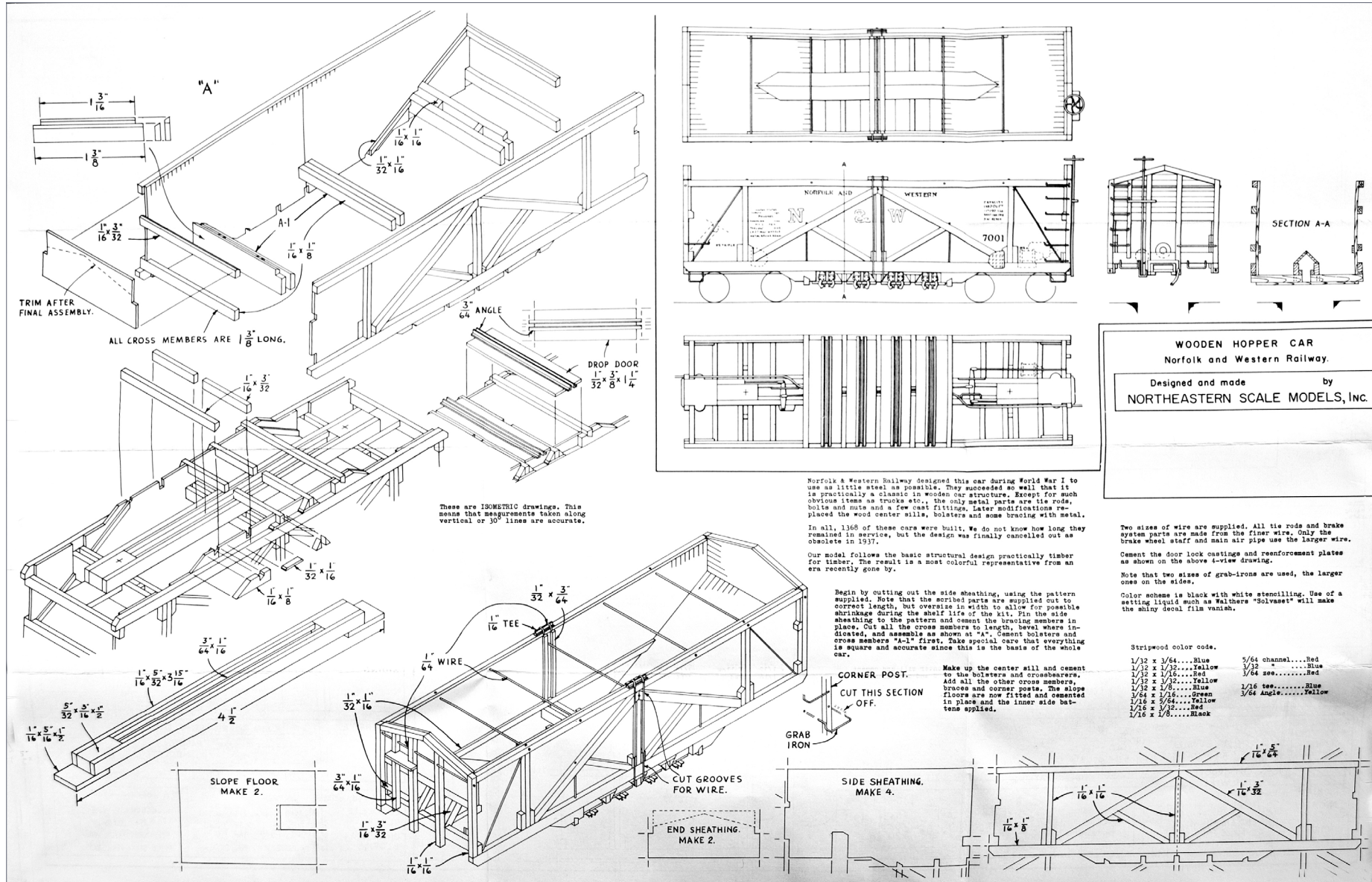
I always read and try to understand whatever instructions there are, but I think it's more important to have a visual image of how the kit goes together so I can decide the best build sequence. Don't rely on blindly following the instructions, because they can be wrong (usually by omission).

I can't stress strongly enough the need to identify every component of the kit before starting assembly. With a molded kit the individual parts are easy to identify, but with a wood kit the starting point is often a box of sticks. It's important to establish the sizes of the stripwood components before starting construction. Usually a color is applied to one or both ends of the stripwood. A table in the instructions indicates the dimensions. When cutting, I always work from an uncolored end to prevent losing the size identification.

Some instructions give very clear guidelines as to brake hardware locations. Other kits may not make a mention. In this case a bit of research is required, but that's no bad thing.

CAST METAL COMPONENTS

Many things that can go wrong with vintage cast metal components, but I have been lucky over the years. The casting quality can vary, and older items tend to be rougher with pronounced casting lines. Over long production runs, flash gets worse and some surface degradation can be seen, but it's nothing that a file and a bit of paint can't fix.

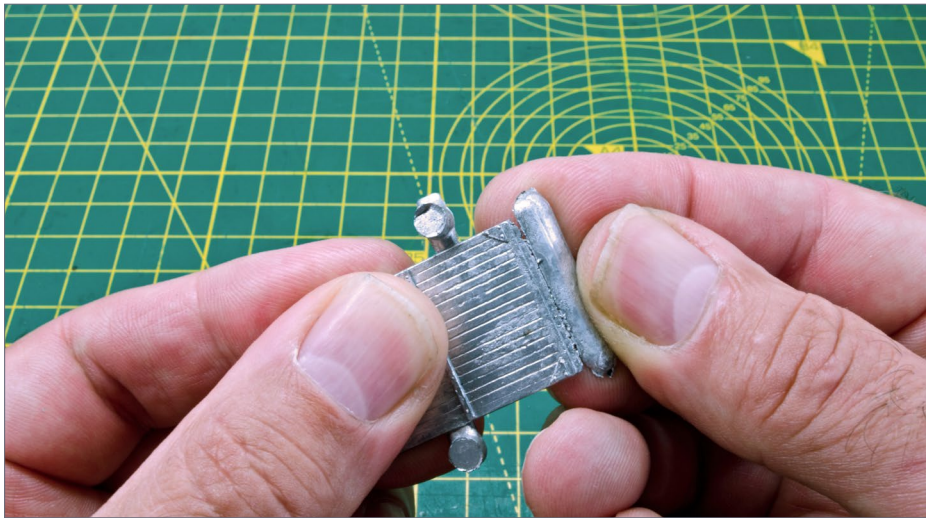


6. This Northeastern Scale Models hopper car is a complex kit and not for the beginner. There are very few textual instructions as the builder's experience is assumed. The isometric and

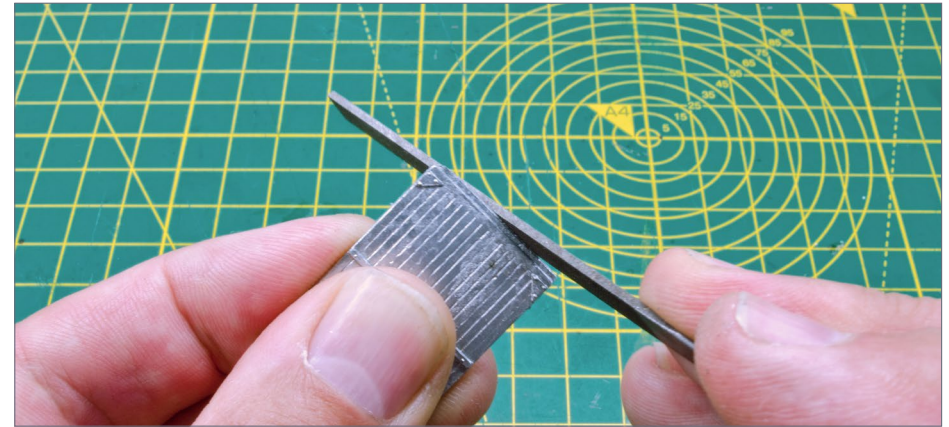
scale elevations are extremely easy to follow – once you stop panicking. Pictures of this completed model will be featured next month in Part Two.

If you are really unlucky you may come across “Zinc pest” – more correctly known as destructive, inter-crystalline corrosion where the component just crumbles apart. Kits made after 1960 should be OK but earlier kits can be affected. Long-term storage in high humidity accelerates the process. I have come across this problem once, and I ended up scratchbuilding a couple of box car doors that turned to dust as I handled them.

Assuming all is well with the castings, one of the first kit instructions is “Remove all flash from castings” and a very good piece of advice it is. There tends to be a lot more molding flash on older metal castings than plastic, but removal is straightforward [7-11].



7. I remove a mold sprue by bending it away from the detailed face of the casting, in this case a door, to minimize the chance of damage. The castings are usually soft, so this is straightforward. The smaller pieces at the sides of the door are “runners” which allow the molten metal to fill the casting. Use needle nose pliers to remove these and similar small undesired pieces of metal.



8. A jeweler's file can remove rough spots. The metal is very soft so the file may “clog up.” Use a fine wire brush to get rid of any filings that build up.



9. A hobby knife with an old blade is ideal for flash removal. Always work with the blade edge pointing away from your hand.

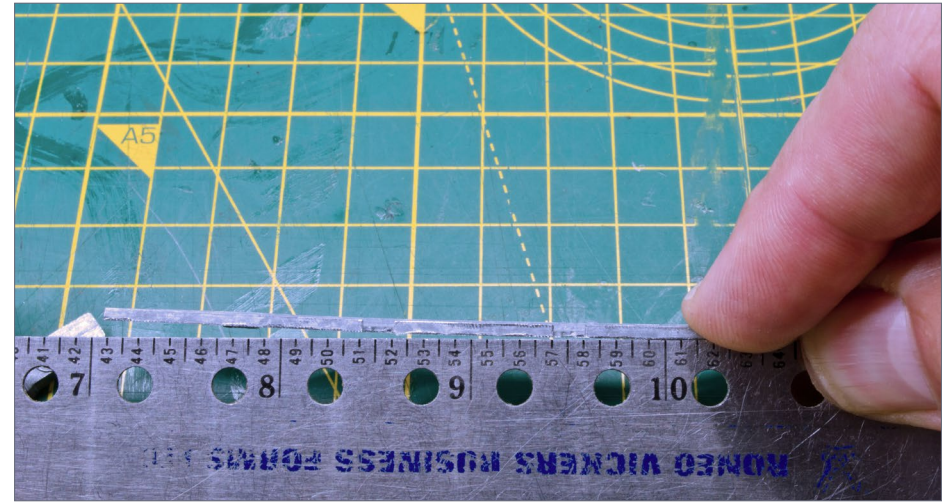
WOOD COMPONENTS

Wood is a natural material and can have some issues. Warping is the most obvious, but I have never had serious problems with warped wood kit components. And I have built a lot of old kits! A badly warped part should be replaced because it's rarely worth the grief of trying to straighten it out. Because most kits are boxes of sticks, replacement is usually straightforward.

Shrinkage can also occur, but the kit manufacturers usually allow for this by making critical components a little oversize so you can trim them down. Many builders of wood kits will recommend using a sealer followed by much rubbing with steel wool to



10. Take time to clearly identify what is and isn't flash. An overly enthusiastic approach can result in the removal of important material. The "nubs" on the reverse of the body bolster require both trimming with a knife followed by filing to ensure a flush fit with the floor. The raised pin on the housing on the right is a locator pin for the brake wheel and shouldn't be filed off. There is however a small amount of flash around the edge to be removed. Time taken to identify components and their locations is time well spent.



11. Check for warps in long castings like this center sill. The metal used in these kits is usually soft. Long parts can be easy to bend back into shape. Just be gentle and patient with the adjustments. If something snaps, then CA will fix the break.

remove the "fuzzies," as they are affectionately known. This is up to you, but I have never done it (life's too short), other than where I wanted a wood roof to look like steel.

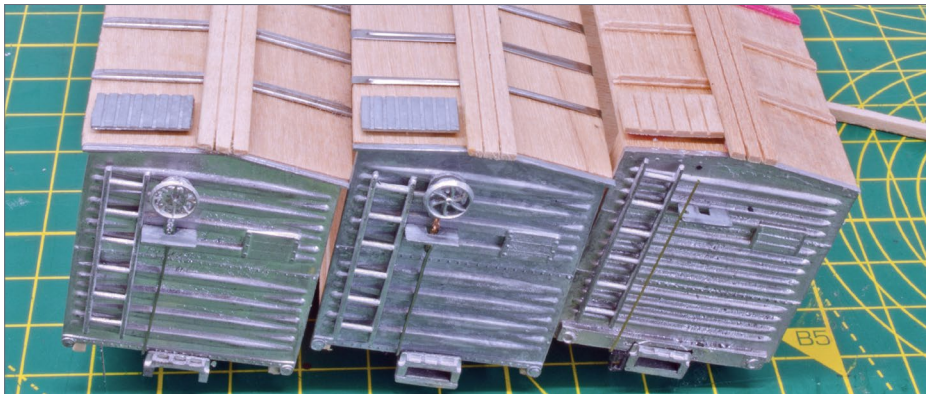
Painting and a bit of strategic sanding solves the "fuzzies," but you can use the inconsistency of the wood finish to your advantage. Scale Lumber often has a "good" side and a "bad" side as in, smooth or rough. Decide which face best suits the finish of the car component before cutting and assembling.

I do take care when cutting stripwood across the grain, especially when my craft knife is losing its edge, since the wood fibers tend to crush. I always think about which side of the wood should be seen when cutting scale lumber. For larger section wood, use a razor saw rather than a knife.

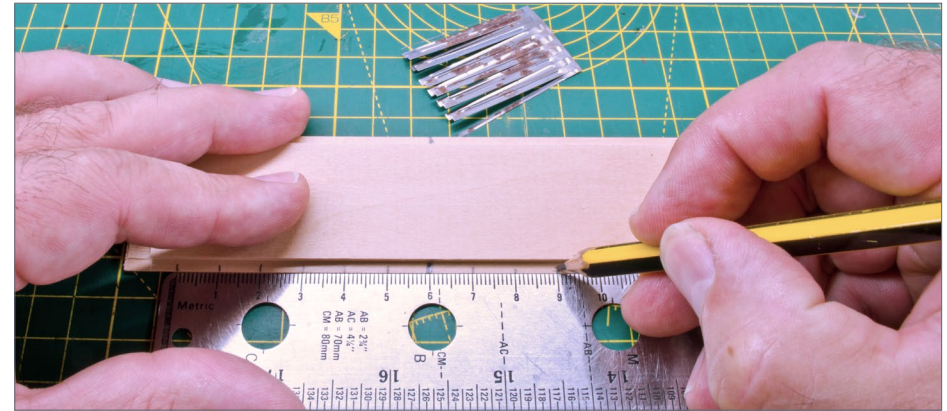
ASSEMBLY

For kits with a simple carcass – floor, roof and end blocks, I recommend assembling these parts first, then adding everything else to this “box.” I follow the strategy used in more complex kits where sub-assemblies are made first. The roof and floor can be almost completed before final assembly. This makes them easier to work with and the whole model is less prone to over-handling damage.

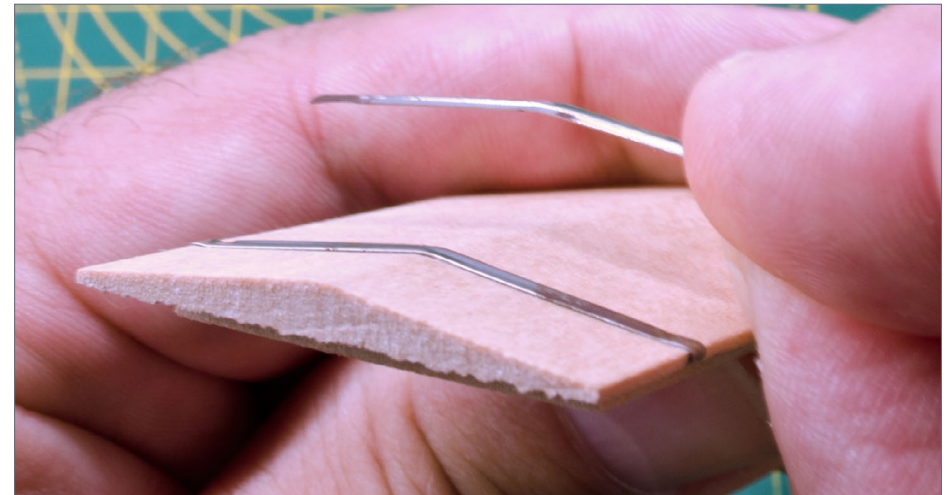
I usually start with the roof where the main tasks are adding seam caps, latitudinal running boards, and the main running board. The methods of simulating the roof seam caps have changed over the years [12]. The first job is to mark the seam cap locations [13]. If you have a scale drawing it's a simple job, but with our sample kit we must work out the spacing based on the number of caps and clearance needed for the latitudinal running boards.



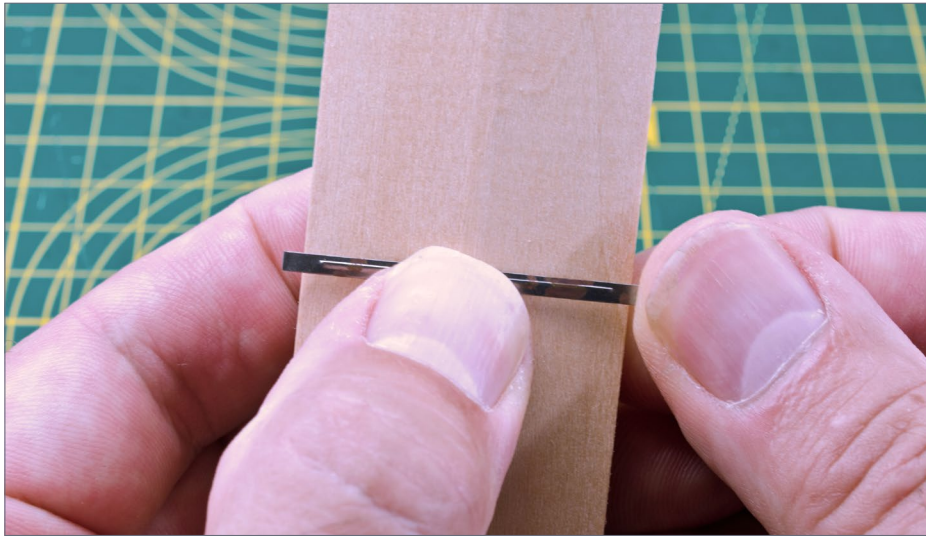
12. These models have three different seam cap types. From the right, inverted “T”-section lumber, stamped/embossed sheet, and cast parts. Note the differing qualities of car end castings. The oldest from a Con-Cor kit, is on the right. The center one is Silver Streak from around 1976, while the left car has a Silver Streak end from 1978. That end casting is showing signs of mold wear, but the brake wheel and coupler pocket are upgraded from the 1976 version.



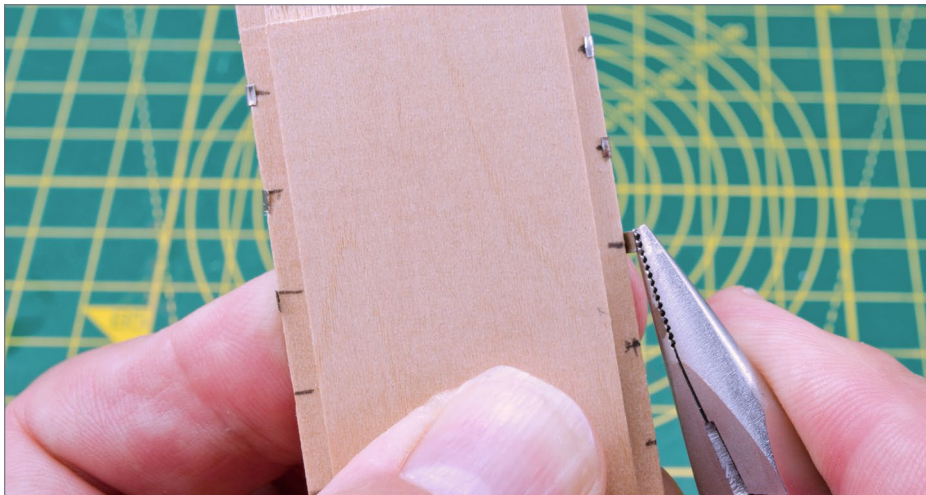
13. A typical HO seam cap spacing is 10mm. Find the center of the roof and then mark out from that point. I mark the underside of the roof to make it easier when installing the seam caps. Beyond the roof you can see the stamped seam cap parts. I've cut off one joining end with scissors to prep for this step. These are the trickiest parts to fit. The following images illustrate my techniques.



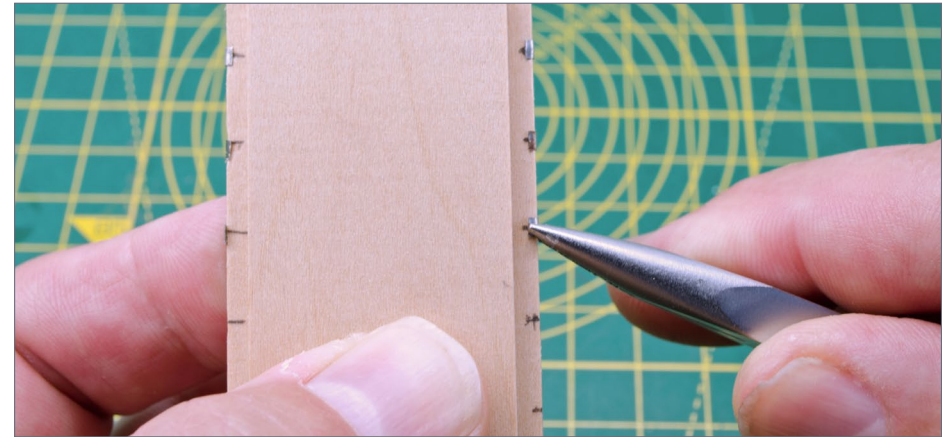
14. Slightly bend in the middle of the seam cap to match the pitch of the roof.



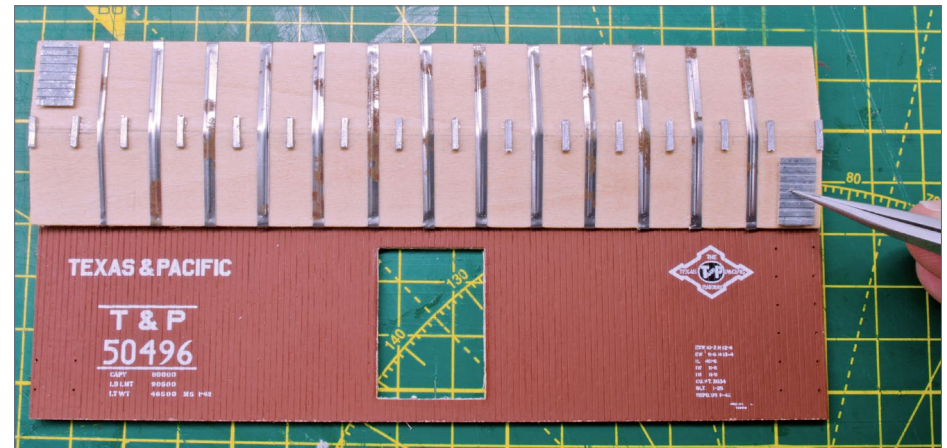
15. Center the cap on the roof by gently rocking from left to right to ensure each end has an equal overlap.



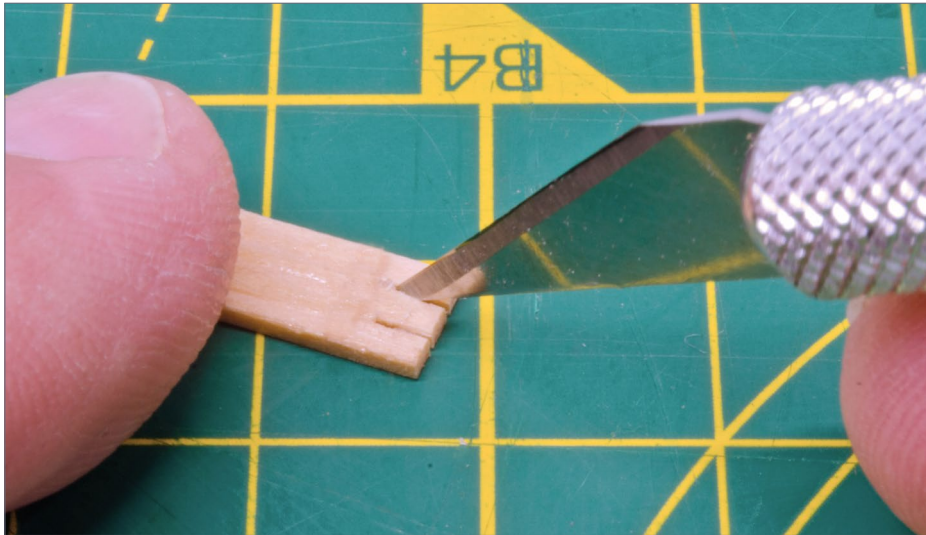
16. While firmly holding the cap, bend the end over the edge of the roof using the tip of your pliers. Do this on both sides to keep the seam cap correctly located for the next step.



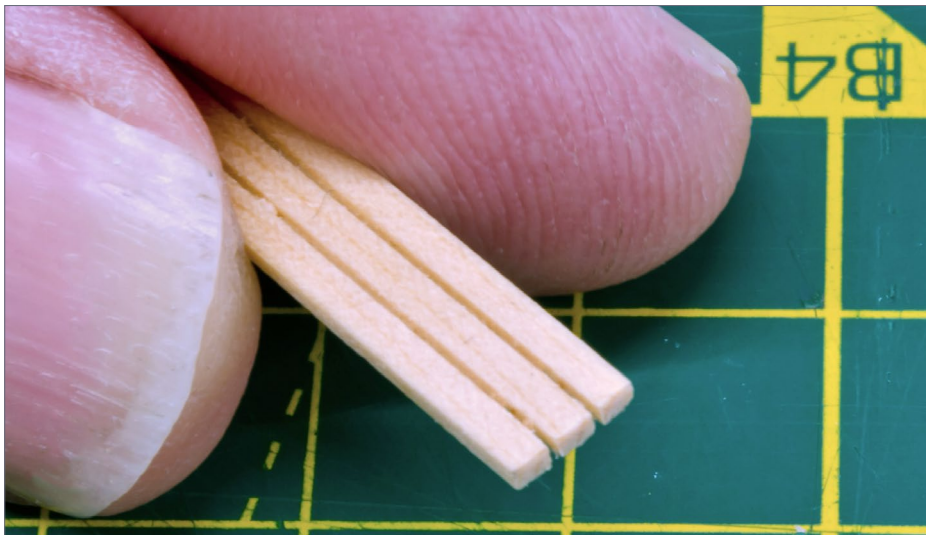
17. When in proper position, push over the end of the cap and nip gently with pliers. Repeat on the other side.



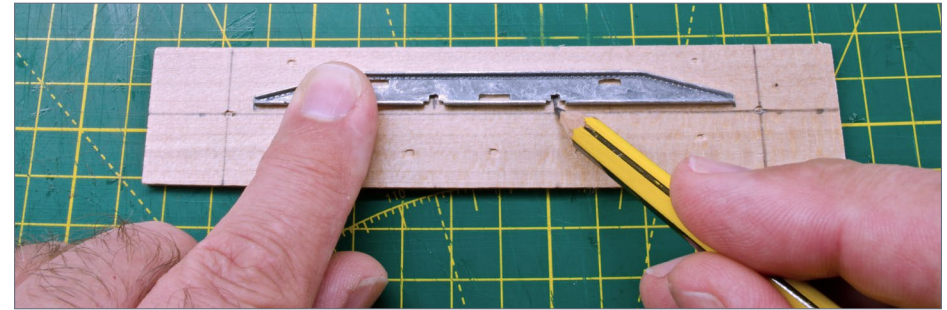
18. I used tweezers to place the running board supports. Fit the end supports first and let the glue set. Then add the others by dipping each support in a little white glue and placing on the roof. Use a straightedge to line them all up. To assist in accurately locating the latitudinal running boards at the corners of the roof, use a box car side and line up the part with the grab iron holes as shown.



19. I use the back of a craft knife to open the planks at the ends of the pre-milled running board. Work on this from both top and bottom.



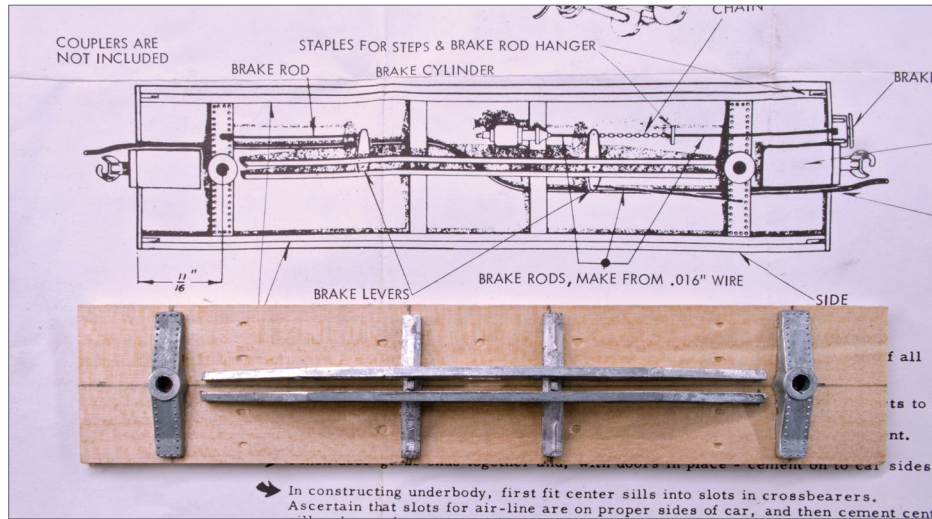
20. The result is a much better impression of separate planks.



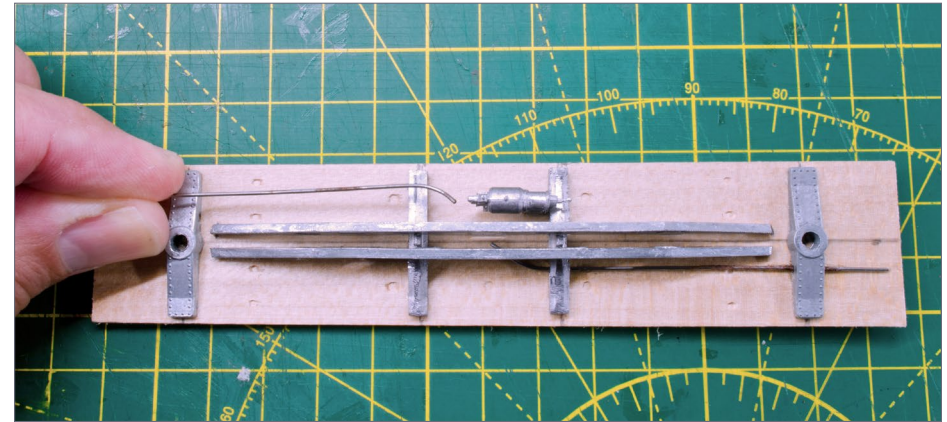
21. On the underframe, I use a pencil and ruler to mark the floor center line and bolster positions. Most kits give the dimension between body end and bolster location. I use the center sill as a template to mark roughly where the cross bearers will go.

**Did you know
there's an
MRH/RE index
available?**

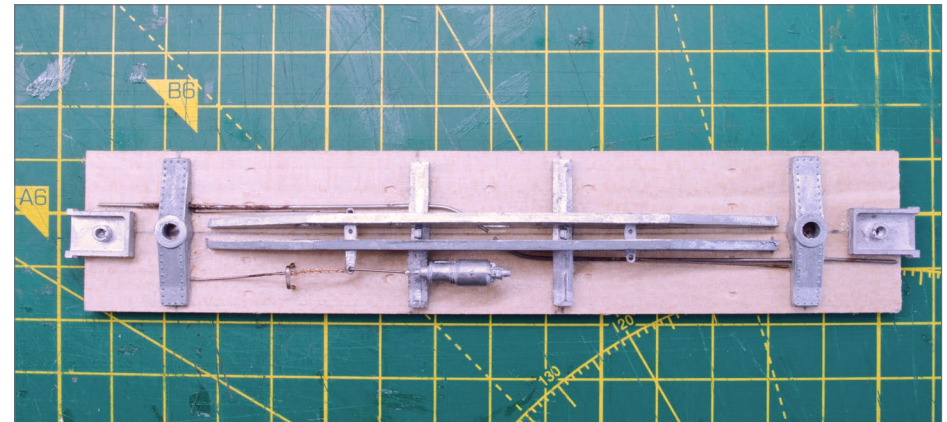
CLICK TO FIND OUT MORE



22. I use the plan in the instructions to confirm the holes in the center sill, cross bearers, and bolsters match the brake pipe location. It's easy to get it wrong! I cemented the truck bolsters in place, followed by the center sill and cross members as a single assembly. Most instructions recommend sub-assembling the center sill and then fitting it to the floor. I think it's better to use a slow-setting adhesive and glue the whole assembly in place at one go. It's easier to confirm that everything is square and lines up before the glue dries. Measuring is important, but never underestimate the accuracy of your own eyes. If it looks out of line even though you measured it, then move things until they look right.



23. On the prototype, the air brake pipe runs from one end of the car to the other, crossing the center sill near the middle. I installed it as two pieces, which is much simpler. The break in the crossover is hidden by the center sill castings.



24. Next I install the brake casting, brake rods, and coupler boxes. Note the coupler boxes are spaced from the ends of the underframe to allow for the thickness of the body end castings. If you build your floor first, you need to take this into account.

TRUCKS

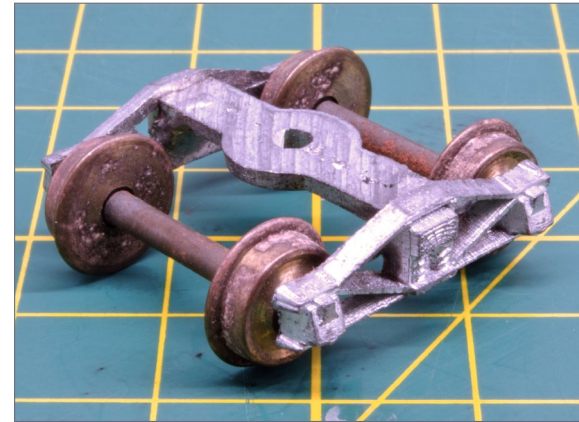
Kits often leave the choice of trucks up to the builder, a sensible approach in my opinion. For the record, I like Kadees. Some people don't find them free-running enough. But I run short trains, and



25. Brake chain can be difficult to handle, so I stiffen it by running a small amount of CA down the links. When cured, the CA allows a degree of movement so the chain can be curved.



26. Here a piece of the CA stiffened chain has been curved to represent the sag on the brake actuator linkage.



27. This is a very early truck from a Red Ball kit. Other than for demonstrating kit historical accuracy, I can think of no reason to use these. They are badly detailed, corroded, rough-running, and due to being hand soldered, sometimes

misaligned. It's best to avoid some of the original kit trucks!

this isn't an issue. I like the prototypical feel of an "all metal" truck. Casting detail on the wheels is also excellent, and they take paint and weathering very well.

Many kits include trucks, and on older models this is a bit of a lottery. Some will be nothing short of hideous and are not worth saving [27]. Many will be plastic, and although they run well, you might want to consider total replacement, or at least replacing the wheel sets [28]. Plastic wheels collect dirt and "gunk-up" fast. If you are happy doing regular maintenance then this won't be a problem, but those plastic wheels are never going to look as good as metal.

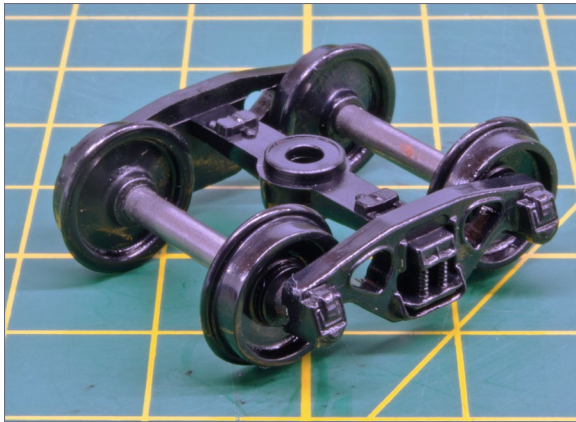
Metal sprung trucks are OK, but early flanges can be oversize. Corrosion can also be an issue and if the wheels are corroded, it's best to discard them. Again, wheel set replacement is an option for long-term use.

I have found some early metal trucks are prone to short circuiting. Replacement wheelsets can help, failing that send them to the trash. Whether you keep the originals or buy new, give every truck a full health check before use. Wheels must be round and concentric,

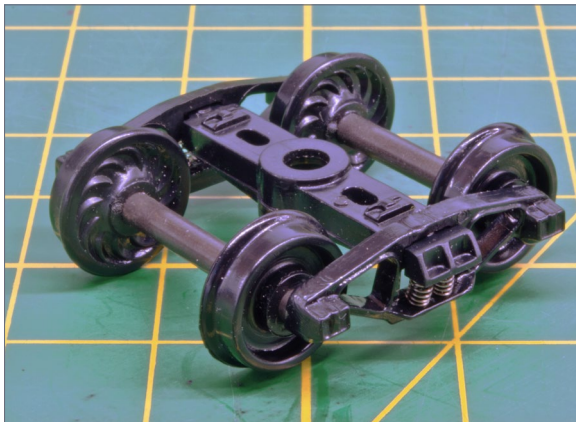
gauged correctly, axles straight, smooth needle-point axle ends, no flash binding anything, straight and true-running, with bolster bearing surfaces smooth and square.

[28] through [32] show a representative sampling of trucks from kits in my collection.

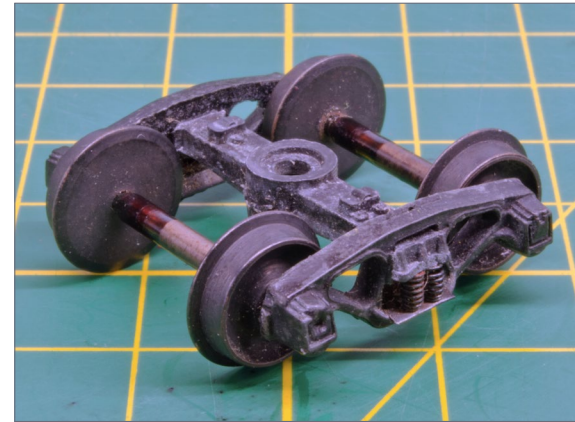
Next month we will look at couplers, complete the box car construction, and get them painted and weathered. ☑



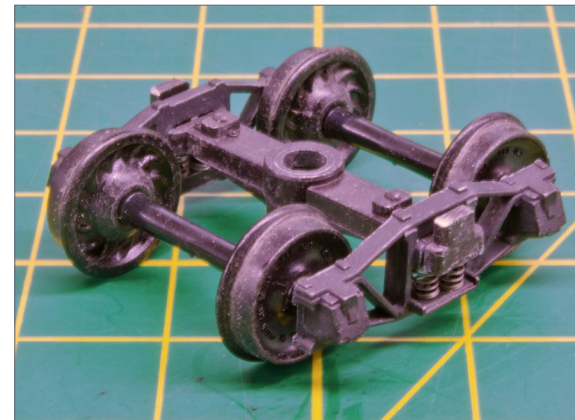
28. A standard Silver Streak truck which is reasonably free-running, but sparsely detailed and over time will suffer from "wheel gunk."



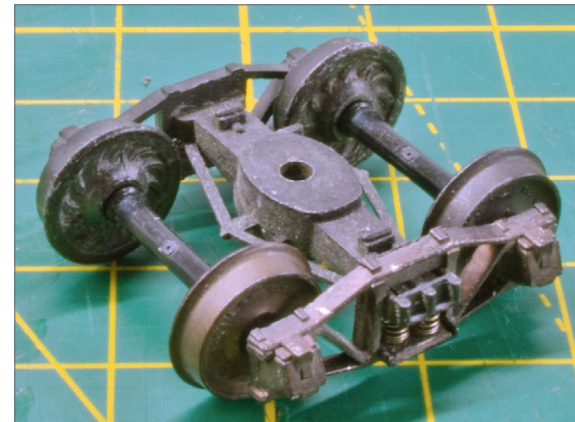
29. This plastic truck came from a "Deluxe" Silver Streak kit and features working springs and cast ribbing on the reverse of the wheels.



30. Here's an all-metal design, but with "cheese cutter" or "pizza cutter" flanges, flat-back wheels, and marginal free-running capabilities. I think this came from a Central Valley kit.



31. An earlier, all-metal Kadee arch-bar truck.



32. A modern Kadee arch-bar truck with improved detailing. As already stated in the text, this is my favorite.



Weathering a modern boxcar

NICK CAMPBELL *shares his tricks for modeling realistic weathering ...*

1. The final weathered model. That's right, this is a photo of the *model*!

MRHMAG.COM

 **REGISTER**
(free)

 **SUBSCRIBE**

[INDEX](#)

[TABLE OF CONTENTS](#)



RATE THIS ARTICLE

IN THIS ARTICLE I WILL SHOW HOW TO WEATHER a boxcar, from that crusty roof to the unusual red-painted trucks.

LOOK AT PROTOTYPE REFERENCE PHOTOS

The first step is always acquiring prototype photos to use as reference material. For this model, I captured the prototype just outside of downtown Nashville, Tennessee. Here it is in all its faded, rusted, patched glory [2].

PREPARE AN APPROPRIATE MODEL

I'm using an Intermountain model for this weathering project. The Intermountain model accurately represents this freight car.

The only modifications were to replace the wheels with .088" semi-scale wheels, Sergeant couplers and a little additional undercarriage detail. A couple of details on the doors were incorrect but to correct them I would have had to scratchbuild completely new doors – and I simply did not feel like going through that torture. Here is a photo of the model the way it came from the factory [3].

After taking that photo I submerged the model in 91% isopropyl alcohol for a few days to strip the factory paint.

WEATHER THE TRUCKS AND THE WHEELS

Usually I start work with the trucks/wheels. The first thing to do is wash everything thoroughly with mildly soapy water and let it fully dry.



2a, b. Photos of the prototype for this weathering project. For realistic results, every weathering project must start with prototype reference photos.

WEATHERING A MODERN BOXCAR | 5

In the following series of photos, you will see the weathering process I use.

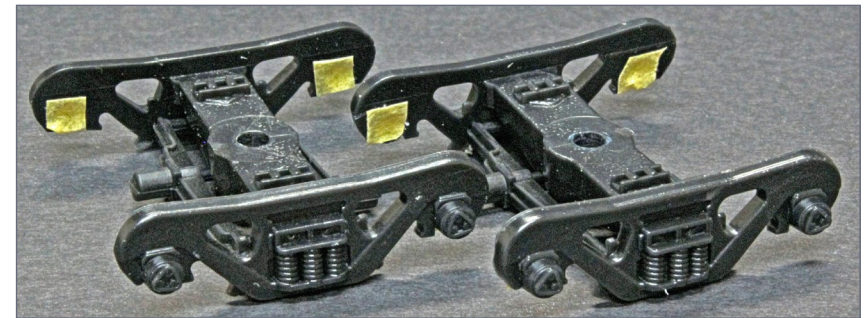


3. Intermountain Pullman Standard 5277 cu. ft. exterior post boxcar used for this project.

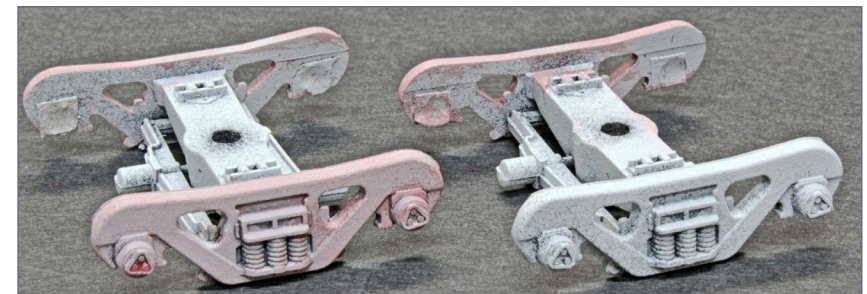


4. Boxcar in [3] with the paint stripped by soaking several days in 91% isopropyl alcohol.

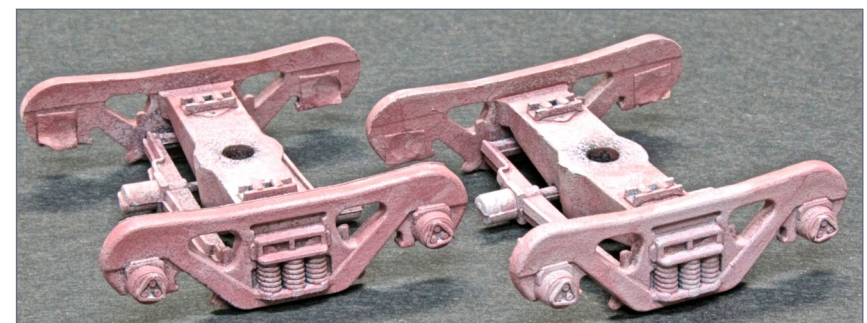
WEATHERING A MODERN BOXCAR | 6



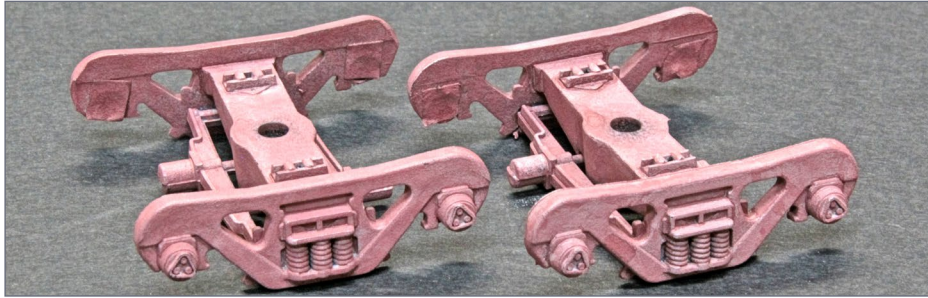
5. Mask the trucks' wheel-bearing conical holes to protect them from being compromised with paint or weathering deposits.



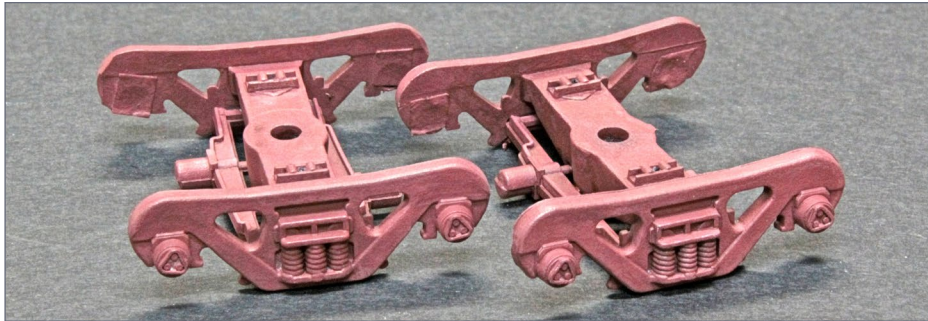
6. Paint the trucks a light gray color. I used spray can Rustoleum Auto Primer in light gray for this.



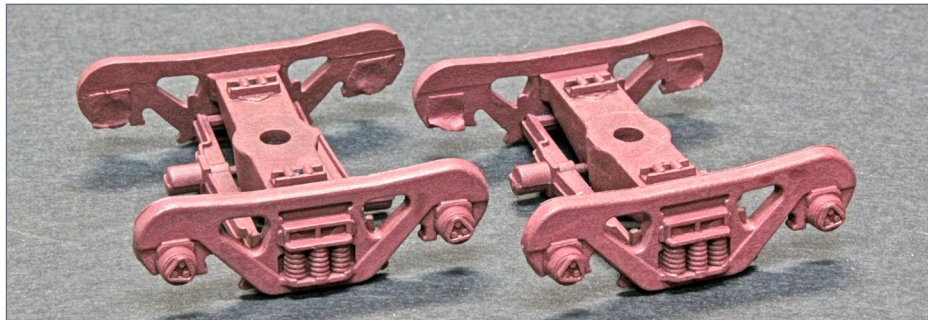
7. Apply maroon washes with a brush allowing to dry between each application. Heavily thinned, inexpensive craft paint was used for this.



8. This is maroon wash number two, which I then allowed to dry completely. The most realistic weathering comes when you build it up slowly using lots of layers.



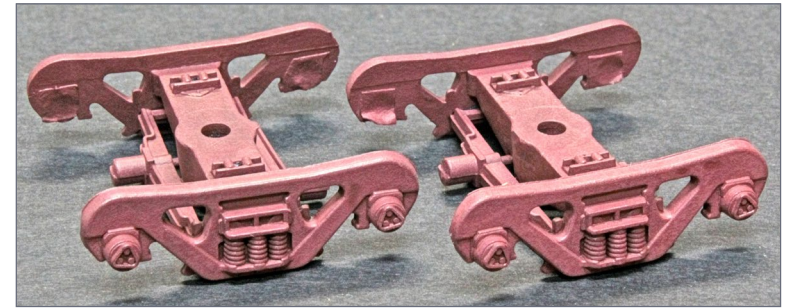
9. Maroon wash number three, which I again allowed to dry before proceeding.



10. Maroon wash number four. The truck color now looks about right.

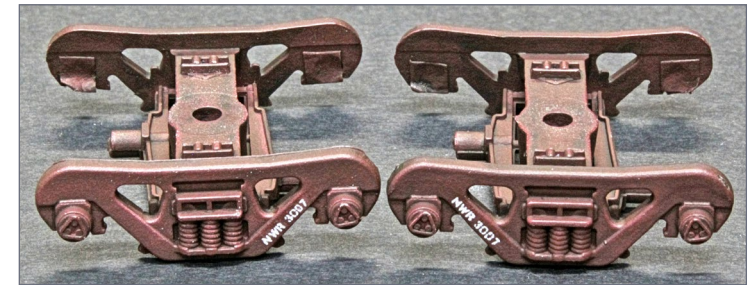
11. Next I added a heavily thinned wash of burnt umber craft

acrylic with a brush. Again, note the slow buildup of weathering using multiple layers.

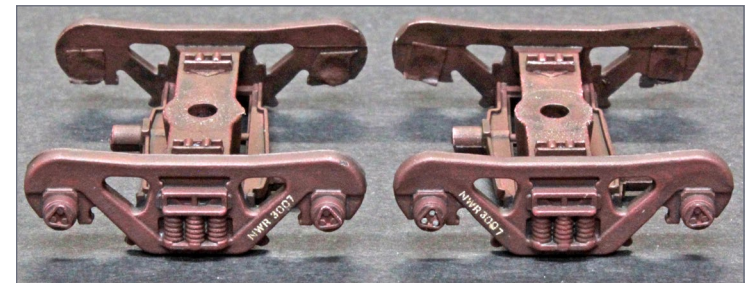


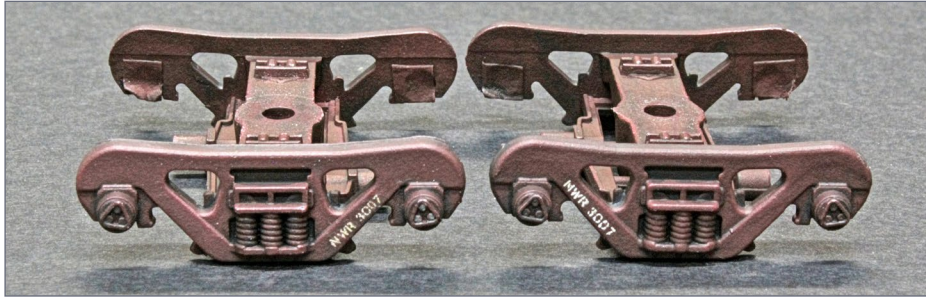
12. After the trucks reached what I judged to be the correct color (more on

that later), I added heavily thinned washes of burnt umber alternating with heavily thinned washes of black. At a point in this process I added the reporting marks. N-scale decals were used because they are sized better for this purpose than HO scale ones.



13. A heavily thinned wash of black craft acrylic was applied with a brush and then allowed to dry completely.

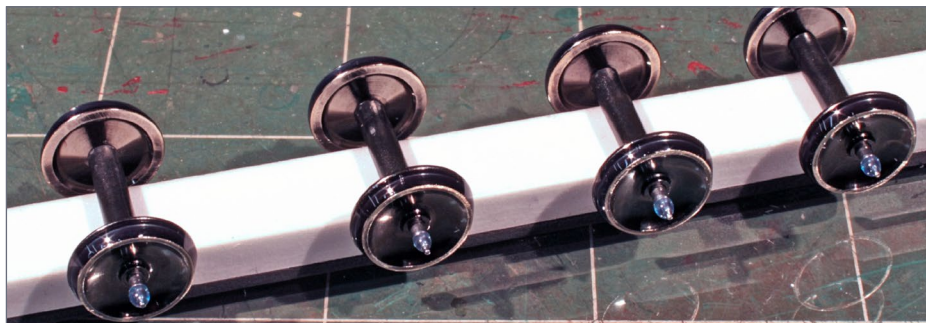




14. I applied a final wash layer of black.



15. I lightly sand the wheel faces with 800 grit sandpaper for better paint adhesion.



16. Next, I applied Microscale Micro Mask to the wheel treads and to the axle tips to protect them from being fouled with paint and weathering.



17. I painted the wheels with spray can dark gray Rustoleum auto primer. Followed by a wash of heavily thinned burnt umber acrylic.



18. More washes of the same thinned burnt umber drying thoroughly between each application.



19. A very thinned gray craft acrylic was used to give texture here.



20. Finally, add a “mud splatter” wash done with a craft acrylic color named Territorial Beige.



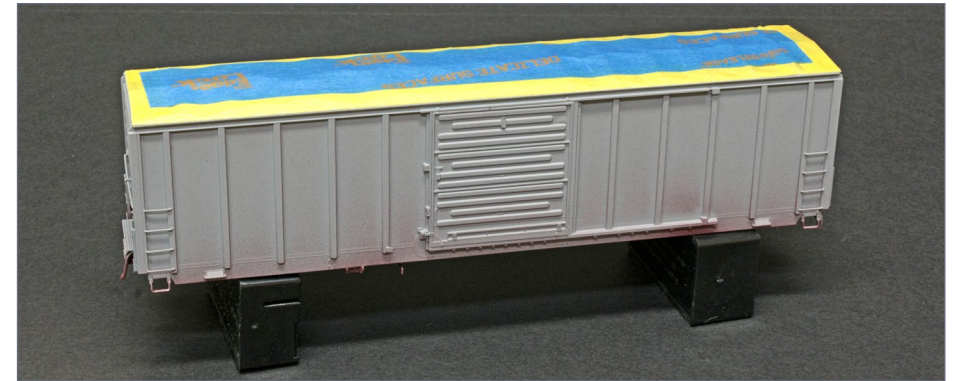
21. The completed trucks and wheels – I later realized the truck color was off a bit, so I adjusted it (more on that coming up).

**Please tell
your buddies
about us!**

WE RELY ON WORD-OF-MOUTH TO GROW
AND A BIGGER CIRCULATION MEANS WE'RE
MORE LIKELY TO STICK AROUND FOR A LONG
TIME TO COME!



PAINT THE BOXCAR BODY



22. Time to move on to the car body. I painted the entire car body with Tamiya light gray primer from a spray can. Then I masked the roof to prepare for painting the sides and the ends. I like Tamiya masking tape for the edges because it seals extremely well. I filled in the middle with blue painters tape because it's less costly. You may see a bit of body color overspray along the bottom of the car – I had already painted the car bottom!



23. Using an airbrush, I painted my car boxcar red using PollyScale Wisconsin Central Maroon.



J. Fugate

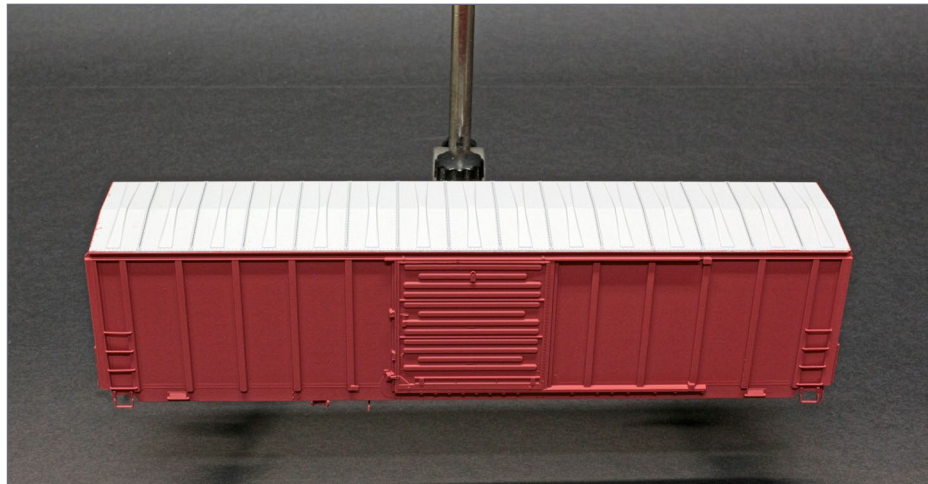
POLLYSCALE PAINT ALTERNATIVE

PollyScale paints are getting hard to find, so check the "MRH Acrylic Painting Guide" color conversion charts (free eBook for registered MRH readers [model-railroad-hobbyist.com/subscribers-only/painting/acrylics]). There are color formulas for a CN Mineral Red that looks similar to this color. Here's the formula for that color using these three popular acrylic model paints:

Model Master Acrylic:
2pt Box Car Red (4881)
1pt Oxide Red (4882)

Vallejo Model Air:
2pt RLM Brown (71.105)
1pt Medium Brown (71.038)

Model flex:
CN Red (16-163)



24. Once the paint dried, I removed the masking from the roof.

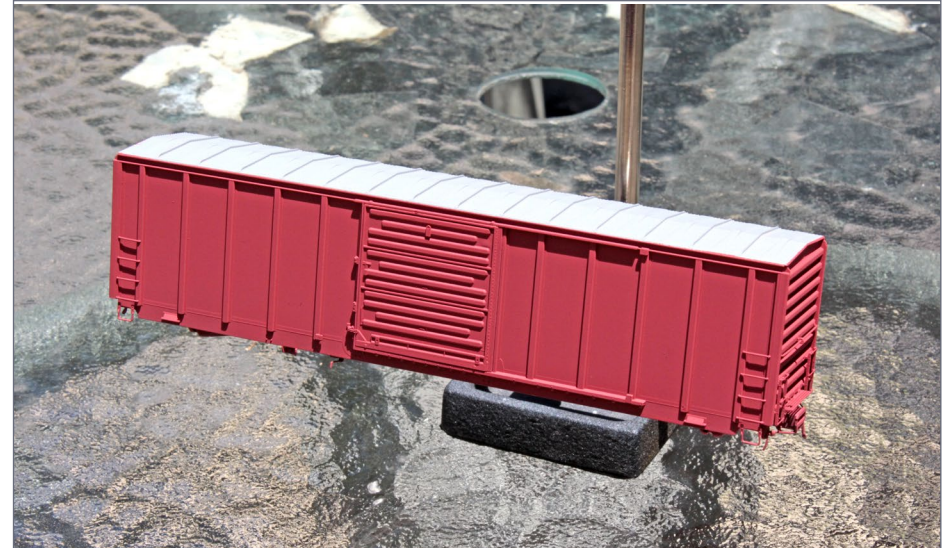
Once I did the outdoor color test, I realized that although the boxcar was close in color to the prototype, the trucks were not.

Therefore, I used the same paint I had used on the car to repaint the trucks. I cleaned the new paint off the reporting marks with a sharpened, damp toothpick.

With the truck color snafu corrected, on to that beautifully hideous roof!

WEATHER THE ROOF

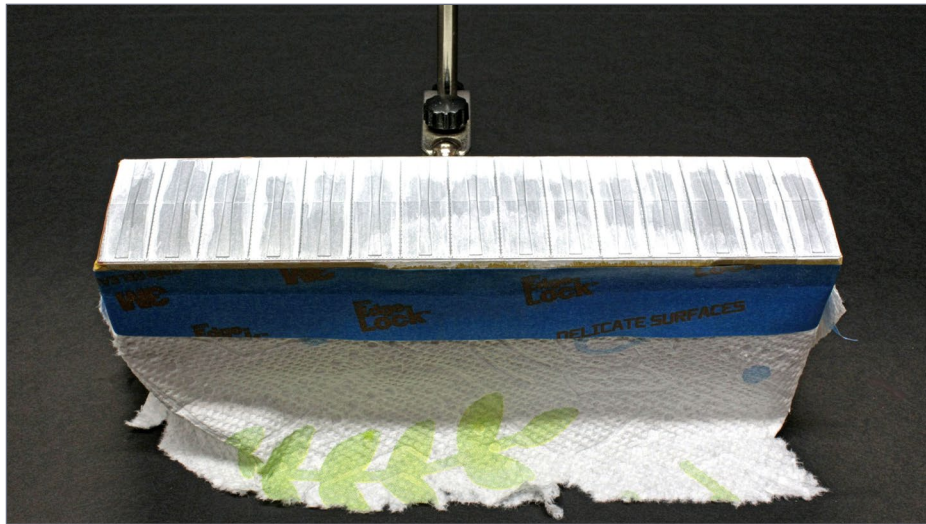
Here is the process I used to replicate the look of this rusty roof. If you study the proto photograph, the gray primer areas showing through look to be a very light gray. The primer I used was a slight bit darker so I added a few washes of highly thinned craft acrylic white paint to the areas that would show.



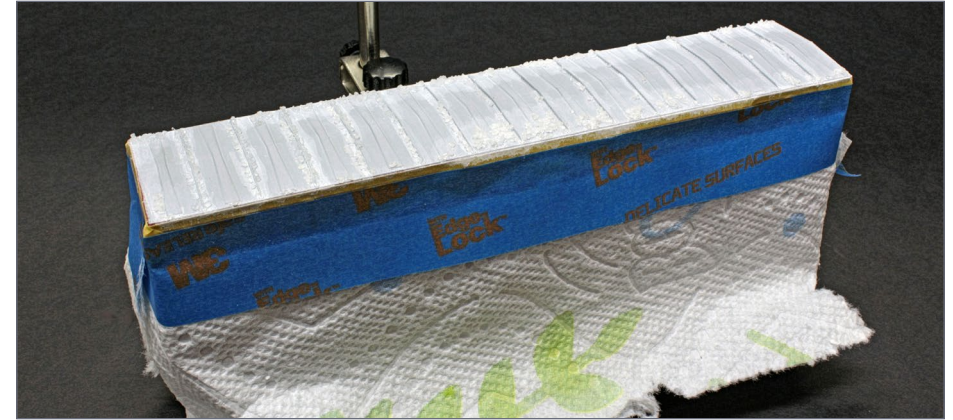
25. Then I took the car outside to do a "color test" in the sunlight.



26. I masked the car body using Tamiya masking tape along the edge, and then blue painters tape and paper towel to mask the rest of the car.



27. Acrylic craft paint whitewash, three passes. I thinned the white paint heavily, focusing mainly on the ribs with my wash. I applied three different passes of this wash, letting the wash dry completely before making another pass.



28. After correcting the slightly darker roof color, I added salt for doing a chipping effect. I added drops of water along the ribs and roof edges in preparation for adding salt granules. After getting the water droplets along the roof where I wanted them, I added salt to the roof and then let it dry thoroughly. See [29] for exactly where I applied the salt.



J. Fugate

Rust

You can also use the "MRH Acrylic Painting Guide" color conversion charts (free eBook for registered MRH readers [model-railroad-hobbyist.com/subscribers-only/painting/acrylics]), to get the model paints that will give you a deep orange rust color:

Model Master Acrylic:
Rust (4765)

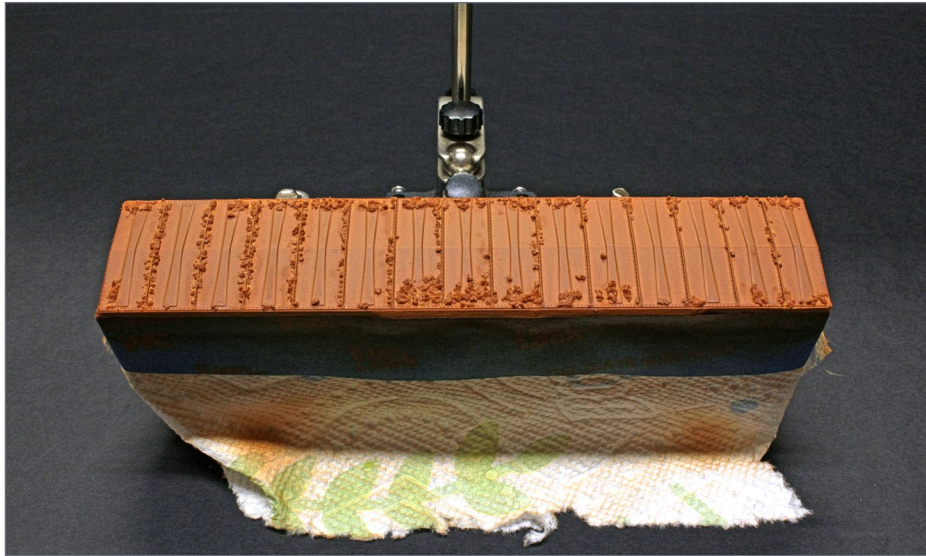
Vallejo Model Air:
Mud Brown (71.037)

Modelflex:
Rust (16-172)



WEATHERING WITH SALT

After the salt had dried overnight I airbrushed on the initial rust color. You can now clearly see where the salt was applied.



29. Once the salt had thoroughly dried, I applied thinned Spiced Carrot craft paint as an underlying rust color with an airbrush. Do not use a bristle brush as it will knock off the salt.

**Please include a
phone number when
contacting MRH**
(in case your spam filters
eat our email response)



30. After the first coat of rust paint had dried thoroughly, I sprayed a layer of hairspray over it. This was so the next layer of rust color could be removed strategically and create a subtle effect. After the hairspray set up, I airbrushed on a slightly darker rust color made by adding just a smidgen of black to the first rust color. Don't add much black – you just want to darken the rust color with an ever-so-slightly darker layer.



31. I gently scraped off the salt and then used a short, stubby brush and warm water to gently scrub off the paint over the hair-spray, leaving a two-tone rust effect as shown here. Remember, it's all about building up the weathering effects with several subtle layers – that's how you get the most realistic weathering.

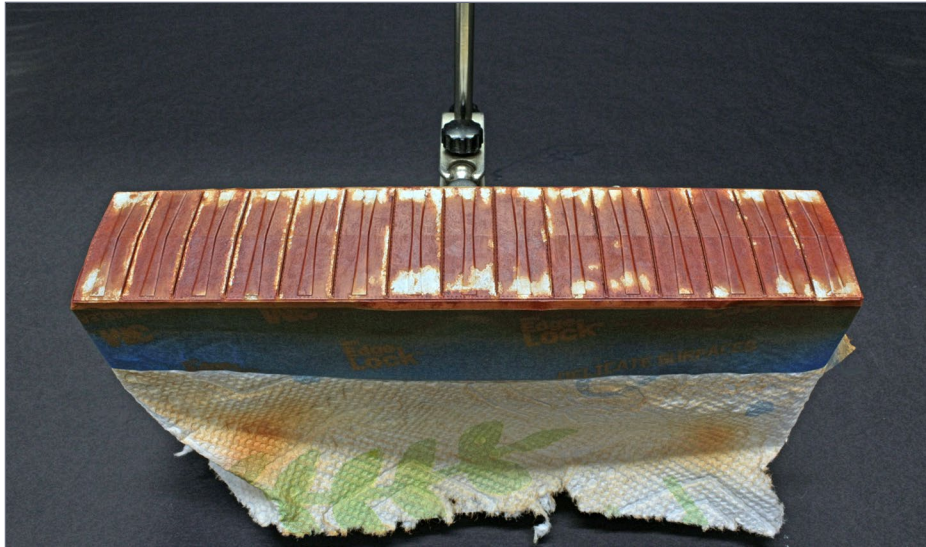


J. Fugate

ALMOST DRY-BRUSHING PAINT

Put some oil paint straight on a piece of paper towel, then dip the brush tip into the paint and wipe the brush on the paper towel until much of the paint is gone – however, leave more paint than you would with ordinary dry brushing. Now brush that paint onto the model, applying a thin streaky coat of paint still allowing some of the color underneath to show through.

With this technique, you're using more paint than with ordinary dry-brushing, but you're still not completely covering up the color underneath. You're applying the artists oil paint straight, unthinned. Think of it as "heavy dry-brushing" if you like.



32. Next, I darkened the roof rust using an almost dry-brushed application of Burnt Umber oil paint. I dry-brushed the paint on just enough to darken the "rust" in areas adding depth.

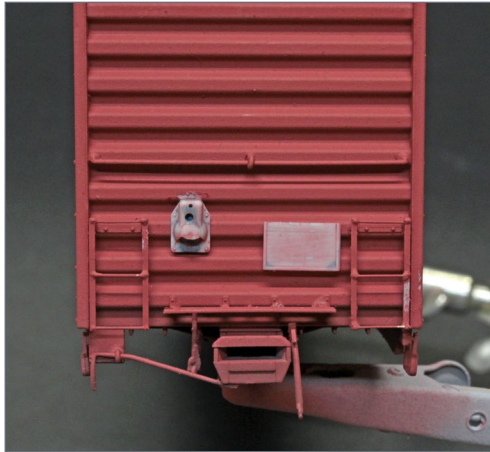


33. At this point I felt the brown rust needed some red added to it, so I applied some Van Dyke Red acrylic, highly thinned, to the rust areas.



34. After this, I mixed a purple using a bit of red and blue craft paint, then thinned it heavily with water and applied that to the roof to get the result you see here. I felt the roof needed a more of a purple tint. Later, I decided I may have overdone it a bit.

DETAIL TOUCH-UP



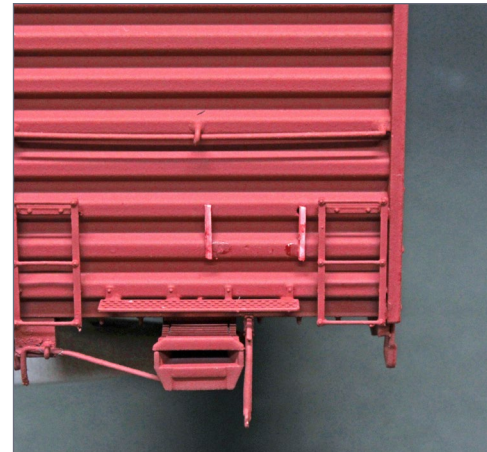
35. At this point I added back a few details to the car body. I added the brake wheel housing and tackboard to the B end of the car.



36. I used a bit of the box car body color and hand painted the brake wheel housing and the bracket edges of the tackboard. I touched up a couple bare spots around the ladders in [42]. I applied a light gray paint on the crossover platforms, being careful to not clog the tiny mesh holes of the platform with paint.

Please include a phone number when emailing us if you need a reply!

(Just in case your spam filters eat our email response ...)



Tell your friends about Running Extra!

We depend on word-of-mouth to grow ... if you don't share us, we don't grow

37, 38. The tackboards were missing in a couple of spots on the prototype, so I cut styrene to represent these frames and then painted them to match.



DECALING THE CAR

I painted on some Pledge Floor Gloss (Original) with a brush to give a gloss coat for the decals. Then I added the decals. For more on Pledge Floor Gloss, see this issue's Ah-Hah Moment.



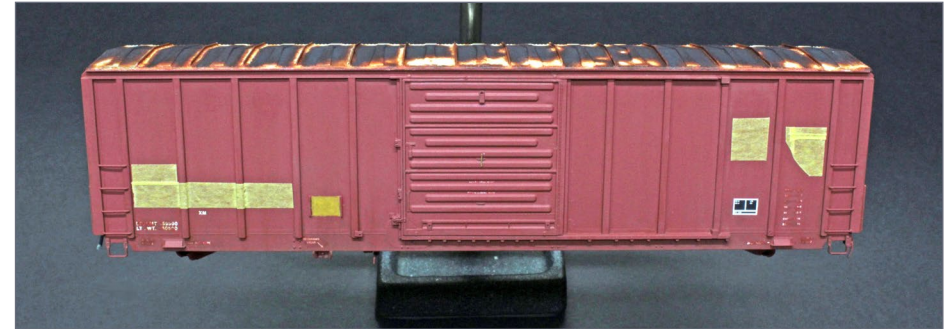
39. I painted some Pledge Floor Gloss onto the model and then applied these decals.



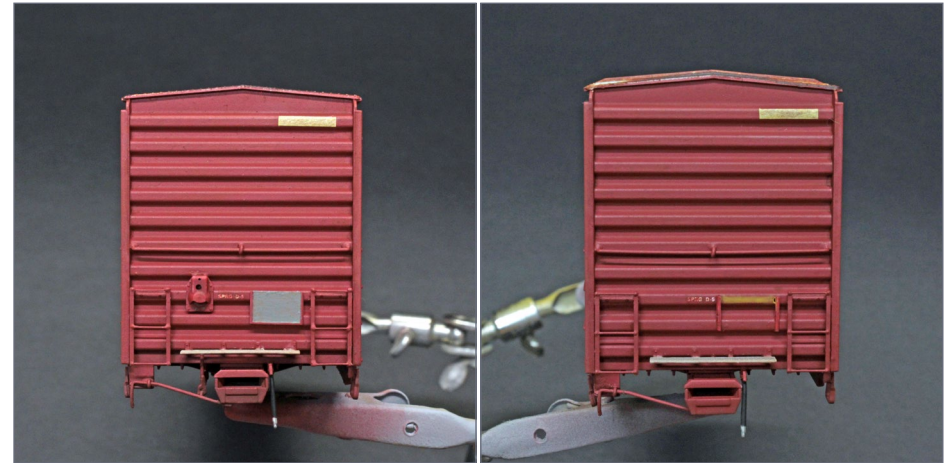
40. Here is a photo of my progress thus far. If you compare this photo [40] to the prototype photo [2] you can see I went too dark with the roof color. I decided to go with it anyway instead of stripping it and starting over.

WEATHER THE CAR BODY

At this point the model is ready for masking to create the slightly different hues around the patches and herald.



41. I used Tamiya masking tape to mask patch spots on the car.



42, 43. Masking on the B end of the car [left] and the A end [right].

★★★★★
RATE THIS ARTICLE



44. The next step I took was to paint in the Railbox yellow that was covered by the tack-boards and the remaining colors of the faded ACI tag. I used some blue and purple craft paint and a fine-tip brush to paint in the outline of a faded ACI label.

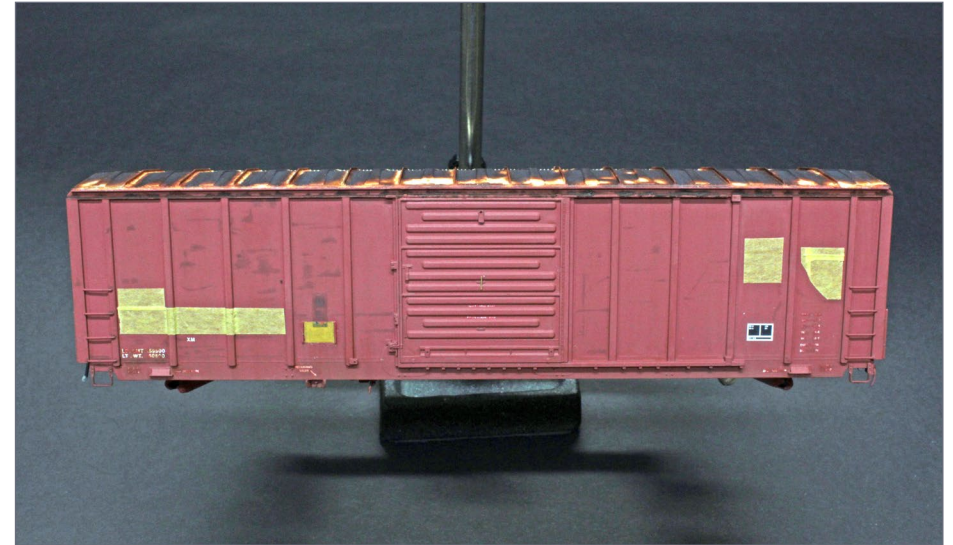


45. I painted some Burnt Umber artists acrylic (thinned with water), followed by some Van Dyke Red artist acrylic (also thinned) in blotches along the top channel of the boxcar to dirty it up.

BRUISING

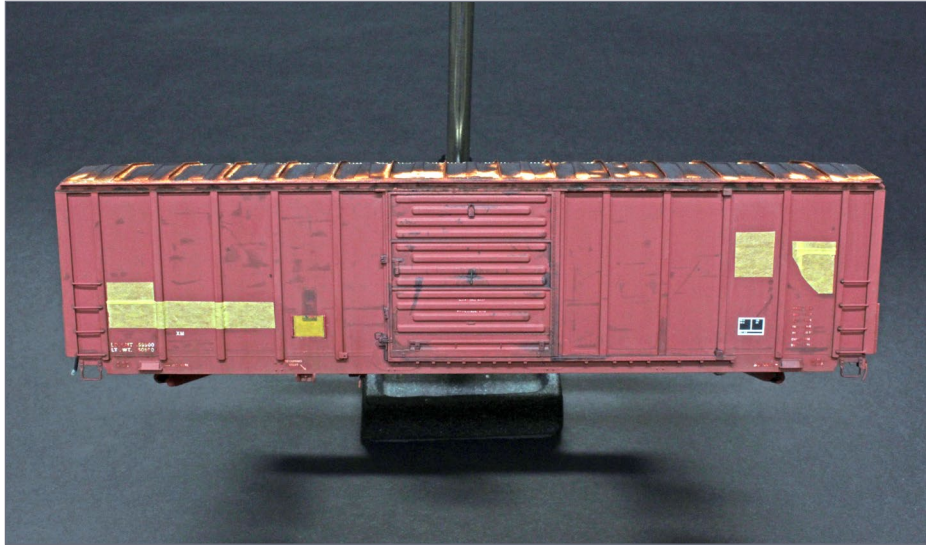
On the prototype there are a lot of what almost look like bruises. You can't see much in the way of rust or grime except just a shadowy hint of rusting/grime. I thought the best way to approach this would be to use a very heavily thinned color (I chose a dark blue craft acrylic) and apply that.

As a side note, I chose to use a dark blue for the "bruises" because you can see a purple tint on these areas of the prototype. My thought was blue used on top of the red base paint would give the purple effect.

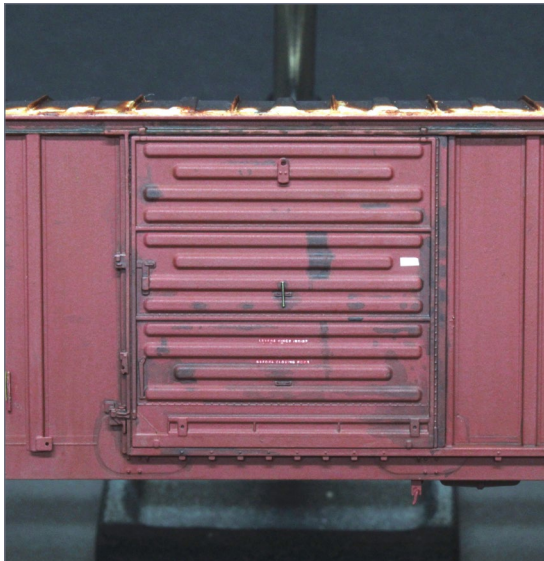


46. I applied a number of "paint bruises" to the car side using Admiral Blue craft acrylic, added in tiny streaks (following the prototype photo) with a fine-tip brush.

★★★★★
RATE THIS ARTICLE



47. After applying the "bruise streaks," I took a damp cotton swab and gently wiped the bruises to ever-so-slightly ease and soften them. Use a very light hand. Compare this to [46].



48. Bruises around the door.



49. Bruises on the other side of the car before "easing."



50. Bruises after "easing and softening."

FILTERS

The following series of photos show the additional fade washes being applied. These washes are probably considered “filters” because they are so highly thinned using inexpensive craft acrylics again.



51. Next, I applied a purple fading wash to the car using a very thinned Lilac Blossom craft paint. Allow that to dry completely before proceeding.



52. Then I applied a very thin wash of orange Spiced Carrot craft paint.

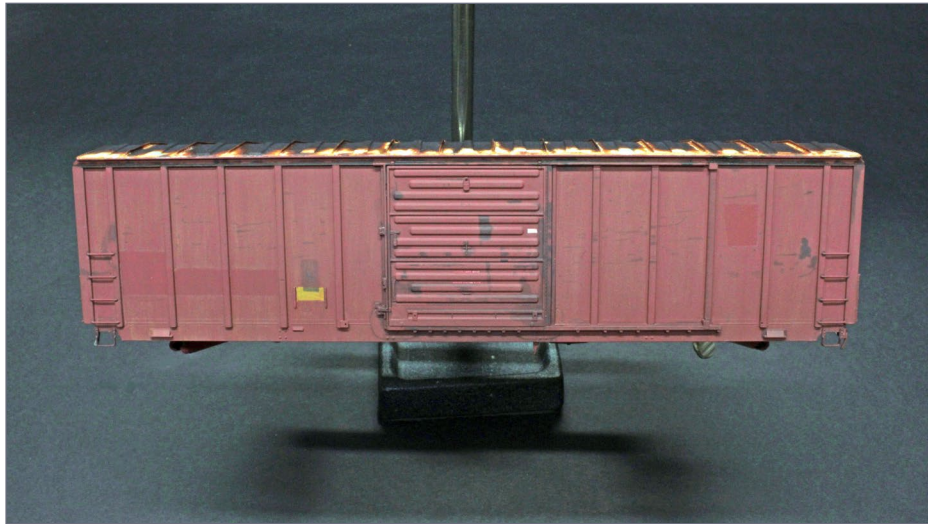


53. After the orange wash had dried completely, I added a heavily thinned wash of Burnt Umber artists acrylic.

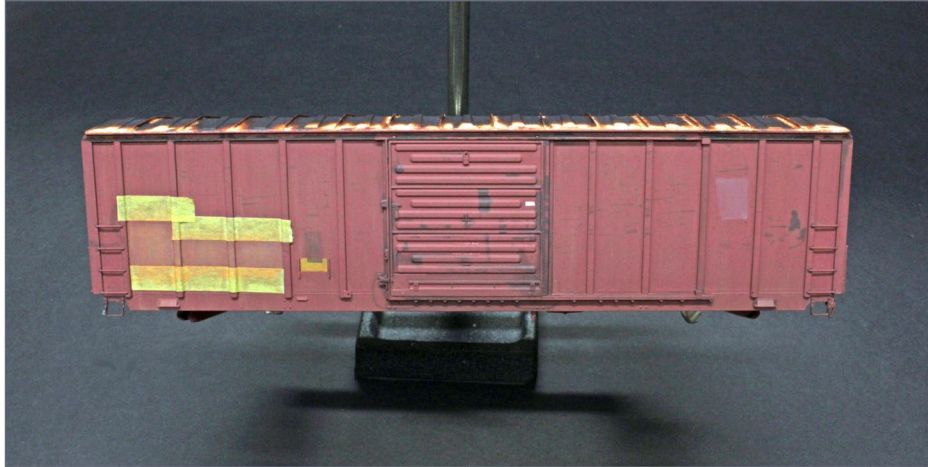


54. Finally, I added one more purple wash, let that dry, and then added one more orange wash. Here is the result. Remember, the most realistic weathering comes from using lots of subtle color layers!

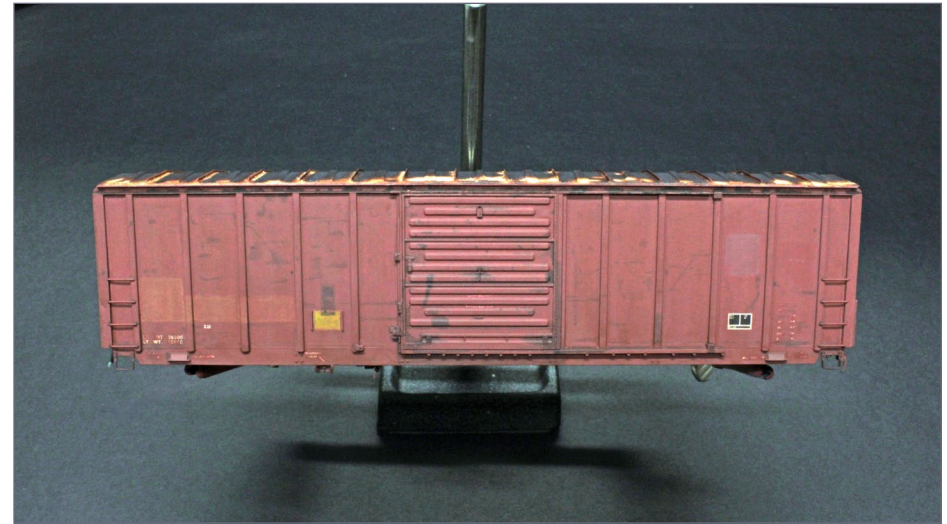
★★★★★
RATE THIS ARTICLE



55. At this point, I removed the masking to expose the patched areas.



56. I found the patch areas to be too dark, so I masked the edges of each patched area off with Tamiya masking tape and then used highly thinned washes of Orchid and Spice Carrot orange craft paint to lighten the patches.



57. Once I had finished lightening the patched areas, I applied a couple of lighter washes of Burnt Umber acrylic, letting the wash dry fully between each application.



58. I applied number decals over the end patches, then applied several wash layers. First I applied a very thin wash of the car body base color, followed by an Orchid wash, then a Burnt Umber wash, letting each wash layer dry completely before adding another. This is the result.



59. I painted the tackboards with gray paint but didn't like how they looked, so I scraped the paint off with a sharp X-Acto blade.



60. I elected to use real wood for the tackboards. Using 800-grit sandpaper, I sanded a piece of scale basswood lumber into very thin strips.



61. I then primed the wood (using gray Rustoleum auto primer from a rattle can) and applied several washes of highly thinned black acrylic craft paint to create a weathered, worn wood look. After that I glued the wood tackboards on with some very sparing drops of CA superglue. See the B end tackboard above, and also see [69] for the broken tackboard on the A end of the car.



GRIME ON THE ENDS

At this point I chose a medium I rarely use to apply the grime that settles on top of the horizontal end ribs – pastel chalk.

I use an X-Acto blade to gently scrape the chalk and create a small pile of chalk dust. I combined a black and a brown chalk to get a dark brown, then applied it with a very small snub nose brush.



62. I applied black-brown chalk dust along the tops of the end ribs to simulate the grime that settles there.



63. After applying the grime on top of the ribs, I used some of the same chalk dust with a larger soft brush to create a grime/dust kick-up on the lower corners of the car ends. Compare to [62].



64. I attacked the sides again, adding more reporting mark decals as well as adding some more patches with thinned washes of black acrylic paint.



ADDING THE GRAFFITI

At this point, it was time to start on the prototype's poorly-executed graffiti. I know opinions vary about adding graffiti, but I prefer to model the car as it really looks, ugly graffiti and all.

I started with a light pencil outline. This way I could get the sizing and shape correct and be able to erase it if needed during the process.

I had to move the brackets that were used to hold the wooden tackboards up a bit. I had originally glued them on too low and didn't realize this until I drew the pencil outline. Moving them meant I had to also re-paint the faded yellow between them.



65. I painted on the base white color in several layers, using a highly thinned white craft acrylic paint and letting it dry between each layer. This is layer one.



66. Here is layer number two.



67. Layer number three.



68. Layer number four.



69. Using thinned dark gray craft acrylic, I started adding the graffiti gray outline.

**Tell your
friends about
Running
Extra!**

**We depend on word-
of-mouth to grow ... if
you don't share us, we
don't grow**





70. There was a small gray square outline on the graffiti that I'm guessing was an old information decal/placard. This needed to be duplicated and had to be sharp-edged and square. I masked the "placard" area with Tamiya yellow masking

tape and carefully painted it using thinned dark gray craft paint with a fine brush. See [71] for the result.

The next series of photos shows the start of adding the white borders on the already white graffiti background. The first step was to use a super thin gray and do a couple of washes over the white. This would enable the white outline to stand out. After that I moved on to adding the blue and gray on the right side tag. Again, I applied several passes of very thin craft acrylic paints.



71. I added a super-thin gray wash along the inside of the graffiti to create some brighter white borders, consistent with the look of the graffiti on the prototype. I used a couple layers of this gray wash so the bright white borders would stand out more.



72. I added blue and gray on the right-side tag using very thinned craft acrylic paint. Again, I built this up in several thinned layers of craft paint.



73. After the progress on the main graffiti it was time to start on the scribbles/line graffiti. I painted the initial lines with craft acrylics (white and black) thinned heavily. I used thinned white to create the downward streaking under the NWR of the reporting marks. You can also see the black (thinned craft acrylics again) that I applied to select ribs.

★★★★★
RATE THIS ARTICLE

To recreate the spray can overspray effect I used white and black oil paint. I dabbed a small amount on cardboard to leech out the carrier oil first. Then I dipped a small nubby brush in the paint and wiped off almost all of it creating a “dry brush.”

I very carefully applied the oil paint to “fuzz up” the edges of the scribble/line graffiti and wiped off any excess with a cotton swab. I would turn the swab after each individual pass as not to smear paint back on itself in the wrong place. See [74] for the result.

For the very faded scribbles/line graffiti I used the very thinned white acrylic craft paint again and painted it on with a fine-tipped brush. Once dried, I used a wet swab and lightly scrubbed it leaving a ghostly remainder, see [75].



74a, b. First, note the scribble overspray I added. The left shows the scribble graffiti before the overspray effect and the right shows the after. I also decided to add the small AEI placard detail below the R. It is the small gray rectangular piece under the “R” on the right. I applied this detail (produced by Detail Associates) to both sides of the car.



75a, b. Initial application of the graffiti on the left, and after scrubbing, on the right.



76. I used the same process for the scribble/line graffiti on both sides, adding overspray and fade. Here is the other side once I was done.

Next, it's time to add the rusting on the graffiti. I used a higher grade artists acrylic for this because I wanted specific colors such as Burnt Umber, Van Dyke Red, and Burnt Sienna. I could not find these specific colors in the craft paints.



77. I simply studied the prototype photos to figure out which of these rust-like artist acrylic colors to apply and in what order. I thinned them heavily with water to apply, and used several very thin layers, building up the effect bit-by-bit.

At this point I added the brake wheel and the chain underneath.

Once I added these details, I coated the model with Testor's Dullcote to seal the model for handling and to give it a consistent matte finish.

Finally, I mounted the trucks/wheels and installed the couplers.

THE COMPLETED MODEL

The following photos show the completed model indoors.



78, 79. I also applied the safety stripe decals at this point to both sides.



80. From the B-end with the sloppy white graffiti along the bottom.





81. Looking at the car from the A end.

**Use our custom
Google search on the
MRH website to find
topics of interest**

[CLICK TO FIND OUT MORE](#)



82. Here the model is on the diorama outdoors under natural sunlight showing the light graffiti side.





83. Heavy graffiti side.



84, 85. A end of the car, and the B end of the car.

**Please tell
your buddies
about us!**

WE RELY ON WORD-OF-MOUTH TO GROW
AND A BIGGER CIRCULATION MEANS WE'RE
MORE LIKELY TO STICK AROUND FOR A LONG
TIME TO COME!



NICK CAMPBELL



As a young boy, there were many times that Nick would accompany his grandfather on various errands. On occasion, he would see a train coming and his Grandpa would pull his truck over to the side of the road. When the train roared by, shaking the truck, it always left an impression on Nick, as did the tuxedo scheme of the Southern Railroad.

Other seeds that were planted were the train sets he received as Christmas gifts from his father. From around 5 until 11 years old this was the gift of all gifts!

After an absence from the hobby during his early adult life, he happened to randomly stop in a hobby shop near where he was living, and the train bug bit again! He was hooked and a trickle of new models (rolling stock/engines) began to find their way to his home, and a layout was started.

During the layout building phase, and a very regular internet search on model railroading questions, he stumbled upon the "Model Trains Weathered" website. Being a visual artist (oils) already, seeing these models being transformed into miniature replicas of reality was fascinating to him. Shortly after "Model Trains Weathered" went away, he found "The Weathering Shop" and its forum "The Rustbucket." Just about every technique he has employed was found on "The Rustbucket." The tutorials and answers to questions about how to accomplish weathering goals have been invaluable. ■



86. Here is a photo of the paints used.

COLOR SELECTION

In the photo [86], the colors used are:

Along the top:

Apple Barrel ADMIRAL BLUE
Apple Barrel SPICED CARROT

Apple Barrel TAPESTRY WINE
Apple Barrel DARK GRAY
DecoArt BLUE LAGOON
Apple Barrel YELLOW
Apple Barrel WHITE
FolkArt BLACK CHERRY
CraftSmart LILAC BLOSSOM
Apple Barrel TERRITORIAL BEIGE
Apple Barrel BLACK

Along the bottom:

Winsor Newton water mixable oil RAW SIENNA
Winsor Newton oil BURNT SIENNA
Liquitex acrylic VAN DYKE RED
Liquitex Heavy Body acrylic BURNT SIENNA
PollyScale WISCONSIN CENTRAL MAROON
Winsor Newton Designer Gouache IVORY BLACK
Liquitex Heavy Body acrylic BURNT UMBER
Winsor Newton oil WHITE
Winsor Newton oil YELLOW OCHRE ☒



**Use our custom
Google search on the
MRH website to find
topics of interest**

CLICK TO FIND OUT MORE



Upgrading boxcar ladders

Running Extra | October 2019



RATE THIS ARTICLE

LESTER BREUER shares techniques to improve freight car details ...

WHEN BUILDING A FREIGHT CAR, I ADD SAFETY appliances to match the prototype. These details are mandated by the Safety Appliance Act of 1893 and amended in 1910 to include ladders. The original Act promoted railroad employee safety and mandated automatic couplers and brakes for rail locomotives and rolling stock. Secure grab irons and hand holds were also mandated but placement was not standardized. The 1910 amendment fine-tuned the original Act.



E. Hansmann

SAFETY APPLIANCES

United States. Safety Appliance Act of April 14, 1910. 61st Congress, 2nd session, ch. 160, 36 Stat. 298

SEC. 2. That on and after July first, nineteen hundred and eleven, it shall be unlawful for any common carrier subject to the provisions of this Act to haul, or permit to be hauled or used on its line any car subject to the provisions of this Act not equipped with appliances provided for in this Act, to wit:

All cars must be equipped with secure sill steps and efficient hand brakes ; all cars requiring secure ladders and secure running boards shall be equipped with such ladders and running boards, and on all cars having ladders shall be equipped with secure hand holds or grab irons on their roofs at the tops of such ladders.

SEC. 3. That within six months from the passage of this Act the Interstate Commerce Commission, after hearing, shall designate the number, dimensions, location, and manner of application of the appliances provided for by section two of this Act and section four of the Act of March 2, 1893, and shall give notice of such designation to all common carriers subject to the provisions of this Act by such means as the commission may deem proper, and thereafter said number, location, dimensions, and manner of application as designated by said commission shall remain as the standards of equipment to be used on all cars subject to the provisions of this Act.

PROTOTYPE

The 1949-1951 *Car Builders' Cyclopedia* (Simmons-Boardman Publishing Corporation, 1949) defines a ladder as, "Bars of wood or iron attached to the side or end of a freight car or caboose to form steps by which persons may climb to and from the top of the car. The individual bars, whether of wood or iron, and whether round or square are termed ladder rounds. They are sometimes fastened at their ends to ladder side rails."

The ICC mandated four ladders required on all house cars with specific locations. The full documentation can be found on line (LINK: <hdl.handle.net/2027/uc1.a0014121560>). Here are some specifics.

- Ladders were required to be on each side of the car, not more than 8" from right end of car and one on each end, not more than 8" from the left side of the car
- Ladder treads (rungs), if made of wood shall be at least 1-1/2" x 2" cross-section and if steel, a minimum of 5/8" in diameter
- 16" minimum length of tread was set for side ladders, with 14" for the end ladders
- 19" maximum spacing between treads
- Minimum space (clearance) between side of car and ladder of 2", preferably 2-1/2"



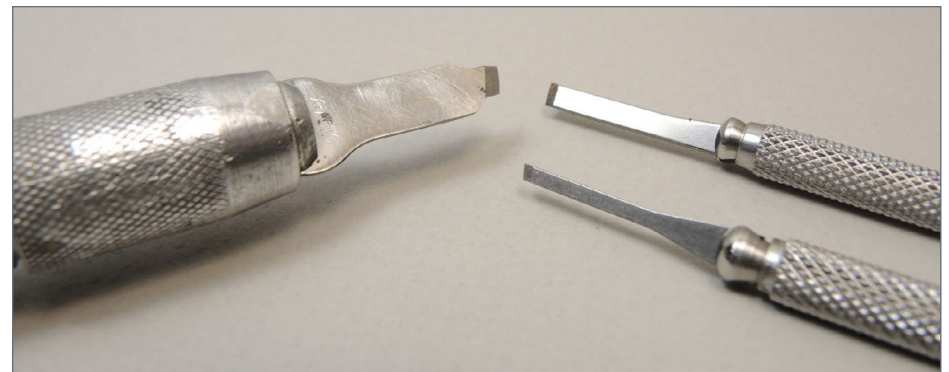
1. Knives with modified blades for carving off molded-on ladder rungs.

- Top of the ladder tread shall be located not less than 12" nor more than 18" from the roof at eaves
- Maximum distance from the bottom tread of side ladder to the top tread of sill step shall be 21"
- End ladder treads shall be spaced to coincide with treads on the side ladders, a variation of 2" being allowed

UPGRADING MOLDED-ON LADDERS

With these ladder standards in mind, I'll show you methods to upgrade freight car ladders if commercial details cannot be used. On many plastic freight cars, the ladders may be molded-on. If these molded-on details match a prototype, or are good stand ins, I remove the ladder rungs leaving the stiles. I use a custom-ground #17 X-Acto blade mounted in an X-Acto #5 handle, or the micro knife handle with surgical blades available from Micro-Mark, to carve away the molded-on rungs [2] and [3].

After I remove the rungs and clean up the stiles, I clean up the car side surface. On wood-sheathed cars, I add board grooves with a scribe made from a dental pick [5]. The back of an X-Acto #11 blade could also be used as a scribe.



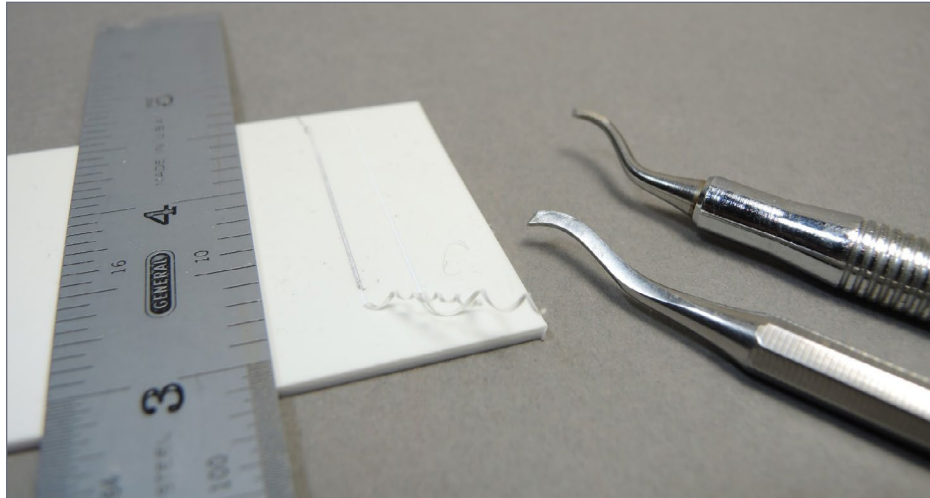
2. These modified blades can access tight spots to remove detail.

UPGRADING BOXCAR LADDERS | 5

Next, I drill holes in the stiles with #80 or #79 bits for replacement wire rungs. For new 18"-wide rungs, I use Tichy Train Group #3021 18" straight grab irons. If the rungs are not 18", I'll bend the new grab irons 0.010" or 0.0125" phosphor bronze or brass wire. With a little practice, bending your own grab irons is easy.



3. A plastic boxcar model with the molded-on grab irons removed.



4. A properly sharpened scribe will produce a curled chip.

UPGRADING BOXCAR LADDERS | 6

I use the same ladder method on resin car kits, so no carving is necessary [7]. Normally, resin models have the stiles cast on the car body or ladders to be installed are provided in the kit.

Sometimes I use Plastruct #90850 styrene 0.010" round rod or their #90849 0.015" rod to make new rungs and glue them onto the existing stiles [8].



5. Several custom-bent grab irons have been installed on the right side of this boxcar.



6. Ladder stiles are part of the car side casting on this Soo Line boxcar. Custom rungs are easily added.

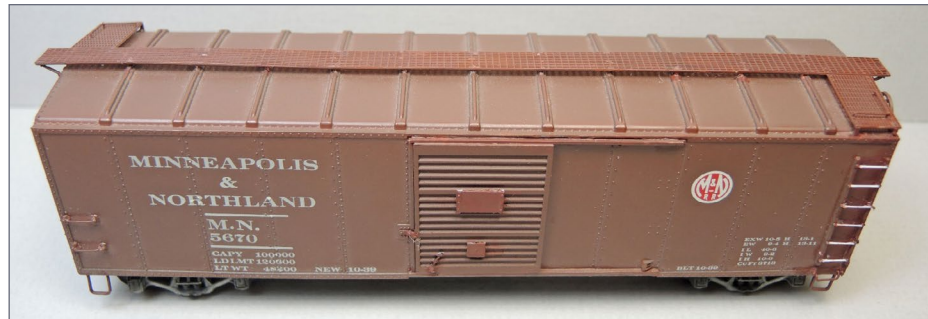
SCRATCHBUILD LADDERS

On plastic or resin car body kits that come with ladders, I use them unless I am aware of better ladders. I have bought kits that should have the details provided, but they were missing. I scratchbuilt new ladders, since the commercially available ladders I had did not match. One such case was a Red Caboose X29 kit purchased at an estate sale. Here's how I scratchbuilt these ladders.

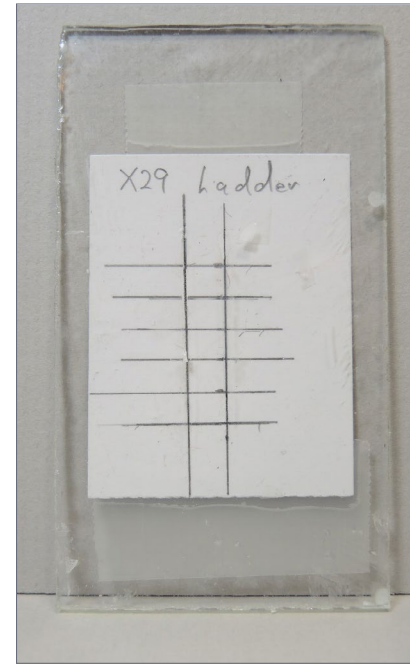
I used a spare ladder to draw a ladder pattern on a 3x5 card, and taped the pattern to the underside of a piece of window



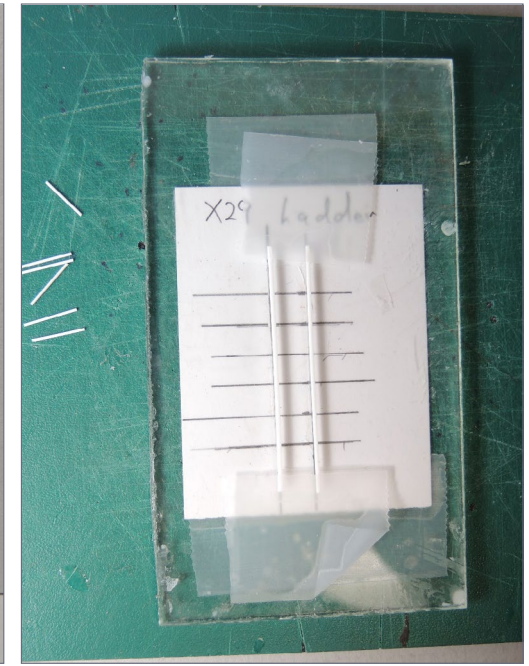
7. An old Trains-Miniature boxcar is upgraded with ladder rungs made with Plastruct 0.010" styrene rod.



8. A view from a different angle shows the Plastruct 0.010" styrene rungs.



9. The ladder pattern is taped to back of a small sheet of glass.

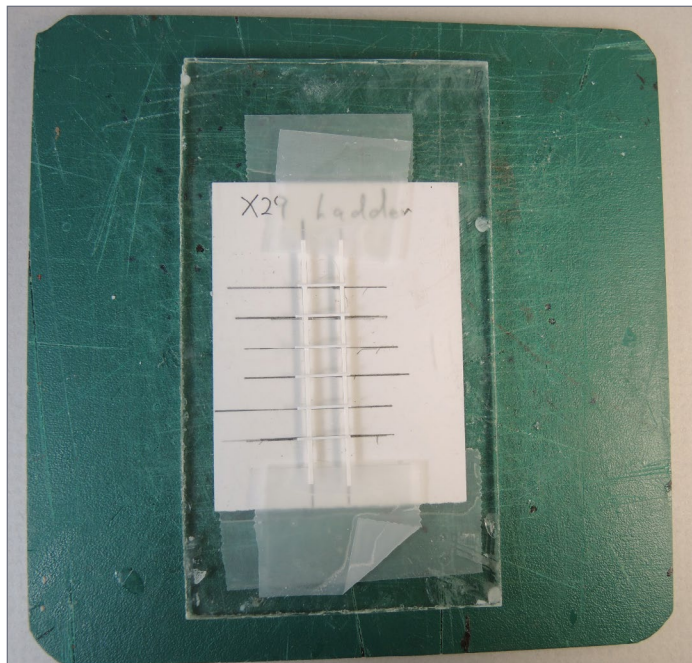


10. The ladder stiles are taped to the glass on top of the pattern.

glass [10]. I cut the stiles from Evergreen #8202 2x2" strip styrene, and taped them to the top of the window glass on the pattern [11]. Rungs were cut from Plastruct #90849 0.015" round styrene rod to match rung size needed. I glued the rungs to the stiles using the pattern for location [12].

ETCHED METAL LADDERS

On plastic or resin car kits, another option is etched brass ladders made by Yarmouth Model Works. Different types are available. The photo-etched ladders require assembly. The ladder stiles must be cut from frets and bent to create a stile. Wire rungs are inserted



11. The ladder rungs are glued to the stiles, following the pattern.



12. Use this sprue nipper to cut rungs to length. (Hold at 45 degree angle.)



13. Here's a ladder is ready to install. Note the white ladder mounts on the car end.



14. The finished details are installed on the boxcar model and ready for touchup paint.

UPGRADING BOXCAR LADDERS | 11

and glued into the holes on the stiles. I purchased a Small Shop tool to bend the delicate stiles [16]. After bending the stiles, I insert them into a styrene jig to hold them in position for the wire rung installation.

Nelson Moyer authored a step-by-step tutorial on building the Yarmouth Model Works ladders on the Resin Car Works blog. You can read his article at: blog.resincarworks.com/building-yarmouth-model-works-etched-brass-ladders.

GRAB IRON LADDERS

Not all freight car ladders consist of stiles and rungs. Many older freight cars used grab irons attached to the car sheathing or framing as the ladder [19].



15. A Small Shop bending tool and the jigs I made for ladder assembly.

UPGRADING BOXCAR LADDERS | 12



I hope these methods will help you upgrade your freight car ladder details. These methods have worked for me on many freight car projects. ✓

16. Brass photo-etched ladders installed on the B end of a resin boxcar kit.



17. A side view of the resin boxcar kit with finished brass ladders installed.



18. This resin boxcar kit has drop grab irons installed as the ladder detail.



19. This resin boxcar model has a grab iron ladder on the car side and a grab iron ladder with stiles on the end.



RATE THIS ARTICLE

LESTER BREUER



Lester developed his modeling skills as a youth, building models of automobiles, planes, ships, and trains. He improved his modeling skills in his teenage years by focusing on model railroading. He started building the Minneapolis & Northland Railroad Company in 1973, which became a place to continue improving and sharing

his skills into the present.

Lester became a life member of the National Model Railroad Association (NMRA) to continue improving his skills. He successfully completed the requirements to be certified as Master Model Railroader. Lester participates in Railroad Prototype Modeler (RPM) events to gain insight on prototype and modeling resources. The RPM events mesh with his current freight car and layout operation interests.

After benefiting from NMRA and RPM activities, Lester felt a need to give back to the hobby. He has served as NMRA Twin Cities Division president, Thousand Lakes Region president and vice-president, and on the NMRA Board of Trustees. Lester continues to share modeling tips and techniques in newsletter and magazine articles, clinics, internet groups, and on his blog mnrailroadcab100.blogspot.com.

Beyond the hobby, Lester is enjoying retirement with his wife Susan, his grandchildren, gardening, travel, lake cabin get-aways, and research. ■

1. This lightweight storage container for stripwood can be built for about \$20.

★★★★★
RATE THIS ARTICLE

I'd seen other modelers who had built nice organizers out of cardboard mailing tubes. However, the tubes I found at the post office or in local office supply stores cost close to \$3 each. Online suppliers offered the same tubes at about \$0.75 a piece, but the shipping charges brought the cost back up to nearly \$3 each.

Old paper towel tubes are about the right size but too flimsy. PVC seemed too thick and too heavy for what I was planning to build. Then, on a trip to one of the large home improvement centers, I discovered a suitable and cost-effective material: "Fluorescent Tube Protectors."

They're clear plastic tubes that slide over fluorescent bulbs to protect them from breaking. The T-12 eight-footers sell for about \$4.

Since I model in HO scale, most of my stripwood is never longer than 11" or 12". Making the tubes any longer than 12" would make it difficult or impossible to get the pieces out. I'd need 25 foot-long tubes to build an organizer five rows high with five tubes in each row. Because of the two end caps, an 8 foot tube protector is actually around 92" yielding only seven 12" tubes. Follow along as I show how I built this little organizer.

To begin, I cut the protectors into 12" tubes. This can be a bit of a challenge since the tubes are hollow and have some "give" to them. I found that using a 12" piece of 1-5/8" dowel rod as an insert gave the tube stability so I could cut the pieces using my chop saw.

I clamped a stop block 12" from the blade, then butted the tube (with dowel insert) against it.

Stripwood organizer

Running Extra | October 2019

BILL OBENAUF built this stripwood organizer for his workbench ...

OVER THE LAST SEVERAL MONTHS, I'VE MADE A serious effort to de-clutter, clean up and better organize my workbench. What good is having the best tools and proper supplies if you have no idea where they are?

I put constructing some type of holder for all of my stripwood on the top of my list.

Stripwood is rather pricey, and once the packages are opened, even those of us with the best eyesight can struggle deciphering 2x8's from 2x10's and 4x4's from 6x6's!

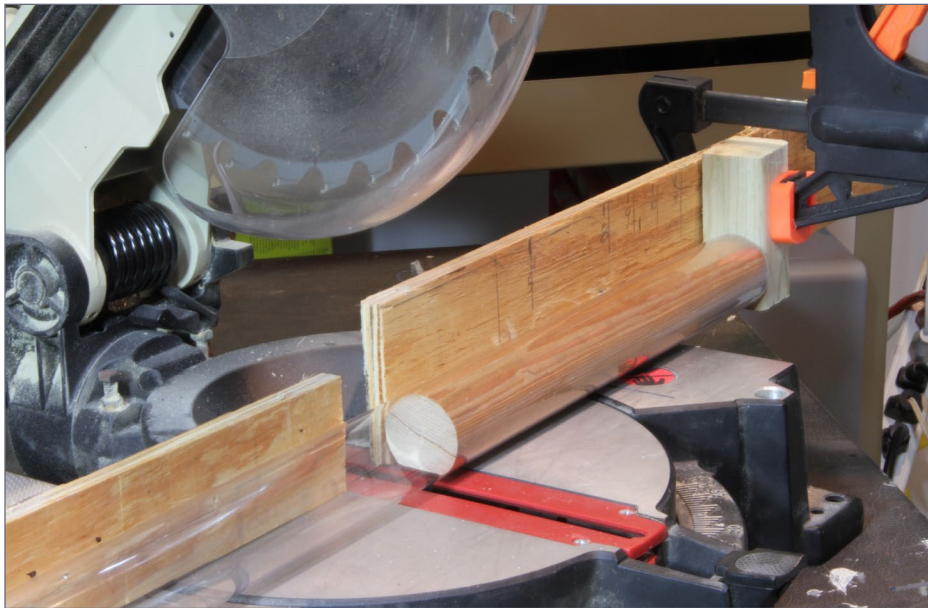
STRIPWOOD ORGANIZER | 3

After cutting a 12" tube, I reinserted the dowel into the longer stock tube, butted it against the stop and cut another 12" section, repeating this process for all 25.

Once cut to length, the edges sometimes split or chipped, and at minimum had burrs.

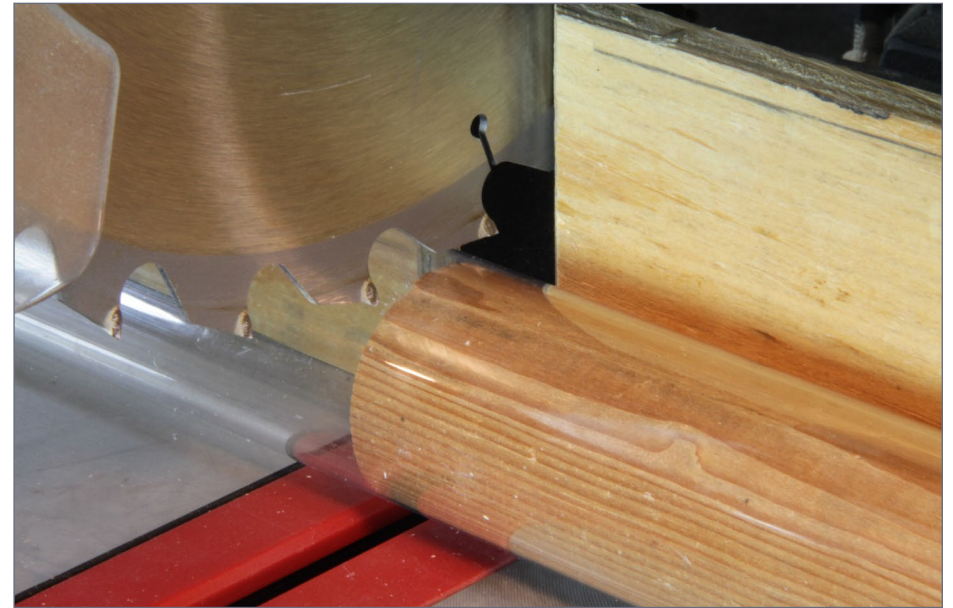
I made a light pass (rotating bottom to top) on my belt sander to de-burr and square up both ends of each of the 25 tubes. *(You could also do the same by hand with some 400-grit sandpaper on a flat surface. – ed.).*

Next, I put together a framing "jig" to aid in constructing the five rows of tubes. I supported each row of five tubes on the bottom by two pieces of 1-1/8" lattice 8-1/2" long.

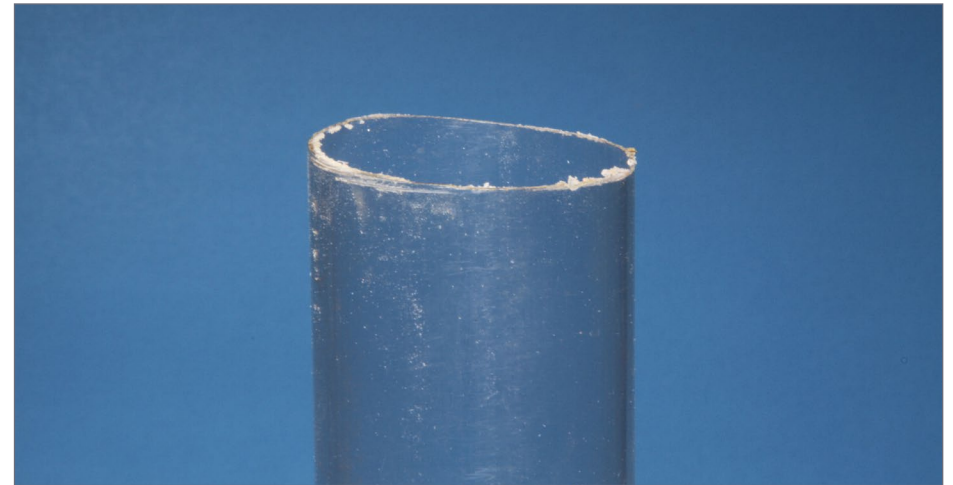


2. Using a chop saw and a 12" wood dowel-insert makes cutting the required 25 plastic tubes fast and safe.

STRIPWOOD ORGANIZER | 4



3. Butting the tube with wooden dowel-insert against a stop block helps insure each tube will be 12".



4. Even using a fresh saw blade, rough edges are still possible when cutting material of this type.

STRIPWOOD ORGANIZER | 5

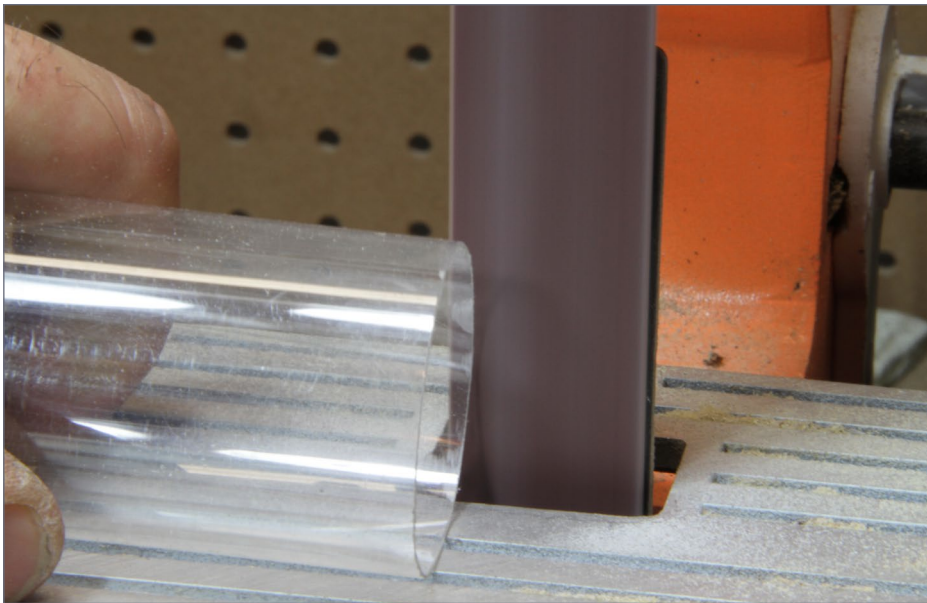
I used double-sided tape to secure a scrap piece of lattice to my work surface that acted as a positioning jig for the front support.

The back support piece of lattice lined up directly with the back stop of the jig and the ends of the tubes, while the front support piece was placed one inch in from the ends of the tubes.

Starting at the right, I butted the first tube against the side and back of the jig. Hot glue was used to secure the tubes to the lattice supports.

I continued gluing down tubes until a row of five was complete [10].

I constructed five rows in this manner [11].



5. A quick pass on a belt sander will easily remove imperfections from the edges of the tubes.

STRIPWOOD ORGANIZER | 6



6. I set pieces of scrap 1x4 at a 90-degree angle to keep the tubes square during assembly. The small piece of scrap wood was used as a guide to position the front support pieces.



7. Two 8½" pieces of pine lattice are used as supports for each row of tubes. The front support lines up against a scrap guide; the back piece lines up squarely against the back and side 1x4 jig.

STRIPWOOD ORGANIZER | 7



8. Keeping it flush against the 1x4 jig, hot-glue the first tube in place.



9. Black lines indicate the center of the tubes where hot glue is to be placed on the support lattice.

STRIPWOOD ORGANIZER | 8



10. A row of five tubes hot-glued to the front support lattice.



11. Five rows of tubes like this one were constructed for the organizer.

The fifth row is the top layer of the organizer and needs pieces of lattice on the top as well. After gluing the lattice to the bottom of the tubes for row 5, I removed it from the jig and placed two more strips of lattice in position on the work surface. Then, flipped the entire row over and glued the lattice to the top of the tubes (now facing down).

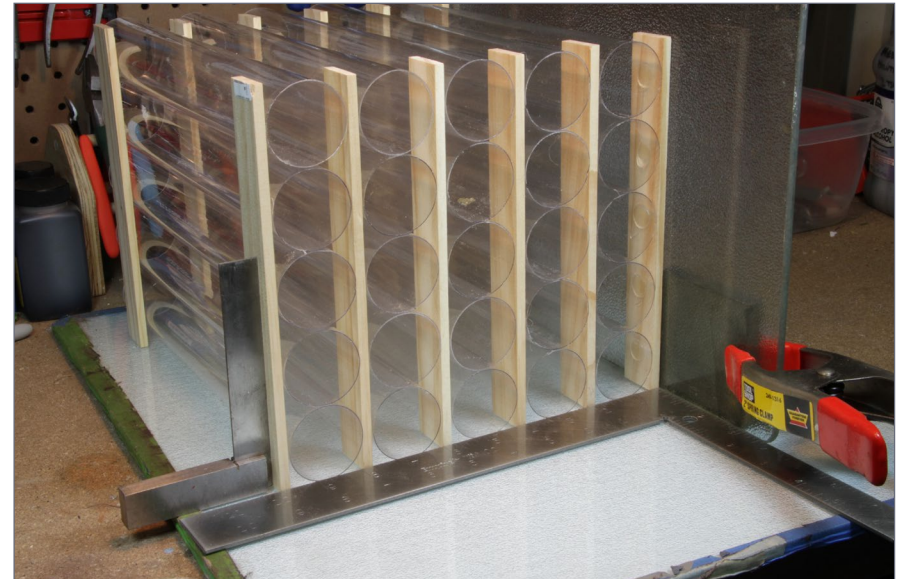
Next, I lined up the five completed rows on their sides and squared them up against a glass cutting board.

Then, two vertical side pieces were fastened to the horizontal support pieces. To secure them, I chose to use carpenter's glue. That allowed me additional working time to make sure all the pieces remained square [13].

Once dry, I turned the organizer over and repeated the steps for the last two side strips.



12. To complete the frame of the organizer, two additional pieces of $8\frac{1}{2}$ " pine lattice are required for the top row of tubes.



13. Five completed rows were placed on their sides and squared up in preparation for adding the side lattices.



14. I glued the left side $9\frac{3}{4}$ " support lattice glued to the horizontal supports of each row (top piece in this photo).

A back panel was required to keep the strip wood from falling out. I cut and glued an 8 $\frac{3}{4}$ " x 9 $\frac{3}{4}$ " piece of foam board to the lattice strips on the rear of the organizer.

The cost of materials for this little organizer was about \$20. Now, I've got a safe, convenient place to store all of my stripwood and I can see exactly what I've got!

BILL OF MATERIALS

- 4 x 8 foot T-12 fluorescent tube protectors
- 2 x 8 foot $\frac{1}{4}$ " x 1- $\frac{1}{8}$ " pine lattice trim
- (cut 12 pieces 8- $\frac{1}{2}$ " and 4 pieces 9- $\frac{3}{4}$ ")
- 1 piece foam board (cut 9- $\frac{3}{4}$ " x 8- $\frac{3}{4}$ ")
- 12" piece of dowel rod or handrail
- straight square pieces of scrap lumber to build the framing jig
- hot glue
- carpenter's glue

**Tell your
friends about
Running
Extra!**

**We depend on word-
of-mouth to grow ... if
you don't share us, we
don't grow**



15. A piece of 8 $\frac{3}{4}$ " x 9 $\frac{3}{4}$ " foam board makes up the back of the organizer, preventing the stripwood from spilling out.



16. I completed the organizer over a weekend at a cost of around \$20.

LABELS

I made labels organizing each bin by printing out the sizes on my computer. I felt that laminating the labels would make them too flimsy (and require a trip to Kinko's). Instead, I used flat pieces of stiff clear plastic from blister packaging. I cut out the dimensions from the copy paper, then taped them face-down on to a piece of plastic. I then cut the plastic to fit roughly inside the front edge of the tube and held it in place with a dab of hot glue.



16. I completed the organizer over a weekend at a cost of around \$20. ☑

BILL OBENAUF



Bill returned to the hobby as an adult after picking up a Geoff Nott video at a local train show. His focus shifted from layout construction and running trains to structures, dioramas, and the pursuit of reality in his modeling.

For the last 30 years, Bill and his radio partner Greg Dwyer have been the hosts of the “Dwyer & Michaels” morning show in Davenport, Iowa. He’s also an avid snowmobiler and competitive water skier.

Bill loves to have fun, as can be attested by his clinic descriptions such as this one:

“Bill is most known for his amazing good looks. He’s often confused for Tom Cruise, Bradley Cooper, and Denzel Washington. Bring the wives for this must see clinic!”

According to Bill, his wife Donna has been “putting up with his nonsense” for 26 years now. They have three children: Mallory, Megan and Zach. ■



THE AH-HAH MOMENT

column



MRH Running Extra | October 2019

JOE FUGATE: STILL THE BEST ACRYLIC GLOSS FINISH ...



YOU SEE A LOT OF DISCUSSION ABOUT HOW TO GET a good flat finish on model railroading forums, but not so much about getting a good gloss finish.

A gloss finish matters most as a prep for applying decals. Decals go down the very best with the least trouble if at least the area where the decal needs to be applied at least has a semi-gloss finish. Many consider a full-on gloss finish to be even better.

You may have heard something about “Future floor polish.” Its an inexpensive, tough, self-leveling acrylic finish that produces a superb gloss finish. It used to be available at Walmart, Home Depot, and the like for about \$6 for a 750ml (27 oz.) bottle.

SC Johnson keeps changing the name, however. To add to the confusion, this product is also called different things in different countries. For a global background on all things “Future Finish” through 2015, see this web link:

swannysmodels.com/TheCompleteFuture.html

Recently, they renamed it again in the US market, now calling it Pledge Floor Gloss (Revive it), original.

Be cause this stuff is self leveling, you can hand brush it and the gloss finish still looks very good. One great trick is to just hand brush it onto your model where any decals need to go to get a gloss finish ideal for decaling.

THE AH-HAH MOMENT | 2

It dries to the touch in about 15 minutes (floors can't stay wet forever you know), but just to be safe I like to give it 24 hours.

That way, when I come back in with wet water, decal set and the like, I can be confident the gloss coat underneath isn't going to fail on me.

One note, the “Future” finish may cloud up a bit under an application of decal set, but never fear, it will clear right up once it dries.

This stuff has other uses too. Obviously it makes a great overall gloss finish, and it's awesome for dipping windows to get an ultraclear finish. ☑



\$11.49
FREE SHIPPING

Pledge Floor Gloss, original
27 fluid ounces



Shop now

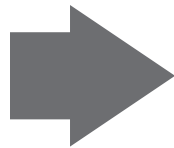
1. You can find Pledge Floor Gloss, original formula (aka, Future) on Amazon with free shipping.



2. Not a model railroading video per se, but still a superb review of gloss finishes and why Pledge remains the best. It's 20 min but worth watching all the way through.

Bonus section!

Here are all the pages
from the October issue
of
*Model Railroad
Hobbyist* magazine
as well!



ALSO:

- New layout wiring tricks
- Santa Fe citrus line track plan
- Workbench magnifier upgrade
- St. Louis RPM meet report

... and more inside!

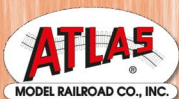


**Bruce Chubb's
Sunset Valley layout**

▶ READ NOW

No Bones About It!

ATLAS HO CODE 83 & CODE 100 TRACK IS JUST THE TREAT YOUR LAYOUT NEEDS!



SCARE UP SOME FUN FOR YOUR
LAYOUT THIS HALLOWEEN

FOR MORE INFORMATION OR TO LOCATE A DEALER, PLEASE VISIT WWW.ATLASRR.COM.
ATLAS MODEL RAILROAD CO., INC. • 378 Florence Ave., Hillside, NJ 07205

STAFF

HAVING FUN WITH TRAINS

MRH
MODEL RAILROAD HOBBYIST

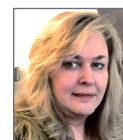
Model Railroad Hobbyist October 2019 | #116

(Updated 10/07/19)

Editorial Staff



Joe D. Fugate, Publisher and
Editor



Patty Fugate, Pasteup and
Layout



Richard Bale, News and
events



Jeff Shultz, News and
events, Tech Assistant



Joe Brugger, Copy Editing



Mike Dodd, Copy Editing



RATE THIS ISSUE

ISSN 2152-7423

Advertising

Les Halmos, Account Manager
Jean-François Delisle, Marketing Assistant

Regular contributors

Eric Hansmann, Editor-at-Large
Larry Smith, Narrow Gauge/Shortlines
Jim Six, Limited Modeler column
Ken Patterson, Reporter-at-Large

Rotating Columnists

Jack Burgess, Getting Real column
Nick Muff, Getting Real column
Mike Rose, Getting Real column
Tony Thompson, Getting Real column
Rob Clark, Imagineering
Dave Meek, Imagineering
Ray Dunakin, Imagineering

Issue password: Oct2019

Published for the glory of God. [What's this?](#)

MRH SPONSORS



Model Railroad Hobbyist | October 2019

A - M



acculites.com



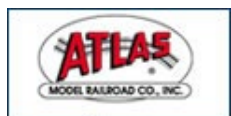
railroadhobbyshow.com



archertransfers.com



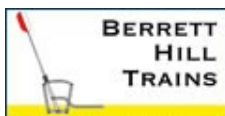
athearn.com



www.atlasrr.com



bachmanntrains.com



berretthill.com/trains



blairline.com



bowser-trains.com



mycaboose.com



coffmaneng.com



deluxematerials.co.uk



www.digitrax.com



trackplanning.com



esu.eu/en



handlaidtrack.com



iascaled.com



litchfieldstation.com



micro-trains.com



ModelRailroadConstruction.com



store.mrhmag.com



handlaidtrack.com/mt-albert-scale-lumber

Vendors: Get your clickable logo here ...

MRH SPONSORS | 2

N - Z



ncedcc.com



www.pwrs.ca/main.php



rapidotrains.com



ringengineering.com



roometteslighting.com



scaletrains.com



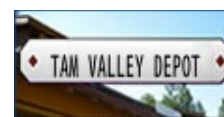
soundtraxx.com



sodigi.com



sbs4dcc.com



tamvalleydepot.com



trainfest.com



walthers.com

Vendors: Get your clickable logo here ...

Looking for something? Check the MRH Marketplace!



Take me there!

HO TIER 4 IN STOCK

(Actual HO Model Shown)



Order Now

© 2019 ScaleTrains.com, Inc. ScaleTrains.com, Rivet Counter, and respective logos are trademarks of ScaleTrains.com, Inc.
ScaleTrains.com, Inc. 7598 Highway 411 Benton, TN 37307
844-9TRAINS 844-987-2467 International 423-299-3689

Scene and photography
by Ken J Johnson
Production model shown

HO
1:87 SCALE

MUSINGS FROM THE EDITOR-AT-LARGE



Model Railroad Hobbyist | October 2019

**ERIC HANSMANN: AN INTRO AND
PERSONAL GUIDELINES ...**

★★★★★
RATE THIS ARTICLE

JOE FUGATE ASKED ME TO INTRODUCE MYSELF in this issue. I'm Eric Hansmann, and I'm a prototype modeler. I've been prepping *MRH* and *RE* articles this year as Editor-at-Large.

I've been a model railroader since the early 1970s, when I built my first HO layout with my father. I often mention that the layout was a John Armstrong plan, then note that it came from an Atlas track plan book.

By the late 1970s, I was bitten by the narrow gauge bug and by Allen McClelland's "V&O Story" series in *Railroad Model Craftsman*. I designed and built part of a new HO and HOn3 layout with handlaid track, but college called and swept me away for a few years.

After college, I moved to Morgantown, West Virginia. I founded a club with local modelers, all of whom wanted to learn more and advance their skills. The group found a nice-sized layout space in the early 1990s. We traveled around the region to experience large layout operations before designing and building a multi-level HO scale layout.

Changing focus

As a narrow gauge enthusiast, I helped cosmetically restore Waynesburg & Washington #4, a fine Alco-built three-foot gauge 2-6-0. My experience is described in a sidebar to the "Lite and

EDITOR-AT-LARGE'S MUSINGS | 2

Narrow" column in the very first *MRH*. The prototype work was fun, but my modeling focus was changing.

The Western Maryland Railway between Thomas and Elkins in West Virginia attracted my eye, but I did not have the space to do justice to this line. I focused on an area in south Elkins where three branch lines met within a mile, a B&O branch terminated with an interchange, and several local industries were served by both railroads. I chose to model the area in 1926 as the railroad then had a very different appearance compared to the popular post-WW2 years.

About this time, I attended my first Railroad Prototype Modeler (RPM) meet and became hooked on prototype modeling.

ADVERTISEMENT



Gingerbread Sugar Belt

Christmas Set



gumdrops

frosting

1225



CLICK HERE FOR MORE INFO

ADVERTISEMENT



The Employee Pride Locomotive

ATHEARN® GENESIS HP SD70ACE, UP #1111

On June 6, 2019 UP #1111 was unveiled in Omaha, NE honoring the employees of the Union Pacific Railroad. Athearn® is proud to offer this model with and without

Tsunami2 Sound. Featuring a commemorative box, LED lighting, and meticulous paint and decoration.



VISIT ATHEARN.COM FOR COMPLETE DETAILS AND FEATURES. GET YOUR ORDER IN TODAY!

ATHEARN

©2019 Horizon Hobby, LLC. Athearn and Genesis are registered trademarks of Horizon Hobby, LLC. All other trademarks, service marks and logos are property of their respective owners. Final models may vary slightly from photos shown. 62521

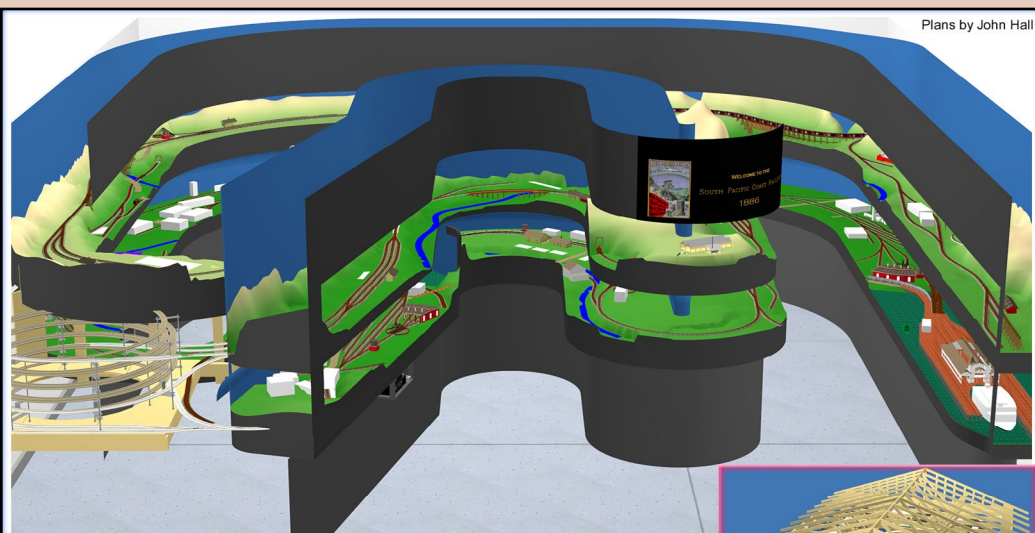
VISIT
CLICK
CALL
HORIZON

MRHMAG.COM

REGISTER
(free)

[INDEX](#)

[TABLE OF CONTENTS](#)



How will you plan your layout?

3rd Plant 3D CAD
The ultimate track planning software

El Dorado
SOFTWARE

Click Here!

EDITOR-AT-LARGE'S MUSINGS | 3

Keep it simple

I've moved around the country in the last 10 years with my wife, a university administrator. After a move several years ago, I wanted to build a layout but realized it had to be easy to transport. As I designed and built that layout, I developed two guidelines that have stuck with me over the years: keep it simple, and let the prototype guide the work.

Through many hobby projects, I've overthought situations, and over-built layouts and models. I've met others who have done the same. Keeping things simple became my mantra when I arrived at a decision point. My last layout was built with an operations focus. I decided not to install any ballast or ground cover. I painted the plywood gray then sprayed the track flat brown with a rattle can to

CORNERSTONE

N
SCALE

UPS® HUB WITH CUSTOMER CENTER

**ARRIVING OCTOBER 2019 –
ORDER TODAY!**



Official
Licensed
Product



**Click here to visit Walthers.com for a
complete list of great UPS products
for your HO and N Scale layouts**

WALTHERS

Support your local hobby shop • visit walthers.com • call 1-800-4-TRAINS

Availability and prices shown were accurate at press time, for updates visit walthers.com. Preproduction models shown assembled and painted, some details and colors may vary. Figures, vehicles, scenery materials and railroad equipment shown sold separately. ©2019 Wm. K. Walther, Inc.

MRHMAG.COM

REGISTER
(free)

INDEX

TABLE OF CONTENTS

represent the right-of-way. It was a simple way to convey an industrial feel and quickly move the layout to operating.

I recite this mantra when I start on a new freight car kit. While I enjoy installing the brake rods and hardware on the underframe, it can't be seen on some models. Flat cars and gondolas with fish belly side sills are candidates for simplifying the underframe details [1]. It's more important to me to install small squares of weight in the underframe area for long-term operational use [2].

"Keep it simple" can be applied to layout designs, benchwork construction, and even presentations for RPM and NMRA meetings. *MRH* editors often keep this in mind as articles are prepped



1. Our eyes are drawn to the deck weathering and lettering on this resin freight car kit. The deep fish belly side sill hides the underframe details, even with a straight-on view of the car side.



2. The gondola underframe details were not installed. Strips of lead weight were glued into place to improve performance on the rails. The weight cannot be seen when this model is in use.

Bachmann's exclusive E-Z Track® has long been one of the most popular track systems in HO and N scale because it makes set-up quick, easy and fun! Just snap it together and it stays together on floors, tables, and carpets. Modeled from AAR track engineering dimensions, our HO and N scale products feature finescale tie detailing accuracy plus:

- available in Code 100 HO scale (nickel silver track with gray roadbed or steel alloy track with black roadbed) and Code 80 N scale (nickel silver track with gray roadbed)
- use with DC and DCC layouts
- low-profile spike heads



The World's Greatest Hobby® Track Packs include all the track needed to build this layout.

Click to learn more



WORLD'S GREATEST HOBBY® FIRST RAILROAD TRACK PACK with HO STEEL ALLOY E-Z TRACK® Item No. 44497 • MSRP \$219.00



WORLD'S GREATEST HOBBY® FIRST RAILROAD TRACK PACK with HO NICKEL SILVER E-Z TRACK® Item No. 44597 • MSRP \$299.00



WORLD'S GREATEST HOBBY® FIRST RAILROAD TRACK PACK with N SCALE NICKEL SILVER E-Z TRACK® Item No. 44896 • MSRP \$265.00

Bachmann Industries, Inc. • 1400 East Erie Ave. • Philadelphia, PA 19124 USA • www.bachmanntrains.com

Click for more information.

EDITOR-AT-LARGE'S MUSINGS | 5

for publication. My wife reminds me that the best way to write and edit an article is to follow three rules: simplify, simplify, simplify.

The prototype as a guide

I'm sure many readers think I'm leading everyone to count rivets. Our hobby is focused on railroad equipment, facilities, rules, and more. When I come to a project decision point, I use the prototype as a guide for progress.

A definition is important here. From dictionary.com, the verb "guide" means "to assist (a person) to travel through, or reach a destination in, an unfamiliar area, as by accompanying or giving directions to the person." The prototype greatly assists our efforts.

I do not advocate strictly copying the prototype but allowing it to *guide* your work. This is what we are modeling, right? Why not use it as a guide? We can't model every element of a prototype scene, locomotive, or freight car. Details we see around the prototype certainly can guide our modeling.

Personal preferences

By now, some of you are thinking, "This sounds too much like work," or "It's a hobby to enjoy and get away from work." Heck, I thought the same thing a couple of decades ago. Since I started using these guidelines seven years ago, I've enjoyed and completed more modeling projects than I did in the previous years.

Understanding our personal preferences can focus our attention and inspire our hobby efforts. *MRH/RE* columnist Jim Six is a good example. A few years ago, he started down a different path to model the steam era before diesels. He uses prototype maps and photos for layout inspiration but not as a blueprint. He recognizes the challenges of an earlier era, but he is energized in creating a new and very different layout.

Premiering this month ...

ALLAGASH TRACKSIDE ACTION

EPISODE 1



Over the road with the JABE
(Madrid yard – Holman Summit)



Don't miss out!

Become a member!

SPECIAL PRICING IN EFFECT!

(Also coming to the
MRH Store)

TRAINMASTERS.TV

**We are now
dealing in
ESTATES &
COLLECTIONS!**
Buy - Sell - Consign



CLICK HERE
for the
**Serious Modeler's
Resource!**

CABOOSE™

Sharing Our Passion for Trains Since 1938

**10800 West Alameda Ave.
Lakewood, CO 80226
(303) 777-6766**

EDITOR-AT-LARGE'S MUSINGS | 6

Change happens

Sometimes we find that the creative spark disappears with our current layout. Our motivation drops, and we minimize our hobby time. It's possible that our hobby interests waned as the original motivation faded. If that applies to you, maybe it's time to review where you want to go with the hobby. Consider following guidelines like mine to help shape your next projects.

Many modelers have started anew. *MRH/RE* publisher Joe Fugate is tearing out his Siskiyou Line to work on new concepts. The TOMA ideas and a Proto Throttle have energized his layout inspiration as the old project is removed. You don't need to search long to discover other modelers who have decided to move away from an earlier project and start again with a new concept.

I'm currently between layouts as a kitchen upgrade is slated before the hobby space is renovated. Sections of my HO scale Wheeling Freight Terminal layout remain packed up after our

REBUILDS!



**ORDER BY OCTOBER 31st
CLICK HERE!**



Introducing THE LUMBER STORE



EDITOR-AT-LARGE'S MUSINGS | 7

move across town a couple of years ago. The only room large enough for the layout is the garage, but that space is needed to stage items for the kitchen project. It might be a year before the garage is transformed to my hobby haven.

I've been thinking of building a chainsaw layout in the interim using a couple of hollow core doors. I'm doodling track plans and devising a simple support system. And of course, I will let a prototype be my guide. ■



LAST ISSUE'S RATINGS

The three top-rated articles in the [September 2019 issue](#) of *Model Railroad Hobbyist* are:

- 4.7 Building paper and cardstock models
- 4.7 September 2019 news (NWSL will continue)
- 4.7 Savvy Modeler online: Conifer trees

Issue overall: 4.3

Please rate the articles! Click the reader comments button on each article and select the star rating you think each article deserves. We depend on these ratings to help us determine which articles to publish, so your rating matters! ■

Get the latest Model Railroading News, Tips, Reviews & Opinions



Our iTunes feed has changed search for
"Crew Call with Mike Rose" to receive the latest episodes!

www.themodelrailroadpodcast.com

Host:
Mike Rose: www.mrhobby.com

Don't Miss our Monthly Interviews
& Product Announcements

All new website!

TRAINMASTERS TV



What's new



Free videos



TMTV monthly shows



What's new:

- enhanced global-class video player
- 1080p playback on last three seasons
- Netflix-style video category browsing
- Rent/buy individual episodes (1.99 and up)
- Lots more free videos
- Apple, Android, and Roku apps coming!

Check it out!



Roku



discounted fall pricing
ends this month

Best of the

MRH WEBSITE



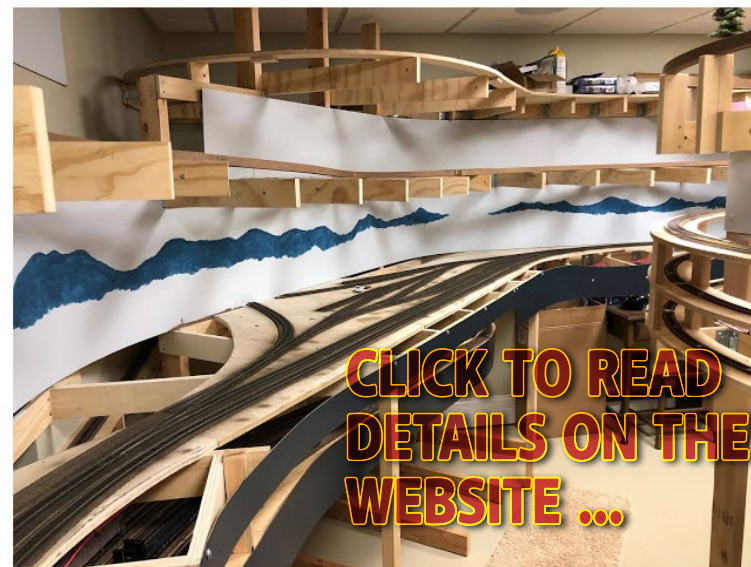
Model Railroad Hobbyist | October 2019

compiled by **JOE FUGATE**

★★★★★
RATE THIS ARTICLE

Cascade Sub Fall Update

Sat, 2019-09-28 05:38 — johncaff22



**CLICK TO READ
DETAILS ON THE MRH
WEBSITE ...**

It has been some time since my last update on the railroad. Heading into the fall and winter modeling season, I want to share a brief status report of the layout and some of the projects I plan to take on in the coming months.

1. MRH member *johncaff22* has posted a fascinating update on his new Cascade Subdivision layout build with many pictures of his progress. Also check his other blog entries, they're also photo-rich!

► **MRH'S MONTHLY GREAT MODELER POSTS**

New Bridge at Blue Island

Mon, 2019-09-30 14:12 — arbe Scenery - Structures

A new thought on the operation of my pike has prompted another remodel. This iteration will provide for a continuous run option that I found I really missed with the Point-to-point style I had. A new main-line configuration through Blue Island and crossing of the Cal-Sag Channel, and new main-line track in Riverdale will accomplish this. For this to take place, the old cal-Sag bridge and indeed the Cal-Sag itself was remodeled.



A view of what would be to the west and the background painted by Deb.



**CLICK TO READ
DETAILS ON THE MRH
WEBSITE ...**

A view under the bridge.



Bob Bochenek

Chicago Yellowstone and Pacific Railroad

2. MRH forum regular Bob Bochenek [MRH handle *arbe*] posted about upgrading a bridge on his layout. Bob drew some inspiration from prototype photos, with a very nice result ...

ADVERTISEMENT

LET'S GET LIT!

**FREE SHIPPING
CHECK 'EM OUT**

Roomettes
Bring Your Structures to Light

ADVERTISEMENT

Lasercut structures. Highway, storefront and billboard signs.

Neat ag customer for your railroad:
Farmers Fertilizer Supply



**WHAT'S
NEW?**

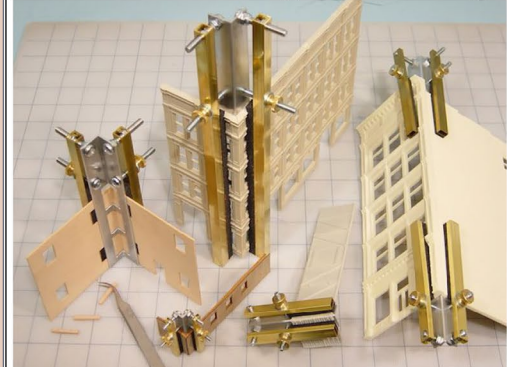


Established 1993...

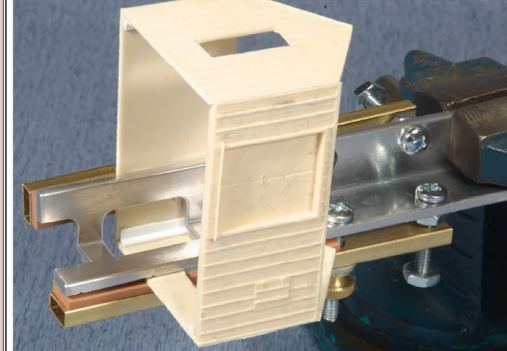
Blair Line

ADVERTISEMENT

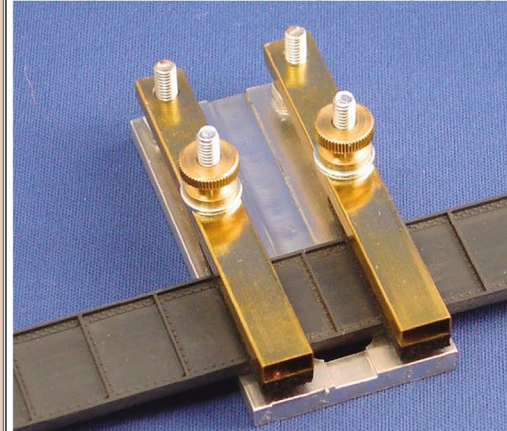
Essential tools for great modeling!



Quality tools with superior versatility!



Clamps for soldering and gluing!



"Right and Splice Clamps"™

Coffman Graphic Solutions

1500 River Circle, Richmond KY 40475

www.coffmaneng.com

Understanding a Time Table

Thu, 2019-09-26 15:40 — Hoot Prototype Railroading

I recently bought a 1967 Fort Worth And Denver Timetable off of Ebay, and have attached a photo to illustrate my question(s). I'm having a hard time figuring out portions of the information that I'm looking at. Specifically what is the signs column (I'm guessing it's for the various services available at that location, and what do the letters represent? O's I'm assuming are operators on duty, and P means phone, F is for fuel, but what are the rest? Also in the milepost column there is an L or a P preceding the milepost number, any idea what those stand for? Thanks for the help.

EASTWARD				WESTWARD			
SECOND CLASS				SECOND CLASS			
Daily Freight	Signs	Mile Post Location	STATIONS	Sliding	Other Trains	Daily Freight	
77						78	
P.M. 5:30	BKOR TYZ	1:00.00	LUBBOCK			A.M. 6:15	
	I	1:58.45	P. & S. F. CROSSING				
	M	1:50.10	P. & S. F. CROSSING (Grade-Gate)				
6:00	P	1:49.69	KITALOU	50	185	5:30	
		1:41.92	HECKVILLE		14		
6:15	P	1:40.29	BECTON		17	5:15	
6:30	O	1:32.74	PETESSURO	50	62	5:00	
6:50	P	1:28.43	BARWISE		43	4:40	
	A	1:13.98	P. & S. F. CROSSING				
7:15	OP	1:13.00	LOCKNEY	50	27	4:15	
7:50	BFJOR TUWY	P:00.40	STELEY		Yard	4:05	
8:00		P:01.29	SOUTH PLAINS		83	3:35	
8:45	P	P:25.21	EDGIN		9	2:45	
8:55	O	P:29.28	QUITAQUE	152	56	2:35	
9:20	O	P:28.98	TURKEY		77	2:10	
9:45	P	P:25.69	TAMPICO	132		1:45	
10:30 P.M.	JTY	P:27.04	PLAINS JCT.			1:00 A.M.	

CLICK TO READ DETAILS ON THE MRH WEBSITE ...

If the TT has a special

3. Ever wonder how to read a timetable? MRH forum member **Hoot** asked for help and the responses give some good insight, so go read about it – or contribute if you can help!

Archer

FINE TRANSFERS
PROUDLY SERVING MODEL BUILDERS SINCE 1989

THE ORIGINAL
SURFACE DETAILS™

WE NOW HAVE MORE THAN 130 SHEETS OF RIVETS, LOUVERS, TREADPLATE, WELD SEAMS AND MORE CAST ONTO MICROSCALE CLEAR DECAL FILM

LOW SHIPPING:
DOMESTIC USA ORDERS \$2.80
INTERNATIONAL ORDERS \$9.95

CLICK HERE TO VISIT OUR WEBSITE!

Archer Fine Transfers • PO Box 1277 • Youngsville, NC 27596 • USA
(919) 570-1026 • info@archertransfers.com • archertransfers.com

"Archer Fine Transfers 3D decals have revolutionized kitbashing and scratchbuilding. Putting rivets or other low-relief details like louvers or weld seams on your models is now as easy as applying decals."

Joe Fugate,
Publisher/Editor
Model Railroad Hobbyist

MADE IN THE USA

PIPE DREAMS... CAN COME TRUE!

LEARN MORE

Grain Belt Models™

MODEL RAILROAD Construction

NEED HELP DESIGNING, BUILDING OR COMPLETING YOUR RAILROAD.

844-872-4670

CLICK HERE FOR MORE INFO

RailroadBackdrops.com
RailroadBackdrops.com
RailroadBackdrops.com

Enter Code MRH100 For 20% Off

RailroadBackdrops.com
RailroadBackdrops.com
RailroadBackdrops.com

Chain Link Fence - Propane Dealer

Sun, 2019-09-22 05:07 — SBrooke Scenery - Structures

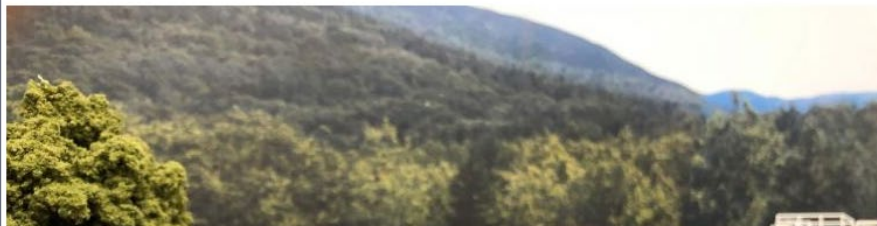
Finished up the Propane Dealer and tried scratch building a chain link fence. A big shout out to Boulder Creek Railroad and his video on making chain link fences: https://www.youtube.com/watch?v=0_guMOYoCpw&t=56s



I ended up using white glue to affix the tulle (just couldn't get the superglue to bond the tulle to the posts). Also, I used thread for the barbed wire strands instead, they will inevitably get fuzzy but if you run some beeswax or some liquid plastic cement along them it will remove most of it. What was left behind kind of reminded me of the barbs in the wire and is not overly distracting.

Backdrop is from Larc Products: <http://www.larcproducts.com/>

**CLICK TO READ
DETAILS ON THE MRH
WEBSITE ...**



4. In his MRH blog, **SBrooke** shows how he built a propane dealer with a chain link fence. He references the video that guided him, and adds in his own experiences too. Nice photos, have a look!

Recent rolling stock projects



Sun, 2019-09-29 08:43 — IAISfan

I managed to put some finishing touches on a few rolling stock projects over the past couple weeks.

IAIS 9001, an Exactrail GSI bulkhead flat updated to represent an ex-RI car now in IAIS MOW service. I had shared it and sister 9003 previously, but finally got a bit of a load on each. Details of both IAIS MOW builds can be found at <https://model-railroad-hobbyist.com/node/37344>.



**CLICK TO READ
DETAILS ON THE MRH
WEBSITE ...**



5. The MRH Weekly Photo Fun thread always delivers! Not only some great photos, but some inspiring modeling projects like this flat car load. ☑



Bowser

EXECUTIVE LINE

HO Baldwin

AS16, AS616, AS416 and DRS 4-4-1500 Locomotives

Ready To Run and Fully Detailed. Features: MU Hoses, air hoses, windshield wipers, operating headlight, window glass, can motor, flywheels, blackened nickel silver wheels with RP25 flanges, knuckle couplers. Handrails installed.

Available with LokSound (sound and DCC) or Analog (DC) versions.



WHAT'S NEAT

column



Model Railroad Hobbyist | October 2019



RATE THIS ARTICLE

KEN PATTERSON AND FRIENDS TALK TO SEVEN MANUFACTURERS, A HISTORICAL SOCIETY, AND THREE GENTLEMEN WHO SHOWED FANTASTIC MODELS AT THE ST. LOUIS RAILROAD PROTOTYPE MODELERS MEET.

WE SEE THREE INDUSTRY LEADERS' LAYOUTS THAT HAVE RARELY, IF EVER, BEEN SEEN BY THE PUBLIC ...



MODEL RAILROADING St. Louis RPM Meet

what's neat in
model railroading

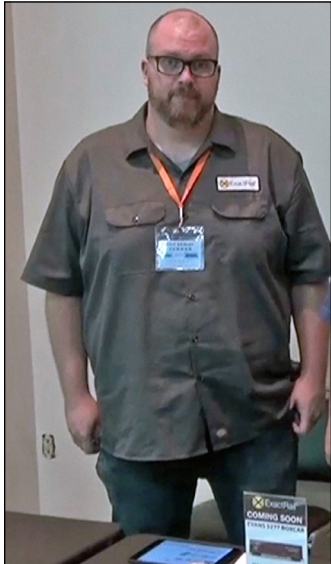
MRH

October 2019 show

► PHOTOS AND VIDEO OF SUPERB MODELING

2019 was the first St. Louis RPM for Daniel Coombs from the “What’s Neat” podcast: “It’s the camaraderie of model railroad-ing. I have seen so many aspects that are phenomenal! I’m seeing guys who want to super-detail the prototype, to the average Joe that just wants to talk trains. It’s been a great show. There are also a few vendors here, and I have bought a few things. ... This is a phenomenal show. There’s no right or wrong to how you’re doing things here. It’s just show and tell.”

Chris Brimley from ExactRail



1. Chris Brimley from ExactRail showed off the Evans 5277 box car in both HO and N scale, with six paint schemes ExactRail has never done on this car before – Ferdinand Railway, Ontario Northland, Canadian National, Mississippiian Railway, Sault Ste. Marie (a Wisconsin Central subsidiary), and Laurinburg and Southern. They also have an undecorated kit in HO. Look at exactrail.com for more. But, does he run them on his railway at home?



RATE THIS ARTICLE



Also see the new “What’s neat this week” weekly video podcast!

**WATCH
NOW >>**



2. Half of Chris Brimley’s N scale Hudson Terminal. Chris: “My layout is 1955 New York, whereas these cars are ’79-built ... My layout is an isolated switching terminal in 1955 Manhattan and its rail-marine operations. So as much as I would like to have them on there, it’s far too new.

“The cars come in via car floats. I do have a few piers on the layout and a few industries that are on the mainland, or I guess the island, since it’s Manhattan. The cars work those industries, and then everything goes back off by car float to the other side of the Hudson, and then over to Jersey.”



PUBLISHER'S WELCOME

JOE FUGATE: Presents two much safer alternatives to MEK as styrene glue.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING**
EXTRA



3. Working in a 1x7 foot area gave Brimley time to add lots of fine detail. "It's an N scale layout and is only one by seven feet. It's very small. When I built it, my family lived in a very small home, and that was as big as I could go. Now my family is in a bigger place, so I could expand on it ... modeling the other side of the river."

Central Valley with Jeff Parker



4. Jeff Parker, who now runs the company built up by his father, Jack Parker, is a man of a million hats. "I'm trying to build molds at the same time that I'm answering the phone. It is crazy! My dad was a fantastic modeler. He was a fantastic artist, and there was nothing that he could not do well ... that's my motivation to keep going and building things. I like to see what I can do, and see how I can make it better."

Jeff built a 200-foot truss bridge on Ken's home layout in an earlier "What's Neat" segment: "It is actually very easy. You have to have patience. ... you have to limit your time. You can't just expect to build this in one day, or one weekend for that matter ... My limit is about two hours, and then I need to step away for a whole day and come back the next day or the day after."

"Since I wear so many hats at Central Valley, and since my wife is always working on new packaging ideas and hitting me with those ideas, it can get crazy. But it's just awesome to be working together with another model railroader."

The Ohio Valley Sipping and Switching Society



5. "I'm standing with Andre Stone (left) and Matt Robbins ... you guys have got a beautiful modular layout here." Matt: "We are the Ohio Valley Sipping and Switching Society. We're in about our 12th or 13th year of operation here. We're probably on show number 42 or 43 in our history." Andre: "We have about 12 members right now ... " Matt: "... plus one or two in and outers – the people that come and participate every once in a while."

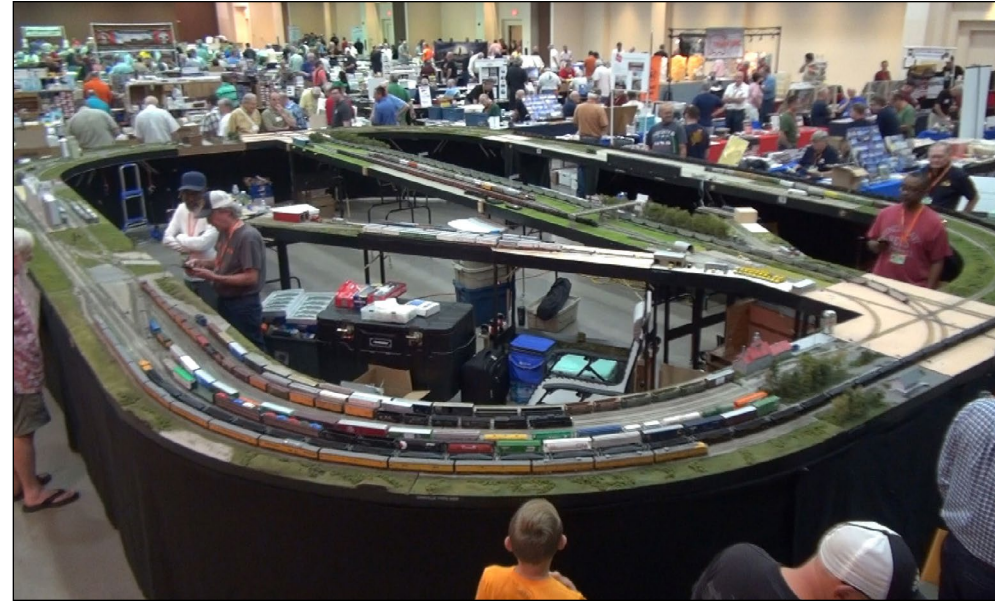


RATE THIS ARTICLE



Also see the new "What's neat this week" weekly video podcast!

**WATCH
NOW >>**



6. The Switching & Sipping Society is a major operation, active in the Ohio River valley in Ohio, and in North Carolina. Find out more about them on their Facebook pages. Look for "Sipping & Switching Society of NC" and "Ohio Valley Sipping & Switching Society."



THE LIMITED MODELER
JIM SIX: More effective modeling of pre-diesel railcars.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING**
EXTRA

WHAT'S NEAT | 8

Rick Dakota Kempf's graffiti



7. Rick Dakota Kempf is emerging as one of the most magnificent hand painters of graffiti and murals on freight cars. He started with a 4x8 train table for his son. Then he built a layout for himself. "I realized after a while that the trains were nice, the layout was perfect, but it didn't have any of the modern-day artwork that was on the trains that you see in real life. ... I started putting little pieces of graffiti on my cars here and there. Then I got pictures of cars that had graffiti on them, and tried to match the photos. Over time, I just got better at what I was doing, and here I am doing what I do now."



Also see the new "What's neat this week" weekly video podcast!

**WATCH
NOW >>**

PACIFIC WESTERN RAIL SYSTEMS
SPECIAL RUN CAR

NEW, LIMITED-RUN MICRO-TRAINS CARS

CSX (Ex-CHESSIE SYSTEM) 3-BAY ACF COVERED HOPPER 4-PACK

COMING
APR 2020

N
SCALE 1:160

CLICK HERE FOR
CSX HOPPER

4600 cu.ft. 3-Bay Centerflow
ACF Covered Hoppers

Elongated
Hatches

Yellow Cars, Black Lettering,
Dirty, Rusty Weathering.

BURLINGTON NORTHERN (BN) 3 BAY ACF COVERED HOPPER 4-PACK

COMING
APR 2020

N
SCALE 1:160

CLICK HERE FOR
BN HOPPER

4650 cu.ft. 3-Bay Centerflow
Covered Hoppers

Round
Hatches

Moderate to Heavy
"Specific" Weathering

TRAIN
ADDICTION
HELP LINE
866-840-7777

Pacific Western Rail Systems

**LIMITED RUN OF MINIMUM 50 SETS-MADE
EXCLUSIVELY FOR PWRS BY MICRO-TRAINS**

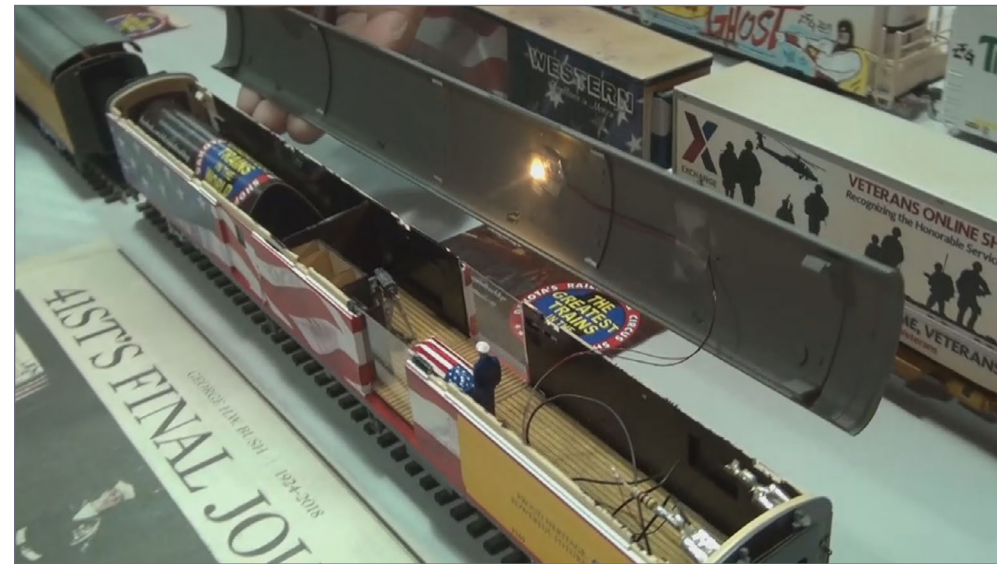
**MICRO-
TRAINS®
LINE**



8. Rick uses everything from an extremely fine brush to paint rollers and paint presses from Menards.

Please include a phone number when emailing us if you need a reply!

(Just in case your spam filters eat our email response ...)



9. "I've had so many favorite pieces ... I had the Walthers baggage car at home when President Bush died. As soon as they started rolling the train, and I saw how the train was set up (with the glass doors, and the casket inside), I took mine and cut the doors off of it and put a wooden floor in it. ... The casket I had custom-made for me. I hand-painted the casket and the figure. Now the soldiers who are inside of it standing watch changed throughout its trip. I've had some guys who were Marines ask me to make the guy inside a Marine ... Circus City made the decal for me, and he's done a wonderful job on many decals that I have needed."

If you're on Facebook, you can go to "Rick Dakota Kempf."



Also see the new "What's neat this week" weekly video podcast!



WHAT'S NEAT | 11

John Lee, the Badger representative



10. John Lee of Badger at the St. Louis RPM was showing off the versatile Badger 105 Patriot. It's a double-action, gravity-feed airbrush, with all-brass construction, made in Chicago, Illinois. It's good for weathering, painting whole cars or engines, scenery, structures, you name it. You can control the air flow and the amount of paint with one finger.



Also see the new "What's neat this week" weekly video podcast!



WHAT'S NEAT | 12

The 1:87 Vehicle Club guys



11. Dan Goins and Sam Denehy brought the 1:87 Vehicle Club's display. Dan: "We have members that are involved in trucks, vehicles, military, hot rods - the whole gamut. It's kind of a sub-category of the model railroad hobby itself. We had a great time last year. The reception was phenomenal, and we decided to come back again."



VINTAGE CAR KITS: 1
ROB CLARK explores modeling railcars using vintage rolling stock kits.

Buy 138 page eBook
(this + lots more) - \$2.99

click here

In **MRH** **RUNNING** **EXTRA**

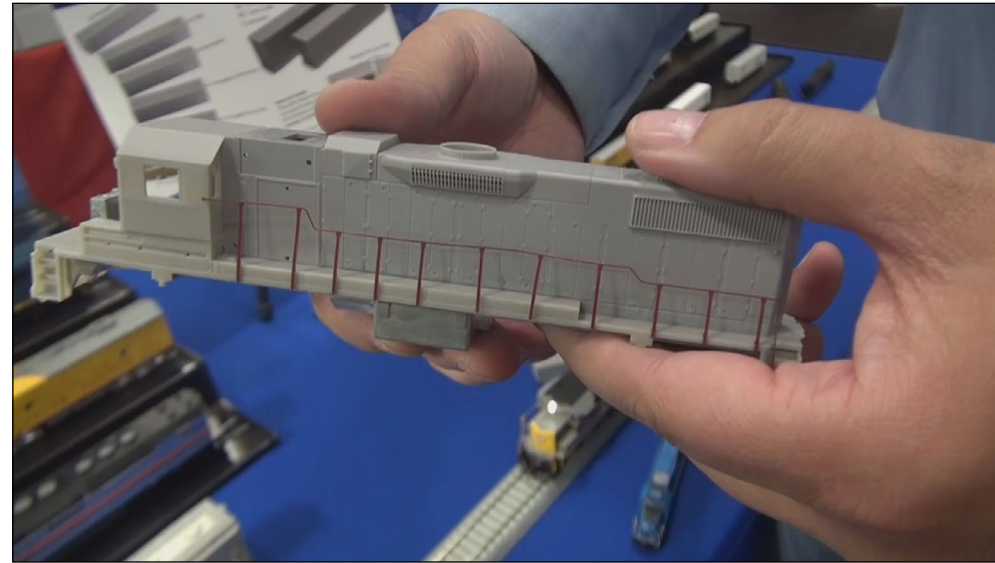
Chris Palomarez and Athearn



13. Chris Palomarez: "We just announced this ... the SD45-2 and Conrail 'can opener,' that's the blue scheme. Also, the SD45-2 and the Santa Fe, which is the 5800-class, a brand new number series for us. We announced HO and N scale SD70s standard-cab locomotives. We're doing them in Illinois Central, Norfolk Southern, Canadian National, and Conrail too."



Also see the new "What's neat this week" weekly video podcast!



14. "The GP38-2. These are our first test shots of the GMD Canadian Pacific version with the Canadian Pacific style steps, the dynamic brake, and the extra step on the battery box on the engineer's side. Those were kind of spotting features for that locomotive. There's one other thing about that locomotive. It's going to start coming with sugar-cube speakers in it ... Yeah, some internal feeds, some internal changes and external changes on that locomotive."

**Please click on
the ads!**

Dave Hussey, Cannon and Company



15. David Hussey of Cannon & Co. showed craftsman kit cars of laser-cut layers of styrene the builder laminates to produce the different body styles, whether they're a rib-sided car or embossed-side car like these new ACF Precision Design cars or a welded-side car. David "bundles" his laser-cut parts with parts purchased from other vendors, like roofs, ends, and doors. He makes his own parts, or buys pieces and supplies a complete kit, or semi-complete kit. It means a highly accurate car without the trouble of chasing down scarce components. Customers still have to get trucks and couplers.

New this year are four ACF precision-design box cars, plus one more new 40-foot phosphate car for the southern folks in the southeast market."



Also see the new "What's neat this week" weekly video podcast!

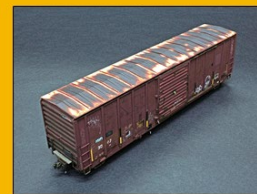
**WATCH
NOW >>**

Pennsylvania Railroad Technical and Historical Society

One big attraction at the RPM meets are the historical and technical societies that show up to meet modelers and display the resources the groups make available.

Steve Saffieri was there for the 51-year-old Pennsylvania Railroad Technical and Historical Society. They support museums, contribute to restoration projects and publish a quarterly journal. The PRRT&HS maintains an archive in a former station building in Lewistown, Pennsylvania, and works closely with model manufacturers including Bowser, Tangent and Broadway Limited. They are actively involved with the T-1 Trust which is attempting to build a complete 1:1 scale steam engine. For a \$40 one-year membership, there are four quarterly Keystone magazines, archive access, and other benefits.

★★★★★
RATE THIS ARTICLE

**WEATHERING A MODERN BOXCAR**

NICK CAMPBELL demonstrates using meticulous step-by-step detail how to weather a modern boxcar.

Buy 138 page eBook
(this + lots more) - \$2.99

click here

In **MRH** **RUNNING**
EXTRA

David Lehlbach of Tangent Models



16. A 2017 photo shows some of the work on David's layout. It hasn't changed much since, due to work pressures. But he has finished several freight cars for himself. The layout has been in the works for about five years now. "I don't have the largest basement in the world, and I didn't want to do something that didn't look right. Like a large yard and a small room. A 27-foot wall is my longest wall, which is pretty decent, but it's hard to get a yard to fit there."



Also see the new "What's neat this week" weekly video podcast!

**WATCH
NOW >>**

David Lehlbach and Tangent Models have been in business for 12 years and have produced tooling for 23 models so far. His passion for trains doesn't end when he clocks out from work. His layout is based on Milwaukee Road operations around Spokane, Washington in 1973.

David: "I have a blog that I actually post updates to very infrequently these days -- once a year kind of thing. But at least I'm trying to do something. It keeps me motivated to actually show progress. It's called "From the Panhandle to the Palouse," (fromthepanhandletothepalouse.blogspot.com) the panhandle of Idaho to the Palouse country of Washington. Just Google that, and it'll come up."



UPGRADING BOXCAR LADDERS
LESTER BREUER shows a variety of techniques for upgrading boxcar ladders from any era.

Buy 138 page eBook
(this + lots more) - \$2.99

click here

In **MRH** **RUNNING** **EXTRA**



**Please tell your
buddies about us!**

**WE RELY ON WORD-OF-MOUTH TO GROW
AND A BIGGER CIRCULATION MEANS WE'RE
MORE LIKELY TO STICK AROUND FOR A LONG
TIME TO COME!**

WHAT'S NEAT | 19



17a, 17b. Tangent likes to bring new products to a prototype modeler's meet. This year there were the PRR-designed X-58 boxcars in seven paint schemes. Released a month earlier was the General American 1948-design 8000-gallon welded general service tank car and before that, brand new Bethlehem gons.



RATE THIS ARTICLE



Also see the new "What's neat this week" weekly video podcast!

**WATCH
NOW >>**

WHAT'S NEAT | 20

Gene Fusco from InterMountain



18a, 18b. Gene Fusco from InterMountain announced a rerun of the IM square-corner 1937 AAR box cars including the whole set of Santa Fe map-scheme cars with slogans, as well as a group of other railroads' variations with features like Viking-roofs and different doors. IM is particularly pleased to have production up and running from new factories in China. Recent arrivals are N scale three-bay and two-bay ACF covered hoppers and HO scale 4653 bay covered hoppers. More hoppers and reefers are on their way. Production samples of the GP-16 and Tier-4 engine projects are due soon.



19. InterMountain is active in N and HO, but Gene tells his own story: "About four years ago, I decided I wanted to try something different in the hobby. I've been an HO scaler since I was five years old ... I decided to experiment with some outdoor stuff, so I got my work crew together, the guys who had been helping me with the HO scale stuff. I told them, 'Hey, we're going to go outdoors. We're gonna start moving dirt around,' and we started building the outdoor railroad.

"Right now, we've got about a thousand feet of main line in place. We have a yard that's about 100 feet by 24 feet wide. We run 30, 40-car trains. The guys have to learn real train handling skills. You can't just slam the throttle open and shut. So yeah, it's been a lot of fun playing with that stuff."

**To get more MRH ad-funded pages,
please click on the ads.**

The wrap-up

The models at RPM meets are great, and they get better every year. People love to come in and see the progress of some of the people who have been coming for seven or eight years, and who bring advancements in their hobby. ✓





BEST ACRYLIC GLOSS FINISH
JOE FUGATE on how to get the best acrylic gloss finish ever from this inexpensive consumer product.

**Buy 138 page eBook
(this + lots more) - \$2.99**

click here

In **MRH** **RUNNING** **EXTRA**

**We're always looking for more
articles and videos. We do pay
for articles and videos, too!**



Also see the new "What's neat
this week" weekly video podcast!





Zephyr Express, the Fast Track to Digitrax Complete Train Control

- 3.0 Amp LocoNet Command Station, Booster, & Throttle
- Color 2.4" LCD Screen
- Large Backlit Keypad
- Runs up to 20 Loco addresses and throttles
- Integrated USB Computer Interface
- Control lights and sound with 29 functions
- Simple Set-Up with Easy to read display

Introducing

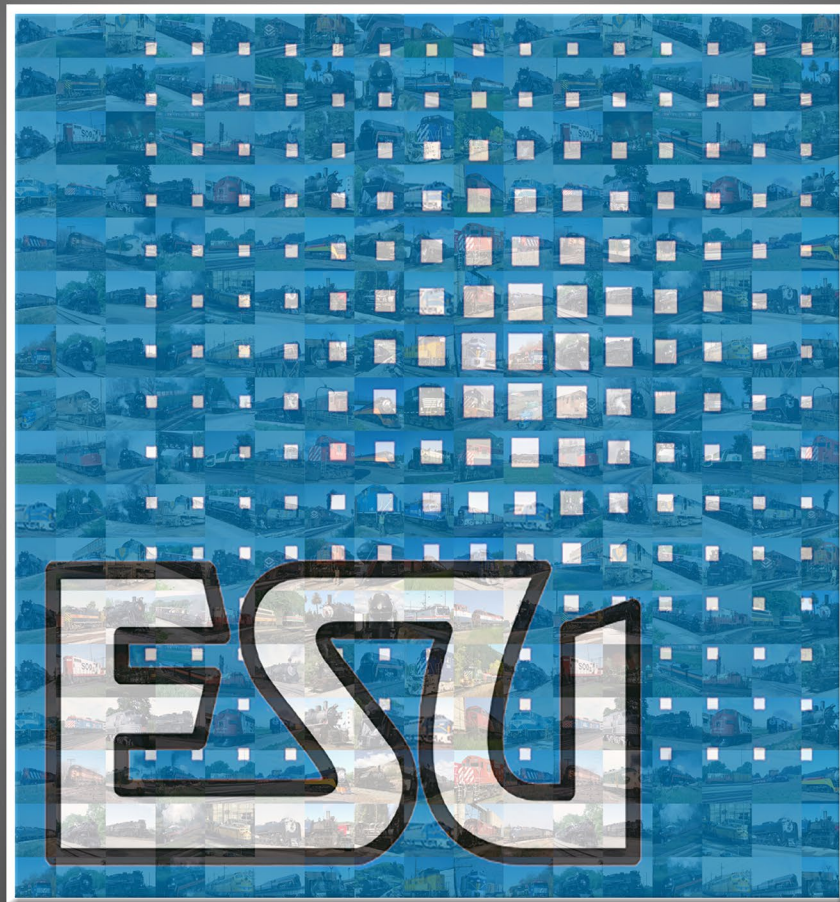


Find out more @ www.digitrax.com/dcs52

\$235.00 MSRP

Don't settle for all your locos
sounding the same!

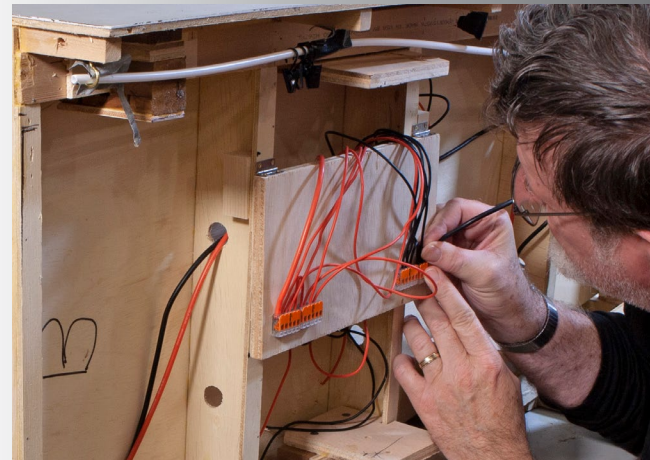
ESU now has **OVER 100**
"LokSound" files to choose from!



Because "Close Enough" is no longer
"Good Enough"

LokSound.com

Electrical Impulses



Model Railroad Hobbyist | October 2019

1. With my new Siskiyou Line 2 layout, I've updated my wiring practices for the 21st century. Read all about it here.

JOE FUGATE describes his Siskiyou Line 2 layout wiring tricks ...

AS I START CONSTRUCTING SOME SISKIYOU LINE 2 TOMA¹ modules, I'm revisiting all of my older layout building approaches. I'm very much on the lookout for new 21st century developments and wanting to upgrade my methods.

There's no part of layout construction where I'm more eager to find better methods than in layout wiring.

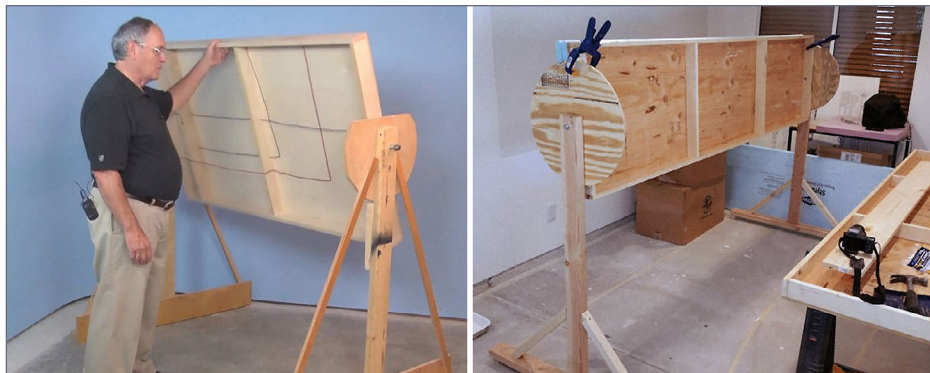
If you've followed my editorials in *MRH*, I've made no secret that I hate layout wiring. Oh, I don't find wiring hard to do, it's just



tedious, repetitive, and frankly, rather boring. But if you want the trains to run well, you'd better do it, and do it properly!

In my younger days I crawled around under the layout to do a lot of the wiring. Now that I'm a senior citizen, I'm much less interested in crawling around under the layout. That's one big reason why I've become such a fan of modular methods, and of TOMA specifically.

To work on the underside of a TOMA layout during construction, I just flip the module over. If you're using more of a traditional "slab" type of module, then building a "rotisserie" can be useful [2]. It allows working on the wiring by just rotating the module section up on its side.



2. One advantage of modular/sectional layout methods on a home layout – you can turn the modules over to work on the wiring. On the left, Miles Hale demonstrates his "A-frame-O-matic" and on the right, *MRH* forum member Steve Curry shows his module rotisserie to hold traditional "slab" module sections at whatever angle you need when working on them.

ADVERTISEMENT

NEW TECHNOLOGY

DCC + RADIO CONTROL

HO Scale Locomotive Module

**ULTIMATE
SERIES
SOUNDS**

**TRUE
MOTION
TECHNOLOGY**

**LIGHT
EFFECT
EDITOR**

**DIRECT
RADIO
+NET**

New Sound Technology and Mathematical Model Motion Control + more!!!

+

Equals
"DUAL MODE"
Control by DCC +
Radio Control

Click Here to
Watch Video

For more information visit our Internet site: www.RingEngineering.com

ADVERTISEMENT

Make LocoNet wiring extremely simple!

ACCU-LITES, inc

Your DCC Center!

Suitcases belong in your baggage cars,
not under you layout!

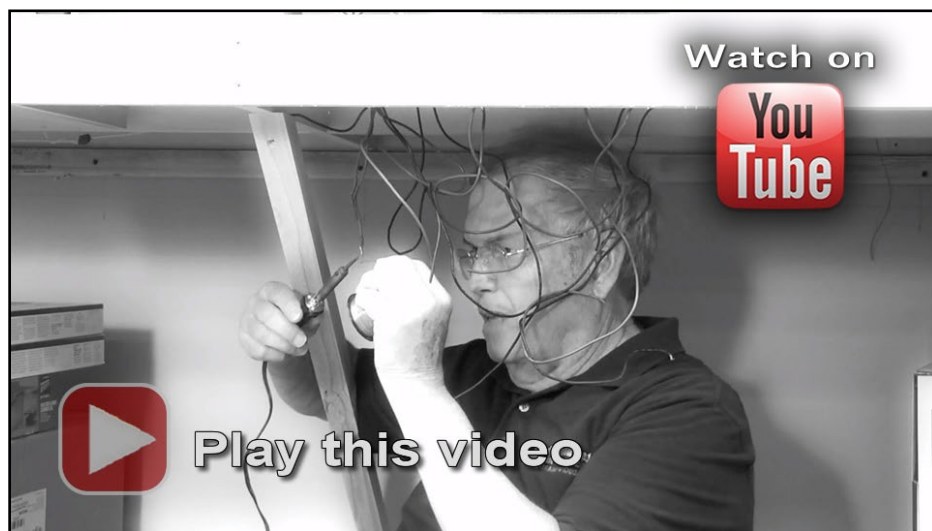
Introducing the DCC Vampire II ...
this guy does the job of two suitcase
connectors!
And really holds the connection good
too!

CLICK NOW TO DISCOVER THE AMAZING VALUE!

Dealer Inquiries Accepted



3. My shadowbox modules vary from the normal "slab" configuration, giving me one very nice serendipity: all I need is an ordinary table when working on the underside of a module section!



Video: This light-hearted video recommends a very real and useful suggestion for under-the-layout work: use modular methods and just rotate the module you're building to any angle needed.

"Your DCC Shop"

Litchfield

STATION

Offering:
Digitrax, NCE,
Speakers,
SoundTraxx,
ESU LokSound,
Train Control Systems (TCS),
Tam Valley Depot (TVD),
& More!

www.LitchfieldStation.com
sales@litchfieldstation.com
623-298-7355

For an example of a rotisserie, see this tongue-in-cheek video for the idea – in this case we gave our rotisserie a more bombastic name, the “A-frame-O-matic.” You can see the entire wiring video – this clip came from TMTV – here: [\[trainmasters.uscreen.io/programs/layout-wiring\]](http://trainmasters.uscreen.io/programs/layout-wiring).

In my case, I’m using a shadowbox configuration for my module sections. All I need is an ordinary table – I just place the module with its backside down and I can get to the underside easily to do the wiring [3].

This one change has done wonders to improve my attitude toward wiring. Now I can do the wiring in comfort instead of having to imitate a contortionist while down under the layout. And when I’m more comfortable, I do my best work, too. If there’s anything on the layout I would want to be “my best work,” it’s wiring!



J. Fugate

PUSHING THE ENVELOPE

With my TOMA-based Siskiyou Line 2 layout, I’m totally rethinking layout construction methods. So much has changed since 1991 when I started Siskiyou Line 1, so I am exploring many new methods and pushing the envelope in a lot of areas.

I built two test modules to try out these new methods – and as I expected, some methods worked, with other methods did not work well. On a few of the things that didn’t work out, I consider them a total fail.

But the new wiring methods fit in the *spectacular success* category, so that’s why I’m happy to share these new methods with you here. I’m very pleased with how the wiring part came out on my test modules.

ADVERTISEMENT

Discover the wonders of TrainMasters TV ...

FREE peek >>



TRAINMASTERS.TV

www.trainmasters.tv

ADVERTISEMENT

Great control in a tiny package

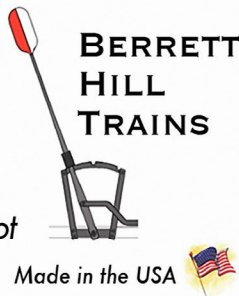


**Original
Touch Toggles**

- Touch Toggle™ plug in controls
- Bright clear indication
- Easy setup
- Flexible system

Stall Motors, Twin-coils,
Power, and Servos

Now for Tam Valley Depot
and MRservo too!



Made in the USA

What will they think of next?

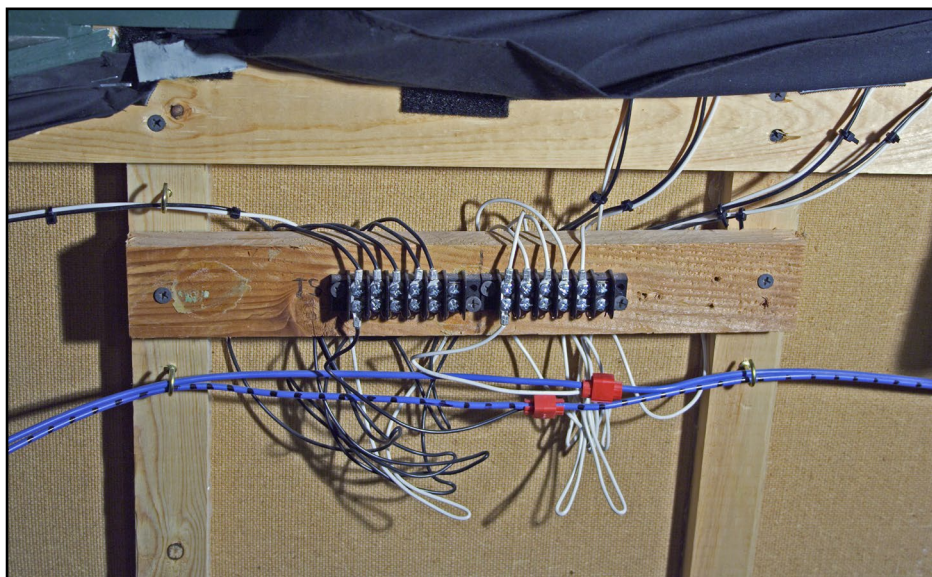
www.berretthillshop.com

General wiring approach

Unlike some modelers, I don't like to connect my feeders directly to my bus wires. Through hard knocks, I always assume the wiring may fail and need to be debugged. If you ever get a mystery short (and I have had several), trying to find it can be extremely exasperating.

On my Siskiyou Line 1, my goal was to make debugging a short take nothing but a screwdriver. I used screw terminal blocks and spade connectors on the wires [4] to allow me to add (or disconnect) feeder drops to the bus wires with just a screwdriver.

I've seen modelers connect feeders directly to the bus wire, either by soldering or using suitcase connectors. The problem with that



4. On Siskiyou Line 1, I used screw terminal blocks to attach feeders to the layout power bus. This allowed debugging any short with just a screwdriver.

ADVERTISEMENT

www.SBS4DCC.com

SOUNDTRAXX
The Power of DCC

DCC Specialties
INNOVATION FOR DCC

AGCUTRACK II SPEEDOMETER
The DCC Programmer and Control Family

TAM VALLEY DEPOT
Great Electronics for Great Model Railroads

MRC
Model Rectifier Corporation

SPROG DCC
The DCC Programmer and Control Family

Digital plus
by Lenz

TEAM DIGITAL, LLC
Improving the world of DCC

N - HO - HO_{n3} Scale Trains

ADVERTISEMENT

TamValleyDepot.com

Home of the Frog Juicer

Our best-selling Micro Switch Machine

3D Printed Switch Machines and Fascia Controllers now available

ADVERTISEMENT

END OF TRAIN DEVICE

NEW SAFETY GREEN

Bright Red Flashing Light!

Installs in minutes!
No freight car modification required!

Patented Technology - US Patent 7,549,609

Does not affect Load!

↓ Car without Load ↓ ↓ Car with Load ↓

Click Here to Learn More

RE RING ENGINEERING

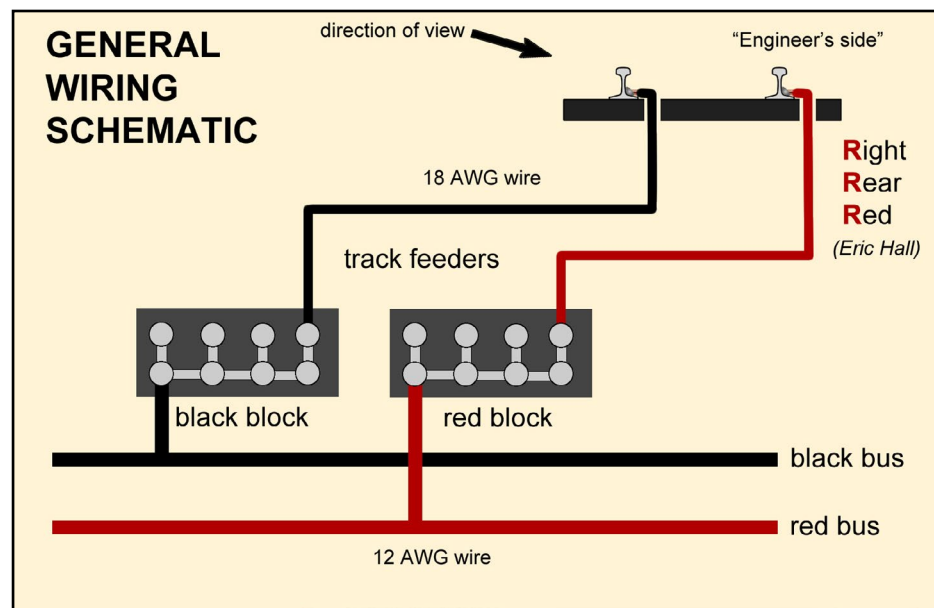
approach comes if you ever need to debug a mystery short – it’s time for the wire cutters – and that’s certainly not ideal!

So I do what you might call “defensive wiring” that’s designed from the get-go to be easy to debug.

Let’s look at a schematic of my wiring approach [5].

I run #12 stranded bus wires around the layout. For Siskiyou Line 2, I’ve standardized on red and black for the track feeders, to coincide with the black and red DCC decoder track feeds in a locomotive. I use #18 stranded wire for my feeder runs from the terminal blocks.

One side note – I solder both my feeders to the backside of the rails so they cannot be seen from the aisle. Yet when I do need to



5. This diagram shows my basic wiring approach. See the text for details.

find the feeders for debug purposes, they’re still visible with the use of a hand mirror.

Red to the rear – not always!

The DCC standard says that “red” goes on the engineer’s side of the loco, which would be the right side of the locomotive when we’re at the back of the loco facing forward. *MRH* forum member Eric Hall (AzBaja) has a clever memory ditty for this: “Right, Rear, Red” – very good, Eric!

Do note that when you have a dogbone or reversing loop on your layout, the “red to the rear” rule may not always apply [6].

Here’s a trick to keep straight which rail is which: take an old junker railcar and paint one side red and the other side black. Now put the car on the track in a location where you know red is to the rear and then roll that car around the layout, making note of which side is red or black.

When you run around a dogbone or a reverse loop, you will immediately see how the red rail can end up in front (or to the

To get more MRH ad-funded pages, please click on the ads.

left) in some locations. You will save yourself a lot of wiring headaches if you pay attention to this!

Updating my wiring approach

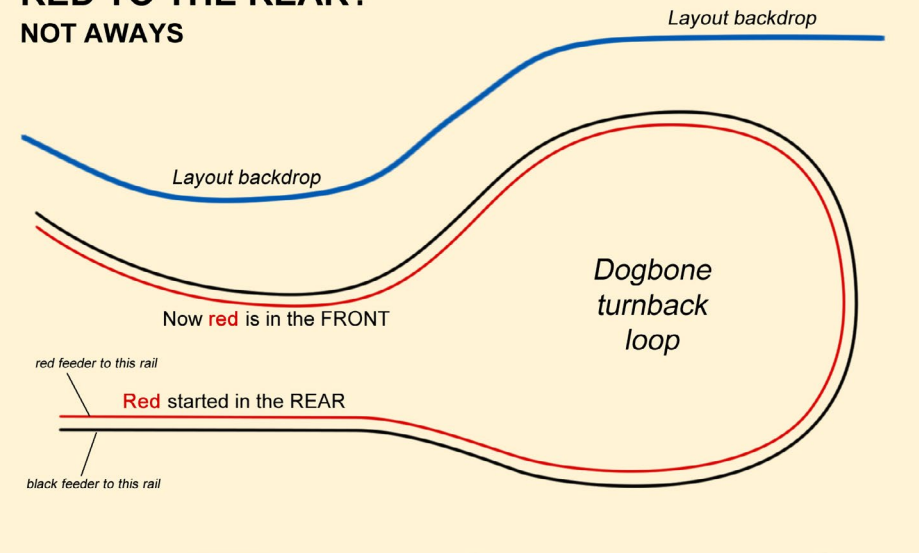
For Siskiyou Line 2, I've updated my wiring approach so that now I don't even need a screwdriver to debug my wiring – I just need my fingers!

Instead of screw terminal blocks, I've moved to using Wago 221 lever terminal blocks, primarily the 5-terminal version. The specs



6. I solder my feeders to the backsides of both rails so you can't see them from the aisle. I also make no special effort to hide them, which allows them to easily be found for debugging purposes when needed. Note where the skewer is pointing and then see the backside view in the mirror. It works!

RED TO THE REAR? NOT ALWAYS



7. Notice how red may not always be the rear rail. If you have a turnback loop or a reversing loop on your layout, red can end up in the front. Take note of that to make sure you keep the feeders on the proper rails when wiring!

for these terminal blocks say they support #12 to #24 wire sizes, so they're perfect for my #12 bus wire to #18 track feeder drops.

All the connections inside one of these blocks are connected together, so I can feed a bus wire drop in one end and all the track feeder drops out the other four slots automatically get power from the bus drop. I use one or more of these terminal blocks for the red bus feeder drops, and another set for the black bus feeder drops.

★★★★★
RATE THIS ARTICLE



\$9.43
✓prime

Wago 221 5 conductor connector
10-pack

 **Shop now**

These are available from Amazon in packs of 10, 25, or 50. A 10-pack costs less than \$10, and a 50-pack costs less than \$30.

WEB: amzn.com/B06XH47DC2?tag=mrhmag-20



\$12.59
✓prime

3M Heavy Duty Double-sided
Foam Tape - 32ft roll

 **Shop now**

I fasten these to my benchwork using heavy-duty 3M double-stick gray foam tape. This stuff sticks way better than regular double-stick foam tape. You can find it here on Amazon, with a 30-foot roll available for just over \$12 – it's also commonly available in Home Depot or Lowe's.

WEB: amzn.com/B00PKI7IBG?tag=mrhmag-20

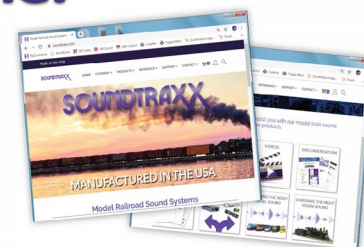


8. Wago 221 lever terminal blocks – no screwdriver needed!

ADVERTISEMENT

Order Online. Anytime.

For nearly 3 decades, we've been designing and manufacturing innovative products for discriminating model railroaders. SoundTraxx products and accessories are available by our extensive network of Authorized Retailers around the globe.

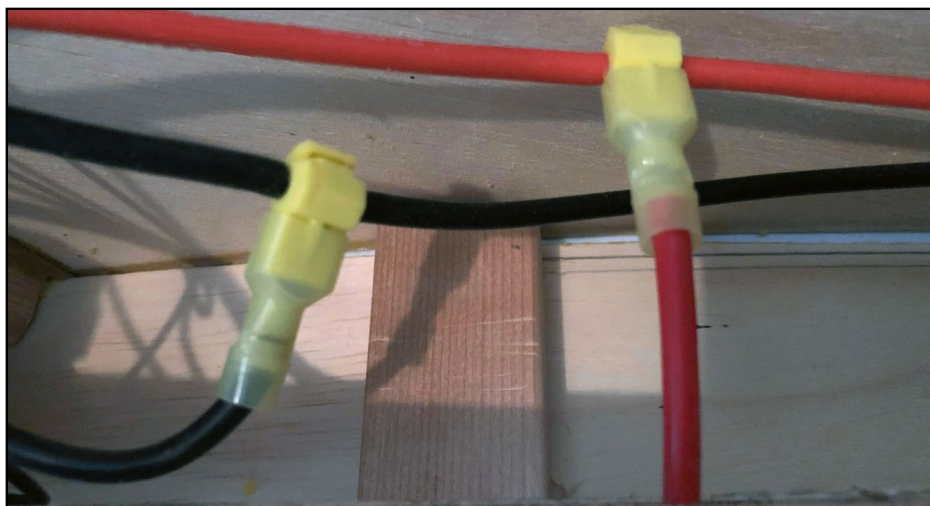


For the first time, you can also purchase the SoundTraxx products that you love directly from us at SoundTraxx.com. Shop from the convenience and comfort of your own home!

Visit our online store to see why we're so excited. If you need a reason, check out **Cyber Monday deals on December 2, 2019.**



SOUNDTRAXX.com



9. I use T-Tap connectors for the bus wire drop to the Wago terminal block connector, one connector for black and one connector for red. Then I connect black feeder wires to the black Wago block and connect red feeder wires to the red Wago block.



\$11.99
✓prime

T-Tap Electrical Connectors
Yellow 12-10 - 200 pieces



Shop now

For the drops off the main bus wire, I'm using T-tap connectors. You can get a 200-piece pack of #12 T-Tap connectors on Amazon for about \$12.

WEB: amzn.com/B07MCX7B41?tag=mrhmag-20

One trick I use with T-Tap (or the suitcase connectors I used to use) – I pre-cut the insulation through before I apply the connector. Yes, I know the

connector is supposed to do that for me. But I pre-cut the insulation on all my suitcase connectors I used on Siskiyou Line 1, and I never had a single suitcase connector failure over the layout's entire 26 years of life.

By pre-cutting the #12 bus wire insulation first before crimping the T-Tap connector onto the bus wire, I figure I'm guaranteeing similar reliability on Siskiyou Line 2.

Easier wiring access

While it's true with TOMA I can wire each shadowbox module section easily by laying the backdrop side on a table, what about later when the module's now part of the layout?

After giving this some thought, I elected to add a hinged drop-down panel near the center front of each module. To work on the module's wiring after it's part of the layout, I just pull the panel down! Easy as can be [10a, 10b]!

I used two cabinet door magnets (with the small steel plate that comes with each magnet) to hold the hinged panel in place when it's not needed. Works like a charm!

Summary

Now you can see the upgrades I've made to my Siskiyou Line 1 wiring practices for my new TOMA Siskiyou Line 2 modules. These methods passed with flying colors on my two test module sections, so these have become my new wiring methods. Already, I've had to do some wiring debugging, and being able to disconnect and reconnect wires with just my fingers has really helped. ✓



10a, b. I mount the Wago terminal blocks on a 1/2" plywood hinged panel that's held up against the bottom of the module with cabinet magnets [a] and lay the shadowbox module on its backdrop to easily work on the wiring. Later when the module is upright and in place on the layout, I can pull the hinged panel down to work on it easily from the front of the layout [b] and swing it up again to be latched back in place by the magnets.



STRIPWOOD ORGANIZER

BILL OBENAUF builds himself a handy workbench storage organizer for stripwood.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING**
EXTRA



Southern Digital

WWW.SODIGI.COM

Celebrating 25 Years of serving you !

**Complete wireless Wi-Fi Smart
Phone Interface Digitrax Zephyr Set**
Supports up to 5 phone throttles at a time!

Software Downloads for both Android (Engine Driver)
or Apple (WiThrottle) cell phones. Free Lite version or
Advanced paid versions available.



\$336.95 Value
\$265.00 Your Price
\$71.95 You Save

DCC Conversions, Service & Support

E-mail: sales@sodigi.com (770) 929-1888



From first train set to railroad empire...

Our complete line of DCC products grows with you. Discover the fun!

- Designed and manufactured in the U.S.A.
- Preferred for ease of use and ergonomic design
- Unlimited scalability for any size model railroad
- Plug-and-play means more time running trains
- Great customer service and excellent support



Visit our new and improved web site for all your DCC needs!

- Get the latest new product announcements
- Watch our detailed how-to videos
- Browse the all-new Information Station
- Enjoy secure online sales, day or night!



See your dealer

Visit **ncedcc.com**



MRH MARKETPLACE



HO DIESEL SUPPLY

CUSTOM SOUND LOCO'S-REPAIRS-UPGRADES
Weathered New and Rebuilt Locomotives
Powered Chassis-Trucks-Motors-Handrails-Electronics
Parts Inventory Always Changing
www.hodieselsupply.com
email: gerry@hodieselsupply.com

click me!



THE TRAINMASTER, LLC
Detailed Craftsman Kits

www.TheTrainMaster.com

Pursuing
Excellence

MRH MARKETPLACE | 2



Yarmouth Model Works

HO scale resin kits and detail parts

U.S.A. MAILING ADDRESS
2014 Holland Ave Unit 617
Port Huron, MI 48060
Tel. 519-633-7574
pierre.oliver@elgincars.com
www.yarmouthmodelworks.com
CANADIAN MAILING ADDRESS
263 Sunset Dr.
St. Thomas, ON N5R 3C4

Great Decals!™

FEC, Interstate, Virginian
Railway, & L&N Titles
After Hours Graphics Line
Coupler Gages and More
In O, S, HO, and N Scales

click to learn more!



East Coast Circuits
Innovating Your Model Railroad Layout

P.O. Box 25412
Providence, RI 02905
Lighting Circuits For Your Layout

Random Lighting Circuit - Burning Fire Circuit
Traffic Light Circuit - Crossing Signal Circuit

Custom Lighted Vehicles
HO & O Scale Emergency Vehicles
HO & O Scale Trucks & Cars

Eastcoastcircuits.com

Eastcoastcircuits@gmail.com

LOGIC RAIL™
TECHNOLOGIES

"Sophisticated
Model Railroad
Electronics"

Please visit our website and online store!

21175 Tomball Pkwy Suite 287 Houston, TX 77070
Phone: (281)251-5813
<http://www.logicrailtech.com>
info@logicrailtech.com



P.O. Box 6 Paonia, CO 81428

Ph. 970 527 4586

Made in The USA

Cast resin items for All Scales.
Tunnel portals, bridge piers, abutments,
culverts, and retaining walls.
Trackside details and sage brush tree
armatures.

"FREE SHIPPING see website for details"

Model Railroad Control Systems Geoff Bunza Project Boards • DCC Occupancy Detectors
CMRnet Compatible Nodes • Layout Telephone Systems • RFID Switchlist Generator • Switch Machines and Drivers

The
Miami
Valley
Division,
Dayton, Ohio

www.daytontrainshow.com

Dayton Train Show™

November 2 & 3, 2019

Big or small, see them all!

Thousands of Sq Ft. of floor space with:

- Operating layouts in various scales
- Hundreds of vendor tables
- "How To" clinics
- 2 LEGO layouts and LEGO vendor
- 7 1/2" scale 3D printed train and display from Sinclair Community College CAM department
- Prize drawings for adults and kids.



Montgomery County Fairgrounds

645 Infirmary Rd, Dayton, Ohio 45417

11:00 AM - 5:00 PM Saturday 11:00 AM - 4:00 PM Sunday

Adult Admission \$8.00 - Children 12 & under Free with paid adult.

Modern Event Center - Free Parking - Food Available



USRA DS Express Box
NWP Redwood Empire



westerfieldmodels.com

LOOK
at what's new at
Black Cat this month

Click here for
our website

in HO & N scale:
PGE cabooses in
Provincial & elk scheme



Black Cat Publishing

(204)489-5005

ajfergus@mymts.net

blackcatdecals.com



2019 NMRA MER Convention

October 10th - 13th King of Prussia, PA



Clinics (with Hands On Options)

Self-Guided Layout Tours

Operating Sessions

Model Contest

Model Display Space

Manufacturers and NMRA SIGs

and More!

MOUNTAIN SUBDIVISION HOBBIES

www.modelrrsupply.com

FREE USA SHIPPING OVER \$49.00

MRH Readers save with code:

MRHMAG19

MONASHEE

LASER

ENGINEERING

OFFERING

MANUFACTURED RAILROAD
STRUCTURES AND STOCK MODEL KITS

COME VISIT US
CLICK HERE

MRHMAG.COM



REGISTER
(free)

[INDEX](#)

[TABLE OF CONTENTS](#)

MRH MARKETPLACE | 3



**WEATHERING
POWDER**
**MONROE
MODELS**
www.monroemodells.us

REMEMBER TO MENTION
MRH WHEN SPEAKING TO
HOBBY VENDORS!



GREAT LOOKING
TREES
MAKE ALL THE
DIFFERENCE
**CANYON GREEN
SCENERY**

Your ad could be in
this space for as low
as \$112 a month.

Click to learn more ...

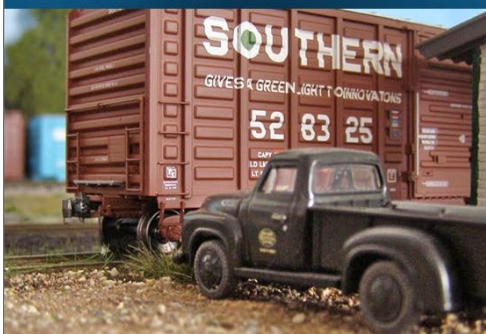
Have you seen these
popular blogs on the
MRH website?



Tom Johnson's L&IN

433,000 reads

CLICK TO READ IT NOW



Ken Glover's Shelf Layout

184,000 reads

CLICK TO READ IT NOW

**New on
TRAINMASTERS TV**



**Bruce Chubb's
Model Railroading museum project**



discounted fall pricing
ends this month

Check it out!

NEW: Now you can also buy
individual episodes starting at \$1.99



Coming to
TMTV end of
October!



ALSO: Bruce and his crew are planning a national-level model railroading museum in Grand Rapids, MI. The Sunset Valley will be relocated into this space along with a possible large O scale and N scale layout.

See: [Bruce Chubb's model railroad museum project on TMTV!](#)

Bruce Chubb's Sunset Valley

JOE FUGATE visits with Bruce Chubb about his ambitious Sunset Valley layout and its operations ...

1. Bruce Chubb bases his Sunset Valley upon the real 1955 Southern Pacific in Oregon, with a freelance twist. Bruce assumes the railroad kept the original Siskiyou Line route through southern Oregon, effectively creating an alternative timeline with a mix of prototype and freelance elements.



RATE THIS ARTICLE

JOE FUGATE: IF SOMEONE COMES INTO THIS basement for the first time and they've never been here before, how would you describe what they're going to see?

Bruce Chubb: When they come down into this basement, they're in another world. It's set in 1955 in the Pacific Northwest, modeling 10 prototype railroads, showing how they existed and how they operated.

Joe: What railroads specifically?

Bruce: We're modeling the states of Oregon, Washington, and northern California. We're in 2,650 square feet and we've occupied almost every cubic inch, vertically and horizontally, with up to four decks. The whole goal is to get as much mileage as we can for the run. So, if we run a train from lower staging to upper staging, we're going to go about 900 feet, or almost three football fields as you wind around the basement.

Joe: That's a lot of railroad!

Bruce: If you add in the branch lines, which are very significant, you get about 1,400 feet of track. In fact, the Coos Bay branch is longer than my previous railroad.

Joe: You mentioned your previous railroad. What about that?

Bruce: The previous Sunset Valley was a freelanced railroad that existed for almost 30 years. It was totally complete. Every square-inch was super-detailed.



2. Looking at the main engine terminal adjacent to Brooklyn Yard, it's clear the Sunset Valley has a heavy Southern Pacific steam heritage. In the background you can see Bruce's model of the Oregon City Municipal Elevator under construction.

We held over a thousand operating sessions, and people visited from all over the world. In any several month's period, we could have people from China, Norway, Australia, and New Zealand. We were almost a world-renowned, well-published and well-known major attraction.

Michigan State sent transportation classes there, and the Sunset Valley's CTC panel was even considered for training dispatchers when the C&O had lever-type CTC machines. That never came about because they modernized their system. We stayed in 1955.

Joe: Interesting! Now that you've moved to a more prototype-based layout, how have you done the research for your layout?

Bruce: As far as the prototype research, it's kind of difficult when you live a few thousand miles away from what you're trying to model. I always liked the Southern Pacific. I love water, green forests, and I love bridges, tunnels and mountains.

So we picked Oregon, because that is the main place that has those attributes, and where the Southern Pacific is. To do good research, I contacted everybody in the Layout Design SIG and the OpSIG that lived in that area.

I also contacted everybody in the SP Historical Society, UP, SP&S and about a third of the NMRA members that lived in that area. I asked them if they would like to contribute and research.

I got about an 85% response, and most of them were very favorable. They said, "I've read your books and your articles, and you've done so much for me. I would love to help you out in research."



3. Besides the Southern Pacific, the Sunset Valley also models connections with the Northern Pacific in Portland, at Lake Yard. This yard also hosts the Portland Union Station at its south end [4].



4. At the other end of Lake Yard, you find Bruce's extensive model of the Portland Union Station. The model here is still under construction, but even so it's an impressive structure and a good replica of the real station.

So we filled a five-drawer file cabinet of research material, covering every culvert, station, bridge, industry, and tunnel in the whole territory. We're modeling everything authentic, and we moved the old railroad here.

Parts that would fit in, we kept, and a couple of parts like Southern California and San Clemente, we scrapped. However we saved most of it.

I built this layout in modular sections to begin with, and our plan ever since the early 1970s was to put this layout in a museum someday. When we move to the museum in a few years, we will be disassembling all of this and moving it.

We will be expanding aisleways out to eight feet for better operation and better public viewing.

Joe: With all these prototype railroads you're modeling, I also assume you have many books?

Bruce: Yes, most people model one railroad, or maybe two. They have to buy books for those one or two railroads.

I'm modeling 10 railroads and at least six or seven of them have books. A person can get a sizable investment in books, but books are vital. If you're going to do prototype, you can't do without books.

Joe: More new guys come into the hobby all the time, and they don't know your history. Give us a bit of your background and what you're known for in the hobby.



5. Another railroad connection via Portland's Lake Yard on the Sunset Valley is with the Great Northern Railway. Interchanging with all these roads allows Bruce to operate a variety of power from both EMD and Alco.

Bruce: I started in the hobby when I was six years old, when my parents got me a Lionel train set that was set up around our Grandpa's Christmas tree one Christmas.

When I got home, I set it up in our living room, and my mother soon decided that was not good. So then I put it on her dining room table, and she was not pleased!

To solve this, my brother and my Dad built a ping-pong table with a removable top, which gave me the lower level for the trains. My brother had the ping-pong table on the upper level. That's really how I got started.

My wife and I were sweethearts since the first grade. She was secretary of the Sunset Valley train club when she was 10. I proposed to her at 13 (seriously), but she said that we were too young, so I waited until I was 18, and then we married.

So we've really been sweethearts for 76 years, married for 65, and we've been together in our favorite hobby ever since. She's extremely supportive.

I wrote my first article for *Model Railroader* back in 1970. I have also written articles for *Railroad Model Craftsman* and *Model Railroad Planning*, and I assume I am likely to write for *MRH* in the future.

I have about 80 articles to my credit, and four books related to the Sunset Valley. I have been going to national and regional conventions for years, and at Indianapolis I gave 16 hours of clinic presentations on all the panels. So I have got a pretty good reputation in the hobby.

I try to feature the electronics in the hobby, because my background is a doctoral degree in electrical engineering. I worked



J. Fugate

MY HISTORY WITH BRUCE CHUBB

Like many of you, I first got to know Bruce Chubb and his Sunset Valley through the pages of *Model Railroad-er* in the 1970s and 1980s.

Via the Layout Design Special Interest Group in the early 1990s, I learned of Bruce's retirement and move to a new house – and his desire to push the restart button on a new, much larger, prototype-based Sunset Valley.

Bruce decided to model the SP in Oregon, and to keep the original Siskiyou Line route as the Sunset Valley's southern Oregon mainline.

In 1993 as part of my trip back to the Valley Forge, PA NMRA Convention, Bruce invited me to stop over and compare notes on the SP in Oregon, and especially share what I knew about the Siskiyou Line.

That kicked off a friendship that's been a real delight – and I'm thrilled to have had a small part in the new SV's development.



6. Once in a great while, you'll also see a loco, caboose, or freight car lettered for Bruce's original Sunset Valley. Bruce's previous layout modeled a freelanced railroad with equipment lettered for the Sunset Valley, with an SP - Santa Fe feel.



7. Eugene, Oregon, as it did on the SP in the 1950s, forms the main yard for Bruce's version of the Southern Pacific. In 1955, the prototype rebuilt Eugene as a hump yard, but Bruce models it just before that upgrade as a flat yard.



8. The Sunset Valley models the SP mainline all the way from Dunsmuir, CA (staging) to Portland, OR. Here a mixed freight passes Mount Shasta, a prominent northern California landmark.

in aerospace, with all the electronics for Boeing and Airbus, all done by the company where I worked.

I worked my way up to Vice President of Engineering with 800 employees and engineer-types working for me. I invented the Computer Model Railroad Interface or CMRI. It's used on about 6,000 model railroads around the world, and most every museum is run by CMRI, almost without exception.

Most model railroads that have extensive centralized traffic control are all CMRI. I've concentrated on electronics, but I like all facets of the hobby.

Here we have tried to build everything to museum quality, so when we move it all to the museum, it should fit well.



8. Bruce has aimed to make the Sunset Valley a "museum quality" layout in terms of the detailing. Once you start looking around, you spot lots of detailed mini-scenes like this one on the banks of the Mollala River at Canby, OR.

Joe: What about the book that you're really known for – your operations book?

Bruce: I wrote that back in the 1970s, and since I did a lot of business travel back then, that whole book was written mainly in airports and on airplanes. I wrote it out long-hand, and then typed it out on an old clunky typewriter.

I approached Kalmbach with the book, but they were not very interested in publishing it because operation was such a small part of the hobby. But finally, I worked with Linn Westcott and between us we convinced them to try publishing it.

Kalmbach did the first printing of the book with several thousand copies, and it was sold out in four weeks. After that, we went through five or six printings. I think there were 22,000 copies printed in total.

I want to upgrade it, and I figured about 25% of it's got to be totally redone. It talks about cab-control instead of command-control. About half the book is all prototype, how real railroads operate. So I can save all that, and modify about 25%.

If you follow the OpSIG User Group discussions, there are still people talking about this book. You can still buy it on Ebay and Amazon. I've seen it go for \$49-\$50 a copy, and I've seen it go for 99 cents in places, when sellers didn't know what they were selling.

But it's still one of the top books on operation.

Joe: Do you have a publisher for that book? Is Kalmbach going to do it?

Bruce: I would rather not have them do it. They've given me total rights over it. I want to get into the real heart of operations, into more detail than they would likely want in an operations book.

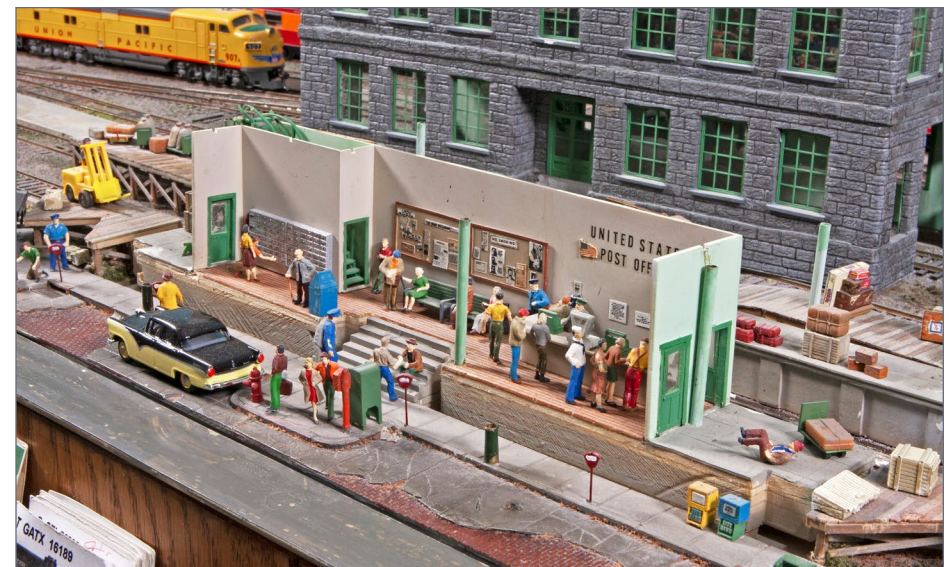
Joe: Let's get into some of the details of the current Sunset Valley layout you have here. You said your layout includes ten railroads: tell us a little bit about each one.

Bruce: Well, the main one we're modeling is the Southern Pacific. We're modeling it from Portland, Oregon down south to Dunsmuir, California. That's westbound on the prototype; towards San Francisco is westbound.

We're modeling the SP over the Siskiyou Line. We did that because that's through the old stagecoach route, and it's got solid industry and small towns galore. Just like eastern railroading, you've got lots of way-freight operation in the west in 1955, which is something I wanted. (Keeping count: Railroad 1.)



10. Bruce's super-detailing kind of sneaks up on you. This gray stone post office at the north end of Brooklyn yard [Bruce's old Fillmore Yard module section] looks like a nice enough structure, but it didn't occur to me to take the roof off and look inside. When I did remove the roof, I was blown away [10, 11].



11, 12. The interior detailing of this post office is off-the-charts amazing! The top photo shows the upper floor with the mail sorting. If you remove the walls, you get what's in the bottom photo, with the post office boxes and the service counter. Notice the bulletin boards, complete with wanted posters!

Off of the SP mainline at the town of Eugene, we're modeling the Coos Bay line that goes out towards the coast to the town of Coos Bay. Then when we migrate this layout to the museum, we'll be modeling beyond that to Powers, which will be operated by the Coos Bay Logging Railroad. (Keeping count: Railroads 2 and 3.)

We're modeling the Spokane, Portland & Seattle Railway (SP&S). This line comes in from Spokane into Portland. Lower staging represents three different railroads depending on whatever you're running for a train, so SP&S trains will come in from lower staging.

We're modeling the Willbridge Yard in Portland for SP&S, and then we're modeling a subdivision of the SP&S that goes from Portland to Eugene. It goes separately from the SP and comes together side-by-side in some cases in the major towns of Albany and Salem.

We're modeling this line through both those towns. I started out with a plan that had a lot of interchange, but I didn't want dummy interchanges. I started out with an interchange of the SP&S and SP in Salem, like it really exists, and there's two separate locations, Labish and Front Street.

Then I modeled the interchange in Albany, and I said, "gee whiz, I should connect those interchanges together." So that's what we ended up doing. We're really running SP&S trains, SP trains, we're also running Union Pacific trains as they come in from Pocatello. (Keeping count: Railroads 4.)

In Portland we've got the whole Albina yard of the UP, and a terminal 4 ocean seaport, served by the UP. (Keeping count: Railroad 5.)

We're modeling the Great Northern where they share the yard with the Northern Pacific in Portland, called Lake Yard. (Keeping count: Railroads 6 and 7.)



13, 14. Once I discovered Bruce's structure interior detailing fetish, I walked around the layout and started removing roofs. I was never disappointed – simply amazing!

We're modeling Union Station in Portland, which is their main central station. It serves all the different railroads, and back in '55, they ran about 16 trains in and out of that station. We're modeling all the passenger trains in 1955 except for two.

So we're modeling UP passenger trains, and we're modeling SP, SP&S, Great Northern, and Northern Pacific.

So it's a very colorful railroad to run down here, because we run all these different railroads, with all their sometimes very different color schemes.

Joe: Tell us about the main yards that you have on the Sunset Valley.



15. More Sunset Valley structure madness, Bruce & Jan's, no doubt a tribute to Bruce and his wife Janet. This structure is fully lit and has interior details (what else would you expect).



16. I had to also take an up close photo of this store structure. Once again, full interior detail and lighting. Also note the van lettered for the business with a seldom modeled open rear door. Bruce's attention to detail here is astounding.



J. Fugate

RAILROADS EIGHT, NINE AND TEN

In the interview, Bruce failed to mention his free-lanced Crescent City branch that runs from Grants Pass, OR to Crescent City, CA [staging].

The prototype planned this branch but only ever built less than a mile of railroad. Bruce assumes this branch did get built on his Sunset Valley version of Oregon railroading, so he models it.

Also Bruce models the Fruit Growers Supply sawmill and logging branch out of Hornbrook, CA.

And finally, he models the prototype's Tillamook Coast branch out of Tigard, OR, although it's mostly a short run to staging.

So there you go, railroads 8, 9, and 10.

Bruce: Of the classification yards, the largest one is Eugene. On the prototype, after 1955, it became a double hump yard, and was designed to handle 80 trains a day. We modeled ours before the hump, and we have 10 tracks, 10 classification tracks, and it is our largest classification yard. (Keeping count, Yards: 1.)

Eugene classifies trains going in both directions on the SP. The SP&S starts in Eugene and it's a separate yard, called OER for Oregon Electric, which was the owner of the trackage before it was bought out by the SP&S. (Keeping count, Yards: 2.)



17. Oregon is sawmill country and in the early 1950s, a few small temporary "open air" sawmills did exist in the mild western Oregon climate. Of course that's yet another excuse for Bruce to show off his fetish for detailed structures, as you can see here with this fully-detailed sawmill in Riddle, OR.

The second biggest yard is the Brooklyn Yard in Portland, and that is strictly Southern Pacific. You know, Southern Pacific ends in Portland, so it's kind of a terminal yard. In my old railroad, that was Fillmore when I freelanced, and I had a Fillmore station that was copied after Frank Ellison's model station (back in the forties), a very famous railroader from the 40s and 50s. (Keeping count, Yards: 3.)

A good majority of my 60 researchers said, you've got to keep Fillmore station. That's a landmark, it's well-published. So I said, okay, we're going to keep that.

We made that Harriman Station, which serves the UP and the Southern Pacific. Union Station services the NP, SP&S and the Great Northern. If you really study the operation of the real railroad passenger operation, there's a lot of interchange traffic in the 1950s. For instance, cars came off the name train The Cascade and they continued on via another railroad to Seattle and so forth.

That means we have a lot of interchange, not just between the Union Station tracks and Harriman Station, but we also have to shuttle some cars back and forth during an operating session between the two stations. It really makes passenger operation much more enjoyable and fascinating.

Joe: Besides the passenger station traffic and Brooklyn yard outside Portland, you model still more prototype railroad yards, correct?

Bruce: Yes, in the Portland area we're modeling Albina yard, which in our case is a seven-track yard. It serves about 10 or 15

industries that serves the ocean port of Terminal 4. It's run by UP switchers. (Keeping count, Yards: 4.)

Then we have Lake Yard, which I guess I talked about, but it's served by the Northern Pacific Terminal RR. It handles both the Great Northern and the Northern Pacific. (Keeping count, Yards: 5.)

Next we have the SP&S yard in Eugene. It's a small yard right now, but it will become a full-fledged yard, when we move to the museum, complete with its own switcher and its own yard master. (Keeping count, Yards: 6.)

Then we have the Coos Bay yard, and it is a six-track yard based on a curve, with a wye exactly like the prototype. Inside the wye is the



18. Portland, Oregon is a seaport and you would expect to see some ship models in Bruce's model of Portland, so here you go. This nicely detailed small freighter has rigging and lighting, along with some nice but not too overdone weathering.

three-stall roundhouse, like the prototype, along with a station like the prototype. (Keeping count, Yards: 7.)

The industries modeled in almost all these towns are very near exact replicas of a real industry at the time.

Joe: This layout is big on signals. What's the story there?

Bruce: I've always been very interested in signaling, because of my electrical background. I published my first article in 1974, if I remember right, on signaling. It was all relay-based, and I limited it down to two-color.

As soon as that came out, we got a flood of letters asking, "how do we get three-colors?" So then I came out with an installment that showed how to do three-colors.

Then I did another article showing how to get approach lights to your different towers, so at that time you could select cab controls. Signaling has always been a big part of my railroading, so when the first personal computer came out (Heathkit) I bought it and built it.

I wanted to connect that up to my railroad to do the signaling, in order to make it more realistic. My system was relay-based, but even though we had banks and banks and banks of relays (hundreds of relays), it still wasn't very prototypical.

So then with the PC, we interfaced the signaling, and it really came alive and active. It was fairly close to the prototype set up.

I approached a magazine again to have that published, but the feeling was that it had to be interfaced through something else than a HeathKit PC, because that was too limiting. I was using (machine level) Assembly language, and it had to be other than that.



19. Here is a composite panoramic photo along the busiest wall of Bruce's Sunset Valley. On the right half you can see a mind boggling four levels, while on the left half you have three levels.

The top-most level in the center is the Crescent City branch, with the second level down the large Dillard forest products mill and the Sunset Valley's version of the SP main.

On the third level down is Bohemia Lumber at Vaughn on the Coos Bay branch. And finally on the bottom level you have the combined NP, GN, and UP staging representing Seattle / Spokane / Pocatello respectively.

I assembled this wide-angle panorama using 70 photos. Using this many photos let me get a virtually seamless composite photo with Photoshop.

I had single-sided circuit board designs, so folks could etch their own. And the feeling was that not everybody would want to do that. That meant there needed to be a good source for circuit boards.

So without asking me, Janet spoke up and said let's do the circuit boards – that's how Janet Louise Chubb or JLC Enterprises was created.

The business has gone on now for almost 35 years and we still sell and draw a number of boards. We have shipments ready and waiting to go on the workbench right now!

With the Sunset Valley, we've got about 3,400 IO lines connected into the computer. I don't think, even knowing my famous friend Mike Burgett who helps me with signaling, that there's another railroad including his, that has prototype fidelity at as high a level as we've got on this railroad.

Basically we're emulating dual-control power switches, electric locks, automatic electric loss-controlled electric locks, transmission delays for your field circuitry, and we've got it down so pat, it's just fantastic.



20. The many yards on Bruce's layout remain quite busy during his weekly operating sessions. Here we see Albina yard, the Portland-area yard operated by the Union Pacific.

We put it all on sub-routine forms, so that people can just copy it and replicate it on their own very easily.

I published three books that have grown over time. One is a user's manual, and two Model Railroaders Handbooks. I spent eight years working with Mike Burgett and several other signal maintainers, figuring out exactly how the prototype works.

It's amazing once you figure that out. Things you thought were too complicated, we have figured out. It's just fascinating how they've done it with relays, and still do a lot with relays, and how we can replicate the way the railroad actually works.

About eight years of research has gone into the Model Railroader's Handbook, which is now two volumes. There's nothing like it in the world that explains prototype signaling like these.

Joe: The Model Railroaders Handbooks, are those available somewhere?

Bruce: Those are all self-published, self-printed and available for sale through JLCenterprises.net.

Joe: Your layout has two CTC panels. What do those represent?

Bruce: Yes, we have two CTC panels that copy two prototype panels. There were two major manufacturers of CTC machines ('50s-'60s-'70s lever-type machines).

One was Union Switch & Signal. As Southern Pacific machines, you can always tell a Union Switch & Signal machine because the bottom part is kind of olive-drab green, and the upper part is black. That's one brand.

The other brand, or manufacturer is General Relay Signaling (GRS). Those panels are all black.

The US&S machines are all stamped out of steel, and wherever you don't want to use holes, they're filled with plugs.

The GRS ones are custom-built for each application and custom engraved.

When you come down here, you can see both signaling systems. It's like a museum. "Here's how this manufacturer did it. Here's how this other manufacturer did it." We've got both as examples, and you can sit down and operate both.

Basically they do exactly the same thing, but they do it differently. The knobs are different, the placement of the knobs are opposite, and the lights operate differently.



21. Here's a wider view of the far end of Lake Yard. As you can see, this yard hosts mostly NP and GN power.

With GRS you got plus or minus 90 degrees of travel on your signal lever. On US&S machines, you got plus or minus 30 degrees. The way they function is different, but what they accomplish is exactly the same.

Here you can operate both styles. I don't know any place else in the world where you've got both examples in the same set up.

Joe: Many of your structures are super-detailed. Tell us about that.

Bruce: I've always been deeply involved in the art of model railroading, including super detail. I think it makes your railroad come alive. Not only do we detail the exterior scenery, and everything else, but we go for all the buildings up close.

We do full interior details, and we set up everything with a day/night lighting sequence that's tied in with fast clocks. As it becomes night, the lights dim. Scenic lights, street lights, and building lights will come off and on in a realistic sequence with your clock, and it just brings everything to life.

When you're running an overnight Pullman train, you really start to think you need to ease in close, make your safety stop, and try not to wake the sleeping passengers!

On the post office, I claim that when you look at the sorted mail, you can even see the 3-cent stamps! I want to make sure people see that, because that's what stamps were in 1955. They were worth 3 cents for a first-class stamp.

Then people look closer when I tell them that - but seriously even with a microscope, I don't think you'll see the 3-cent stamp!

Joe: You seem to have a knack for drawing others to work with you in the hobby. What's your secret?



22. The westbound Shasta Daylight prepares to leave Brooklyn yard on the outskirts of Portland, OR. Bruce repurposed his previous layout's Filmore yard module section now as the SP Brooklyn yard.

Bruce: Janet's dad retired early just so he could work full-time on the Sunset Valley Railroad. My wife wanted to go to Lansing, about an hour's drive away, to visit her dad. So, we went there, and I set up a modeling shop in her dad's basement.

So, I'm in the basement, soldering up a Suydam metal building. And I said, "Gee, Dad, can you hold this while I solder this... and hold this ... and hold this?"

And he'd work with me on it. And I'd finally say, "Well, we've got to leave now, but I think you could finish this up, can't ya?" He'd finish that project that I had started.

He ended up building a whole circus train. Then he built dozens of structures and dozens of freight cars. That's how he got hooked on the hobby.

I've done the same thing with my son-in-law. He's done tons of interiors, and tons of buildings. I've got a dozen people that are just doing structures. With the ones up close, we do heavy detail. As they get further away from the fascia, then we cut down on the detail.

If doors open and windows open, things really come alive when you dim the lights. We can show photos both ways, and it's really fascinating.

Railroads ran for 24 hours and I think it's important that we do the same thing on our layout.

Joe: Speaking of running railroads: how often do you have op sessions, and about how many people does it take to have a good session?

Bruce: We operated for about 30 years on the old railroad. One night a week, every Thursday night. We ran about a thousand operating sessions, and ran a lot of special sessions too.

We started operating pretty darn quick on the new railroad in this basement, too, because we moved all the previous modules here. A lot of it was pretty finished looking fairly quickly, and we started operating.

Currently we are operating three days a month. We want to increase that to four days a month before long, as we get more construction done.

We run a pretty long operating session. We start at 9:00 a.m., and most days we end at 4:30 p.m. We take a one hour break for lunch at Mr. Burger, a nearby restaurant.

In terms of the number of operators needed, experience counts five times more than the number of operators you have.

For example: let's take Eugene yard. It's designed for two-people operation. But we've got one prototype railroader who likes to operate that yard. He does both ends of the yard (he is a CSX engineer) and keeps everything going just great.

He runs the through-trains between the Eugene yard and Coos Bay, and will run the Coos Bay yard, and will sit in the lounge half the time on top of all that!



23. This CTC panel handles the Portland area GN and NP yards. On the prototype, the GRS panels are custom-built for each application and custom engraved.

You put two other inexperienced people on Eugene yard and they are sweating the whole session, and aren't keeping up.

So we can operate with 12 people and run full schedule, but we may need to slow the clock down a little bit. One time we had NMRA people here - all their Board of Directors - all their officers came here after the Detroit NMRA National convention.

At the Detroit National is where Grand Rapids gave their bid to host the 2012 NMRA National. We had it all set up for a party with the Sunday op session, and the NMRA board meeting often runs over into Sunday.

When they started their Saturday meeting they said, “We are going to stay as late as we need, because Sunday we are going to go to Bruce Chubb’s to run the Sunset Valley.”

We had 45 visitors that day, from the NMRA, plus my crew. There was a total of 55-60, and we still ran a beautiful session. But the optimum number is 15-20 people when the people are experienced on this layout.

Every session we have visitors. We just had a crew of five fly in from Texas to operate here for two days.



24. This CTC panel models one built by Union Switch and Signal. As Southern Pacific machines, you can always tell a Union Switching Signal machine because the bottom part is kind of olive-drab green, and the upper part is black.

That’s what we do every month. We have one 2-day session, a Friday and a Saturday. Those are designed for people who have a considerable driving or flying distance to get here, so they get a place to operate and make the trip worthwhile. The Friday session tends to start a bit late, but then we have regular full-day session on Saturday.

We’re going to add a fourth session every month. It will be an evening session for local people that work during the day. So, a number isn’t as important as quality.

So our joy, really, is operating the railroad in a prototype manner and expanding that knowledge to additional people to give them the opportunity to really know how a real railroad works, and how it runs.

Joe: As an ops guy myself, I can honestly say, Bruce, it doesn’t get much better than that. ✓



J. Fugate

MORE THAN JUST BRUCE CHUBB

On a 2600 sq ft basement layout that has 3-4 decks, that’s over 7000 square feet of layout space (minus the aisle space, which isn’t multi-deck).

No one person could do this much layout alone, and Bruce has lots of help. He has over 40 dedicated local volunteers that work on all aspects of the layout. In an upcoming TrainMasters TV ops video on the Sunset Valley, you’ll get to meet some of these folks by name!

TRACK PLAN

For an overall view of *Model Railroader's* Sunset Valley track plan, see the TrainMasters TV site and click the link in the video description (Model Railroader plan on TMTV used with permission):
trainmasters.uscreen.io/programs/bruce-chubb-museum-project

To see a detailed fully-zoomable track plan, visit the *Model Railroader* website here (you do need to subscribe to get access):
mrr.trains.com/how-to/track-plan-database/2007/09/sunset-valley-oregon-system

BRUCE CHUBB



Bruce started in the hobby when he was six when he received a Lionel trainset that was set up around his grandfather's Christmas tree one Christmas.

Bruce has about 80 articles to his credit, and four books. One of his most famous books is "How to Operate Your Model Railroad," published by Kalmbach Media.

Bruce also invented the Computer Model Railroad Interface (CMRI). ■



Also coming to
TMTV end of
October!



Sign up for trains in order as listed below *except* for the special conditions listed on the bulletin at the right

Run	Train	Start	Depart	Arrive	Time	Time
Order	No.	Time	From	To	On Day	Off Day
1	12	12:01A	Portland (HS)	Final	10:00A	
2	13	12:01A	Portland (HS)	Final	10:00A	
3	14	12:01A	Portland (HS)	Final	10:00A	
4	15	12:01A	Portland (HS)	Final	10:00A	
5	16	12:01A	Portland (HS)	Final	10:00A	
6	17	12:01A	Portland (HS)	Final	10:00A	
7	18	12:01A	Portland (HS)	Final	10:00A	
8	19	12:01A	Portland (HS)	Final	10:00A	
9	20	12:01A	Portland (HS)	Final	10:00A	
10	21	12:01A	Portland (HS)	Final	10:00A	
11	22	12:01A	Portland (HS)	Final	10:00A	
12	23	12:01A	Portland (HS)	Final	10:00A	
13	24	12:01A	Portland (HS)	Final	10:00A	
14	25	12:01A	Portland (HS)	Final	10:00A	
15	26	12:01A	Portland (HS)	Final	10:00A	
16	27	12:01A	Portland (HS)	Final	10:00A	
17	28	12:01A	Portland (HS)	Final	10:00A	
18	29	12:01A	Portland (HS)	Final	10:00A	
19	30	12:01A	Portland (HS)	Final	10:00A	
20	31	12:01A	Portland (HS)	Final	10:00A	
21	32	12:01A	Portland (HS)	Final	10:00A	
22	33	12:01A	Portland (HS)	Final	10:00A	
23	34	12:01A	Portland (HS)	Final	10:00A	
24	35	12:01A	Portland (HS)	Final	10:00A	
25	36	12:01A	Portland (HS)	Final	10:00A	
26	37	12:01A	Portland (HS)	Final	10:00A	
27	38	12:01A	Portland (HS)	Final	10:00A	
28	39	12:01A	Portland (HS)	Final	10:00A	
29	40	12:01A	Portland (HS)	Final	10:00A	
30	41	12:01A	Portland (HS)	Final	10:00A	
31	42	12:01A	Portland (HS)	Final	10:00A	
32	43	12:01A	Portland (HS)	Final	10:00A	
33	44	12:01A	Portland (HS)	Final	10:00A	
34	45	12:01A	Portland (HS)	Final	10:00A	
35	46	12:01A	Portland (HS)	Final	10:00A	
36	47	12:01A	Portland (HS)	Final	10:00A	
37	48	12:01A	Portland (HS)	Final	10:00A	
38	49	12:01A	Portland (HS)	Final	10:00A	
39	50	12:01A	Portland (HS)	Final	10:00A	
40	51	12:01A	Portland (HS)	Final	10:00A	
41	52	12:01A	Portland (HS)	Final	10:00A	
42	53	12:01A	Portland (HS)	Final	10:00A	
43	54	12:01A	Portland (HS)	Final	10:00A	
44	55	12:01A	Portland (HS)	Final	10:00A	
45	56	12:01A	Portland (HS)	Final	10:00A	
46	57	12:01A	Portland (HS)	Final	10:00A	
47	58	12:01A	Portland (HS)	Final	10:00A	
48	59	12:01A	Portland (HS)	Final	10:00A	
49	60	12:01A	Portland (HS)	Final	10:00A	
50	61	12:01A	Portland (HS)	Final	10:00A	
51	62	12:01A	Portland (HS)	Final	10:00A	
52	63	12:01A	Portland (HS)	Final	10:00A	
53	64	12:01A	Portland (HS)	Final	10:00A	
54	65	12:01A	Portland (HS)	Final	10:00A	
55	66	12:01A	Portland (HS)	Final	10:00A	
56	67	12:01A	Portland (HS)	Final	10:00A	
57	68	12:01A	Portland (HS)	Final	10:00A	
58	69	12:01A	Portland (HS)	Final	10:00A	
59	70	12:01A	Portland (HS)	Final	10:00A	
60	71	12:01A	Portland (HS)	Final	10:00A	
61	72	12:01A	Portland (HS)	Final	10:00A	
62	73	12:01A	Portland (HS)	Final	10:00A	
63	74	12:01A	Portland (HS)	Final	10:00A	
64	75	12:01A	Portland (HS)	Final	10:00A	
65	76	12:01A	Portland (HS)	Final	10:00A	
66	77	12:01A	Portland (HS)	Final	10:00A	
67	78	12:01A	Portland (HS)	Final	10:00A	
68	79	12:01A	Portland (HS)	Final	10:00A	
69	80	12:01A	Portland (HS)	Final	10:00A	
70	81	12:01A	Portland (HS)	Final	10:00A	
71	82	12:01A	Portland (HS)	Final	10:00A	
72	83	12:01A	Portland (HS)	Final	10:00A	
73	84	12:01A	Portland (HS)	Final	10:00A	
74	85	12:01A	Portland (HS)	Final	10:00A	
75	86	12:01A	Portland (HS)	Final	10:00A	
76	87	12:01A	Portland (HS)	Final	10:00A	
77	88	12:01A	Portland (HS)	Final	10:00A	
78	89	12:01A	Portland (HS)	Final	10:00A	
79	90	12:01A	Portland (HS)	Final	10:00A	
80	91	12:01A	Portland (HS)	Final	10:00A	
81	92	12:01A	Portland (HS)	Final	10:00A	
82	93	12:01A	Portland (HS)	Final	10:00A	
83	94	12:01A	Portland (HS)	Final	10:00A	
84	95	12:01A	Portland (HS)	Final	10:00A	
85	96	12:01A	Portland (HS)	Final	10:00A	
86	97	12:01A	Portland (HS)	Final	10:00A	
87	98	12:01A	Portland (HS)	Final	10:00A	
88	99	12:01A	Portland (HS)	Final	10:00A	
89	100	12:01A	Portland (HS)	Final	10:00A	

Note: If an EXTRA Train Card is hanging on clip at right, THAT TRAIN IS THE NEXT TRAIN UP AND MUST BE TAKEN BEFORE SIGNING UP FOR THE NEXT AVAILABLE TRAIN ON THIS ASSIGNMENT LIST.

The trains marked with the Delta symbol are all operated on the top most deck of the SVOS and require the operator to stand on a step stool or a ladder!

CALL BOARD FOR Timetable 5.doc

2

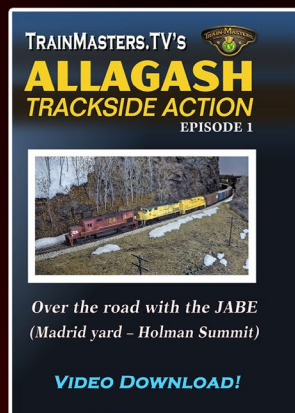
Issued: 08-16-2016 (Rev. d (01/10/2017))

Now on the MRH Store ...

ALLAGASH

TRACKSIDE ACTION

EPISODE 1



Over the road with the JABE
(Madrid yard - Holman Summit)

Yes, get my copy!

VIDEO DOWNLOAD

(Also coming to
DVD in January)

Price: 5.99 for episode 1

This episode is part of a trilogy. Pre-order the entire
trilogy and save!

Preorder the trilogy!

VIDEO DOWNLOAD

Price: 9.99 for the trilogy

store.mrhmag.com

Add LEDs to your workbench magnifier



Model Railroad Hobbyist | October 2019

1. I added two \$8 LED keychain FOBs to my magnifier to give me some nice LED lights.

JIM JOHNSON attaches some inexpensive LED lighting ...

ADDING SOME CLOSE-IN LIGHT FOR MY MAGNIFYING
visor has been a big help

I found these keychain fobs with LEDs on them at [amzn.com/B000JGO7Z4?tag=mrhmag-20](https://www.amazon.com/dp/B000JGO7Z4?tag=mrhmag-20).



RATE THIS ARTICLE



I removed the keychain hook and attached one LED to each side of my magnifying visor. I fastened them with double-sided silicon tape which makes it easier to change batteries.

These little lights have an on/off switch activated by just squeezing the fob. Test before mounting to make sure they are positioned so just pressing on the one exposed side is enough to turn them on.

These LEDs provide plenty of light for working up close. I found this to be a nice quick upgrade to my workbench magnifying visor for less than \$20! ✓

JIM JOHNSON

Jim is a US government retiree building an 8' x 11' walk-in layout in HO scale. Other than his model trains, Jim says his one other hobby is computers. ■



J. Fugate

OTHER OPTIONS FOR LED LIGHTED VISORS

Besides the approach Jim Johnson shows here, the MRH forum also has another alternative: using an LED light intended as a clip-on accessory for a medical visor.

It turns out you can find a number of these clip-on lights in the \$20-\$40 range on eBay and on Amazon. If you visit the specific MRH forum thread below discussing this idea, you can find a link to a \$20 clip-on light for sale on eBay. Here's a link to the MRH forum thread:

MRH: mrhmag.com/node/37551

Or if you prefer buying from Amazon over eBay, here's one that gets a decent customer rating and sells for under \$30:

WEB: amzn.com/B00XOX8XIG?tag=mrhmag-20

Finally, if you don't mind getting an entirely new workbench head magnifier with LEDs, we found a highly rated one on Amazon for less than \$20 – that's right, less than \$20 for a *new* head magnifier with LED lighting:

WEB: amzn.com/B07RNCQJG3?tag=mrhmag-20



FAST TRACKS

Build your own trackwork easily, quickly, and affordably.

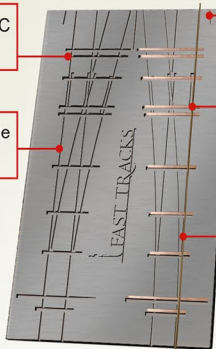


TRACK BUILDING SYSTEM

★★★★★
Precision milled pockets accommodate PC Board ties that are soldered to the rails.

★★★★★
Track slots ensure perfect alignment while soldering the rails to the PC Board ties.

Each turnout fixture can be used to construct both right and left turnouts that are DC and DCC compatible.



★★★★★
Guard rail forming grooves are provided to precisely shape the guard rails.

★★★★★
PC Board ties are soldered to the rails using a standard 35 watt soldering iron.

★★★★★
Rails are inserted into the fixture right side up, making it easy to confirm alignment.

★ Fixtures are machined out of a solid piece of high grade 6061 aluminium stock and will last for thousands of uses.

Turnouts are built using pre-cut PC Board ties dropped into pockets cut into the fixture.

Held in precise alignment, rail is then soldered in place onto the ties.



The Fast Tracks PointForm tool makes it fast and easy to file perfect frog and switch points for the turnout.

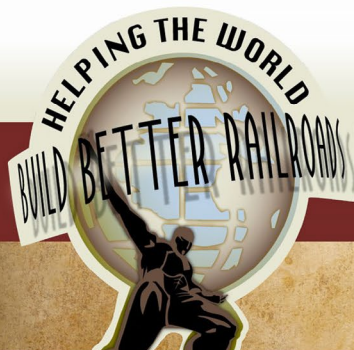
Just insert the rail into the tool and file.



Finishing the turnout is simple with QuickSticks laser cut wood ties.



Simply glue the soldered trackwork to the wood ties, break off the frets, and your turnout is ready to be installed onto your layout!



All Fast Tracks track fixtures and tools are NMRA compliant



• Easy ordering •

Earn Waypoints with every purchase

shop online 24/7 handlaidtrack.com

1-888-252-3895 service@fast-tracks.net

Santa Fe Citrus Line in a garage



Modeling the Santa Fe citrus business. *Photo by John Parish*

Model Railroad Hobbyist | October 2019 | #116

DON VAIL designs a bi-level N scale "citrus grove" Santa Fe ...

THE VAST CITRUS GROVES OF SOUTHERN CALIFORNIA are now only of legend and history. However, for much of the past century hundred of thousands of acres were planted with Valencia and navel oranges, and lemons and other citrus along with nuts and berries. The bulk of it was transported throughout the growing nation by rail.



RATE THIS ARTICLE

By 1948 the Santa Fe Railway handled about half of the annual traffic and had built considerable infrastructure to support the load. Trackage spider-webbed throughout the area as the company competed with the Southern Pacific and the Union Pacific.

Nowhere was the concentration of groves, industry and steel rail higher than in aptly named Orange County. Dozens of packing houses were throughout. At the time, towns such as Anaheim, Fullerton, and Santa Ana were little known except as nodes in the network of trees and trains.

South of Santa Ana, along the famous Surf Line from Los Angeles to San Diego, the Venta branch split off into the sprawling Irvine ranch to connect the main line with citrus groves and packing houses. Stations such as Frances and Kathryn were named after members of the Irvine family.

The operational pace here was frantic during peak harvesting seasons included loads of wood, oil, and other materials for the growers.

No passenger trains were scheduled along the Venta branch but they were not far away.

The San Diegan ran through Santa Ana and the Venta station stop and had expanded to eight trains daily by the late 1940s. On Saturdays and summer holidays during the summer, one could catch a special to Del Mar, north of San Diego, to watch the thoroughbreds run (“where the turf meets the surf”), and maybe catch a glimpse of track co-owner Bing Crosby.



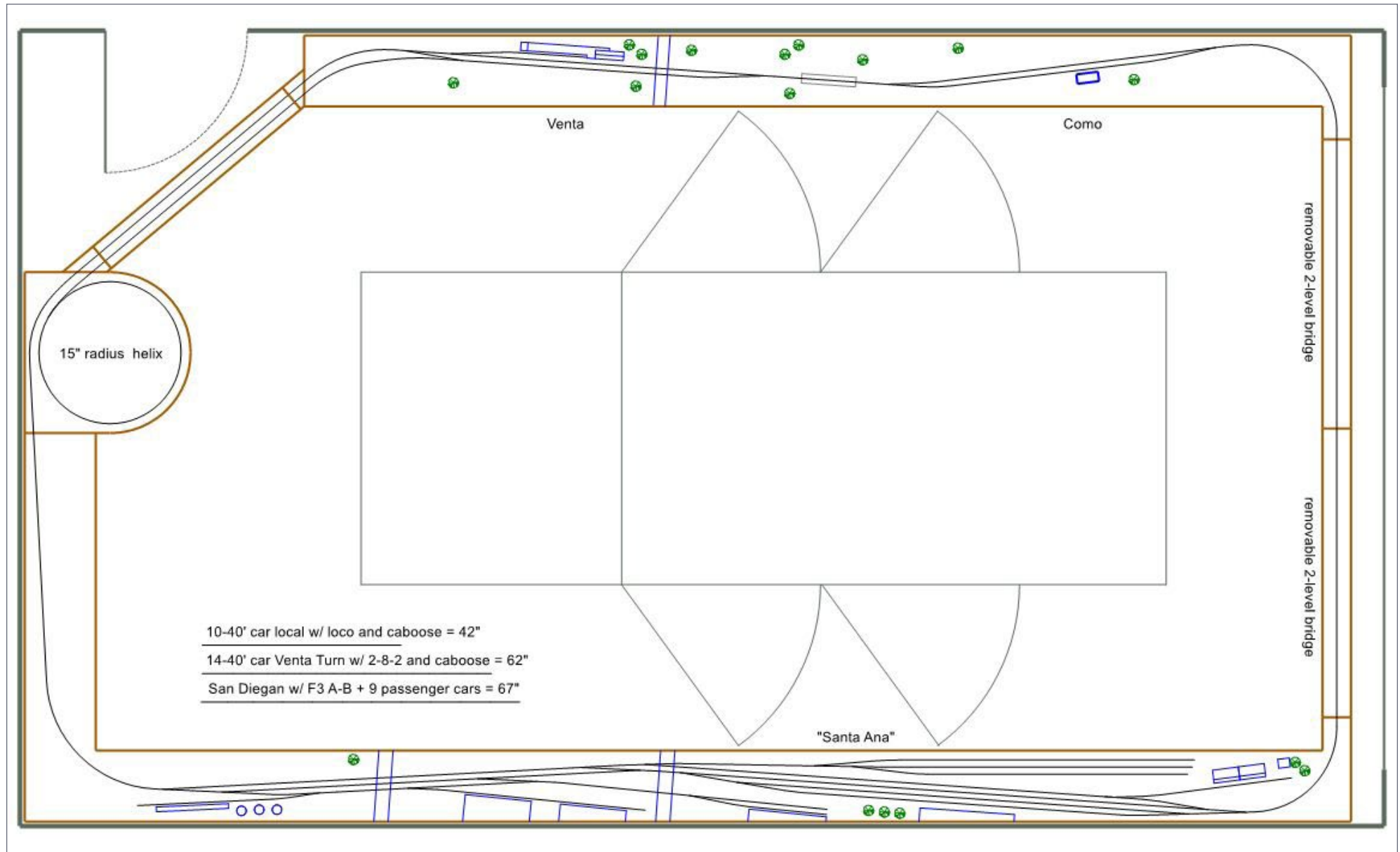
1. Panoramic view of orange groves and Saddleback Mountain, Irvine Ranch, California, in 1956. Source: Orange Public Library and History Center

Essentials

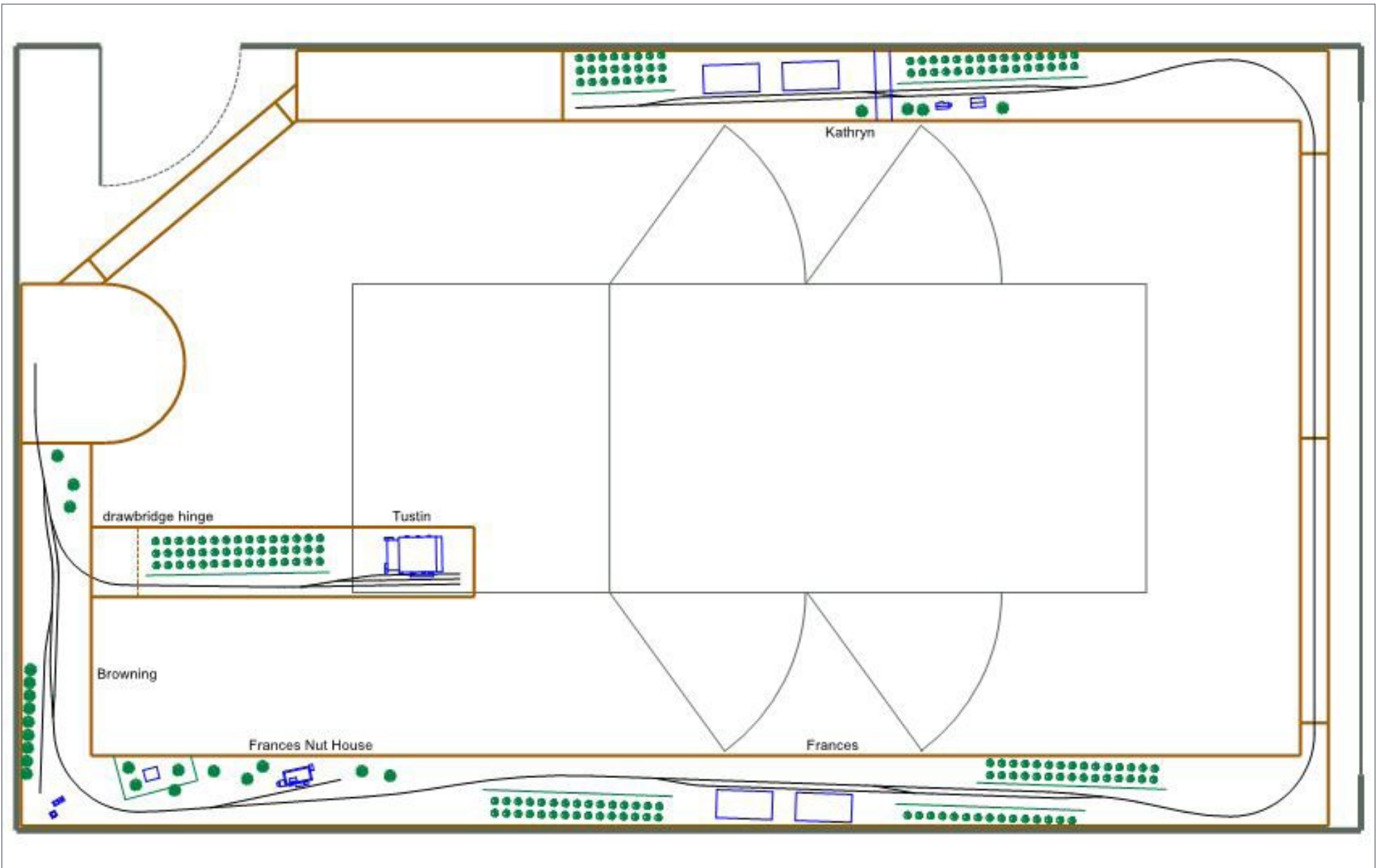
As a Southern California native I have always wanted to model the area’s citrus operations in their heyday. I am old enough to remember a scattering of orange groves but young enough to have missed its scope and contributions to the region’s growth.

Two overriding factors drive this modeling plan. The first is entirely personal. The railroad must be something that I can and would build and operate within a reasonable time period.

My level of modeling skill, my financial resources, and the time I can dedicate to the project are not extraordinary. There is an expectation of the use of commercially available trackage and structures with a minimum of scratchbuilding, even though that means that each packing house may not exactly match its prototype.



2. Lower level of the N scale track plan, in a single-car garage.



3. Upper level of the N scale track plan.

The plan must support both solo operation and that of a small group. It needs to mimic the look and feel of the Venta branch and nearby Santa Ana but cannot overwhelm the single-car garage (roughly 14' by 24'), nor can it force grown-ups to squeeze through 24" aisles.

N scale permits track arrangements on the branch to be very similar to those of the prototype. I can't build up all the track-age in Santa Ana but even there one can replicate the essentials. Modelling in 1/160 scale also means that trains are near genuine length and there is a bit of space between stops.

I have been modeling in N scale for quite a few years now and have come to marvel at the advances in appearance and operational capability so that a layout of this type can be operated reliably and enjoyably.

The second principal factor is that the layout must share space with a vehicle and allow family members to park the car, get out, and take things inside without major contortions and/or complaints to the layout's builder. I drive a Subaru Impreza – not a large car but not tiny either. That is what I used to judge the balance between layout and vehicle.

In the past few years I have experienced both a polar vortex in the Midwest and the blazing sun of central Texas. Having your car in an enclosed garage is not to be taken lightly.

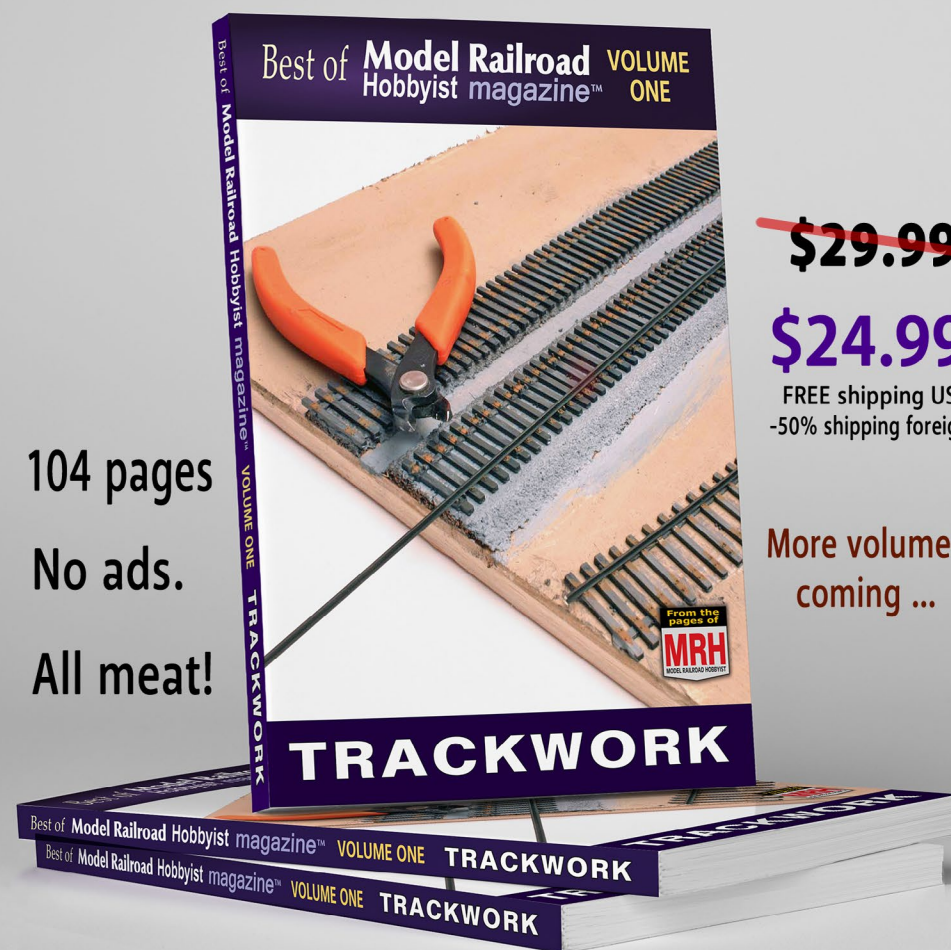
Scenario

It is 1948 and business is good. The Venta Turn runs almost daily out of the icing and staging complex of San Bernardino to set out empty steel refrigerator cars – both iced and dry depending on the produce – on the Venta branch and at other towns such as Corona and Orange along the way. It will then pick up loads and return to San Bernardino.

You asked for it: so here it is!

Now available

Best of MRH in paperback! (with no ads)



Order my copy now >>

store.mrhmag.com

By now the blue and yellow FTs have taken over the long-distance runs through Cajon Pass and to the north, but the citrus turns are largely still powered by mid-size steam.

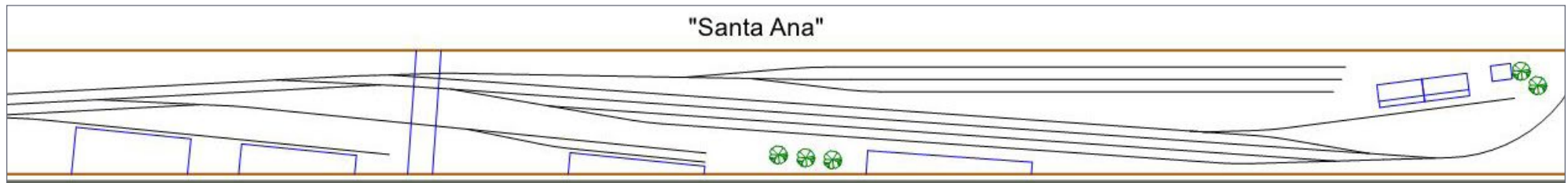
The local switch jobs out of Santa Ana are increasingly diesel-powered, maybe by an Alco HH600. These run down to the branch to work the packing houses in anticipation of the next turn and to deliver materials such as “shook” wood used to assemble field boxes for the pickers and crates for the packers.

The passenger trains are a mix of old and new along the Surf Line. The San Diegan is a money maker for the railroad, and it gets the shiny F3s and stainless steel equipment. The Del Mar specials depend more on older equipment and steam, including the great Santa Fe Northerns.

Let's run some trains

We can track the progress of a Venta Turn as it goes from Santa Ana through the branch. We are working the train once it has reached Santa Ana. The local switcher has already moved empties and loaded cars on the branch in anticipation of the run of this train.

There are three staging tracks across from the depot area. The closest to the edge is intended for full-train staging of a 14-car



5. Santa Ana track arrangement.

train plus engine and caboose and is there for hands-on fiddling. The other two are for inbound and outbound traffic as generated from other sources such as the packing houses in Santa Ana. The turn may pick up full loads or leave empties on these tracks as called for.

Once it heads clockwise towards the branch, it ducks behind the helix and emerges at Venta. The track arrangements at Venta and Como are very similar to the prototype although I did add a passenger station at Venta, since the station at Irvine is farther south and not modeled. At this point empties may be left at Como if there is a need for more cars than what the storage tracks on the branch can hold. Otherwise, it can head counterclockwise up the helix. It may go headfirst but caboose first was more common as it made for simpler switching of Tustin and Browning.

Once on the second level it can leave empties and pick up loaded cars at the packing house in Tustin. Browning has another storage track for cars to be switched on the branch. Heading counter-clockwise again, our next stop is Frances and its two packing houses. The end of the branch at Kathryn is reached across a two level, two segment rollaway connector that goes across the garage door. No harm here making this as safe and spill-proof as possible.

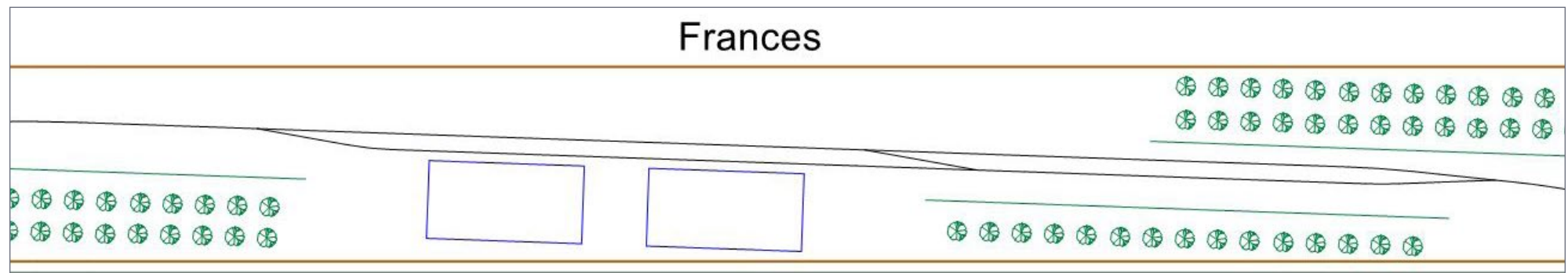
Once finished at Kathryn we head back towards Santa Ana and then on our imagined way to the yards and icing houses in San Bernardino.

Operating the turn is a daily job and it certainly would look great with steam and its string of orange SFRD ice reefers. Even so, I think that I would rather save the switcher duties for myself. It works both Santa Ana and the branch and would deliver other cars to the packing houses such as the “shook” wood, and oil for fuel and for the smudge pots that protect against freezes. It would also serve the “nut house” between Browning and Frances.

The San Diegan and Del Mar Specials are pretty much for show but their schedules would have to be coordinated with the more profitable business of the citrus. I haven’t seen any reference to local rail passenger service on the Venta Branch but wouldn’t mind adding a doodlebug schedule to the mix.

Construction

The layout is easily constructed on two layers of mostly 15” shelves along the walls. There is a duck under/removable portion at the door

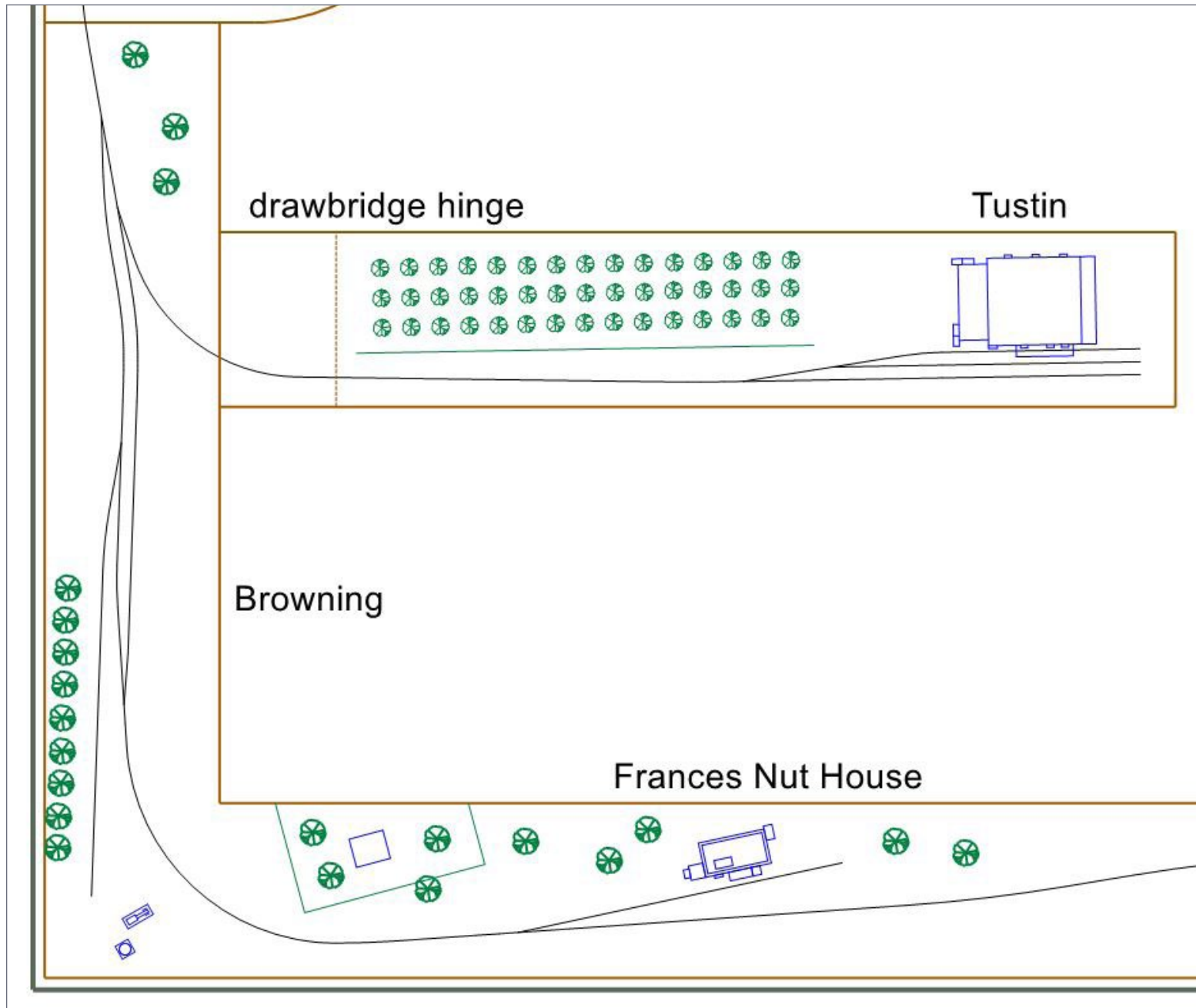


6. Frances track arrangement.

into the house, providing a reasonable 52” passageway. The two-level removable trackage along the garage door is planned as two free-standing segments that can be clamped together when operating but stored along the sides when not. The Tustin packing house and trackage is hung on a drawbridge that swings up to allow easy movement between car and house. A couple of tricks are needed but they require only limited engineering skills.

Atlas code 55 turnouts and flex track are used throughout - #10 turnouts for the 1st level and #7 for the second level. A minimum radius of 18” below and 15” on top is generous in N scale and will comfortably and attractively allow for just about any rolling stock that ran on the branch and Surf Line.

Structures and bridges can be selected from several providers, either as packaged kits or as kitbashed and modular units. Only a few commercial structures are shown here. The Santa Fe #4 depot at Venta is made by Branchline Trains, and there is the Walther's lumber yard at Santa Ana and the Cal Fame Packing kit by The N Scale Architect. Modeling the citrus groves themselves is limited mostly by one’s preferences and budget. The trees



numbered in the thousands on the Irvine ranch. This plan shows only a representative and affordable sample.

Flexibility and fun

The idea here is to run great-looking trains representing some classic operations. For me, fun calls for an off-the-clock casual schedule. The daily switch lists also shouldn't be that hard to work up. There is more flexibility and variety here than would first appear – iced or dry reefers, empty or loaded, peak harvest or growing seasons.

The plan also leaves it up to the operator to decide just how much railroad to operate. Even without the tracks across the garage door the

7. Browning and the Tustin peninsulas.

layout can gin up a lot of operation; it would just miss the through passenger service along the lower loop and getting to Kathryn on the upper level.

An interesting option would be to “go big” and convert to HO. That would give shorter trains, less trackage in the Santa Ana hub, probably only one packing house per destination, and a larger helix, but the essentials are there for those who want the greater commercial options and the (admittedly) better operational reliability of HO.

Ready? The time and place couldn't be better. It is still seven years until the opening of Walt Disney's Magic Kingdom amid the orange groves of Anaheim.

The post-war boom has brought change, opportunity and growth but it is still an agricultural region serviced by some of the greatest railroads on the planet. Now that's magic. ☑

To get more MRH ad-funded pages, please click on the ads.

DON VAIL



Don Vail now resides in San Antonio, Texas, but grew up not far from the Santa Anita station along Santa Fe's Los Angeles Division, Second District. Passenger trains no longer stopped there but the horse cars still transported thoroughbreds to and from the racetrack.

His modeling started with HO loops on boards in the garage and soon migrated to numerous N scale projects from high mountain runs to Linn Westcott's "Switchman's Nightmare." Schools, jobs, travel, moving, and family activities interrupted the modeling at times but the passion never left. There was even a short spell a long time ago working at the Original Whistle Stop in Pasadena (Hi, Fred).

Don considers his model rail projects ongoing discoveries and experiments. The last two have been a 21"x29" On30 micro layout and an N scale modern era switching layout on an 8-foot shelf. When not railroading, Don is a marketing analyst in financial services and enjoys time hiking, biking, and exploring local barbecue and Tex-Mex. ■

★★★★★
RATE THIS ARTICLE

New how-to videos!



Over four hours of insights

We've selected ten Backshop Clinics rated 4.5 or better (out of 5) for this special collection (a few even rated a perfect 5).

Video download: \$16.49

DVD (3 disks): \$29.99

DVDs now shipping!

FREE shipping US
50% off shipping foreign

12 more awesome layouts!

See twelve more inspirational layout stories and learn the backstory of each one while watching gorgeous footage.

Video download: \$16.49

DVD (3 disks): \$29.99

DVDs now shipping!

Order Videos!



from the
**Model Railroad
Hobbyist Store**

SAVVY Modeler Online



Model Railroad Hobbyist | October 2019



RATE THIS ARTICLE



Gondola dents and gouges

In this 14 minute video, modeler **DansRailroad2011** shows a somewhat daring way to make dents and gouges in the sides of a plastic gondola that clearly gets great results. Hang on to your seat – he's using a propane torch to soften the plastic! He insists with some practice it's most effective. You have to see it to believe it! ■



► GREAT MODELER VIDEOS ON THE WORLD WIDE WEB

AMERICA'S LARGEST OPERATING MODEL RAILROAD SHOW

48TH ANNUAL

Trainfest®



NOVEMBER 9 & 10

MILWAUKEE

**PRIME ACCESS
TICKETS**

GET AN
EXTRA HOUR OF TRAIN FUN
ON SATURDAY BEFORE EVENT
OPENS TO GENERAL PUBLIC

**4 FOOTBALL FIELDS
OF SERIOUS TRAIN
ENTHUSIAST FUN**

70 SPECTACULAR, HUGE
RUNNING RAILROADS

110 MANUFACTURERS &
HOBBY DEALERS

NEW PRODUCTS
UNVEILED

**EVERYTHING TRAIN.
RUN. RIDE. LEARN.**

STAGED BY THE
NMRA WISE DIVISION



**HUNDREDS OF
FREE CLINICS
& DEMOS**

Sponsored by
Wm. K. Walther, Inc.

Trainfest
BUILDERS

**NEW
FOR KIDS!**

Trainfest
**CELEBRATE
(A)
RAILROAD**

EVENT INFO, DISCOUNT
TICKETS, AND HOTEL DEALS AT
WWW.TRAINFEST.COM



**HUGE CB&Q DISPLAY SPONSORED
BY THE BNSF FOUNDATION**

OCTOBER NEWS

column



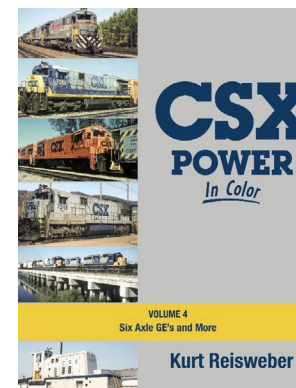
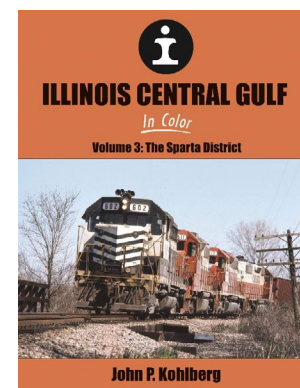
Model Railroad Hobbyist | October 2019

RICHARD BALE and
JEFF SHULTZ report the
latest hobby industry news



RATE THIS ARTICLE

NEW PRODUCTS FOR MULTIPLE SCALES



New hard cover
books coming from
Morning Sun
this month include
*Illinois Central
Gulf - Volume 3:
The Sparta District.*
Author John
Kohlberg tells the
story of the ICG's

Sparta District with its manifest freights, coal trains, and local trains
all sharing 149 miles of single track main sometimes known as the
Badlands. It's the story of tough railroading in Southern Illinois.

Also scheduled for release this month is *CSX Power in Color
Volume 4: Six Axle GE's and More*, by Kurt Reisweber. This volume
highlights GE six-axle locomotives inherited from predecessors

► THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS

Chesapeake & Ohio, Louisville & Nashville, and Seaboard Coast Line. Packed with unusual equipment pushed deep in the wild coalfields of West Virginia, this volume features a variety of road slugs built from the remains of older power including GP40-3s and SD40-3s. For additional information contact a dealer or visit morningsunbooks.com.



Motrak Models has released a new paint rack kit, suitable for holding Vallejo, AK, and MIG paint bottles. The rack is designed to hold up to 24 35ml bottles or 33 17ml bottles. It also has holes in the top panel for up to 22 paint brushes. Made of .125-inch hardboard, the assembled kit is 11.8 x 6.5 x 9.8-inches in size.



Also from Motrak Models is the Countryside Winery kit, available in N, HO, and S scales. The kits come with laser-cut wooden walls, picnic tables, chairs, workbench, paper shakes, and doors. Detail parts include a Tichy smokestack, signage, and other resin detail parts. The N scale finished structure is 3 x 4-inches, the HO is 5.5 x 7-inches, and the S scale building is 7.5 x 10-inches in size. Kit details differ between scales. For more information visit motrak-modelsusa.com.

O SCALE PRODUCT NEWS



Atlas O will release its Trainman series PS 4750 cu. ft. covered hopper with new numbers and paint schemes during the second quarter of 2020. Features on the triple-bay car include separately applied roof walk, and heavy die-cast 100-ton roller-bearing trucks with 36-inch wheelsets and rotating bearing caps. Road names will be Illinois Central Gulf, BNSF, Delaware & Hudson, Milwaukee Road, Union Pacific, and Soo Line. All Atlas O models are available for either 3-rail or 2-rail operation. For additional information contact a dealer or visit atlaso.com.



Modern Era O Scale is developing a resin kit for a Soo Line 50-foot 6-inch 7-post boxcar. The kit includes the body and all body-attached details, less trucks, couplers, and decals. Built in the early 1970s, the plug-door prototype wore two significantly different decorating schemes.



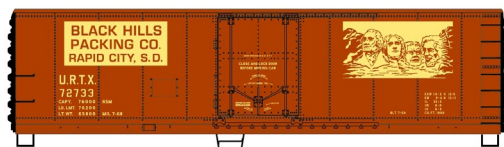
Availability of the kit is planned for late this year. Decals are sold separately. For additional information visit moderneraoscale.com.

HO SCALE PRODUCT NEWS



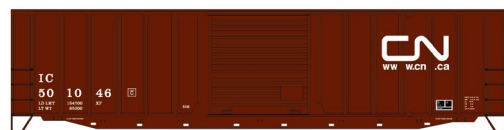
decorated for Quebec Central. The model follows a prototype car delivered by Fowler in September 1913. Details include a wood running board, and a horizontal brake wheel mounted on a vertical shaft.

Accurail has released several new kits for HO scale freight cars including this 36-foot Fowler single-sheathed wood boxcar



plays a unique National Parks image.

This 40-foot steel refrigerator car with Youngstown plug doors was built in 1950. The URTX car dis-



boxcar comes with Accumate couplers and appropriate roller-bearing trucks.

Accurail's kit for this HO scale 50-foot Canadian National/Illinois Central exterior post, plate C,



& Ohio Central, and Cleveland, Cincinnati, Chicago & St. Louis.

Additional new HO car kits recently released by Accurail include a 40-foot Illinois Terminal PS-1 boxcar, and a 40-foot Canadian Pacific insulated steel boxcar that models a prototype built in

Accurail is selling three 40-foot double-sheathed wood boxcars decorated for subsidiary roads of the New York Central System including NYC (above), Toledo

1959 with an 8-foot plug-door. All Accurail kits come with appropriate trucks and Accumate knuckle couplers. For additional information contact a dealer or visit accurail.com.



American Model Builders is selling a LaserKit for an HO scale Dairy Transfer Stand. Before World War II similar facilities throughout America served milk trains that swiftly carried fresh dairy

products to urban areas for processing. Depending on the length of the train ride, iced reefer cars were often employed to handle the milk loads to the city.

The kit features tab & slot wall and roof assembly with precision cut milled basswoods and 3-ply aircraft-grade birch plywood, peel & stick windows, doors, and trim; simulated metal roofing; both cracked and solid office window glazing; platform side ladders; and an assortment of resin cast parts depicting milk cans, salt sacks, a hand truck, and other details. Instructions and a full-color cow-shaped rooftop sign complete the 1.375-inch square model.



UPGRADING BOXCAR LADDERS
LESTER BREUER shows a variety of techniques for upgrading boxcar ladders from any era.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING** **EXTRA**





R. Bale

NYC REBUILT CABOOSES

During WWII the New York Central rebuilt fifty aging box cars into much needed cabooses. The rebuilds retained the steel fishbelly frame of the box cars, but a steel channel was added along the sill giving the cabooses a distinctive feature. In other appearances the cabooses resembled standard NYC caboose except they were more than five feet longer.

In 1946, the New York Central introduced a new, fast LCL service known as Pacemaker Freight Service. To provide the service, 1,000 specially equipped box cars and five cabooses were rebuilt and given a distinctive red and gray color scheme. Five cabooses from the wartime rebuilds were selected for the Pacemaker Service. Upgrades included the addition to some important brake and draft gear modifications, and replacing the cars' original tongue and groove sheathing with plywood giving the Pacemaker cabooses a smooth-sided appearance.

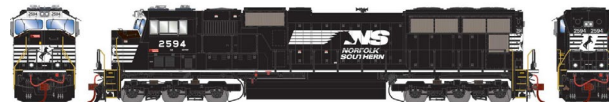


NYC wartime rebuilt cabooses (left) and Pacemaker version (below).



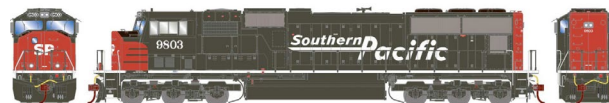
American Model Builders HO scale LaserKits for New York Central rebuilt cabooses feature tab & slot and peel & stick construction. The laser-scribed side and end walls, underframe, end platforms, end railing, and brake wheels are all

laser-cut. Detailed castings include resin platform steps and brake gear, and a white metal smokejack. Custom decals by Tichy Train Group, fully illustrated instructions, and several fixtures to aid forming handholds and ladders complete the kit. Tahoe Barber-Bettendorf swing motion caboose trucks are recommended but not included. For additional information visit laser-kit.com.



Athearn's August 2020 production schedule includes

several versions of a Genesis series EMD SD70M diesel. Models decorated for Norfolk Southern will be available in the early primer Grey Ghost scheme and in the black horsehead scheme with PTC antenna boxes, a 5000 gallon fuel tank, and illuminated front and rear ditch lights.



Additional road names for the SD70M include

Southern Pacific, Union Pacific (ex-SP), CSX, and PRLX-Progress Rail (former EMD demonstrators with early cab with nose window).



All road names will have LED lighting, uncoupling levers,

MU hoses, a trainline hose, see-through cab windows, cab interior details, walkway tread, Celcon handrails, windshield wipers, lift rings, wire grab irons, and detailed fuel tank with fuel fillers, fuel gauges, and breather pipes.

Also coming from Athearn next August is a group of Genesis GP7U light road switchers. The HO scale model is based on EMD GP7s

OCTOBER NEWS HO SCALE | 8



Aroostook (ex-ATSF with blanked dynamic brakes).



The Genesis GP7U model will also be available decorated for Morristown & Erie (former BAR units), RJ Corman, Savage, Integrated Grain & Milling, and Cargill. The model locomotive comes with four-wheel Blomberg-B trucks. Details include bidirectional constant LED lighting, trainline and MU hoses, uncoupling levers, MU stands, nub-style walkway tread, wire grab irons, lift rings, windshield wipers, cab interior details, etched metal radiator intake and fan grilles, fuel tank detailed with fuel fillers, fuel gauges, breather pipes, and retention tanks. Athearn Genesis models feature an onboard DCC decoder with SoundTraxx Tsunami2 sound that functions in both DC and DCC environments.



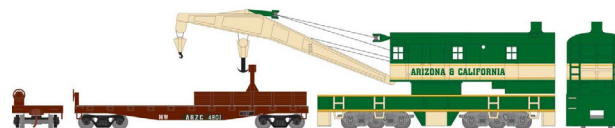
Ready-to-Roll HO scale freight cars coming from Athearn next August include this 50-foot PS 5277 cu. ft. boxcar with a 10-foot wide sliding door. Details include separately applied grab irons, a photo-etched coupler cross-over platform, and machined metal wheelsets.



In addition to Railbox, road names will be CSX, St Lawrence

OCTOBER NEWS HO SCALE | 9

Railroad, Green Bay & Western, Escanaba & Lake Superior, Illinois Central Gulf (CN), and Wisconsin Central. The last three roads listed will be in Athearn's Primed for Grime faded paint.



Athearn plans to release its 200-ton railroad crane as a fully assembled

Ready-to-Roll model next August. The HO scale model will be paired with an idler flat car with a boom support fixture. The crane housing rotates, and the boom raises and lowers. The stabilizing blocks can also be positioned. All trucks are fitted with machined metal wheelsets.

Road names include Arizona & California (above), Canadian National (black), Canadian Pacific (black with CP Beaver herald), Union Pacific (black car and boom, yellow crane housing, green MOW flat car), Ontario Northland (black car, yellow boom, white crane housing), Norfolk Southern (black car and boom, orange crane housing), and RJ Corman (black car body and boom, red crane housing). An unlettered MOW with black car and boom, and light orange crane housing will also be available.



A Railway Express box truck mounted on a Ford F-850 chassis is listed on Athearn's August 2020 production schedule.

Additional schemes and carrier names in this release will be Ford Motor Company, Peterson Tool, C.M. Tanney Grocery, Canadian Pacific, Chesapeake & Ohio, Southern Pacific, Bekins, and Builders Emporium. The 1:87 scale vehicle will have cab interior, separately applied steering wheel, clear window glazing, and rubber tires.

Roundhouse brand models coming from Athearn next August include an HO scale 34-foot twin-bay composite hopper with a



removable coal load. Bettendorf-style plain-bearing trucks will be fitted with 33-inch machined metal wheelsets. Road names will be Reading, Illinois Terminal, Pennsylvania Railroad, Southern Railway, Union Pacific, and Lehigh Valley. The open hoppers will be sold individually and in four-packs with unique road numbers.



Completing the August 2020 release of Roundhouse HO

scale models will be a basic 40-foot 10-panel steel gondola. Road names will be Penn Central, Norfolk Southern, Maine Central, Alaska Railroad, Great Northern, Rio Grande, Monon, and Chicago & Eastern Illinois. The model will come with plain-bearing trucks with 33-inch machined metal wheelsets. For additional information on Athearn and Roundhouse products contact a dealer or visit athearn.com.

.....

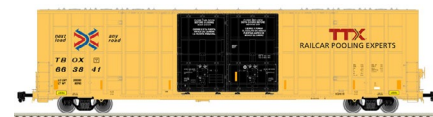
Atlas is booking dealer reservations for a new production run of HO scale U30C locomotives. Delivery of the models, which are based on GE's 3,000hp six-axle prototype, is planned for the second quarter of next year. Features on the Atlas Master series locomotive include Adirondack floating-bolster trucks, golden-white LEDs with directional lighting, windshield wipers, metal grab irons, scale handrails, a snowplow pilot, crew members, and marker lights with separate lenses.



New road names in this release will be Chicago & North Western, Detroit Edison, and Norfolk Southern. New road numbers

on previously issued road names include Chessie System (C&O), Union Pacific, Rock Island, and Soo Line. Atlas will produce DCC versions of the locomotives with a factory installed LokSound Select Dual-Mode decoder. Standard DC locomotives will have an NMRA compliant socket for installation of an aftermarket DCC decoder.

Atlas is preparing tooling for two 60-foot boxcars based on prototypes introduced by Gunderson in 2012. While similar in appearance, the 7550 cu. ft. version has grid sides and double plug doors. The 7538 cu. ft. boxcar has a single door.



The HO scale Atlas Master series models features individually applied ladders, hand brake and door rods; and a Stanray roof with three X-panels and three diagonal center panels. The double-door car will be decorated for TTX, the single door car, which has a sill step at the side door, will be decorated for BNSF. Both versions will be available in 12 road numbers. Undecorated models will also be available.

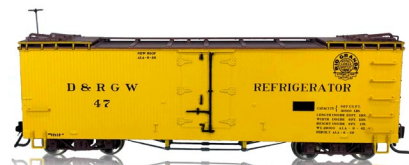


Atlas has scheduled the release of this HO scale 40-foot wood reefer during the second quarter of 2020. The Atlas Master model is based on a series of wood refrigerator cars Pullman built for the Northern Refrigerator Car Co. in 1930. Decorating schemes will be Rath's BlackHawk Bacon, Brink's & Sons, Missouri-Kansas-Texas, ART Ice Service, Milwaukee Road Ice Car, Marshall Kirby Frozen Eggs, and Producers Produce Co. Details include separate door locking bars, grab irons, ladders, and uncoupling bars.



Additional new HO freight cars set for release by Atlas during the second quarter of 2020 include a rerun of twin-bay coal hopper

cars with offset sides. New road names include Maine Central and two Norfolk Southern schemes. Previously released road names with new road numbers include Canadian Pacific (script), Baltimore & Ohio, Milwaukee Road, and Reading. The ready-to-run model will have 50-ton trucks with blackened metal wheels. For additional information on Atlas products contact a dealer or visit atlasrr.com.



Blackstone Models has completed another production run of D&RGW refrigerator cars. The short, 30-foot prototypes oper-

ated throughout Colorado's narrow gauge network into the late 1950s. Blackstone's HOn3 version is based on a prototype built in 1908 by ACF that D&RGW rebuilt in 1926 with a Murphy roof, altered needle beams, and larger ice hatches. The models are equipped with 4-foot 8-inch arch bar trucks and Kadee No. 714 couplers. The D&RGW reefers are available with a choice of Moffat Tunnel (above) or Flying Grande heralds. For additional information contact a dealer or visit blackstonemodels.com. The model cars come ready for the addition of a SoundTraxx Tsunami sound car decoder. Details on the sound car installation are available at soundtraxx.com/products/tsunami-soundcar.

Bowser is currently booking reservations for a production run of woodchip hopper cars that are scheduled for delivery next



trucks with metal wheelsets. Three numbers each will be available for Kansas City Southern, Ashley Drew & Northern, C&NW (scrap metal), and Boston & Maine.



Additional road names include CIRR-Chattahoochee Industrial, Canadian National, Canadian Pacific, SL&SF-Frisco, Grand Trunk Western, Gulf & Mississippi, Illinois



Central, Missouri Pacific, and Seaboard Air Line. This production run will include both offset and ribbed side cars in data only in a choice of brown (above) or black.



In the Cal-Scale detail parts line, Bowser has introduced several new HO scale diesel detail items, including a bendable, paintable and glueable loco air hose, three and five line MU hose sets,

F-unit steam generator exhaust stacks, square and oval exhaust stacks, two locomotive brake wheels, and several other parts. For additional information contact a dealer or visit bowser-trains.com.



Broadway Limited will soon introduce an HO scale version of a streamlined Pennsylvania 4-6-2 class K4 steam locomotive. PRR's advertising department

loved the appearance but the shrouding hid most of the functionality of the steam locomotive and impeded maintenance. Eventually most of the shrouding that hid the wheels, rods, and cylinders was removed.



Broadway Limited's HO scale model is based on PRR locomotive No. 3768 which was given the streamlined look in 1936 by famed industrial designer Raymond Loewy. The prototype's original bronze paint scheme was later replaced with Pennsy's standard DGLE (dark green locomotive enamel). Broadway Limited will offer both decorating schemes. The HO scale model will come with Paragon3 Sound & Operation System. For additional details contact a dealer or visit broadway-limited.com.



Classic Metal Works has 1:87 scale General Motors PD-4103 Intercity Buses available decorated for several cities including

Pacific Electric (greater Los Angeles, above), New York City, Atlanta, and Chicago.



For additional information contact a dealer or visit walthers.com.



Kadее has released an HO scale ready-to-run model of a Denver & Rio Grande Western 50-foot PS-1 boxcar with double slid-

ing Youngstown corrugated doors. The model, including the decorating scheme, follows a car Pullman-Standard built for the D&RGW in 1957. All Kadее ready-to-run models come with Kadее metal knuckle couplers and two-piece self-centering trucks. For additional information contact a dealer or visit kadee.com.



THE LIMITED MODELER
JIM SIX: More effective modeling of pre-diesel railcars.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING** **EXTRA**





R. Bale

MAXI-IV WELL-CARS

Intermodal container service is one of the most popular types of freight service on rails today. The Gunderson MAXI-IV three-unit articulated double-stack car handles containers from 20- to 53-foot long in the well, and containers from 40-to 57-foot long in the top, or double-stacked, position. The MAXI-IV uses two different sized wheels. The two end trucks have 33-inch wheels while the two middle trucks have 38-inch wheels. This is to equalize weight bearing with the greater weight of the load being borne by the wheels of the mid-car trucks. As a result of its versatility the MAXI-IV has become the mainstay of the U.S. domestic double-stack fleet.



KatoUSA will release a new production run of three-car sets of MAXI-IV well-cars beginning late this year.

To achieve maximum weight and help stabilize the model, Kato uses a steel compound plastic to cast the body of the HO scale model. Like the prototype, Kato's three-car set uses two different size wheels.



Road names scheduled for release in December 2019 or January 2020 include TTTX (original logo), and TTX (new logo). Models decorated for BNSF, BNSF (Swoosh scheme), and Pacer Stacktrain will follow 30 to 45 days later.



KatoUSA has also announced that the HO scale EMD SD40-2 "Mid-Production" locomotives are now available with factory installed ESU LokSound DCC/Sound decoders. For additional information contact a dealer or

visit katousa.com.

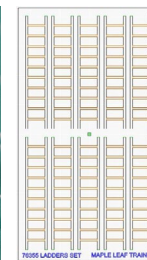
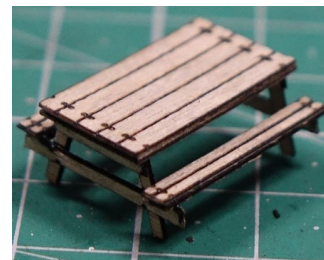
Maple Leaf Trains has released two new HO scale kits, including a small workshop and a garden shed, as well as two new detail items.



The small workshop represents a two-story building and is made from two thicknesses of plywood, laser-cut window inserts, and two pre-wired SMD LEDs with included resistors. Its dimensions are 2.5 x 2.156 x 1.7-inches.



The garden shed includes pre-wired LED and peel and stick laser cut shingles and ridge caps. It is 2.1 x 1.4 x 1.4-inches in size.

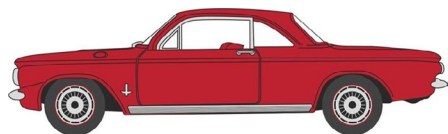


New detail items from Maple Leaf Trains include a picnic table set that includes six picnic tables and a ladder set that includes 10 laser cut ladders with etched wood details. For more information see a dealer or visit [maple-](http://maple-leaftrains.com)

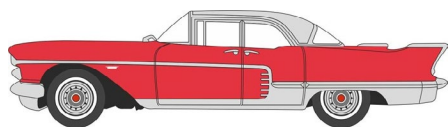
leaftrains.com.



New 1:87 scale vehicles coming soon from **Oxford Diecast USA** include this 1946-48 DeSoto Suburban. The model features a rooftop rack with luggage.



This 1:87 scale 1963 Chevrolet rear-engine Corvair Coupe is decorated in Riverside Red.



Oxford's 1957 Cadillac Eldorado four-door Brougham features big tailfins, thin white wall tires and silver trim over a

Dakota Red body. For additional information contact a dealer or visit walthers.com.



Rapido Trains has released a video that provides a detailed update on its new Pullman-Standard Dining Car. The HO scale model is based on a 1954

CN prototype that is similar to diners owned by several US railroads. Rapido will release 48-, 40-, and 32-seat versions of the diner-lounge cars. All will feature complete interior details. To view the video go to www.youtube.com/watch?v=BnXTsxdFn8.

Rapido has pioneered the use of 3D scanning to accurately capture the contour of prototypes it plans to produce as models. Scanning the prototype has proven to be very successful for the Canadian-based company as they developed accurately scaled models for their HO scale Budd RDCs, FPA-4/FA-2 diesels, the Stirling Single steam engine, and the New Look bus. The next 3D prototype

scanning project by Rapido will be conducted in Portland at the Oregon Rail Heritage Center on October 27, 2019. Although Rapido is keeping the identity of the specific prototype a secret, they have invited all modelers and rail fans in the Portland area to observe the procedure. According to Rapido official Jason Shron, refreshments will be provided at the noon to 5 p.m. event. For more information visit rapidotrains.com.



Rocket Express offers flat resin kits for HO scale Rock Island 40-foot automobile boxcars based on prototypes built by the Bettendorf Company in 1930. The RI owned cars with end doors (above) as well as with fixed ends. HO scale kits for both car types are available. Rocket

Express kits include a one-piece roof, ends and sides. Doors and door rails are separate castings. Both KC and AB type brake equipment are supplied along with appropriate trucks, and authentic decals. Couplers are not included. For additional information visit www.rocketexpress.biz.

Among the latest Operator series release from **ScaleTrains.com** is an HO scale Dash 9-44CW diesel locomotive. Features include operating front deck-mounted LED ditch lights, printed and LED lighted number boards, directional LED headlights, see-through steps, nub pattern walkway tread, cab interior, and semi-scale Type E knuckle couplers. Factory-applied details including a snowplow, nose door with window, sunshades, air tanks, horn, exhaust stack, and brake wheel. The body is pre-drilled for consumer installed details including grab irons, coupler cut levers, MU hoses, and trainline hoses. Operator series locomotives offer a choice of ESU-LokSound Essential Sound Unit & DCC decoder, or DC operation with a 21-pin connector for an aftermarket decoder.



Roadnames on this release include BNSF/ Heritage I and Heritage III, Canadian National, Chicago & Northwestern, Norfolk Southern (Original and Horsehead), Southern

Pacific (speed lettering), and Union Pacific.

ScaleTrains.com has released a video describing the differences between the different versions of the Rivet Counter GEVO Tier IV model in HO scale. Differences include unique radiator intake grills, the square and angled exhaust cabinets, different end handrail (wide verses narrow) arrangements, and a variety of PTC antenna arrays. Tooling changes were made for the KCS and Navaho noses and the walkway of the later model UP locomotives. Additionally, ScaleTrains.com has acquired BNSF and UP paint chips and has modified the paint colors on these locomotives going forward. To see the video, go to www.youtube.com/watch?v=E7o2N7amyNk. For additional information visit scaletrains.com.



Tangent Scale Models has reissued its PS-3 2750 cu. ft. triple-bay coal hopper car in seven new decorating schemes. The HO scale model is based on

a prototype Pullman-Standard introduced in the 1957. New road names include an ex-GN car repainted in Burlington Northern's 1976 black scheme (above).



Additional roads include Louisville & Nashville in two schemes (original 1959 Dixie version and 1973 repaint), and

four Great Northern schemes (1965 and 1970 red scheme in a choice of three reweigh options).



The ready-to-run model is also available decorated for Boston & Maine (1972 repaint), Southern (1958 ACF-clone version of PS car), and undecorated in primer gray.

Tangent's PS-3 2750 coal hoppers come with or without heap-shields depending on the practice of the specific prototype car being modeled. Additional variants include different handbrakes, three different styles of unloading door mechanisms, and either 70-ton ASF Ride Control plain-bearing or 70-ton Barber S-2-A roller-bearing trucks. All versions of the HO model include a see-through brake platform, wire grab irons and coupler lift bars, separate air hoses, Kadee knuckle couplers, and machined 33-inch wheelsets. Each car comes with a removable coal load. For additional information visit tangentscalemodels.com.



Walthers is selling Proto series EMD E8A and E8A-A locomotive sets decorated for Chesapeake & Ohio. The

specially decorated diesel units were assigned to the George Washington, C&O's famous name train that operated between Cincinnati and Washington D.C. The HO scale model is available with ESU LokSound Select sound for DCC & DC layouts. Special details include dual lens lower headlight with LED constant brightness, upper Mars light, brass Nathan five-chime air horn facing forward, whip-type radio antenna with conduit, wire grab

irons, separate MU connection on nose, spark arrestors, skirted fuel tank, and winterization hatches.



Also available now from Walthers are Mainline series HO scale Alco PA and PB diesels, arguably the most esthetically pleasing diesel locomotive

ever designed. Walthers economy priced Mainline model uses the same drive as Walthers top-of-the line Proto-Series models. Drill starter points for grab irons are molded in the body shell simplifying the addition of grabs for those modelers so inclined. Correctly sized grab irons are available separately in a PA-PB detail kit.



Available road names include Santa Fe (classic Warbonnet), New Haven (McGinnis scheme), Southern Railway,

Delaware & Hudson, and New York Central. This production run includes standard DC models and models fitted with an ESU Sound and DCC decoder. For additional information on all Walthers products contact a dealer or visit walthers.com.

N SCALE PRODUCT NEWS



50-foot PS 5277 cu. ft. boxcar with a 10-foot wide sliding door next August.

Athearn has announced plans to release an N scale



Road names will be Railbox, CSX, St Lawrence Railroad, Escanaba & Lake

Superior, Illinois Central Gulf (CN), and Wisconsin Central. For additional information contact a dealer or visit athearn.com.



Atlas is working on a new N scale GP39-2 diesel locomotive. The all-new Master Series model is based on a

fuel-efficient prototype that resulted from replacing a 16-cylinder 2000 hp prime mover with a turbocharged 12-cylinder 2300 hp alternative that consumed less fuel. Atlas' N scale version will feature golden-white LEDs, painted safety rails, directional lighting, and blackened metal wheels.

Road names will be BNSF, Burlington Northern, Soo Line, Santa Fe, Twin Cities & Western, and Union Pacific. Atlas Gold series DCC locomotives come with a factory installed LokSound Select Dual-Mode decoder. Atlas Silver series locomotives are for standard DC operation. They will have speakers installed for easy installation of a DCC sound decoder. Availability is planned for the second quarter of 2020.



Atlas has announced plans to release 40-foot and 53-foot

rebuilt well-cars next spring. The most popular container sizes in today's intermodal world are 20-, 40- and 53-feet in length. With the phasing out of the once popular 48-foot containers, TTX had little need for their 48-foot well-cars, many of which were still new.

Rather than scrap the 48-foot well-cars TTX launched a program to shorten some 48-footers to 40-feet, and lengthen others to 53-feet.

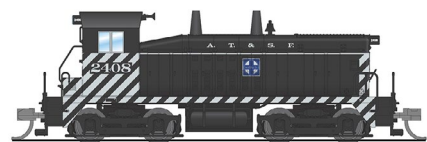
Atlas will offer 40-foot well-cars decorated for TTX (yellow, early logo), TTX (yellow, Forward Thinking), TTX (yellow, Next Load Any Road), and NOKL (red).



Road names for Atlas' N scale 53-foot rebuilt well-car will include TTX (yellow, Forward Thinking), TTX (pink, On Track for a Cure), St. Mary's Railway West (red), and FEC (yellow).

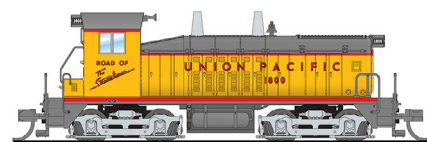


Also coming from Atlas during the second quarter of 2020 is a reissue of its popular N scale 53-foot Evans boxcar with new numbers and paint schemes. The N scale model follows a prototype insulated RBL double-door car built throughout the 1960s and '70s by Evans. Road names on this release will be Chicago & North Western, Grand Trunk Western, Van Brode Milling, Illinois Central, British Columbia Railway, Astoria Plywood, Boise Cascade, and Conrail. For additional information on all Atlas products contact a dealer or visit atlasrr.com.



Broadway Limited plans to release a group of EMD NW2/SW7 diesel switchers next month.

The N scale models will feature Paragon3 Sound & Operating System with Rolling Thunder that is operational in both DC and DCC environments.



Road names will include Santa Fe, Canadian National, Great Northern, Pennsylvania Railroad (Brunswick green), Southern Pacific, Union Pacific, Burlington

Northern, Chesapeake & Ohio, CB&Q, and Northern Pacific. Unpainted versions will also be available. For additional information contact a dealer or visit broadway-limited.com.



KatoUSA has released its popular N scale EMD F40PH commuter locomotive decorated for several new roadnames including Virginia Railway Express, Caltrain, and Metrolink.



In addition, a group of Chicago Metra F40PH locomotives are available with local signature names, including Village of Winfield, City of Elmhurst,

Ravinia, Fox River Grove (below), and Village of Schaumburg. Chicago Metra F40PH units have directional head and tail lights on the front of the locomotive for push-pull operation.



Models are available for DC operation and with factory installed DCC. Previously released Amtrak Phase III and Virginia Railway Express models may still be available from Kato dealers.



KatoUSA is has also announced a new run of SD70Ace locomotives decorated for Norfolk Southern, including #1111, nicknamed the barcode unit for the appearance of its road number

beneath the cab windows. The engines will include NS specific prototypical details such as an isolated cab and roof antenna array. The model has an early 2020 release date and will come in DC, factory installed DCC, and special order DCC & sound versions. For additional information contact a dealer or visit katousa.com.



The latest new N scale models released by Micro-Trains Line includes this 50-foot Great Northern 4940 cu. ft. capacity boxcar. American Car &

Foundry built the prototype that inspired this model in 1963.



The prototype of this 40-foot Canadian Pacific boxcar had full height ladders and a running board when it was built by Canadian Car & Foundry in 1957.



Micro-Trains is selling this 65-foot 100-ton log car in a two-pack with different numbers. The model follows a Norfolk & Western prototype built in the 1980s by Ortner Railcar. The car was repainted for NS in 2003 following the

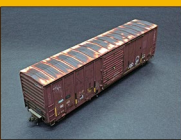
merger of N&W and the Southern Railway. For additional information contact a dealer.

NEW DECALS, SIGNS AND FINISHING PRODUCTS



Modern Era O Scale sells O scale freight car decals for a variety of railroads including Longview, Portland & Northern, Maine Central, City of Prineville, and Western Pacific. For a complete list visit [moderner-](http://moderner-aoscale.com/products)

aoscale.com/products.



WEATHERING A MODERN BOXCAR
NICK CAMPBELL demonstrates using meticulous step-by-step detail how to weather a modern boxcar.

Buy 138 page eBook
(this + lots more) - \$2.99

click here

In **MRH** **RUNNING EXTRA**



DISCLAIMER

The opinions expressed in this column are those of the writer and do not necessarily reflect the opinion of *Model Railroad Hobbyist* or its sponsors. Every effort is made to provide our readers with accurate and responsible news and information, however, neither *Model Railroad Hobbyist* or the writer of this column can be held responsible for any inaccuracies or typographical errors that may inadvertently appear in this column.

OCTOBER NEWS | 28

DOWNLOAD ISSUE



DOWNLOAD PORTRAIT



DOWNLOAD LANDSCAPE



VINTAGE CAR KITS: 1
ROB CLARK explores
 modeling railcars using
 vintage rolling stock kits.

Buy 138 page eBook
 (this + lots more) - \$2.99

[click here](#)

In **MRH** **RUNNING**
EXTRA



**Did you know
 there's an
 MRH/RE index
 available?**

[CLICK TO FIND OUT MORE](#)



The Amherst Railway Society Railroad Hobby Show

Our 2020 Show will be

January 25 & 26, 2020

Save the dates!

**Click
 to learn
 more ...**





BRIEFLY NOTED AT PRESS TIME ...

Atlas has updated its Track Planning Software to Version 1.6.0. New features include improved roofs and 3D terrain rendering, updated libraries of curved turnouts and O 3-rail turntable, plus a few bug fixes. The update is available at download.atlasrr.com/Software/AtlasTPS_Setup_1_6_0.exe?utm_source=Atlas+Insiders+E-News+Flash&utm_campaign=2e9ef4cf35- ...

Eastern Seaboard Models has released the latest version of its N scale X72, X65 and X58 boxcars...

Flooding in mid-September forced InterMountain Railway to evacuate its facility in Longmont, Colorado. Early reports indicate the warehouse escaped damage with flooding limited to a portion of the administrative space...

Rapido Trains is on the verge of cancelling two projects to develop Canadian 4-6-0 steam locomotives. Advance reservations from consumers and dealers for both the CPR D10 and the CNR H-6 ten wheelers are far below minimums required to make the project viable...

Soundtraxx has issued a short video that covers the basics of locomotive wiring, motor polarity, and the importance of getting it right. Check it out at view.bbsv1.net/bbext/?p=land&id=908F2614D3436CF6E0530100007F0E93&vid=b4e087a7-2678-4ca4-8f9e-989da89bb9ff ...

Yarmouth Model Works will release an HO scale prototypically accurate cast resin kit for a 40-foot Northern Pacific 1937 AAR boxcar later this month...



UPGRADING BOXCAR LADDERS

LESTER BREUER shows a variety of techniques for upgrading boxcar ladders from any era.

Buy 138 page eBook
(this + lots more) - \$2.99

[click here](#)

In



RUNNING
EXTRA



VIEW READER
COMMENTS



Did you know ...

MRH registered members

SAVE 10%

... on the **MRH Store & on TrainMasters TV?**

Click to get 10% off coupon code

(Must be a registered member to access)

Not MRH registered member?

BECOME
A registered member
(It's FREE)

SELECTED EVENTS



Model Railroad Hobbyist | October 2019 | #116

OCTOBER 2019

(Many events charge a fee. Check individual info website for details.)

CANADA, ONTARIO, BRAMPTON, October 5-6, Greater Toronto Train Show, at Brampton Fairgrounds, 12942 Heart Lake Road. Info at www.torontotrainshow.com.

CANADA, ONTARIO, MARKHAM, October 19-20, Railview Historical Society Open House, at 550 Alden Rd, Unit 201. Info from mike@theclares.ca.

CANADA, QUEBEC, GATINEAU, October 5-6, Aylmer Model Train Show, at Galeries Aylmer, 181 rue Principale. Info at capitaltrains.ca/aylmer.

CANADA, QUEBEC, GATINEAU, October 19, Capital Region Model Railway Tour, Registration at St Anthony's Banquet Hall, 523 St Anthony St. Info at capitaltrains.ca.

CALIFORNIA, BELLFLOWER (Metro LA), October 5, Railroad Prototype Modelers Meet, at Encounter Christian Church, 10012 Ramona Street. Info at www.laapm.org.

CALIFORNIA, CROCKETT, October 12-13, Carquinez Model Railroad Society open house, at 645 Loring Ave. Info at www.cmrstrainclub.org.

SELECTED EVENTS | 2

CALIFORNIA, OCEANSIDE, October 12, Train Show & Swap Meet, sponsored by North County Model Railroad Society at Heritage Park, 230 Peyri Drive. Info at swapmeetinfo@ncmrs.org.

CALIFORNIA, SAN LUIS OBISPO, October 4-6, Central Coast Railroad Festival and Train Show. Info at ccrrf.com.

COLORADO, DENVER, October 11-13, Rocky Mountain Hobby Expo at Denver Mart, 451 East 58th Avenue. Info at rockymountainhobby-expo.com.

CONNECTICUT, MILFORD, October 6, 27th Annual Model Train Show, hosted by the New Haven & Derby Model Railroad Club, Jonathan Law High School, 20 Landsdale, Ave. Information from nhd06477@hotmail.com or www.facebook.com/New-Haven-Derby-Model-Railroad-Club-1626679067606876.

ILLINOIS, LISLE, (Metro Chicago), October 24-26, 26th Chicagoland RPM (formerly known as Naperville Meet), at Sheraton Hotel & Conference Center. Info at www.rpmconference.com.

ILLINOIS, MORTON, October 26, Central Illinois Train Xchange, at Blessed Sacrament Church, 225 East Greenwood Street. Request info from Roger at citrainx@gmail.com.

MASSACHUSETTS, BOXBOROUGH, October 5-6, 55th Annual Railfair, sponsored by Nashua Valley Model Railroad Association, at Boxborough Regency Hotel, 242 Adams Place. Info at nvrra.com.

MASSACHUSETTS, GARDNER, October 5, Southern New England 2 Rail O Scale Fall Show, at United Methodist Church, 161 Chestnut Street. Info at www.snemrr.org.

SELECTED EVENTS | 3

MISSOURI, KIRKWOOD (Metro St. Louis), October 12-13, Greater St. Louis Train Show, sponsored by Mississippi Valley N Scalpers at Kirkwood Community Center, 111 South Geyer Road. Info at mvns.railfan.net.

NORTH CAROLINA, FLETCHER, October 4-5, Autumn Rails Train Show, Sponsored by French Broad e'N'pire NTRAK Club at Western North Carolina Agricultural Center. Info at www.wncag-center.org/events/2019/autumn-rails-train-show.

OHIO, CAMBRIDGE, October 20, NMRA MCR Division 6 Swap Meet, at Pritchard Laughlin Center, 7033 Glenn Highway. Info at div6-mcr-nmra.org/swapmeet.htm.

PENNSYLVANIA, EASTON, October 6, 43rd Annual Lehigh Valley Regional Train Show & Expo, at Charles Chrin Community Center, 4100 Green Pond Road. Info at www.lehighlines.org/events.html.

WASHINGTON, SPOKANE, October 13, Fall Train Show, sponsored by River City Modelers at Spokane Fair & Expo Center, 404 North Havana Street. Request info from Shirley Sample at shirley@busnws.com.

November 2019, by location

CANADA, ONTARIO, FENWICK, November 16-17, 23-24, Open House at Greater Niagara Model Railroad Engineers, 1141 Maple Street. Info at gnmre.ca.

CALIFORNIA, SAN PEDRO, November 16-17, Open House at Belmont Shore Railroad Club, 3601 South Gaffey Street, Building 824. Info at www.belmontshorerr.com.

FLORIDA, DAVENPORT, November 9, NMRA SSR Eastern/Western Fall Workshop, at Edgehill Recreation Association Clubhouse, 50 Westridge Drive. Request info from Jim Robertson at 352-249-6862.

SELECTED EVENTS | 4

KENTUCKY, LOUISVILLE, November 16, NMRA MCR Division 8 Train Show, at Holy Family Parish Saffin Center, 3938 Poplar Level Road. Info at www.div8-mcr-nmra.org.

MAINE, BREWER, November 23, Annual Show hosted by Eastern Maine Model Railroad Club at Jeff's Catering, 15 Littlefield Way, East West Industrial Park. Request info from Geoff Anthony at geoff04614@gmail.com.

MASSACHUSETTS & NEW HAMPSHIRE, November 29-December 1, 25th annual Tour de Chooch, self-guided tour of open houses at model railroads in Northern Massachusetts and Southern New Hampshire. Details and maps of participating locations available at www.tourdechooch.org.

MICHIGAN, EAST LANSING, November 10, Model Railroad Club Show and Sale, sponsored by Lansing Model Railroad Club at Michigan State University Pavilion. Info at www.lmrc.org.

MICHIGAN, TROY, November 7-10, NMRA NCR North Central Region Convention, at Troy Community Center, 3179 Livernois. Info at www.div8.ncr-nmra.org/ncx-2019.

NEW YORK, BATAVIA, November 10, The Great Batavia Train Show sponsored by Genesee Society of Model Engineers at Richard C. Call Arena, One College Road. Request info at bataviatrainshow@gsme.org.

NEW YORK, SCHENECTADY, November 2, Open House at Hudson-Berkshire NMRA Division, 4026 Ryan Place. Request info from Irwin Nathanson at HUDSON.BERKSHIRE.NMRA@gmail.com.

NORTH CAROLINA, WINSTON-SALEM, November 8-9, RPM Carolinas School of Railroad Modeling Techniques, at Forsyth County Center, 1450 Fairchild Road. Info at sissonstony.wixsite.com/rpm-carolina.

SELECTED EVENTS | 5

OHIO, DAYTON, November 2-3, Train Show sponsored by NMRA, Miami Valley Division, at New Montgomery County Fairgrounds, 645 Infirmary Road. Info at www.daytontrainshow.com.

OREGON, PORTLAND, November 9-10, 16-17, 23-24, and 30-December 1, Columbia Gorge Model Railroad Club 2019 Train Show at 2505 N. Vancouver Ave. Info at columbiagorgemodelrailroadclub.com.

OREGON, PORTLAND, November 9, 16, 23, and 30, Mount Hood Model Engineers annual open house, at 5500 SE Belmont St. Info at www.mthoodmodelengineers.org.

PENNSYLVANIA, LANCASTER, November 23-24, Brass Expo & Custom Craftsman Models 2019 Show, at Wyndham Lancaster Resort & Convention Center, 2300 Lincoln Highway. Info at brassexpo.com.

SOUTH CAROLINA, NORTH CHARLESTON, November 16-17, Fall Train Show, sponsored by Charleston Area Model Railroad Club, at Danny Jones Armory Complex, 5000 Lackawanna Blvd, Info at www.camrc.club.

Future 2019, by location

FLORIDA, PENSACOLA, December 7-8, Railfest Model Train Show & Sale, sponsored by Pensacola Model Railroad Club at Pensacola Interstate Fairgrounds, 6655 Mobile Highway. Info at pmrc.us.

INDIANA, INDIANAPOLIS, December 7, Train Show & Open House at Naptown & White River Model Railroad Club, 1115 McDougal Street. Request info from Steve Handly at nap-townmrr@gmail.com.

LONGMONT, COLORADO, December 13-15, Model Railroad Exposition, sponsored by Boulder Model Railroad Club at Boulder County Fairgrounds. Info at www.bouldermodelrailroadclub.org.

SELECTED EVENTS | 6

MASSACHUSETTS, MARLBOROUGH, December 7-8, New England Model Train Expo, hosted by NMRA Hub Division at Best Western Royal Plaza Trade Center, 181 Boston Post Road West (US 20). Info at hubdiv.org.

MICHIGAN, SALINE, December 1, Southeast Michigan Model Train Show & Sale, sponsored by Rails on Wheels, at Washtenaw Farm Council Grounds, 5055 Ann Arbor-Saline Road. Info at www.railsonwheels.com/index.shtml#trainshow.

NEW YORK, ALBANY, December 1, Great Train Extravaganza Show & Sale, sponsored by NMRA Hudson Berkshire Division at Empire State Convention Center. Info at gtealbany.com.

Beyond 2019, by date

FLORIDA, COCOA BEACH, January 9-11, 2020, Prototype Rails, at Cocoa Beach Hilton Oceanfront, 1550 North Atlantic Avenue. Info at www.prototype Rails.com.

PENNSYLVANIA, MALVERN (Valley Forge), March 26-29, 2020, Railroad Prototype Modelers Meet, at Desmond Great Valley Hotel. Info at rpmvalleyforge.com.

MISSOURI, ST. LOUIS, July 12-18, 2020, NMRA National Convention and National Train Show. HQ at Hilton St. Louis at the Ballpark. Info at gateway2020.org.

CALIFORNIA, SANTA CLARA, 2021, NMRA National Convention and National Train Show.

ENGLAND, BIRMINGHAM, August 14-21, 2022, NMRA National Convention and National Train Show. Info at www.nmra2022uk.org. ■





F40PH-2D/LRC IN N SCALE



ORDER BY OCTOBER 31st
CLICK HERE!

CLICKABLE ADVERTISER INDEX

<u>Accu-Lites</u>	<u>NCE (2 page spread)</u>
<u>Amherst Railway Society</u>	<u>NMRA MER Convention</u>
<u>Archer Fine Transfers</u>	<u>North American Railcars</u>
<u>Athearn</u>	<u>Pre-Size Model Specialties</u>
<u>Atlas Model Railroad Co.</u>	<u>Precision Design Co.</u>
<u>Bachmann</u>	<u>RailroadBackdrops.com</u>
<u>Berrett Hill Trains</u>	<u>Rapido (1)</u>
<u>Black Cat Publishing</u>	<u>Rapido (2)</u>
<u>Blair Line</u>	<u>Ring Engineering (1)</u>
<u>Bowser</u>	<u>Ring Engineering (2)</u>
<u>Caboose</u>	<u>Roomettes</u>
<u>Canyon Creek Scenics</u>	<u>ScaleTrains.com</u>
<u>Coffman Graphics</u>	<u>Soundtraxx</u>
<u>Dayton Train Show</u>	<u>Southern Digital</u>
<u>Digitrax</u>	<u>Streamlined Backshop Services</u>
<u>East Coast Circuits</u>	<u>The TrainMaster, Inc.</u>
<u>El Dorado</u>	<u>Trainfest</u>
<u>ESU LokSound</u>	<u>TrainMasters TV (1)</u>
<u>Fast Tracks</u>	<u>TrainMasters TV (2)</u>
<u>Great Decals</u>	<u>TrainMasters TV (3)</u>
<u>HO Diesel Supply</u>	<u>TrainMasters TV (4)</u>
<u>Iowa Scaled Engineering</u>	<u>Tam Valley Depot</u>
<u>Litchfield Station</u>	<u>Walthers</u>
<u>Logic Rail Technologies</u>	<u>Westerfield Models</u>
<u>Micro-Trains Line</u>	<u>Yarmouth Model Works</u>
<u>Mike & Scotty Live</u>	
<u>Model Railroad Construction</u>	
<u>Mountain Subdivision Hobbies</u>	
<u>Monashee Laser Engineering</u>	
<u>Monroe Models</u>	
<u>MRH Store (1)</u>	
<u>MRH Store (2)</u>	
<u>MRH Store (3)</u>	
<u>Mt. Albert Scale Lumber</u>	

Clickable "other" index
[Other – Contents](#)
[Other – Cover](#)
[Other – MRH Marketplace](#)
[Other – MRH Sponsors](#)

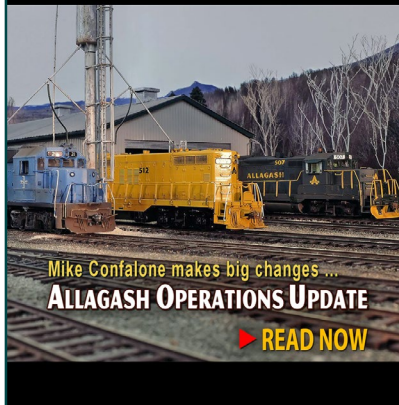
COMING NEXT MONTH IN MRH ...



Big Changes on the Allagash – Operations Update!



Four structures, one kitbash ...



Mike Confalone makes big changes ...
ALLAGASH OPERATIONS UPDATE
▶ **READ NOW**



N scale scene inspired by John Allen ...

... coming in the
November MRH

COMING NEXT MONTH IN *RUNNING EXTRA* ...

... all the MRH articles and ads, *PLUS:*



Rob Clark explores more modeling with vintage kits ...



Kitbash a Boroleum tank car ...



Also these articles:

- Lorem ipsum dolor sit amet
- Consectetur adipiscing elit morbi
- Vestibulum tempus vehicula
- Mauris tempor libero ipsum pellentesque
- Nullam porta ut arcu at lobortis
- ... and much more!



A simple realistic ops primer ...

... all this and much more!

SUBSCRIBE: 1 YR \$19.99