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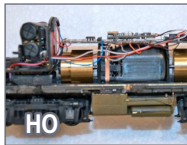
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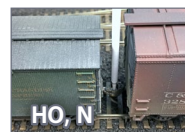
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PUBLISHER'S WELCOME

introduction



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JOE FUGATE: KEEP TINY PARTS FROM FLYING INTO OBLIVION ...

★★★★★
RATE THIS ARTICLE

I WOULD LIKE TO VISIT THE ALTERNATE DIMENSION

that all small parts disappear into when they fly off your workbench. I would expect to find a massive treasure trove of tiny goodies that have been lost through the millenia!

More seriously, I've recently discovered a way to keep those tiny parts contained. Some good examples come to mind: cutting tiny parts off a sprue, or keeping track of a replacement coupler spring when installing one into a coupler head that has lost its spring.

The secret: large one- or two-gallon Ziplock freezer bags[1]. They're transparent, so they're easy to see through, and they're large enough you have some space to work.

I've tried both sizes and I prefer the larger two-gallon bags. I like the extra working room for my hands I get with the two-gallon size. The two-gallon bags can be a bit harder to find, but the shopping list link at the bottom of this article gets you to some inexpensive sources with free shipping on Amazon for either the one-gallon or two-gallon bags.

I keep a couple of these bags handy near my workbench so I can easily grab one when it's time to do some work that otherwise is guaranteed to fling some small parts off into an alternate dimension! ☑

You can find an up-to-date shopping list for this article here:

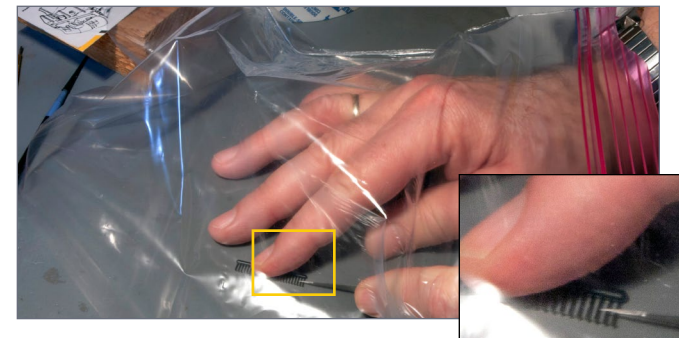
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1. Here's a size comparison of the one-gallon and two-gallon freezer bags to a US 25 cent piece. I prefer the larger two gallon size myself because it gives my jumbo-sized hands ample room to work freely.



2. Working inside one of these Ziplock bags keeps these tiny parts from disappearing into oblivion when cut from the sprue.



3. If a coupler spring happens to zing off the knife blade during installation, the bag catches it.



THE LIMITED MODELER

column



MRH Running Extra | January 2020

JIM SIX DISCUSSES MODELING
UPDATES AND BOXCAR ISSUES ...



I HAVE SEVERAL ONGOING PROJECTS TO UPDATE this month. Everything I share in the “Limited Modeler” column is presented with you in mind. I aim to share ideas and techniques that most any model railroader can do to improve their hobby enjoyment.

THE LAYOUT

For starters, I have decided to keep part of the original layout [1] while I finish my basement and build the new layout. I think a lack of a layout would work negatively on my mental state! I will have a layout portion to operate and enjoy while the basement work progresses. Once the new layout is operable, I will probably dismantle the remaining original layout, or integrate it with the new layout.

If I tear down the entire layout, I might just leave the hobby once and for all. I am concerned that once the layout is removed, I would get cold feet and not build the new layout. I have been model railroading since the mid-1950s – more

► **DOING MORE WITH LESS**

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than 60 years. I simply don't want to tempt fate by completely removing the layout until I have the new one operating. I am sure some older readers will understand.

LOCOMOTIVE UPDATE

I have taken the leap into the world of brass locomotives once again. While I already have a pair of Trix -produced New York Central class H6 USRA Mikados, the most common Mikado on the NYC roster in 1927 was the H5. In the 1910s many G-class 2-8-0 Consolidations were rebuilt into 2-8-2 H5 Mikados.

I can't model the Central in the 1920s without at least one H5 Mike. I chose an Overland brass NYC H5. Yep, brass. An H5 has never been offered as a plastic HO scale model. I keep hoping Broadway Limited will produce an NYC H5 Mikado.



1. This part of the layout remains serviceable. I'll keep it in operation until the new layout is operable. At that point, who knows?

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Without an inkling that a New York Central H5 will be produced, I contacted a friend who is a recognized brass locomotive expert for help. As luck would have it, he had a second-hand Overland NYC H5 available. He would rework the detail to match a specific group of New York Central H5 Mikes. We negotiated a trade and the model arrived on my doorstep a few weeks later [2].

A quick look reveals the model had been painted for a free-lanced model railroad [2]. I will update the model to follow a New York Central prototype. The pilot area already has been reworked to match a specific NYC locomotive group, with a correct bell atop the boiler. I will share progress on this model in upcoming columns.

I still have plenty of locomotive work to do. A Trix Mikado, NYC 1890 [3]. I acquired second-hand runs flawlessly; however, I had



2. I added this Overland NYC H5 Mikado to the roster. I still need to repaint it, apply decals, and weather it.

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3. Here is one of the Trix USRA Mikados I need to back-date to fit my modeling era. It needs a few detail corrections and additions.

decorated it following early 1950s practices. The lettering represents the post-1936 reorganization of the New York Central (from Lines to System), and the weathering represents the locomotive near retirement in the mid-1950s. It will be updated to make the model follow a 1927 prototype. I will have to do similar work on all three of my NYC Mikes, including the brass model. Sigh...

MORE STEAM

I also have a Proto 2000 USRA 2-10-2 that must be completed [4]. The model is partially detailed to match the New York Central Z1 class. This is my largest and heaviest locomotive and will be used to haul coal trains through town. My DCC/sound expert installed a Tsunami decoder and speakers. This loco operates smoothly and sounds great. It is waiting to be painted and weathered. I would like to have another Proto 2000 USRA 2-10-2 to detail as a Pennsylvania Railroad class N2 2-10-2.

These USRA 2-10-2 locomotives were large when they were built. They were great pullers but lacked speed, and therefore not favored by either the NYC or PRR railroads. They were relegated to working branch lines with lighter rail and less need for speed. I'll be sharing my work on this 2-10-2 as it moves ahead on my workbench.

NICKEL PLATE ROAD BOXCAR UPDATE

I featured a Nickel Plate Road 36-foot boxcar in a recent column. I had detailed and weathered this Roundhouse model [6], but I missed the trucks. The prototype had arch bar trucks in the 1920s and I didn't have them on hand. I finally installed Bowser arch bar trucks, which nicely match the prototype [7, 8]. Arch bar trucks set the period for me and were very common in the late 1920s. I will be backdating several of my freight cars with arch bar trucks.

BUILDING THE FREIGHT CAR FLEET

I've been planning to build up my boxcar fleet. I'll get around to coal hoppers and gons soon. In the meantime, I have started a large boxcar project focused on building Accurail double-sheathed



4. Here's my largest and heaviest steam locomotive, a Proto 2000 USRA 2-10-2. It's in my shops being detailed as a New York Central Z1 class. Someday I will finish it!

36-foot boxcars representing New York Central Lines prototypes. I plan to letter these cars for the following NYC Lines: New York Central, Michigan Central, Pittsburgh & Lake Erie, Toledo & Ohio Central, Big Four [9] (early style), Big Four (later style), Lake Shore & Michigan Southern, and the Pittsburgh, McKeesport & Youghiogeny. It will take me a while to work through these



5. Here is a mid-1930s image of the prototype NKP double-sheathed 36-foot boxcar. Note the car has six truss rods installed and arch bar trucks. *Ray Breyer collection*



6. Here's my model of the NKP car using an old Roundhouse kit as the starting point. This was before I changed out the Bettendorf trucks for the arch bar versions.

models as they are not the only projects on my workbench. I hope to post an update sometime in 2020.

INSPIRED BY A MICHIGAN CENTRAL BOXCAR

In my November 2019 column, I shared a door-and-a-half boxcar conversion using Accurail's single-sheathed boxcars. While there were a lot of those boxcars in service, there were many more single



7. A simple truck change alters the appearance of the NKP boxcar model. I think the Bowser arch bar trucks are a good match for the prototype [5].



8. Here's a look at the NKP boxcar mid-train on the layout. I love these classic boxcars.

door, single-sheathed boxcars. I modeled a Michigan Central (MCRR) car inspired by a prototype USRA single sheathed boxcar built in 1919 [10, 11].

The Michigan Central was a major component of the New York Central Lines, serving Michigan's auto industry, and running west to Chicago. The line served several major cities including Detroit, Dearborn, Lansing, Grand Rapids, Battle Creek, Kalamazoo, and Michigan City. The railroad blanketed lower Michigan like a spider web. This industrial region was dominated by the auto industry, a major source of revenue for the Michigan Central. My 1920s modeling focus was a time long before the area became known as the Rust Belt.

Tichy Train Group offers an excellent HO scale model of the USRA prototype. I would have used a Tichy model for this month's column, but I didn't have the decals to complete the model for my deadline. I also wanted to promote using pre-painted models, and the Tichy kit is undecorated. Intermountain offers these boxcars assembled and painted, but none are available decorated for the Michigan Central.

Sometimes I let my enthusiasm for building a freight car get the best of me. This model is a result of my haste. I decided to use an



9. This Big Four boxcar is typical of those in my NYC Lines boxcar project. This paint scheme is a true classic. *Westerfield AC&F collection*

Accurail single-sheathed boxcar pre-painted for the MCRR. Two versions were on hand and I had to choose. One model had wood doors and 7-7 Murphy corrugated steel ends but the lettering followed the NYC System practices [13]. The other model had as-built lettering but had wood ends [12]. The USRA prototypes had 5-5-5 Murphy corrugated steel ends [11].

Neither of the Accurail models is a USRA single-sheathed boxcar. They represent other prototypes. In my haste, I assumed the MCRR had similar boxcars with wood ends. I settled for the Accurail model with wood ends and started the project. I found out the MCRR did not have single-sheathed boxcars with wood ends and created an instant foobie.

MOVING FORWARD

Since I am featuring foobies this month, I decided to go ahead with this model and experiment. I've ordered proper decals to build an MC car using a Tichy model. I have a ready-to-run version painted in the later, post-1935 NYC scheme. It will be



10. This is the inspiration for my Michigan Central (MCRR) model; a USRA single-sheathed boxcar with a straight center sill. This car was built in January of 1919. *Ray Breyer collection*

stripped and repainted. I have several air brushes and will paint the InterMountain/Tichy model for a correct late-1920s Michigan Central car. That's another one for a future column. In the meantime, I might start referring to my modeling as Foobies R Us!



E. Hansmann

FOOBIES

Hobby manufacturers have produced hundreds of plastic injection molded freight cars over the years across many scales. Many of these models follow a prototype car design with lettering that follows prototype practices. Not all models feature a combination of correct lettering on the proper car design. To cover manufacturing costs, some companies apply popular road names to a freight car model that may not represent real prototypes to maximize sales.

As an example, let's say a company applied modern BNSF lettering on a 36-foot, truss rod wood-sheathed boxcar. This combination has never happened out there on the real rails. This type of decorated model has been known as a foobie for many years. The term "foobie" is a variation on the military slang "fubar," which was an acronym for "fouled up beyond all recognition."

I think I first saw foobie used to describe a freight car model in the late 1990s. The late Richard Hendrickson had applied the term to describe a model that followed a prototype design but did not wear the paint and lettering used on the prototype. Richard was a leading freight car historian and provided prototype drawings, photos, and reference material in assisting several manufacturers with model freight car production. I learned that the usage may date to the early 1980s when prototype modeling began to take root.

In this column, Jim Six refers to a couple of foobies in his freight car fleet. These models don't follow what the prototypes had on their roster. They might be similar but are different enough to be labeled as foobies.

Since I am modeling a time when the area served by the Michigan Central was in its prime, having a few of their freight cars is vital. They had a lot of boxcars, particularly door-and-a-half and double-door boxcars for hauling automobiles. The MCRR also rostered a lot of single-door boxcars for hauling auto parts and other products. The MCRR was assigned 1,000 USRA design single-sheathed boxcars in 1919 [11]. The cars came with wood doors, corrugated metal ends, Andrews trucks, and KC brake systems.

I have long been somewhat of a prototype modeler, and conscious of prototype details. However, I do relax my standards from time to time. Knowledge can be dangerous! A year ago, I wouldn't have known this model did not accurately reflect a prototype, and I probably wouldn't have cared. On the other hand, I am now better prepared to get it right next time.



11. An MCRR USRA single-sheathed boxcar is captured in this April 1919 photograph. The barrels are probably full of bolts, and the big bags might be horsehair stuffing for seats. They would be too heavy if loaded with leather for seat covers. *Ray Breyer collection*



12. This is the Accurail 4100-series model with wood doors and wood ends. The graphics and lettering follow an earlier prototype.

MODEL CHANGES

To my eye, one of the noticeable differences between the Accurail model and the USRA prototype is along the top of the car sides. The model has a gap where the roof meets the car side. It forms a trough that runs from one end of the body to the other. This never bothered me until my prototype friends pointed it out.

With this model, I attempted to make a correction and eliminate the issue. I like the result but the Tichy model is still more accurate. I also replaced the trucks with Accurail Andrews trucks, a direct and an inexpensive change that works out to \$1.42 per car. How could I go wrong?

The Accurail single-sheathed 40-foot boxcar kits include a fish belly center sill, underframe, and parts representing later AB brakes that became standard in the early 1930s [14]. I covered details of the KC and AB brake systems in my December 2019 column. I replaced the brake equipment with parts from the Accurail 36-foot boxcar kits to represent KC brake hardware [16, 17], which

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were widely used on freight cars until the 1930s. The older K brake systems were eventually banned for interchange service cars in 1954. Accurail sells these K brake components separately.

While I knew this model is not a match for the USRA prototype, I decided to modify the underframe. Many early single-sheathed boxcars had a straight, steel center sill, not the fish belly center sill. Changing these parts is simple. I employed a method that I have been using for several years [15, 16, 17].

I replaced the fish belly center sill parts with six pieces of Evergreen #264; 1/8-inch C-channel. I cut them to fit in place of the fish belly pieces [15]. I did have to remove a bit of the underframe cross bearers so the C-channel could slide into place. A few dabs of liquid styrene cement secure the parts.



13. Here is my other choice, an Accurail 4300-series model with wood door and steel ends. Notice the later NYC herald with the SYSTEM and not LINES in the oval. The rest of the decorating represents the earlier lettering. *Photo provided by Accurail*

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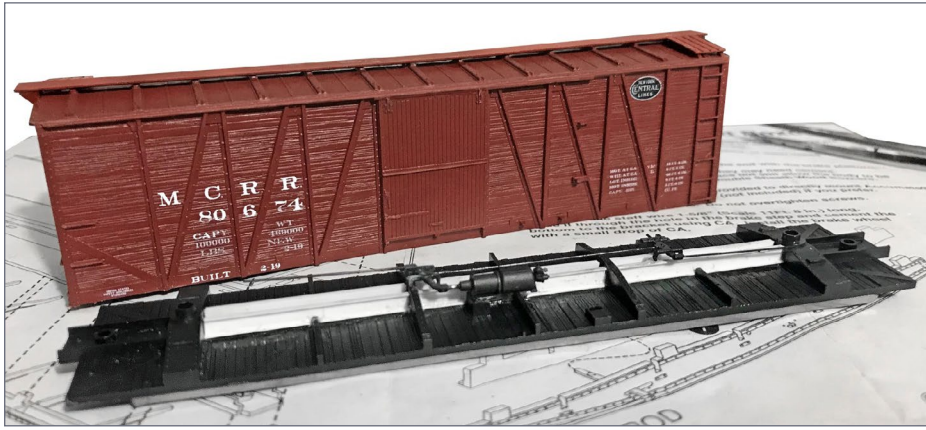
14. The kit pieces are basic. I only needed the floor, not the fish belly beams. I've already modified the roof in this view.



15. I cut and fit Evergreen pieces to fit for a new center sill. Six sections of 1/8-inch C-channel are custom cut and secured with liquid styrene cement.

ROOF ADJUSTMENT

I eliminated the gap running the length of the car body by sawing the roof off the body [18]. I also did this as a test to see if my fix would be good enough to repeat on other models. It was



16. It didn't take long to install the straight C-channel center sill pieces and K brake hardware.



17. After completing the underframe, I cemented it into the body. Don't forget to add weight before this step, especially if you glue the underframe into place.

easy to saw right along the gap. I think this is an easy slice-and-splice kitbash.

After the roof was removed, I sanded the bottom of the roof and the top edges of the body to flatten and smooth the surfaces [19]. I slid the parts around on a large sheet of sandpaper on a flat surface until the surfaces were flat and smooth.

I test-fit the roof onto the body several times and repeated sanding until I got a good fit. Liquid styrene cement was applied to join the pieces [20]. The process of sawing and sanding removed enough plastic to allow the edges of the roof to sit flush onto the body and eliminate the gap that bothered me [20].

FINISHING

As a last step on the car body improvements, I removed the sill steps. I don't like the molded appearance on these Accurail single-sheathed boxcars and the shape was not accurate for the



18. I cut the roof from the car body with an X-Acto razor saw. I don't like using the saw with the handle. I have better control, and can make a straighter cut without it.

USRA boxcars. I used the sill step parts from the 36-foot boxcar underframe package. I feel these follow the prototype hardware better and are nicely scaled.

I've come to the point where I have a finished model [21, 22]. I hope you like it. Should you have questions please post them to the *MRH* Forum on the topic for this month's "Limited Modeler." I will be glad to answer them.



19. After removing the roof, I sanded the parts for a better fit.



20. Here's the car body with the roof reattached. I touched-up the seam with boxcar red paint. The result is a nice, smooth seam that is ready for weathering after the model is assembled.

ASSISTANCE

I have long relied on the help of friends with my modeling. Few of us have a clue of what is right or wrong with respect to the prototype. This is particularly true as I have shifted back to the 1920s. No model railroader is alive today with first-hand experiences of the Roaring Twenties. Most model railroaders won't be able to tell which of my models are foobies from those which follow a prototype.

There are model railroaders who have historical knowledge and resources to find my faults. Some of them do just that and I've made friends with them so I can do a better job! Ray Breyer and *MRH* Editor-at-Large Eric Hansmann have been mentoring me for a while. Thanks to these two fellows, and others, my knowledge and resources of the 1920s are ever growing.



21. Viewing from this angle, my model looks like a good representation of a USRA prototype. Thankfully, the ends are not visible, and are also difficult to see when the car is coupled in a train. I'll keep this model to use in operating sessions.

MORE FOOBIES – BOXCARS WITHOUT SPECIFIC PROTOTYPES

Have you ever wondered if your freight cars are based on a specific prototype? I never used to, but that was decades ago. Lately I've been paying more attention to the prototype. If I know better, I try not to build a freight car that did not have a specific prototype. I'll wrap up this column with two boxcars that have no specific prototype, contrary to my modeling standard.

I started work on these models about six years ago. They sat untended until recently when I decided to complete them. I did not originally know the models did not follow a specific prototype. A good friend pointed out the error of my ways when I told him what I was working on.

That info bothered me, since I started building 1920s prototype models just a few years ago. I initiated a discussion topic on the MRH Forum where it was thoroughly discussed. The discussion prompted me to ask myself what I am trying to do with the hobby. After much thought, I decided I am not trying to build a collection of prototype-specific models. I am working to build an operating



22. A few relatively simple details have transformed this kit into another member of my fleet.

layout that gives me the feeling of late 1920s railroading. I don't think the Lehigh Valley foobie detracts from the scene [23].



23. The Lehigh Valley boxcar here has no specific prototype, but I feel it fits with the other freight cars that reflect specific prototypes.



24. My New Haven boxcar looks great in this photo, even though it does not follow a specific prototype. The NH fleet was 36-foot boxcars in the 1920s.

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I can live with a few freight cars that look realistic but have no specific prototype. I am glad I finished the two models in question and am proud to have them on my freight car roster.

My other foobie is a New Haven boxcar [24]. Both the NH and LV models are USRA double-sheathed boxcars. These were common



25. It's a simple modification to change from fish belly to straight center sill. The method is exactly as I shared earlier on the MCRR boxcar [15, 16].



26. Here is my finished New Haven foobie sandwiched between two prototype models and looking right at home.

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27. One last foobie is ready for service. The 40-foot LV boxcars of the 1920s had doors that opened to the left, but I think this Lehigh Valley boxcar is a great addition to my fleet.

freight cars in the 1920s but these two railroads did not roster this car design in the late 1920s. Why can't I have these models in use on the layout? Who will question them? No freight car historians visit me to operate the layout. They look right at home in a freight train [23, 24]. I am happy with them, and that's what matters.

I modified the center sills on both foobie boxcars, and installed KC brake systems. They are equipped with Kadee #153 short-shank scale couplers, metal wheels, and weathered with my powder wash technique. The underbody detail is the same as the Michigan Central single-sheathed boxcar [15, 16]. ☒

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GETTING REAL

column



MRH Running Extra | January 2020

TONY THOMPSON reviews
railroad markings and
graffiti ...



GRAFFITI. THERE'S A TOPIC THAT CAN AROUSE
(and divide) modern modelers. Most people dislike graffiti on freight cars and buildings, some really hate it, and a few accept that it's modern reality. I guess I am in the latter group.

If I were a modern modeler, I would add graffiti to my freight cars because the real ones have it. Leaving off graffiti because you don't like it seems to me very much like refusing to weather freight cars, because you like them better clean. Both attitudes fly in the face of reality.

But enough of that. The point is, if (and only if) you do want to model reality, what is the best way to represent the graffiti we actually see in the world? That's my topic this time.

BACKGROUND

First, a little background. Graffiti, in the sense of unauthorized or "illegal" writing in public places, dates back at least as far as the ancient Greeks, whose writers mentioned it, and we can see many

► **MODELING REAL RAILROADS AND WHAT THEY DO**

GETTING REAL | 2

vivid Roman examples today on the excavated public walls of buildings in Pompeii.

Railroad workers and hobos have long made chalk drawings on railcars, from "Kilroy Was Here," "Herbie" and "JBKing Esq" to "Bozo Texino." They have varied in how involved they were but these were common on freight cars for decades.



1. A clerk writing directions with chalk on a freight car. These marks are not, and should not be called, graffiti. *T&NO photo at Houston*

At the same time, it must be recognized that most chalk markings on freight cars were not graffiti in the literal sense. Instead, they were marks made by switchmen and clerks to convey information [1], even if decal makers have for decades sold those marks as “graffiti.”

Urban wall writings, usually in the form of “tags,” were seen in American cities from Philadelphia and New York to Los Angeles as early as the 1920s and were usually associated with gang territories. The first big upsurge of more complex and colorful writing of this kind began on city walls in New York in the late 1960s, and then really gained much greater visibility on the subway cars of the city starting about 1969. Very quickly the cars, inside and out, were entirely covered with colorful graffiti.

In the 1970s, New York subway visibility was part of the stimulus that caused this graffiti culture and style to spread world-wide, from Europe and Australia to South America, Asia and, really, everywhere. It is inescapable anywhere today.

A momentous event was the decision in New York to clean the subway cars and keep them clean, starting in 1977. Before long, graffiti were extinct in the subway; the “writers,” as they called themselves, didn’t want to do ephemeral work. But this led to the discovery of freight cars. If you “wrote” on one, it might move on tomorrow, just like having your work on a wall painted over; but it was then being seen throughout North America. In some ways, the writers liked this even better.

Though understandably perceived as vandalism and petty crime in early days, whether on walls or rolling stock, the perception in the art world has changed. Today, there are art exhibitions, feature stories in art magazines, auctions, and gallery sales of

this kind of paintwork. It is even the case that building owners with large blank walls sometimes commission graffiti (of a kind they can tolerate) in the hopes of pre-empting less pleasant writings. So, whether or not you like this material, it has become part of everyday culture, and certainly also the culture of art, again throughout the world.

But to me, the bottom line is that freight cars in today’s real world do have graffiti. I conclude that realistic models should have graffiti too. I emphasize one more time that this doesn’t constitute approval of crime, only an observation of reality.

SOURCES OF INFORMATION

If you want to include graffiti on your freight cars, how would you do so? For years, there were no decals available, but today Blair Line has a large and expanding line of decals for railcar graffiti, in both HO and N scales. I have included a link to their website in the Bibliography of this article, along with a few others such as Microscale and Dave’s Decals that have also begun to offer such decals. I will come back to commercial decals.

There are also a growing number of modelers who have taken on the challenge of reproducing with paint and brush, what they see on actual freight cars. I will give two examples from Railroad Prototype Modeler (RPM) exhibitions I attended [2,3]. Obviously, this takes a steady hand, but after all, the precision of most prototype artwork varies, so yours can too.

But need you be limited to commercial decals or hand work? Why not begin with actual graffiti, on freight cars or elsewhere? Obviously, anyone today can go down to lineside or the nearest yard and photograph lots of freight cars with varying degrees of

graffiti (while remaining aware of modern railroads' sensitivity to trespassing). That gets you images you can use in ways I'll come back to in further comments.

But what if you don't model today? The styles and appearance of graffiti have evolved, from minimal tagging to the full-color,



is by Rick "Dakota" Kempf and was seen at RPM Chicagoland in October 2017.



Beach, Florida Prototype Rails RPM in January 2019.

2. An example of a "whole car" paint job. As the prototype photo in the foreground shows, the hand-done version is a pretty faithful reproduction of the actual car. This model

3. Another example of duplicating a prototype freight car, including graffiti. This model was done by Butch Eyler, and it was photographed at the Cocoa



4. Some examples of simple tags. They can be names, initials, slogans, or comments, and simple drawings are often present. These can be made on models with a fine-tipped felt pen or with artists' colored pencils.

full-car-length productions of recent years, and in a variety of styles. "Tagging" refers to simple signature-like writing or line drawing, with a single color and few flourishes [4].

As it happens, there have been a number of books about the graffiti artists and their work (if you hate it and can't accept that it's art, grit your teeth and bear with me). If nothing else, these books are a tremendous source of images of a huge range of styles, types, and eras of freight car graffiti.

A good example is *Freight Train Graffiti*, by Roger Gastman, Darin Rowland and Ian Sattler (Abrams Books, New York, 2006). It's a fine resource [5], and like other books on this topic, such as *Spraycan Art* (see Bibliography), remains readily available from on-line booksellers.

The Gastman book contains over 1000 full-color illustrations of the work of many individuals (nearly always identified by their handles, not their names). From a modeler's perspective, it is a treasure trove of images, many dated so you know some history, to inform your modeling. The era you model will to some extent affect what kind(s) of graffiti you should choose.

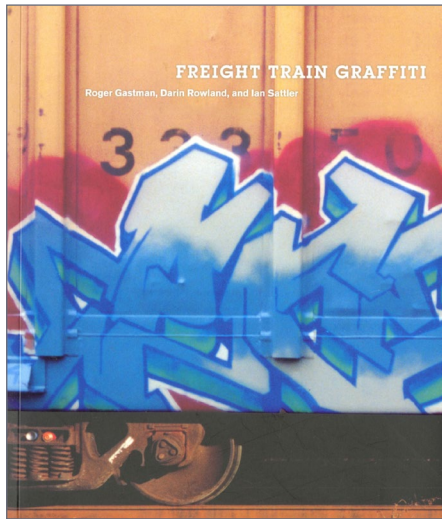
There are also magazines, believe it or not, that cover this scene. To some extent these are ephemeral and may appear only for a short

time, though others have survived. For example, the magazine *Can Control*, which began in 1987, is today largely a video website (see Bibliography). It can show you today's appearances, if you don't have access to a nearby rail line. You can search on the web for related magazine content under names like *On the Go*, *Skills*, and *Brain Damage*.

STYLES

Turning to terminology, I have mostly researched the scene of 20 years ago, in connection with the chosen era of the modeler I am working with, and in this article will use the terms I know for that era. Earlier and later periods may or may not use different words for the same things.

I mentioned tags, the very widely seen simple line writing or drawing [4], not only by itself but alongside and even on top of larger pieces. Some of the writers have used the term “throw-up” for a fairly fast signature, usually rounded in form and able to be done quickly. These can readily be found on both walls and freight cars [6].



5. The book, *Freight Train Graffiti*, by Gastman, Rowland and Sattler, is a fine resource. Tellingly, it was published by Abrams, a well-known publisher of art books.



6. An example of a “throw-up,” initials EAO. Though seen here on a building wall, these are common on freight cars too.

When the artwork extends the full length of the car, or a major part of it, it may be referred to as a “piece,” from “masterpiece,” a term that emerged when the first writers undertook such large productions. They are also called “bombs,” and a writer might refer to “bombing the freights,” meaning doing the large art works [7]. With enough ambition and confronting the logistical challenge of taking both a ladder and lots of spray cans to trackside, some have even covered an entire car side. That, of course, is quite an undertaking in both time and effort [8].

It is often true, as you see in [8], that writers leave the reporting marks and car number alone. This is because they have learned that a railroad (or lessee) will otherwise re-stencil that lettering, likely in a style not welcomed by the writer. The alternative, also seen often, is for the writer to re-letter the missing number with a spray can [9].



7. This example of an almost car-length installation illustrates the kind of complex, multi-color work sometimes called a “piece” or a “bomb.” Note the “bubbles” and other ornaments around the lettering, a common addition.



8. An example of a “whole car” effort, this one created by two writers who have signed their “handles” here, Pink and Smith. The “99” at right may be a sequence number, something the more prolific writers began to add to their productions. Note that the reporting marks and car number have been left clear. *Photo from Freight Train Graffiti*

The most prevalent and extensive graffiti are found on covered hoppers. Writers refer to cars with smooth sides or no exterior posts as “flats,” not meaning flat cars but flat-sided cars. Exterior-post box cars are less extensively written, and you may hear the comment that tank cars don’t get graffiti at all. This isn’t quite true [10], but certainly relatively few tank cars carry graffiti. The same is true for dusty and dirty cars, like hoppers, which are less often “written” on. And you might observe prototype graffiti even *inside* cars [11].

The writers in the prototype, of course, routinely work over and around side posts (as shown for example in the *Graffiti* book’s cover image [5]) and even over doors [12], but they themselves state that



9. An example of a writer replacing the car number on top of a throw-up. Most writers today either avoid the reporting marks and number, incorporate them into their composition, or replace as you see here. As modelers, we can do the same.



10. Graffiti application on tank cars is less common, but hardly non-existent. One reason I have seen mentioned is that many tank cars have an oily surface film.



11. One may even observe graffiti inside of cars, as with this application to the *inside* of a boxcar door. Whether one would wish to model this is problematic.

it is a more difficult place to work. When we come to model, we find some of the same challenges. We too can more easily apply decal or overlay graffiti on “flats.”

MODELING

One easy way to get at least some of the graffiti look without doing anything too dramatic is to model tags only. As I mentioned, these are easy to do with a fine-tip felt pen or colored pencils. You can go from photographs, your own or published ones, or you can make up things in the spirit of [4]. These may or may not need to be readable, which is your choice. Most tags certainly comprise stylized lettering, but often can be read.

For larger lettered applications, a broader felt-tip pen can still work. Lettering like this is often shaded with another color, so that is an option. I show in [13] a model I did this way,



12. This exterior-post box car does show full-length paintwork, including the door, but the side posts and corrugated door make this a much less convenient surface on which to work.

using the word “Nesta” (middle name of reggae musician Bob Marley). I tried to use the squared style of letters as I have seen the name rendered on freight cars, but this is entirely my own lettering. This model was described in a blog post of mine (see Bibliography).

You may note in [13] that I included a few tags also, as is commonplace on freight cars. In fact, most graffiti have had tags added around them or on top of them [14]. This is sometimes rather profuse, so that is an option for representing tags of this kind.

The model shown [13] is also quite weathered and rusty. The car has as-built lettering, so its condition is intended to reflect what would be 40 years of service, as it appears on the owner’s railroad. I will say more about weathering presently.



13. This is a Kadee PS-2 covered hopper in the original as-built lettering, with weathering and rust to reflect 40 years of service on the owner’s railroad. A few tags were applied, and the word “Nesta” with a broader-tip pen, followed by the red shading. This is of course a minimum kind of graffiti application. Quick and simplified lettering like this is called a “throw-up.”

But it may be also be noted that the car shown [13] has exterior side posts. These restrict what can be done in applying decals or paper overlays, which I will come to shortly. But they are no problem to do by hand.

OVERLAYS

I had the idea that if I could photograph some graffiti that looked suitable for freight cars, or find images of some in books or on the web, that I could size those images in the computer, print out them out on paper, and then cut out the graffiti to be applied to models as overlays.

As I have already mentioned, there are of course commercial decals available, and I will show them shortly, but first I wanted to explore paper overlays. But if graffiti images have been captured, why not simply print one’s own decals from those images? It



14. An example of tags added to and surrounding graffiti, mostly of the “throw-up” type of signature.

seemed to me that paper overlays, if they would work, would be just that much easier.

Applying overlays would certainly be easiest on what writers call “flats,” large covered hoppers. Here are the two models I chose to work on for this project. One is an Athearn two-bay covered hopper, 2970 cubic feet built by AC&F in 1966, obviously repainted BNSF after the merger [15]. The other is an Athearn three-bay covered hopper built by Trinity in 1996, so relatively new, and operated by Archer Daniels Midland (ADM) under the WHTX reporting mark [16]. In all candor, these were not deep choices, they are just what was at the hobby shop for the right era.

I found some graffiti locally that I thought were interesting and suitable. I will show one example that I found on a building wall [17], but of course such graffiti can ride on freight cars too. I also chose one from *Freight Train Graffiti* that I thought would go



15. The ready-to-run Athearn model chosen as one of the subjects for testing application of graffiti. It represents an American Car & Foundry 2970-cubic foot car built in 1966, and obviously repainted after the BNSF merger.



16. This is the second covered hopper or, as writers would call it, a “flat,” chosen for modeling. It is an Athearn ready-to-run model of a Trinity-built car of 1996. It is operated under WHTX, a mark owned by ADM Transportation Company, a subsidiary of Archer Daniels Midland.



17. This rendition of the word “money” was obviously located on a brick wall, right down to ground level. It was squared up in Photoshop, the surroundings cut away, and a clean image prepared to print. It was then sized to fit an HO scale freight car.

well on a model [18]. Once these images were chosen, they had to be prepared.

Many photographs happen not to be taken perfectly square to their subject, and for our purposes usually need to be squared up. This is easy to do in Photoshop and other editing programs, where there is a command to skew an image (in Photoshop, it is Edit—Transform—Skew), and of course we skew it to be square. Then one can use the tool of choice to remove or clip the extraneous background, producing a “clean” image to print [19].

A very similar process was used with the book image [18], including some removal of the side posts of the Railbox car. The result was much like [19] in having only the graffiti itself on a



18. This image is from *Freight Train Graffiti*, and shows the writer, Remio, with one of his creations in Vancouver, British Columbia. Note that his work avoids the reporting marks and car number. Obviously, the car is a Railbox patched for BN, but we can ignore that and capture the graffiti only, just as was done for the wall image [17].



19. The squared and trimmed image from [17], ready to be sized for HO scale and printed. At this size, you can still detect the bricks of the background, but in HO scale they are no longer evident.

plain background, ready to print. I then sized each image to fit the target HO scale model cars and printed them out at a local copy shop that has a high-resolution color laser printer.

These were cut out with the scissors I use for decal work, with long handles and short blades. These are very maneuverable and ideal for this task, though of course you may not feel the need to preserve every little twiddle in the original image's perimeter. This process is shown in [20], using the clean image already seen [19], sized for HO scale.

The next step was to thin down the paper object. If applied as printed, the result would be a definite step in height at the edge of the image. An old technique in model railroading is to use fine sandpaper or abrasive grinding paper and thin the paper image, especially near the edges (the center doesn't matter as much). I sand from the center outwards over the edges. You can quickly learn this technique (and how far *not* to go) at the edge of any

plain piece of paper. I usually use 150-grit garnet paper, but the choice isn't critical.

Once edges are thinned down, they should be checked to see how much white still shows. If it does show, I use an artist's brush pen or "ink marker" to just color the edge itself, not the face of the overlay.

With the edges thin and any white covered, the overlay can be attached to the model freight car with the adhesive of your choice. My own recommendation, which I have found to work very well for this use, is canopy glue. (I have written a blog post that extols the virtues of this adhesive; see Bibliography).

An example of the images I have shown here, as applied to the model freight cars, is in [21]. You may note here that the roof of the car is already dirtied. Once the graffiti images have been attached and the adhesive has fully dried (I allowed about three



20. Using decal scissors to cut out one of the "overlay" paper images. These scissors are very maneuverable around a complex outline like one of these images. A hobby knife could equally well be used.



21. The same paper overlay shown earlier, applied with canopy glue to the BNSF covered hopper. With edges sanded thin and then marked to make sure they did not show white, the piece looks much like a paint application. A decal will be added for additional graffiti to the left of the paper overlay. Note that the roof is already dirtied, but sides remain to be weathered, so that the overlay and decal, once protected by a coat of flat finish, can be blended into the car's appearance.

hours), I oversprayed them with a coat of flat finish. You can then do whatever weathering is appropriate for your particular model. Both my cars have relatively recent paint on them for my target date of 1999, so I weathered fairly lightly. That's in contrast to the older car [13], represented as having a paint scheme that has been around a lot of years.

DECALS

Now let me turn to the available decals. For some years, there were relatively few out there, putting modern modelers in the position of having to skimp on graffiti or duplicate decal applications. (The foregoing overlay technique offers a solution too.) But the decal

lines have grown and grown. Probably the biggest selection today is Blair Line (see listing in Bibliography), and I have used a few of those here. I also used some of Dave's Decals (see listing).

Application is of course straightforward, especially since Blair Line now offers these decals with laser-cut outlines. That means that when you float them off the backing paper, the graffiti images themselves are separated. For some graffiti, this is most welcome.

I have tried combining selected decals with the paper overlays. An example is shown [22] for the ADM covered hopper, with both the "Remio" graphic [18] and a decal from the Blair #2261 set. As with the "money" paper overlay [21], this overlay is protected by a coat of flat finish, and the weathering visible on the roof will be extended to the sides. This will help blend all these applications together.

For a perhaps more challenging model freight car to receive graffiti, I chose a double-door box car [23]. Here I was confident



22. The ADM covered hopper, shown in its original state in [16], has received both the paper overlay of the "Remio" graphic shown in [18] and also a Blair Line decal ("gasp"). The reporting marks and number were avoided. I will add some tags to this car side and protect it with a coat of flat finish before extending the weathering on the roof down over the car sides.

that decals could be applied and would "snuggle down" over side contour details, but I wanted to see if I could do the same with a paper overlay.

Another interesting graffiti application I had found on a building wall [24] seemed like a candidate for the box car, though I wanted to use only part of it. Here again, I squared up the image in Photoshop, cut away all but the image, printed it out on paper,



23. Another model car selected for graffiti application is an older box car, a model of SP's Class R-70-22, a double plug-door car. It also has the interesting aspect for the present project of being a dark color, unlike the covered hopper models being decorated.



24. Another example of a graffiti image found on a brick wall. I chose to use only the left part of this one.

and cut it out. With edges thinned and marker-darkened, I could apply it to the box car. Somewhat to my surprise, this really worked quite well [25].

The foregoing examples with only a single paper application shown [21, 25] needed additional material to be added, so I turned again to some of the Blair Line decal sets I had and chose a few to add. These combinations are shown below as images of the weathered final products. But before continuing with weathering, all decals and overlays were protected with a coat of flat finish.

As mentioned, I have used Dave's Decals for graffiti (see Bibliography). They are nice and have good variety, but they are designed for light-colored cars, like the covered hoppers shown here, and won't work well on dark cars [23].

Before leaving the topic of sources of images, I want to mention that there are a minority of graffiti applications out there that are not complex lettering or difficult to read [26]. I will experiment with making paper overlays of some of these images too.



25. The same car shown before [23] but with a paper overlay added, chosen from the image on the wall shown as [24]. The process was the same as for the other overlays, cutting out and thinning the edges of a printed paper copy, then gluing carefully with canopy glue.



26. Not all graffiti are virtually unreadable jumbles of distorted and intertwined letters. There are occasionally exceptions like this car, and this kind of graphic could also be applied as an overlay if desired.

FINISHING

I have emphasized the application of flat finish to the completed decal or paper overlay graffiti. This is not only because it protects the paper from water in my weathering method, but also because the flatted surface is essential to ensure that the “wet water” used for weathering will not bead up on a glossy surface. So, the flat finish is a vital step.

I weathered the roofs of the covered hoppers first, because that way the model can be held by the sides while working on the roof. You can see that, for example, in a foregoing image [21]. Once the roof is dry, the sides can be weathered by holding the model by the roof and underbody. This is all accomplished in my process with washes of acrylic tube paints, as I have described at some length on the internet (see Bibliography).

Once this weathering is done, another coat of flat finish protects it. I have then gone back with felt-tip pens or with artist's "Prismacolor" pencils of varying colors, and added a few tags on the car sides, just as is commonplace on the prototype. One example that has both decals and overlay applications when completed, is the BNSF car, shown partly completed [21], in its final appearance [27].

The same kind of thing was done with the second sides of these cars, also in final form [28,29]. I once had a modeler ask, in a tone of surprise, why the two sides of the cars were different, and I could only remark (with a smile) that the prototype was that way, so I had no choice. But of course, it also gives one the opportunity to use still more variety of graffiti images, if that is how your interests run.

Lastly, I might mention that it is possible to include some humor in this kind of modeling, sometimes even stimulated by the prototype. As evidence, I offer this model [30], faithfully reproducing a prototype freight car.



27. This is the completed car side shown previously [21], with the addition of a decal from Blair Line set #2262, a few tags, and weathering.

SUMMARY

Let me make a comment or two in closing. Painting graffiti is a crime, and far be it from me to approve, let alone encourage, crime. But the fact is that it's out there on freight cars, it is being recognized as artistic expression, and it isn't going to go away any time soon. It's your call if you want to model this part of reality



28. This is the other side of the ADM car (see [22]). It has a paper overlay (the graffiti at right), and a decal at left, from Blair Line set #2257. The car has been weathered over the graffiti and a few tags added.



29. The second side of the BNSF car, this side having only a decal applied. It is from Blair Line set #2261. Some tags were also added, and then weathering over the entire car side.

or not, and this article hopefully offers you some ways to do so, if that's your choice.

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Gastman, Roger, Darin Rowland and Ian Sattler, *Freight Train Graffiti* (Abrams Books, New York, 2006).

AUTHOR'S BLOG POSTS

Canopy glue:
modelingthesp.blogspot.com/2013/05/a-few-words-in-praise-of-canopy-glue.html



30. The legend shown here, "artists making foamers mad," is doubly amusing, and of course copied right from the adjoining prototype photo. It was photographed at the Cocoa Beach, Florida Prototype Rails RPM meeting in January 2017.

The WP covered hopper:

modelingthesp.blogspot.com/2019/07/weathering-freight-car-for-1999.html

Cocoa Beach 2017 model shown as [30]:

modelingthesp.blogspot.com/2017/01/cocoa-beach-2017.html

Weathering with acrylics:

modelingthesp.blogspot.com/p/a-few-years-ago-richard-hen-dricksen-and.html

MODELING SUPPLIES

Blair Line LLC decals: www.blairline.com/graffiti

Brush or marker pens: www.tombowusa.com

Dave's Decals: www.davesdecals.com

Microscale graffiti:

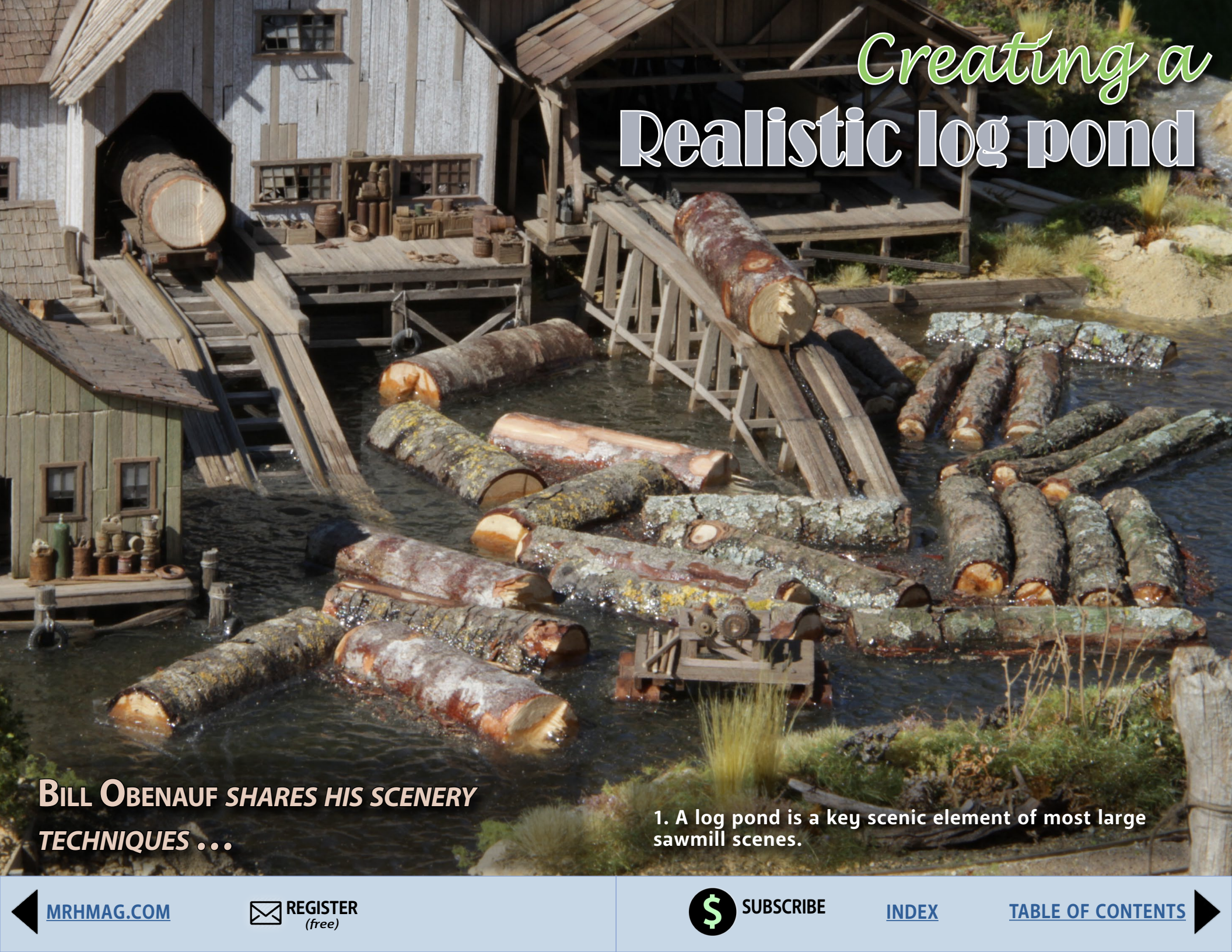
www.microscale.com/Merchant2/merchant.mvc?Screen=CTGY&Category_Code=HOSCALE

Weathering Solutions decals: no current website but they have a Facebook page: <https://www.facebook.com/weatheringsolutions>

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ON ANY MODEL RAILROAD LAYOUT OR DIORAMA, water features are an element that instantly attracts the viewer's eye. With ponds, lakes, and rivers found almost everywhere in the real world, even non-hobbyists are qualified to evaluate a wetland scene.

Water has characteristics that are consistent regardless of a theme, era, or location. It strictly obeys the laws of gravity as it flows from high to low areas and reacts predictably to obstacles in its



2. The log pond is fed at the northeast end by a rapidly rushing river and drains to the southwest under a small trestle and off the diorama.

path. The way water responds to wind and light is also universal. Anything it touches will appear glossy. But the most obvious quality water possesses is movement! In the real world, perfectly still motionless water is the exception rather than the rule.

With all the advancements technology has brought to our hobby, we still concede fluid motion in our representations of water. For that reason, it becomes more important to accurately recreate the qualities of water that viewers expect.

I made the extra effort to model water in constructing my Twin Mills logging diorama [1]. I planned the large water area to be a focus of the scene and used EnviroTex resin to create most of the water effects. The turbulent water and ripple areas are a combination of Mod Podge and Liquitex Gel.

Lastly, I created an illusion of depth in the log pond by pouring about eight layers of EnviroTex during the construction and coloration of the pond base.

Logging and log ponds [2] may have a narrow appeal in the hobby, but I hope my log pond construction techniques will have practical applications for whatever form your water areas take.

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STARTING THE SCENE



3. Construction began with a particle board base. I cut the land forms and shoreline from Styrofoam with a long box cutter and a hot wire tool to shape and define the boundaries.



4. I tacked large angular rocks and stones in place with white glue.



5. I colored Sculptamold with a spoonful of brown and black powdered tempera paints to change the original white color. The new material is more of an earth tone and creates artificial shadows in the voids and rock overhangs.



6. I sank smaller stones into the shore and sprinkled fine sifted dirt as the Sculptamold was still wet. The stones and dirt add more texture to the land form.

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7. I added logs, twigs, and debris along the creek, which are common along the banks and flood plain of a fast-moving stream. Most of this material came directly from the mulch in my front yard. I allowed everything to dry completely before vacuuming the scene.



8. The log brow and retaining wall were secured to the base with glue and backfilled with small stones.

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9. Inspired by Dave Frary, I painted the shallow areas near the shore with Apple Barrel Country Tan craft paint. The first coat was a heavy application.

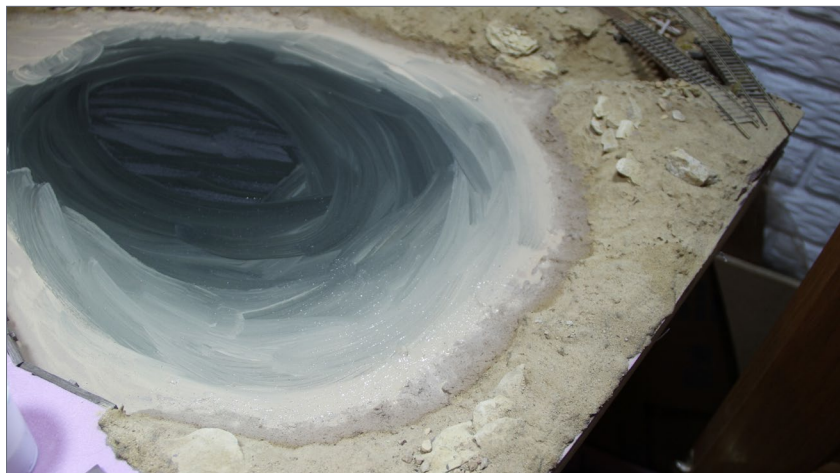


10. I thinned the tan paint with water and dragged it up into the dirt shoreline.

ADDING DEPTH



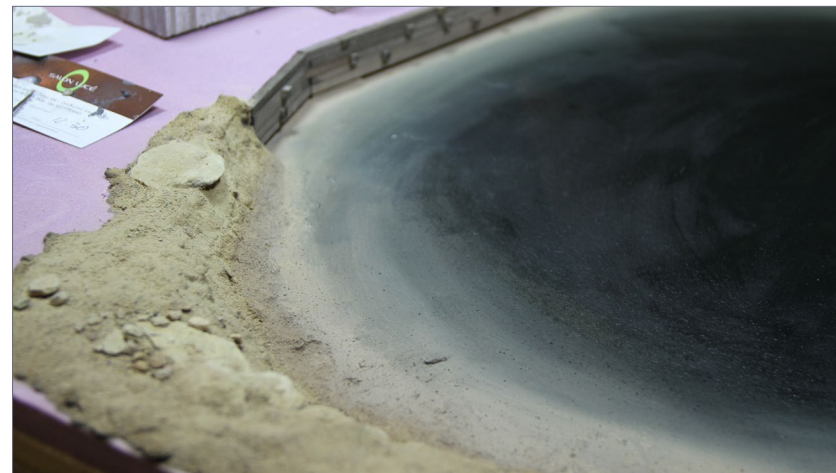
11. I painted the deeper area of the pond with Ceramcoat Black Green craft paint. These painting steps added an illusion of depth to the final scene.



12. While the tan and green colors were still wet, I blended them together using water to thin and mix the paints.



13. I achieved the best result by blending the lighter color into the darker color. I added a little more paint and water to blend the colors.



14. I formed a convincing transition from shallow to deep areas after some trial-and-error.



15. Once the paint had dried, I added the docks, piers, ramp, and a log dump to the diorama.

Logs



16. I used Douglas Fir branches for all the logs. The tight grain scales well for HO when they're cross-cut, and the bark texture is visually attractive.

I found fir bird perches at Petco (www.petco.com/shop/en/petcostore/product/bird/bird-perches-swings-and-playstands/you-and-me-34-inch-natural-fir-wood-bird-perch) that worked great for the largest logs. I searched local wooded areas for branches with tiny colonies of lichen growing in subtle colors of yellow ochre, turquoise and seafoam green.



17. In my research, I noticed that logs don't simply float around isolated or individually. They often group together forming parallel lines, triangles, and V-shaped patterns as seen in this photo. *Gary Katz photo, copyright thisiscarpentry.com*



18. I built groups of logs made from the Douglas Fir branches.

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19. Using hot glue, they were fastened together in clusters then attached to small support "stages" made of scrap stripwood.



20. I painted the support stages to match the pond bottom.

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21. The stages were installed on individual logs, too. They kept the logs level and at the correct height for when the EnviroTex would be poured.



22. By examining prototype photos, I determined that two-thirds of the log should be submerged, leaving one-third exposed above the water line.

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23. Before permanently attaching them to the pond bottom, I moved the clusters around to replicate the natural look in prototype photographs.



24. I prepared all the logs to look as if they'd just been cut and hauled out of the forest. I cut about halfway through the log with a band saw, then cut halfway from the opposite direction, not cutting through the piece. I broke the pieces off to achieve a splintered effect. Sometimes the log had a wedge look.

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25. I shaved down some edges with an X-Acto knife to mimic chop marks or dings and scrapes the logs would get on their way to the sawmill. Scraping off just a little removes the outer bark, revealing a darker brown color. I would also shave off a little more to take the bark it down to the lighter blondish-color sapwood.



26. I set the water depth at 7/8". To help me visualize that depth around the pond, I built this gauge out of scrap wood. The top of the horizontal piece is set

at the water line. The gauge was very useful. It helped me check the logs to ensure a visible portion would be floating above the water line. The gauge also located where the water line would be on the docks and pilings. I angled one end of the gauge to pinpoint exactly where the resin would fill on the steep shoreline.



27. I added small twigs, rocks, sunken logs, and various under-water debris as final preparation to the shoreline. The bulk of the materials were added at the south end of the pond where the stream current would naturally carry it.



28. As a last step, I painted a coat of EnviroTex to seal the shoreline edges.

POURING THE RESIN

I poured seven layers of EnviroTex resin. Each pour added about an 1/8" of depth to the water. A 24-hour waiting period is recommended to allow the material to harden completely. Considering that I was working in my basement during a humid stretch in July, I waited 48 hours between each pour.



29. During each pour, I covered the docks, structures, logs and surrounding shoreline with plastic wrap and painter's tape to protect these areas against inevitable drips and spills.



30. For the first two pours, I added 15-20 drops of PollyScale GN Empire Green to tint the resin. I wasn't certain how much to add, so had to guess.



31. I needed the lower layers to be semi-opaque. Those layers needed to be dark enough to hide the log float stages but transparent enough for the pond bottom color to show.



32. The remaining layers required minimal coloring. I used 5-10 drops of paint for each 16-ounce pour.

CURRENT, RIPPLES AND TURBULENCE

When it came to the final finish of the pond, I knew the glassy-smooth surface resulting from EnviroTex wouldn't give me the realistic result I hoped to achieve. Viewing prototype photos of working logging operations, I could see areas of ponds that were calm, along with turbulent spots – clean water side-by-side with debris-cluttered patches. Yet, even in photographs, there was an obvious sense of “motion” conveyed.

I used Mod Podge to create effects of the current and ripples [35]. I used a small round-tipped brush to apply small, closely spaced dots for areas of turbulent water. A large soft makeup brush was



33. The Hull-Oaks Lumber company log pond in Monroe, Oregon was the inspiration for my HO scale Twin Mills log pond. Photo Gary Katz, copyright thiscarpentry.com



34. Here's my HO scale log pond to compare with the Hull-Oaks prototype.

used to add larger blobs for calmer surface areas. I varied the size of the dots as I worked, consciously making the dots smaller in areas where I wanted quickly flowing water. I took my time in this process and did not attempt to achieve the final effect in one application.

After a few hours of drying time, I added more Mod Podge dots in between the earlier applications [36]. I repeated this process about nine times and filled areas between dots with each application.

If you use Mod Podge, be aware the material begins to dry and skin-over almost immediately. My dot method relies on applying a thick blob. My process was very rhythmic: dip the brush



35. I applied "dots" of Mod Podge on top of the cured EnviroTex using various sized soft-bristle brushes.

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in Mod Podge, place a blob on the surface. Dip the brush, place another blob, etc. Do not revisit a dot to touch it up after it's been applied. Set it and forget it. Repeated dabbing or brushing will inject air bubbles into the blob. These will remain trapped and visible once the Mod Podge fully cures.

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mouth to grow ... if you don't
share us, we don't grow**



36. After the Mod Podge dots dried, I added more to fill spaces between the dots.

REALISTIC LOG POND | 24



37. The areas in-between the logs would trap floating debris.



38. I added a generous layer of Mod Podge and immediately sprinkled on fine bits of bark, sawdust and wood scraps to create the floating debris effect.



39. I pushed the debris into the Mod Podge which held the clutter in place as it cured.



40. After it all dried, I dabbed on a light coat of Mod Podge to give the debris a wet saturated appearance. I used the same procedure for floating debris along the shoreline.



41. A light Mod Podge application on the tops and sides of the logs will give a damp appearance. When fully dried, the logs will look wet but starting to dry.



42. This technique also can be used to hide accidental drips of EnviroTex, as it will soften the appearance and look like a transition from wet to drying.



43. I added current lines to create the illusion of flowing water. Using a small stiff brush and acrylic gloss gel, I stabbed-in lines of gel near the edges of the logs. The lines curve around the edges of the log and fade as they extend out.



44. The current lines get closer together and suggest increased flow and water movement out of the pond and toward the creek at the south end of the diorama. The same stabbing application of gel around other objects and pilings conveys the motion of water flowing around them.



45. Attention to the fine details adds up to a realistic scene. Each component here took time to create but the final appearance is most satisfying.



46. Pay close attention to the details in and around ponds and streams. Adding these elements to an area on our layouts create a scenic highlight.



47. These logs started as bird perches. Keep your eyes open for unexpected scenic materials.



48. I can almost hear the bugs and birds on this sunny day while waiting near the pond for the next log train.

TIPS FOR MIXING ENVIROTEX



49. EnviroTex has been used by many model railroaders to create water scenes.

It's critical to follow the directions to get good results with EnviroTex. Taking shortcuts can leave your surfaces with soft, sticky patches. Prior to my first pour, I contacted the company via their customer support line (800) 368-9323 for last-minute advice. They suggested I download their PDF of detailed instructions. Here's that link.

www.in2art.com/EnviroTex-Lite-Instruction.pdf

Here are additional pointers:

- Raise the temperature in your work room. A target of 75-80 degrees will help the product cure.
- Warm the A and B components prior to mixing. I placed each bottle in a pot of hot (not boiling!) water for 10-15 minutes. You want the liquids to flow with a consistency that's thinner than pancake syrup but thicker than cooking oil. This step helps the two parts go completely into solution.

TIPS FOR MIXING ENVIROTEX *CONTINUED* ...

- After measuring exact amounts of parts A and B, they must be mixed TWICE in two different mixing cups. Combine the two into a clean container and mix for one minute (scraping the bottoms and sides of the container in the process). Pour this mixture into a second container and mix for an additional minute. During this second mix is when you can add coloring.
- If you've mixed thoroughly and vigorously enough, the combination will appear frothy and full of bubbles. Small bubbles will float up and out of the mixing cup.
- When pouring onto your project, do NOT scrape the sides of the container to get out every last drop. No matter how good a job you did mixing, there may still be tiny amounts of unmixed A or B clinging on the sides and bottom of the container. These tiny unmixed amounts result in soft spots on the final surface.
- Trapped air bubbles can be released by CO2. Use your breath or the CO2 produced by a propane torch. It's the gas, NOT the heat that helps release trapped bubbles. Heat from the torch is more likely to damage your model or scorch the EnviroTex.
- Resist the urge to touch the surface to see if the resin has cured. I saved the second mixing container for this purpose. If it's fully cured, the surface won't have a tacky feel. I simply popped out the leftover, mixing stick and all! The large measuring cups from a dollar store worked well. ☑



50. Save the mixing container to test if the EnviroTex is dry rather than touching the project.

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



CONCLUSION

The log pond was the final element added to my diorama. It was also the most intimidating primarily because this was my first attempt at modeling water. I mention that, not out of arrogance, but rather to illustrate that anybody can achieve these results. Preparation, planning, and patience are what reduced the intimidation factor for me. Additionally, fellow modelers were more than willing to share their the advice and expertise. Brett Gallant (the owner of SierraWest Scale Models) provided me his “recipe” for modeling water. Karl Allison (modeler and professional painter) offered fixes for mistakes I’d made in the process. And Dave Frary corrected how I was using Mod Podge. “Yeah, that’s a no-no.”

Since completing this project in 2012, I’ve tried to offer the same encouragement to other modelers. To that end, if you’ve never visited the *MRH* forums (model-railroad-hobbyist.com/recent-posts), please do! It’s a vast community of people with knowledge, experience and advice on virtually any aspect of the hobby. They’re ready to lend it all to you (even as you read this) if you simply reach out and ask. If you’re heading to the National Narrow Gauge Convention in St. Louis (40nngc.com), I hope you’ll attend my clinic “I Can’t Believe It’s Not Water”. I’ll be sharing more ideas and techniques for modeling realistic water effects. ✓



BILL OBENAU



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.

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.

Learn more about modeling realistic water at his clinic “I Can’t Believe It’s Not Water!” at the 2020 National Narrow Gauge Convention in St. Louis. ■

**Please include
a phone
number when
contacting
MRH**

**(in case your spam
filters eat our
email response)**





Repowering a set of Alco FA/FB1s

1. These New Haven Alco FA and FB models feature brass bodies on modified underframes. I wanted better performance and was able to update these with easily available materials.



Running Extra | January 2020

BART HOLLIS upgrades a pair of brass diesels ...

MANY YEARS AGO, I PURCHASED TWO HO SCALE Key Imports Alco FA1/FB1 sets in New York Central paint. The brass shells were finely detailed, but they ran poorly. I promptly dunked them in stripper to remove the factory paint and lettering. I painted and decaled them to create the New Haven 0400s I wanted. I figured I could modify the power train at some point.

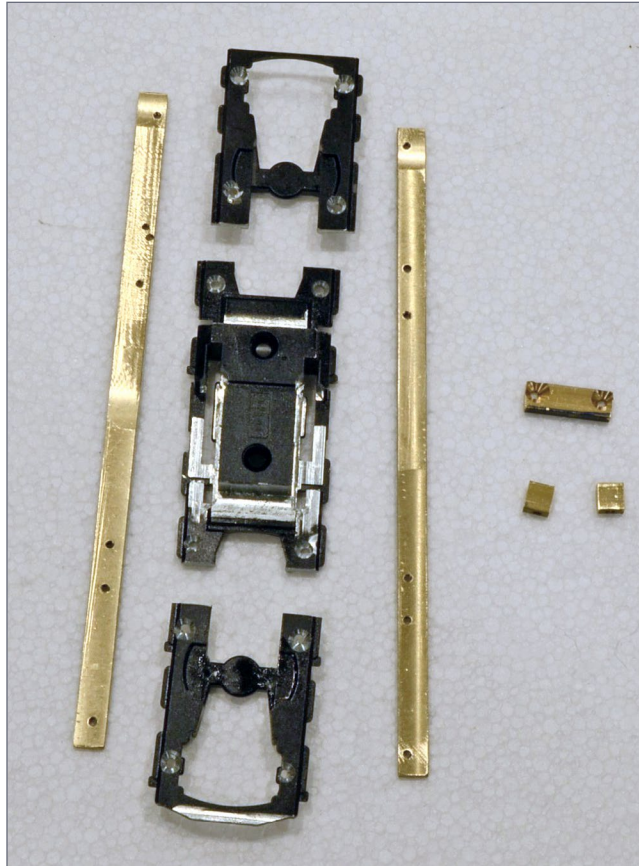
While these units recently came up in a conversation, I've always admired Kato drives. They are quiet and smooth, with electrical pickup on all wheels without wipers. Kato locos run as I think they should. If only I could figure out how to replace the Key drives with Kato drives. I had purchased a mini mill, so I took another look at making the alterations.

I disassembled an Atlas RS-3 that had a Kato drive and reviewed how I could adapt that drive in the Key units. The results are the subject of this article.

CUTTING THE FRAME

The distance between truck centers on an RS-3 is 30'. The distance between truck centers on the FA1 is 27'-2". I had to remove 1'-5" from each end between the motor mount and the truck bolster.

I used a 3/16" end mill to run through the frame. It was within 0.02" of the amount to remove. A couple of strokes of a file on the down-mill side of the cuts made it just about perfect. With the frame on the mill, I removed the end projection of the frame so I can mount a coupler pad. I also removed some of the fuel tank mount area so the tanks from the FA1 could be installed. I ended up with three pieces [2].



2. I cut the frame at two points, removing material to make it the proper length. The center part has been prepped to install the fuel tanks. The long brass stock will hold the parts together.

I needed a shim to hold the frame together and to position the body shell at the correct height. I used 1/8" x 1/4" brass stock, 6" long, and milled to a 0.077" thickness. Whoever designed this frame must have had this project in mind, as there is a ridge along the edge of the frame a perfect distance from the edge. I used the ridge as a straight edge to position the shims. I drilled and tapped 12 holes in the brass shim stock. I drilled clearance holes on the frame pieces and installed 2x4-millimeter screws to hold it together.

I also fabricated a speaker mount to avoid wires between the frame and the body. The three small brass pieces in [2] are the speaker mount parts.

THE FUEL TANKS

As the fuel tank and air tanks on the RS-3 and the FA1 are different, I used the fuel tanks from the Key units, which were filled with lead squares for weight. These needed to be modified but the weights were soldered into the tanks. I didn't unsolder them, as I thought I'd end up with a bunch of parts that I wouldn't reassemble.

I used a cutoff wheel on my Dremel motor tool to slice between the lead weight and the inside of the tank. I used a respirator and eye protection while using the motor tool. I proceeded slowly, allowing time for the assembly to cool as I removed a layer of the lead. After removing the weight, I used the cutoff wheel to remove material from the top surface of the tank and brackets. I removed additional material from the RS-3 frame for the tank to fit, but I used the mill for that step.

When the tanks fit the frame properly, I created brass pieces to fit into the front and rear of the tank for correct positioning. I

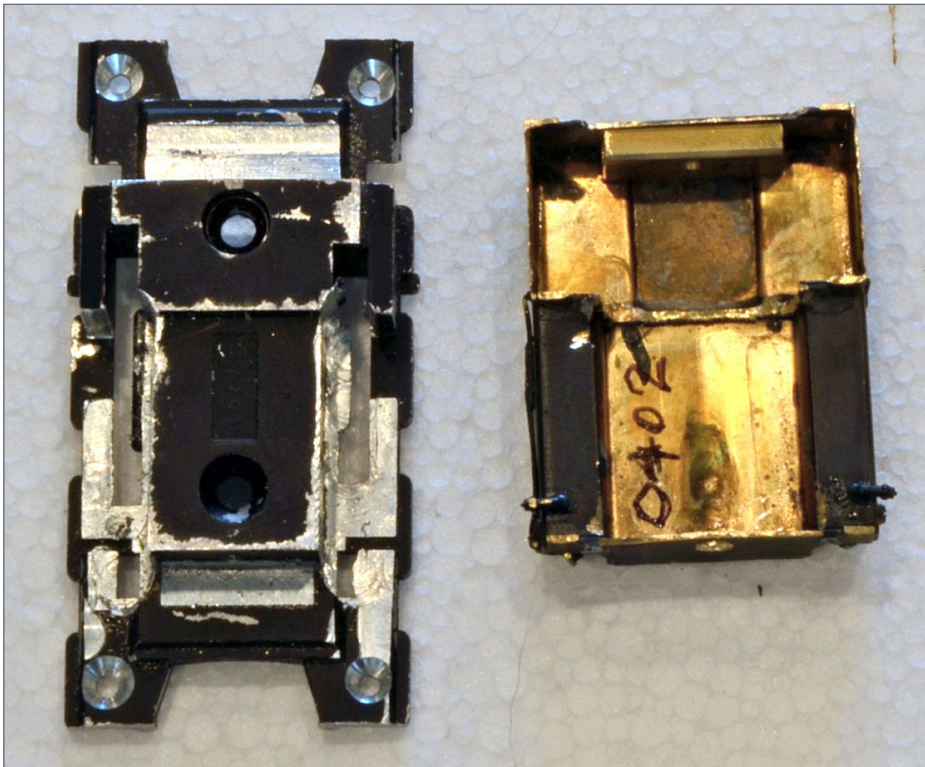
REPOWERING A SET OF ALCOS | 5

drilled a hole in the front and back of the tank and tapped the frame to mount the tanks [3].

I assembled the frame parts and the fuel tanks to check my progress [4].

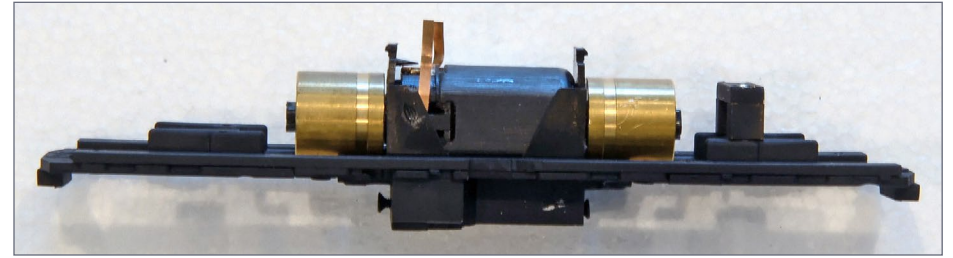
THE DRIVE SHAFTS

The RS-3 drive shafts were too long. The part pressed onto the worm gear on the truck was long. Using my motor tool with a cutoff disk, I shaved about 3/16" from the plastic coupling, and



3. The center part of the frame is on the left and the now-fuel tank assembly is on the right.

REPOWERING A SET OF ALCOS | 6



4. The frame parts came together with few issues. The speaker mount is attached to the rear of the frame, at the right.

then pressed the worm gear as close as I could to the coupling. The metal shaft now stuck out from the front of the truck. I used the cutoff wheel to remove the excess, working carefully to keep the shaft cool.

I slid the brass flywheels off the motor shaft using a small flat-blade screwdriver. I removed about 1/16" from each end of the motor shaft with the cutoff wheel. I cooled the motor shaft in a small cup of water as the work progressed. I removed burrs from the shaft before installing the flywheels.

I cut a slot in a piece of card stock to use as a spacer and inserted it between the motor mount and the flywheel as I pressed the flywheel back onto the motor shaft. When both flywheels were in place, there was minimum clearance with the motor mounts and enough space for the trucks to pivot without binding. I connected the wires to the motor leads and test-ran the loco. It was very smooth and quiet. Success!

THE COUPLERS

I installed short pieces of brass at the end of the frame for coupler pads. The A unit front has a built-in coupler box that will

REPOWERING A SET OF ALCOS | 7

end up at the right height. I needed six of these parts. I milled a piece of bar stock to the required thickness and drilled six sets of three holes [5], then mounted these shims to the frame.

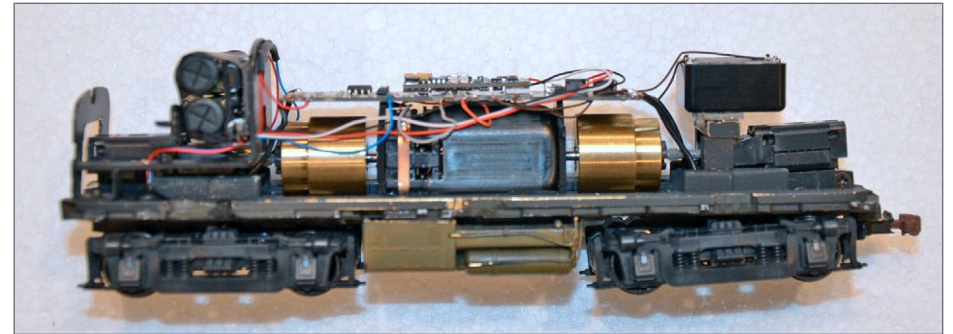
FINAL ASSEMBLY OF THE FRAMES

I completed the assembly of the power frames by installing ESU decoders and ESU PowerPacks in each unit [6]. The PowerPacks keep current flowing to the motor when the loco hits dirty track or dead frogs on switches. I mounted the ESU PowerPacks in the B units on the same type of brackets as the speakers, while they fit in the cab area of the A units. I mounted and wired the speakers, then installed wires for ground lights. After loading the sound file into the decoder and tweaking a few CVs, I was amazed with the sound and performance.



5. Brass stock was drilled for the six coupler mounting pads. Each set of holes will be a mounting pad. The two outer holes were drilled for 2mm screws, and the center holes are drilled for 2-56 screws. The ends of the frame were drilled and tapped to install the pads with 2mm screws.

REPOWERING A SET OF ALCOS | 8



6. All the power, control, and sound components fit onto the modified frames. The truck side frames seen here are temporary while the final parts were drying.



LIGHTING THE BODY SHELLS

Installing lights was the final step. The B units needed backup lights and the A units needed headlights. I turned the ends of two 5mm LEDs to fit into the B unit backup light housings. I glued these in place and wired them to the mother board before mounting the body shell.

I used MV Products lenses on the A units. I drilled the back of the lens and epoxied a 3mm LED into the depression. I built up the lens assembly with epoxy and filed it for a press fit in the headlight housing [6]. I touched it up with a little black paint to hide light leakage and it was done! I really like the result.

My four-unit set of Alco FA and FB units look good and run great. They'll make a nice addition to my layout. ☒



6. Closeup of the modified MV Products lens fits the A unit headlight housings.



**Please tell your buddies
about Running Extra!**

BART HOLLIS



Bart's earliest memories are of living near the New Haven's Springfield line. One Christmas gift included the obligatory Lionel train set, but the three rails bothered him. American Flyer replaced the Lionel stuff, until he saw his first HO scale box car and was struck by the realism.

After school, Bart spent time at the local hobby shop or the train station. With two brothers and two sisters, there wasn't much room for a home layout. He was an armchair hobbyist for many years.

In the '60s, Bart worked for the New Haven railroad and discovered full-scale railroading was a suitable replacement for modeling. He learned a great deal that would be relevant later. He couldn't hold his New Haven position with the advent of the Penn Central merger, so he moved on.

Work demands kept Bart away from the hobby for many years. When he returned, he was amazed at the changes in the hobby. The models were more realistic and operated much better than before. He finally got some space, so he built a layout to try different things such as hand laying track and DCC.

After Bart retired, it was time for a permanent layout. While he enjoys building benchwork, layout planning, laying track, and wiring, his greatest pleasure is super detailing locomotives. He especially enjoys adding sound decoders and lights to the models. Making them run, sound, and look like the real thing is his greatest satisfaction. ■

1. Lawndale train outside Metcalf. *Robert W. Richardson photo from the Western History and Genealogy Dept., Denver Public Library*

A NICKNAME

The official railroad name was Lawndale Railway & Industrial Company, but to the local populace it was known as the Dummy Line. The term Dummy Line seems to have originated with an unknown minstrel in the late 1800s about the adventures of an imaginary steam dummy engine on a Southern streetcar line. If any of you have watched the Thomas the Tank Engine series you will see Toby the Tram. He is a steam engine who has been sheathed to look like a tram, or streetcar as we know it. This was done in lots of areas to quiet the locomotive so as not to scare the horses. The song the minstrel sang was “Some Folks Say that the Dummy Don’t Run, but Let Me Tell You What the Dummy Done Done.”

Despite the assertion that there were a lot of Southern railroads nicknamed The Dummy, I have only found two others, one in Milledgeville, Georgia, and one in Augusta, Arkansas. The Milledgeville Ry. was a streetcar railway that used steam dummies to pull the trolley cars; later, it used a small rail bus. Speculation for the other is The Augusta Tramway and Transfer Company that operated until 1918 and then becoming the Augusta Railway which operated until 1959. How and why the term “Dummy Line” was given to the Lawndale is a mystery as the railroad never owned or used tram locomotives.

A BRIEF HISTORY

The Lawndale was one of North Carolina’s shortest but most storied narrow gauge railroads. Weighing in at less than 10 miles in length, the “Dummy Line” was the product of textile tycoon

The Lawndale Dummy

Running Extra | January 2020

★★★★★
RATE THIS ARTICLE

LARRY SMITH reviews a fascinating North Carolina narrow gauge line ...

TIME AND TIME AGAIN, NARROW GAUGE AND short line railroads built to serve one industry to eventually fail and disappear from the landscape. Some lasted longer than most, while others became a blip on the radar of history. We have seen examples of both in this article. While being one of the shortest railroads, The Lawndale lasted 40 years serving just one type of industry, until it was worn out and couldn’t compete with trucks. Eight of its boxcars survived and one is being restored today.

THE LAWNSDALE DUMMY | 3

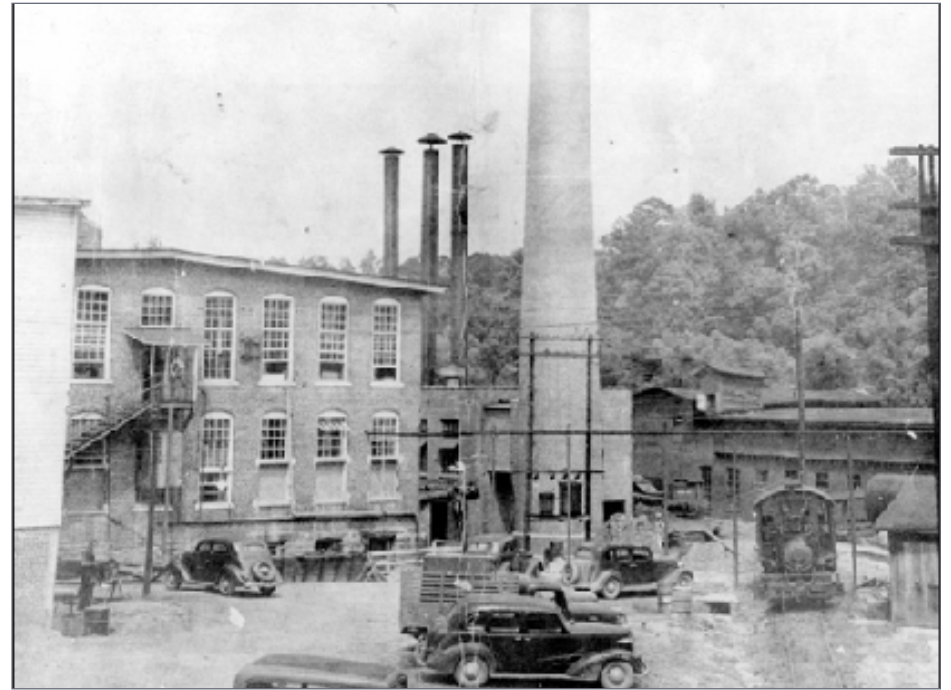
Major Henry Franklin Schenck, formally of the Confederate army. Schenck built a cotton mill at Knob Creek, Cleveland County, North Carolina. It was a water-powered mill that produced high quality cotton yarn. This product led to the partnering with James E. Reynolds, a successful cotton yarn commission merchant in New York and the building of a second mill two miles south of the first one. It was located on the banks of the First Broad River at what became the mill town of Lawndale. Major Henry's son John was brought into the business just after the mill at Lawndale went into production.

The mills had been in production for 10 years when the Schencks grew tired of taking their yarn to the nearest railroad, in Shelby, by wagon. They also were looking at changing both mills from water to steam or electric power and needed a way to bring coal



2. Lawndale train led by number 4 has just passed the depot in Double Shoals, North Carolina, in this March 1942 image. Robert W. Richardson photo from the Western History and Genealogy Dept., Denver Public Library

THE LAWNSDALE DUMMY | 4



3. Cleveland Mills with a locomotive near the boiler house.

to the mills. With those goals in mind, the Schencks announced in the February 24, 1899 issue of *The Manufacturers' Record*, the trade journal of southern textile and railroad men, their intent to build a railroad from Lawndale to Shelby.

For over a month, there was a debate over the gauge of the railroad, with Major Schenck announcing at one point that standard gauge was a possibility. In the end, narrow gauge was chosen after Major Schenck said, "By doggies, I don't want my freight cars traveling all over the country." Surveys began in the following month for the railroad.

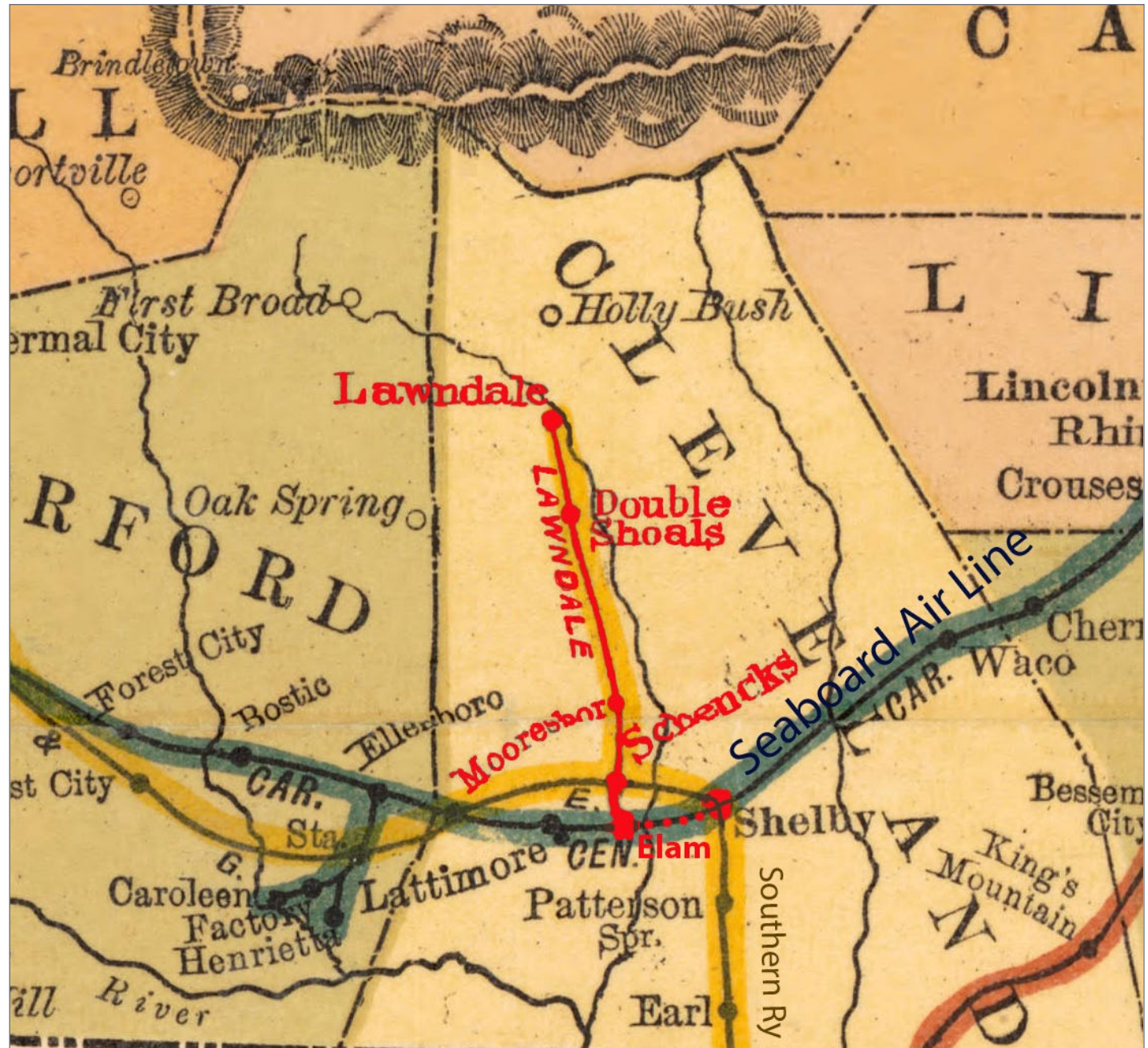
Land for the right-of-way was quickly acquired with farmers donating, or selling at a minimal cost, to the company with

construction on the railroad beginning May 10, 1899. Construction was simplified when Major Schenck convinced the Southern Railway to lay dual gauge track from Shelby to the west bank of the First Broad River. This spared the Lawndale an added expense of a major bridge. Only 699 feet of bridges and trestles were required for the rest of the narrow gauge [4].

The 8.8 miles of grading from the three-rail trackage was light. The ballast was mainly dirt with some cinders mixed in. The rail was 25 lb., which was very light even for a narrow gauge railroad. The railroad was completed on November 11, 1899, six months after construction began. The cost as reflected in the ledger was \$49,782 (\$1.2 million in today's money). The railroad operated as built for 15 months as part of the Cleveland Cotton Mills [3].

In January 1903, Major Schenck obtained an amendment to the mill company's charter authorizing it to construct a railroad. The amendment's description perfectly matched the existing railroad and on

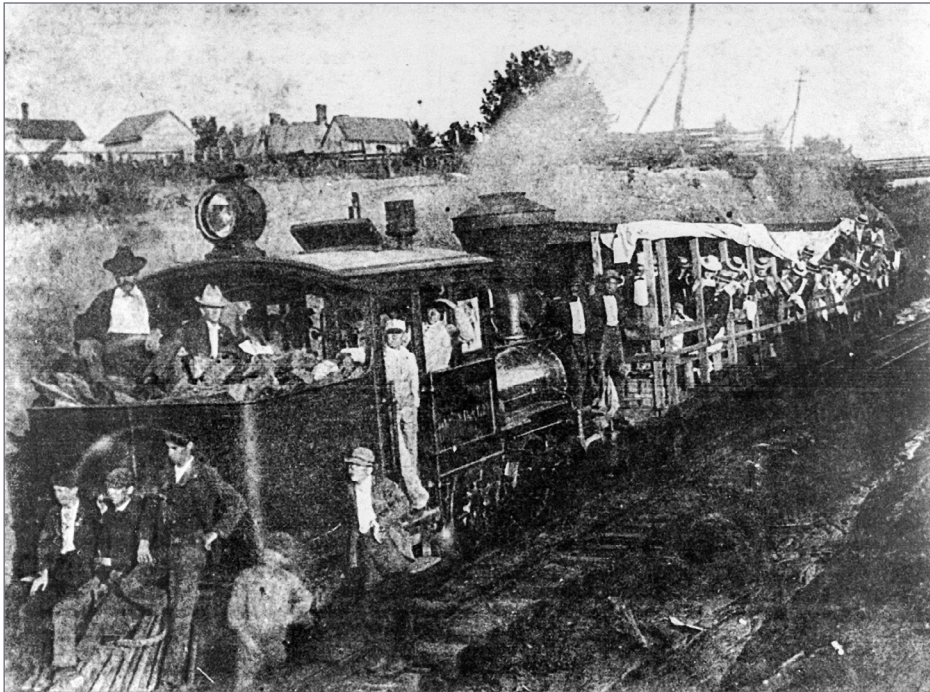
4. This is a map of the route and surrounding area.



November 16, 1903, the railroad was officially transferred to the Lawnsdale Railway and Industrial Company.

From the beginning, Major Schenck had only wanted to move his product from the mills to the outside world. He hadn't felt the need to get a railroad charter from the North Carolina Legislature and didn't want to follow the regulations of the North Carolina Railroad Commission. Those rules required railroads to be common carriers and publish operating schedules that were convenient to the public. Schenck considered his railroad a private company and ran it the way he saw fit.

After the railroad was built and operating, employees at the plants and from the surrounding towns wanted to ride the



5. The Lawnsdale Porter loco with a full excursion, circa 1900. Collection of Donald R. Hensley, Jr.

railroad. To accommodate the demand, the line became a nominal common carrier so that it could legally carry passengers. When the North Carolina Corporation Commission requested annual reports, they usually got the same response stating that the railroad only carried a few people and if more information was wanted, they could send a letter asking for details. Records show they never did make further requests.

MOTIVE POWER

An old Climax was thought to have been used to build the railroad, but when the railroad began operations it wasn't considered good enough. Major Schenck attempted to negotiate a locomotive purchase with two other railroads (Carolina & Northwestern and the Lancaster & Chester) who were converting from narrow gauge to standard gauge in neighboring South Carolina. Schenck only wanted a good locomotive in almost new condition for a deal. The negotiations fell through and he ended up buying a new Porter 2-4-4T [5]. The Porter had 10" x 14" cylinders, 36" drivers, and weighed 19 tons. It carried construction number 2057 and was Porter class 4-B-R. The locomotive was reportedly sold to a firm in Norfolk, Virginia, in June 1908.

The heavy traffic on the railroad soon took its toll on the Porter and Major Schenck went looking for another locomotive. A used 2-6-0 built by Grant for the Texas and St. Louis [6] was purchased in 1905 and given number 3. Either the rented Climax was number 2, or they skipped the number. The locomotive had 34" drivers and weighed 45 tons. It didn't work out and was quickly returned to the previous owners.

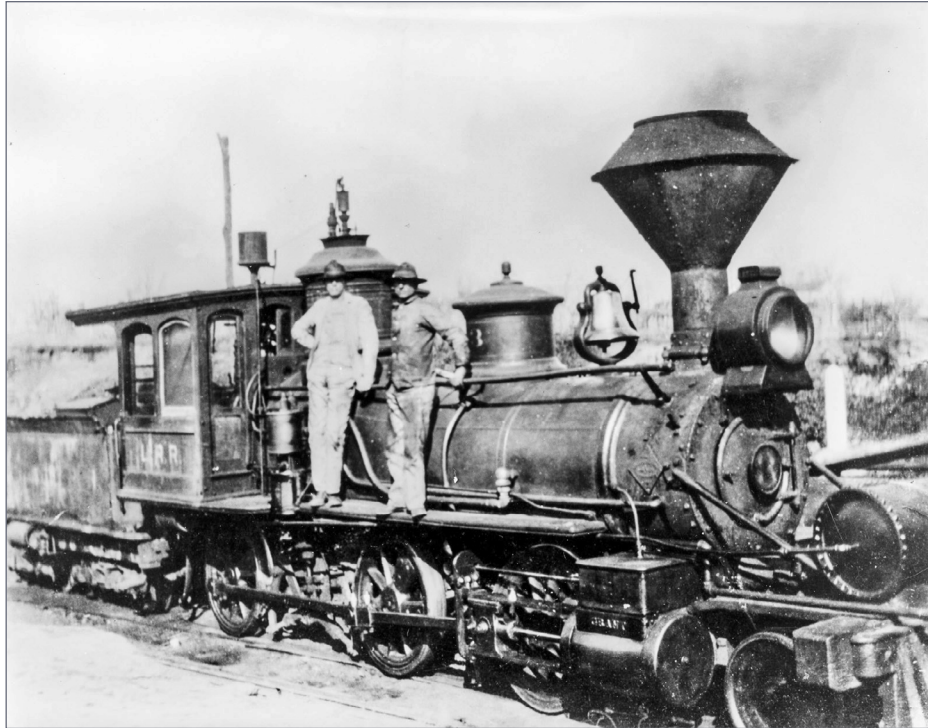
The railroad took delivery of the first of two locomotives in April 1908. These would be the only motive power on the line for the duration of its existence. Number 4 was built by the Vulcan Iron Works of Wilkes-Barre, Pennsylvania, in April 1908 [7]. The

THE LAWNSDALE DUMMY | 9

narrow gauge consolidation (2-8-0) was serial number 1205, had 12" x 16" cylinders, 33" drivers, and weighed only 25 tons.

Locomotive Number 5, which followed in 1909, also was built by the Vulcan Iron Works [8]. The narrow gauge 2-8-0 was serial number 1359, had 12" x 16" cylinders, 33" drivers, and weighed 25 tons; the same as Number 4.

The arrival of the two locomotives coincided with upgrading the rail on the line from 25 lb. to 40 lb. The 2-8-0s would operate until the railroad shut down in 1943 and were scrapped as inoperable in 1945.

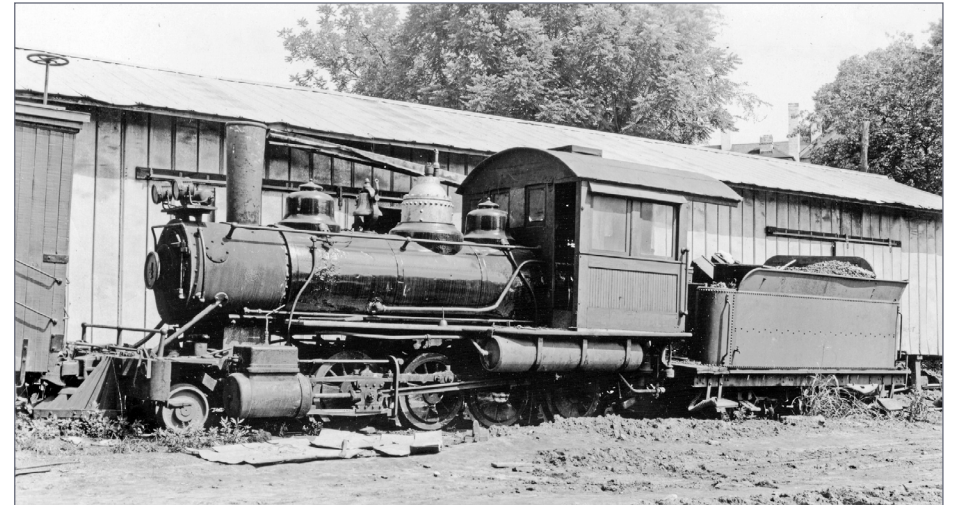


6. Lawndale number 3, built by Grant and bought used but returned as unsuitable. *Collection of Donald R. Hensley, Jr.*

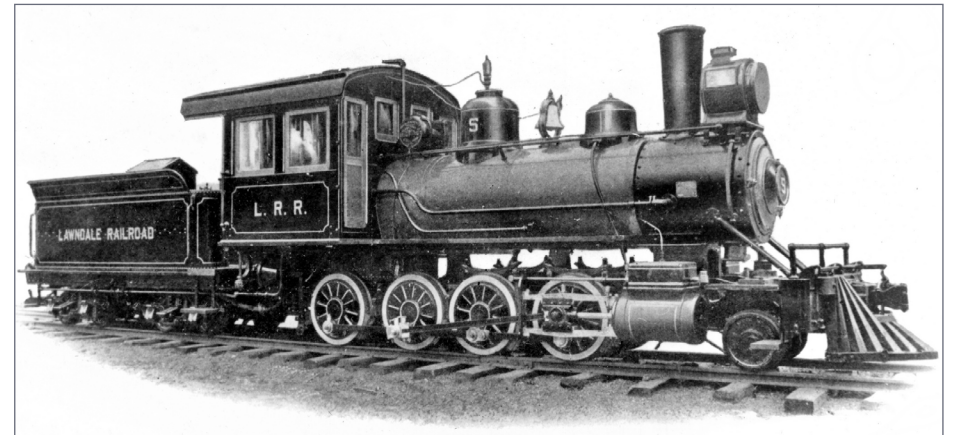
THE LAWNSDALE DUMMY | 10

ROLLING STOCK

The first rolling stock on the little line came as a result of Major Schenck's attempt to buy a used locomotive from the Lancaster & Chester in nearby South Carolina. While he wasn't successful



7. Number 4 at the Lawndale station with new headlights.



8. Vulcan Iron Works Builders image of Lawndale number 5.

in buying a locomotive, he ordered four flat cars and two open-air passenger cars [5]. These passenger cars were referred to as Coney Island cars because of the excursion-type seating. These two passenger cars were built by Billmeyer & Small and were rebuilt into boxcars in 1909.

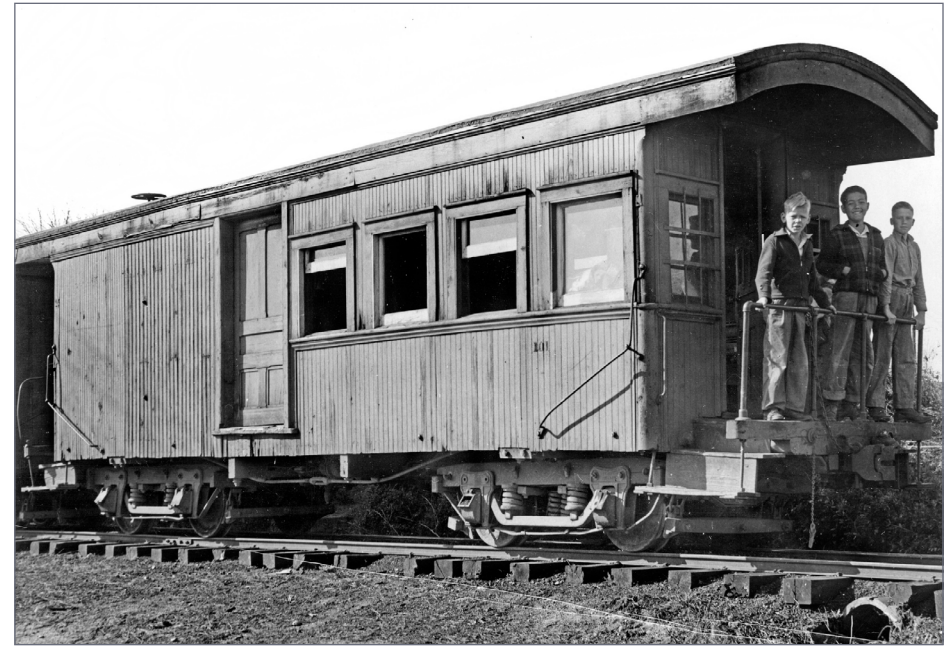
Schenck also acquired metal parts and trucks from the L&C that local men in Shelby at Schenck's Station used to build a combine [10], four flat cars, and two boxcars. Seven more boxcars were acquired from the now-standard gauge Carolina & Northwestern. Eight additional boxcars [9] were constructed in the company shops between 1910 and 1914. Two of these (401 and 402) were rebuilt in 1930. Surprisingly, eight of the boxcars still exist today. More on that later. The rolling stock on the railroad totaled only 26 cars.

A RIDE ON THE RAILROAD

As reported by Johnny Graybeal in the *2017 HOn3 Annual*, after 1909 there were two locomotives, but only one train crew. Engineer B.B. Wilson's name appeared on each locomotive.



9. Lawnsdale boxcars 311 and 401.



10. The Lawnsdale combination caboose-passenger car with a few riders. Note the roadbed quality and light rail.

The posted schedule called for a train to leave Lawnsdale at 9 a.m. and arrive in Shelby at 10:15 a.m. Nick Wells was the fireman and hostler and had been to the engine house [12] two hours before to prepare for the day's operation. Depending on the season, the crew of the train [13] would be from three to eight. The additional men were needed for transloading cargo from the narrow gauge to the standard gauge Seaboard Air Line in Shelby.

Outbound traffic consisted of yarn and thread from the mills and lumber from the local sawmill. Eggs and truck farm crops were also shipped out. Inbound traffic was ginned cotton and coal for the mills, with flour, corn, and general merchandise for the residents.

Although built for the purpose of hauling cotton yarn for the mills, it was the inbound traffic of fertilizer that almost broke the back of the little railroad. At the turn of the last century, commercial fertilizer was just coming into use in the south and guano, bird and bat droppings, was the primary product. It was estimated that 4000 tons a year of fertilizer was hauled in by rail along with cottonseed meal for their crops. Guano began to lose favor after chemical fertilizer was developed in 1908.

Located in the valley where Mill Creek joined the First Broad River, the yard at Lawnsdale was split into two parts, separated by an 18-bent 180' long trestle crossing Mill Creek [14]. The yard ran

from northeast to southwest. Sidings serving fertilizer warehouses, a coal yard, and a lumber shed were on the southwest side of the creek.

On the northeast side of the creek, there was a siding and a switchback



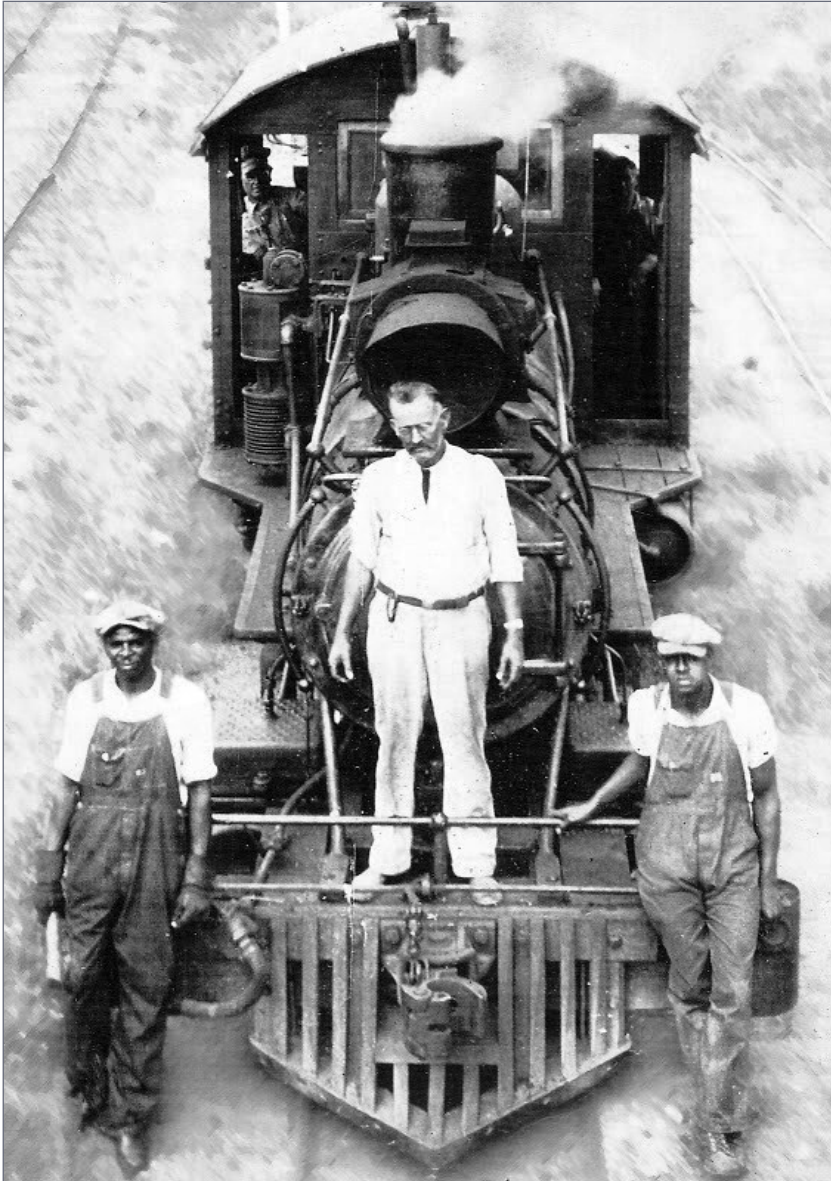
11. Gondola 209 in service. These gondolas may have been converted from flat cars.



12. The railroad's day begins and ends at the Lawnsdale engine house. Number 5 sits in the sun as the crew has a discussion. Collection of Donald R. Hensley, Jr.

track that served the station, the engine house, and several warehouses. One track served the boiler house at the mill and was built so coal could be shoveled directly from a gondola directly into the coal bins. A wye was located at the end of track to turn the locomotives. Loaded and empty cars would be gathered from this complex to build a train. The combine was added and the train departed Lawnsdale.

Leaving Lawnsdale, the railroad followed a wavy route along the ridge between the First Broad River and Big Harris Creek, which is a major tributary of the First Broad River. Located on the Lawnsdale side of Big Harris Creek was a passing siding at Double Shoals station [2]. The station and the siding were about a half mile from the town of Double Shoals. Also at the siding were a coal bin for the cotton mill at Double Shoals and



13. A Lawnsdale crew ready for another run. The brakeman carries a large stick to put under the wheels to keep rolling stock in place.



14. Lawnsdale number 4 is captured on the Mill Creek trestle with a boxcar ready to switch at a local industry.

a seed house for the Spangler family that owned the adjacent land. After crossing a 17-bent trestle on stone piers over Big Harris Creek, the railroad began a climb out of the valley heading south to Metcalf Station.

A train would stop for water at the small cypress tank just outside Metcalf Station. From there the line rounded a long curve and passed a trailing turnout leading to the Pearl Gin Company. A facing turnout led to a freight house on one side of the tracks and another freight house and a tool shed. This was the highest point on the line. It was downgrade to Shelby from here.

The train drifted down grade past Weathers Siding, a seasonal stub end track for fertilizer unloading, before arriving at Schenck's Station. This was the end of the dual gauge rails and the coal transfer location from the Southern.

THE LAWNDALD DUMMY | 17

After dropping off the gondolas at the coal transfer, the train was reassembled for the final leg of its trip to Shelby. From 1899 until 1903 the line used trackage rights with a third rail east to Shelby, North Carolina. The Lawndale had the use of Southern's depot for a 15 percent share of the revenues.

In 1903, Seaboard offered the road a 25 percent share of the revenues if they would build a mile further south to a new SAL connection at Elam. The Lawndale would then use traffic rights east into Shelby and the Seaboard's depot. The Southern refused to match the new offer and the Lawndale quickly changed allegiance.



15. Lawndale number 4 rolls a train through Cleveland County, North Carolina in March 1942. *Collection of Donald R. Hensley, Jr.*

THE LAWNDALD DUMMY | 18



16. Robert W. Richardson captured a classic meet of Lawndale number 4 and a Seaboard train at Lawndale Junction in March 1942. *Collection of Donald R. Hensley, Jr.*

They quickly built a pair of trestles and a queen post truss bridge over the Southern and onto the Seaboard connection. The railroad still used the Southern connection for coal loading, but most of the coal, merchandise and fertilizer came through the Seaboard.

This new connection with the Seaboard was called Lawndale Junction [16, 17]. The site was a simple design. There was a narrow gauge passing siding and two freight transfer spurs, one of which was a standard gauge coal transfer. A water tank and a turntable were also at Lawndale Junction, but the turntable was eliminated for a wye after difficulties with local children.

All passengers and LCL freight were transferred at the Seaboard's Shelby depot 1.7 miles beyond the junction. The Lawndale had two narrow gauge stub sidings at the depot.

While the trip to Shelby was made with ease, the return trip was not as easy. With a ruling grade of 3% from Schenck's Station to Metcalf Station, two cars would routinely be placed in front of the locomotive. A train would often need to double the hill more than once on the return to Lawndale.

MODELING IDEAS

The Lawndale would make an interesting HOn3 or On3 model railroad that could be modeled in its entirety. You could even model it in standard gauge but I think the railroad would lose some of its charm.

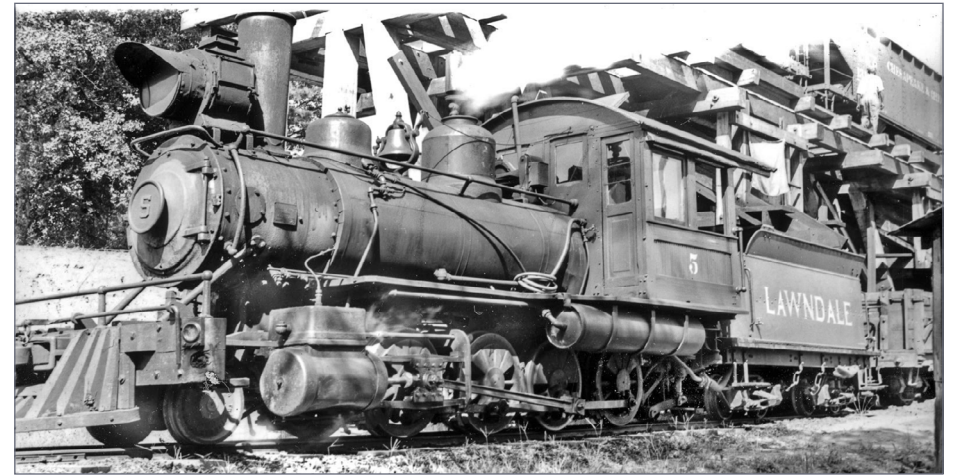
The biggest challenge is locating suitable motive power. No Vulcan locomotives are available in either scale. For On30, Bachmann makes a 2-6-0 that would be a faux Lawndale 4 or 5. In HOn3, Blackstone makes a C-19 2-8-0 that is much closer looking, although it is a bigger locomotive.

The rolling stock is easier, as there are lots of suitable cars to use. You could scratchbuild the entire fleet as there were only 26 cars on the railroad. These were of only two types, boxcars and gondolas, with a sole combine caboosé.

The layout could be built in modules with a full track arrangement for each location. The most complex module would be at the Lawndale end of the railroad. I would recommend using Code 55 rail for HOn3 and Code 70 for On30 to get the look and feel of the railroad.

TODAY

The railroad died in 1943 and was totally dismantled but there are freight cars existing today. One car was fully restored from two other cars and resides at Metcalf Station [20], which is also restored.



17. This photo of Lawndale number 5 at the coal dock reveals modeling details. Note the large headlight on the smokebox and how the cab seems out of proportion to the boiler. The railroad lettering on the tenders changed over time and this style is not consistent in the photos. *Collection of Donald R. Hensley, Jr.*



18. Number 4 pauses with a few fans. The original headlight has been replaced and the tender lettering is a different style than what is seen on earlier photos.

THE LAWDALE DUMMY | 21

Another two cars are at the Southeastern Narrow Gauge and Shortline Museum at Newell, North Carolina. One of the boxcars has been lettered for its original owner, Carolina & Northwestern, while the other will be lettered for the Chester & Lenoir when restored. The museum has received a donation of three more boxcars that were used as sheds after the railroad closed. Visit newtondepot.com to see the restoration story of the Carolina & Northwestern boxcar.

I thank Lee Rainey, Bob Brown (*Narrow Gauge and Shortline Gazette*), and Johnny Graybeal for permission to use their material and articles. All photographs used by permission Don Hensley collection and Mallory Hope Ferrell photographs. Robert W. Richardson photo permission granted by the Denver Public Library.



19. The interchange with the Seaboard at Lawndale Junction illustrates the size difference between narrow and standard gauge rolling stock. *Collection of Donald R. Hensley, Jr.*

THE LAWDALE DUMMY | 22



20. The restored Metcalf station with a Lawndale boxcar on display.

★★★★★
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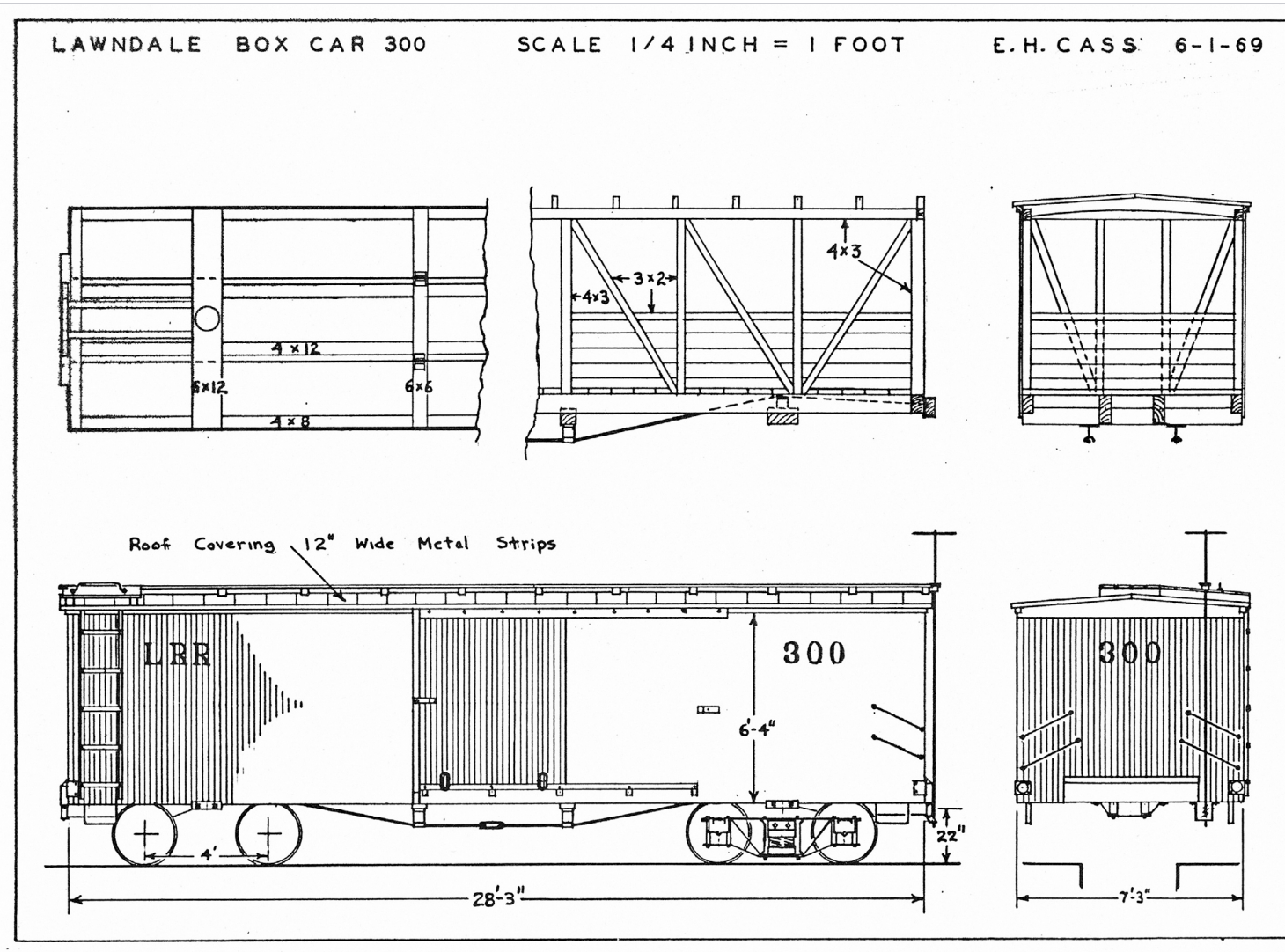


21. Lawndale number 4 rolls across a rural road at Metcalf, North Carolina in this March 1942 photo taken by Robert W. Richardson. *Collection of Donald R. Hensley, Jr.*

RESOURCES

It is surprising how much information has been published on this small and obscure railroad. The first article appeared in the September/October 1983 issue of *Narrow Gauge and*

Shortline Gazette, written by Lee Rainey. The article is loaded with maps indicating the location of every building on the line. The work is long out of print, but the issue is in the collection of all the Gazettes available on CD from Benchmark Publications.

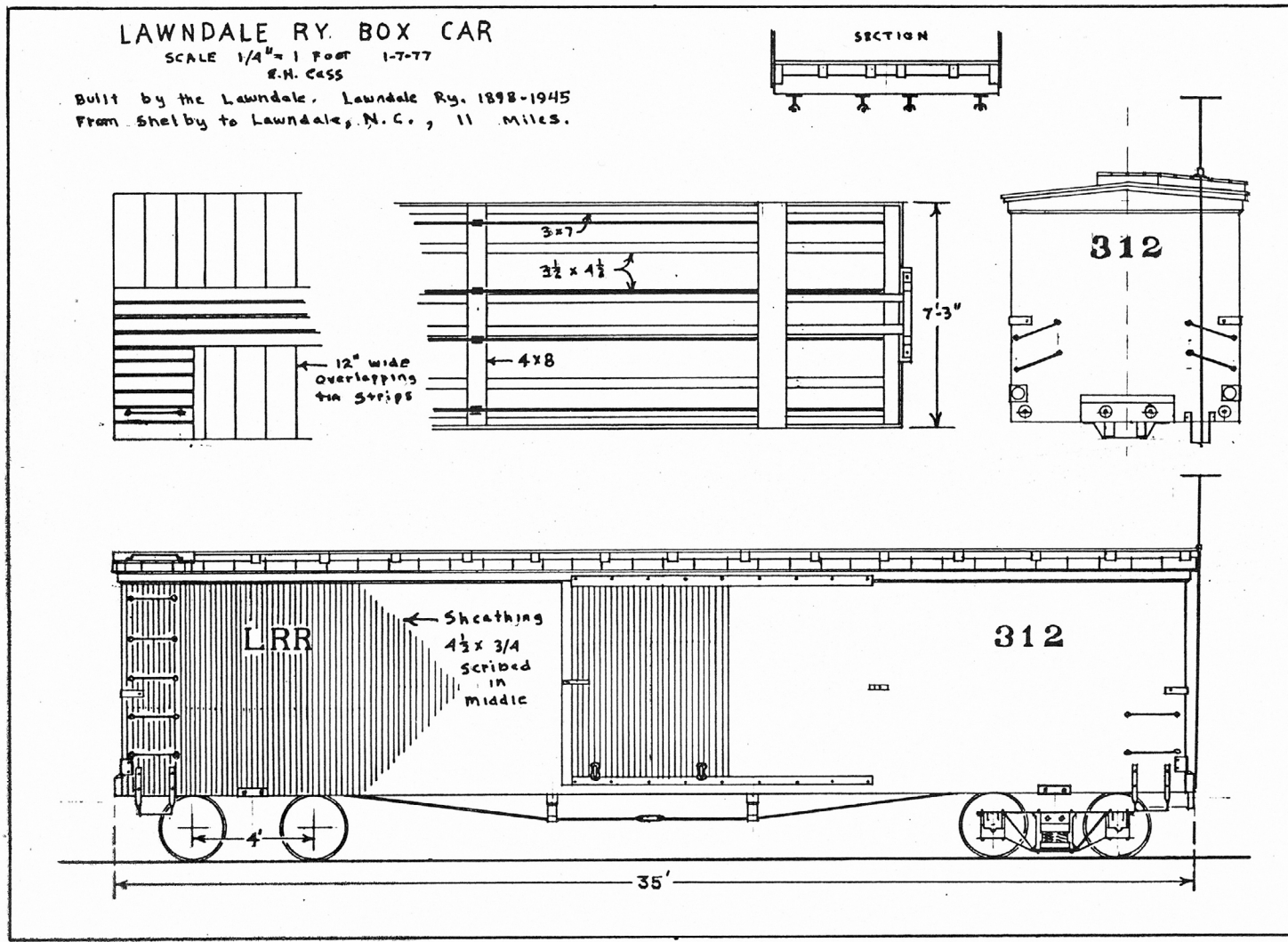


22. Lawndale boxcar #300.

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The Lawndale Railway & Industrial Company, 1999, by Bumgarner, Burn, Forney, & Walker has 102 pages with over 60 photos (many from the Schenck family scrapbook), and numerous maps. Published by Tarheel Press, PO Box 1205, Hickory, NC, the book is still available.

The Lawndale Railway & Industrial Company, a Narrow Gauge Time Capsule by Johnny Graybeal appeared in the 2017 HOn3 Annual, published by White River Productions. It's the latest documentation of the little railroad and still available as this is a recent issue.



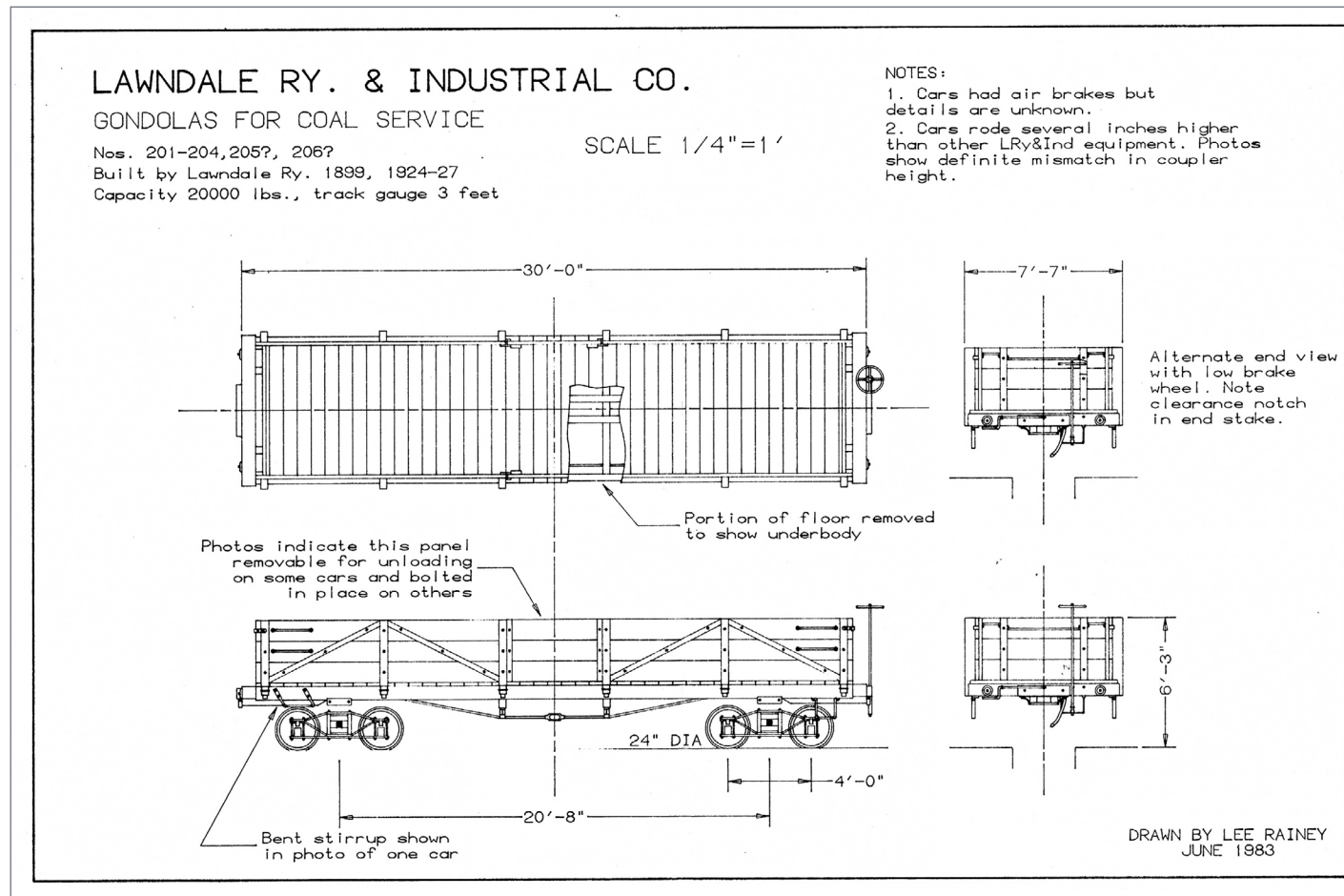
23. Lawndale boxcar #312.

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The Lawnsdale Railway & Industrial Co. A narrow gauge shortline in North Carolina is a photo essay by Donald R. Hensley, Jr., and published by Railway & Locomotive Historical Society, Inc. Southeast Chapter Newsletter No. 164, December 2017. Don graciously permitted use of his Lawnsdale photos in this article. He maintains a wonderful short line

24. Lawnsdale gondola.

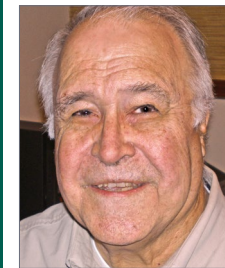


resource website with more inspirational images and photos. taplines.net.

Title unknown, Railroad Magazine, 1943: Reference has been made to this article, however nothing else is known about it. Speculation is that it is about the railroad's shutdown. ☒



LARRY SMITH



Larry Smith is foremost an Eastern narrow gauge modeler with HO being his scale of choice.

Larry also has other projects that he works on in standard gauge HO as well as assisting with the On30 layout that his club uses for display.

In addition, Larry has also built some layouts for others: an S scale layout and a small HO layout. So Larry, an MMR, is well-versed in many different scales.

Larry has been the regular *Lite & Narrow* columnist for MRH from 2013 to 2018. ■

THE AH-HAH MOMENT

column



MRH Running Extra | January 2020

JEREMY DUMMLER ASKS, "WHY WAIT?" ON A SCALE CHANGE...

★★★★★
RATE THIS ARTICLE



1. We often see models in different scales sitting like this as a comparison. The difference between the HO and O scale models here is apparent. I have fewer problems working with the larger O scale details than I did with the HO model in the foreground.

MANY OF US STRUGGLE WITH OUR VISION, SOME MORE than others. I am legally blind and have battled working in HO scale for years to add the detail level I desire. I reached the point where I was struggling to work, even with a 700X magnifier and all the tricks I know to be able to see the models.

I considered going smaller, to HO_n3, because I could avoid adding lettering data that was causing me problems. I also reasoned that I could skip adding several freight car details because they weren't used on some narrow gauge equipment, or they were just too small.

I avoided the idea of changing scales until I was discussing current projects with friends at a train show. I explained what was going on

THE AH-HAH MOMENT | 2



2. I had been avoiding HO scale decal work. A change to Proto:48 has completely changed my mind-set and I'm excited to be able to read and apply decals without a need for massive magnification.

and uttered the "If I ever left HO scale, I would move to O" statement. Someone asked why I was waiting. It was obvious to friends that I was struggling with the models and avoiding my workbench. The solution was right there. I needed to change scales, build models, and enjoy the hobby again.

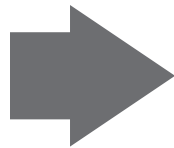
Within weeks, my HO scale collection was sold. I changed not just to O, but to Proto:48 and began work on my new equipment. Instead of struggling, I discovered that I really enjoy detailing models [2]. I can now work with just a 10X magnifier in my reading glasses for many of the tasks I had been avoiding in HO. My trepidation of trying a new scale quickly turned into excitement and a desire to model again. Of course, I should have made this change years ago [3]. ✓



3. My first completed Proto:48 kit, a Northern Pacific 36' boxcar produced by Rails Unlimited. I was pleased with the results and the build was far less of a struggle.

Bonus section!

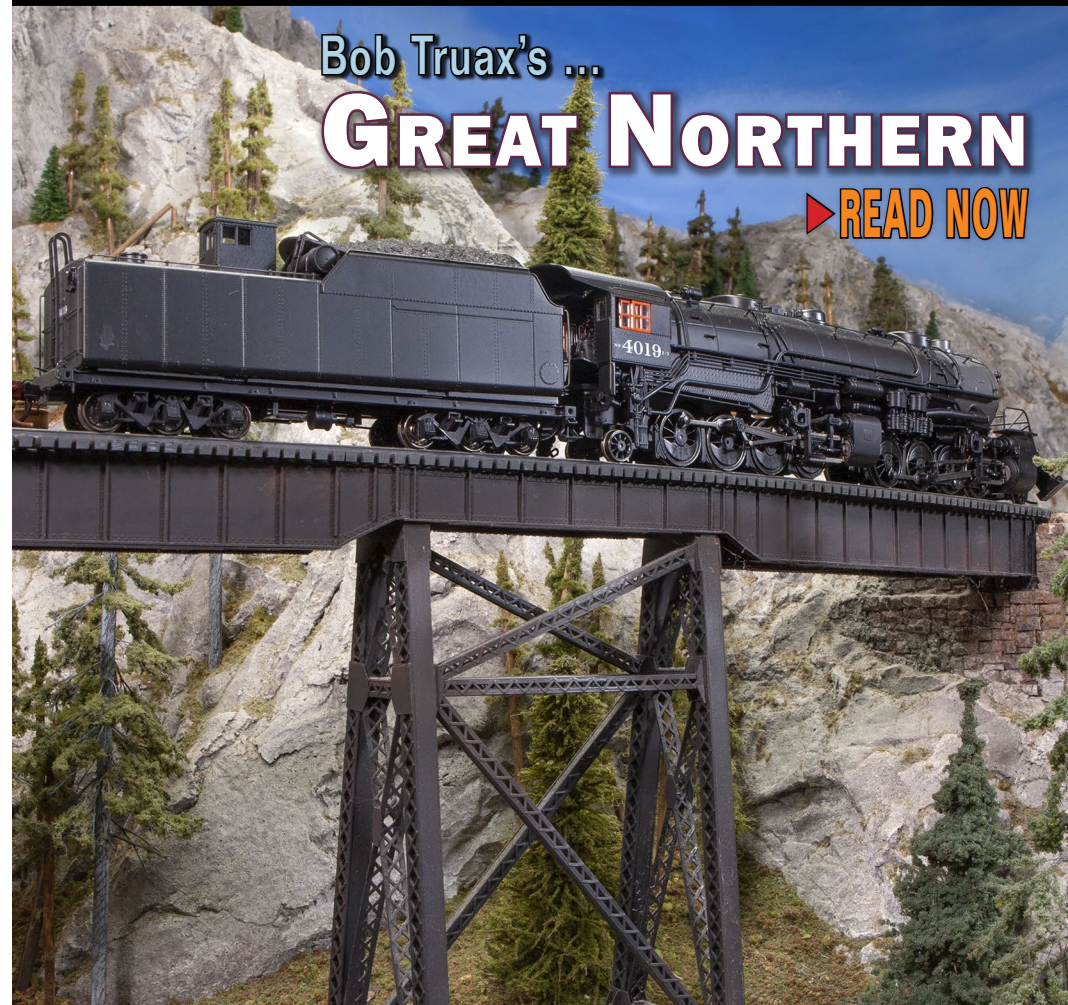
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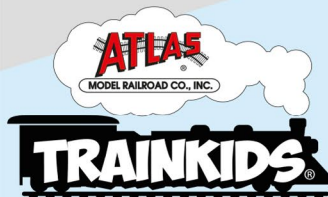
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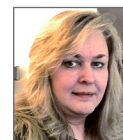
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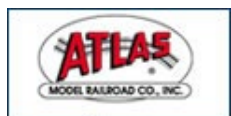
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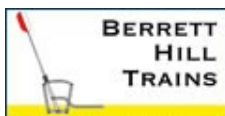
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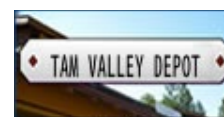
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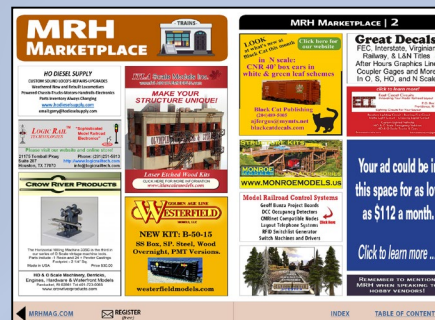
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PUBLISHER'S MUSINGS



Model Railroad Hobbyist | January 2020

**JOE FUGATE: MAKING REALISTIC OPS
PALATABLE FOR NEWCOMERS ...**

★★★★★
RATE THIS ARTICLE

THE OP SIG (OPERATION SIG) AND ITS COUSIN the LD SIG (Layout Design SIG) are two special interest groups made up of modelers who have a passion for superb layout design and top notch ops sessions with lots prototype-based ops perfection. See opsig.org and ldsig.org for more.

While I thoroughly enjoy both groups immensely (I'm an ops guy foremost, remember) and I feel they have done much to advance the hobby as to layout design and realistic ops, I sometimes do some self-introspection about these groups as well.

Can we get so focused on the minutia that we become ever more a group of "elitists" – at least as to level of knowledge needed to become part of the special interest "clan" ... can we become so specialized that we forget the masses?

I know when we publish ops articles that focus on ops adminis-trivia (read: lots of rules with many process steps and associated paperwork), they do not rate well with our readers.

Yet contrast that with the November 2019 *Running Extra* ops article by Dave Husman, "Shipping a car on the P&R." Readers

rated this article the highest of all the articles in the November *Running Extra*, beating out all the other articles that issue.

What was the difference? I believe the answer is because Dave wrote an ops article that tells a story and doesn't focus on administrivia!

The MRH Staff has maintained that ops material can be made interesting, the trouble comes when operations articles get weighted down with with so much minutia that it puts readers to sleep. As a result, realistic ops gets a bad rap, and unfortunately, I don't think the SIGs are helping in that regard.

To me, a noble goal of these two SIGs would be to get a serious "back to basics" reality attack and decide to wrestle a really

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PUBLISHER'S MUSINGS | 3

tough problem to the ground: how do we introduce these concepts to beginners in a way that takes them by the hand, letting them dip their toe in the water, and then wade in slowly?

Otherwise, I fear these SIG groups have unwittingly adopted a form of planned obsolescence. They risk eventually fading away because they never took to heart the crucial notion of how to embrace new hobbyists without overwhelming them. These SIGs cater just to their existing audience with ever more complex ideas –and I fear are ignoring how to bring on board new blood in an engaging way.

Without a good influx of new blood and a deliberate focus on their needs, you're setting your group up to eventual obsolescence. I don't want that to happen!

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So how do you make operation into something that allows you to start simple and slowly add more complexity?

For example, here's how I kicked off op sessions on my Siskiyou Line. I just staged some trains and just had the guys run trains to get familiar with the layout:

"Okay Jim, you take the train on track 1 staging and run it to Rice Hill and take the siding.

"Walter, you take the train in the Roseburg yard and run it to Eugene staging. You will find a train in the Rice Hill siding, roll right on past.

"Tom, you wait until the train from Roseburg arrives in staging and then take the train on track 2 staging and run it to Coos Bay. Jim, once the Roseburg train passes you, go ahead and continue to Roseburg.

"And once you're in Roseburg, Jim, take 4 cars out and put them on an empty yard track, then swap ends with the caboose and the locos so the train can go back to Eugene staging.

"Oh yes, Jim, also add the cars on yard track 3 to the back of your train."

No car cards, no track warrants, no locals — just thru trains — and no dispatcher other than me doing a bit of playing traffic cop through the session. Just some simple moves to familiarize everyone with the layout and running trains. Also a very good way to shake down the layout and the equipment!

Next, session, I added train names and the notion of "swapping cars" with what's in the industry spur for a couple locals I had added to the trains to be run.

Third session I had a list of all trains to run and we ticked them off the list, running them in sequence. I gave meet directions verbally and



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PUBLISHER'S MUSINGS | 5

we continued the swap cars approach for the locals. Those who had a train terminate in Roseburg or Coos Bay would just turn their train in the yard. We had no yard operator, per se.

Later, I added car cards to have car destinations and we inaugurated the Roseburg yard operator position now that cars had destinations. By this time everyone had gotten familiar with the towns and trains so yard ops was easy.

Finally, I added track warrants and a real dispatcher and we were set.

I evolved into the complexity bit by bit.

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LAST ISSUE'S RATINGS

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

4.8 December 2019 news

4.3 Scratchbuild a '70s gas station

4.1 Publisher's Musings: Introducing Deluxe Materials

Issue overall: **3.5**

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! ■

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RATE THIS ARTICLE

Notes on the Cricut Maker

Cricut craft cutting machines can be used as a kind of poor man's laser cutter, and we've had many discussions about them on the MRH forum. Member **krjone01** relays his experiences in a recent thread[1]:

"My Maker is about the same size as the

Explore series, however, it feels to be heavier than the Explore. It had no issues cutting through 1/16" basswood overall this mechanized Xacto knife has a lot of promise. However, I'm not 100% certain all the software has been thought through. I will be running some more tests ..."

Read the outcome of these additional tests on the MRH website.



1. MRH forum member **krjone01** has been using a Cricut for a while now. He shares what he's learned on the MRH forum.

[Read the full thread on the MRH website](#)

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

Fitting a layout into a shared space

In this thread, forum member **arvanlaar** asks for recommendations on putting a layout into a space he shares with the family[2]:

"The plan for the layout is to have an 8'x2' switching industrial area on the right hand wall just above the windows. The height from the top of the windows to the ceiling is exactly 24." My wife would like the bottom of the benchwork to start about 4-6" above the top of the window."



2. The shared family space MRH forum member **arvanlaar** has for a possible switching layout.

Member **ctxmf74** suggests an alternative:

"About 55 inches is high enough to place other furniture under the layout. If you keep the benchwork relatively narrow it won't interfere with other uses of the room. I'd just run the narrow benchwork across the window at 55 inches above the floor, you can still see out the window as the benchwork only needs to be 3 or so inches thick."



3. One way to do a layout in a shared space as suggested by MRH forum member **ctxmf74**.

For more details, visit the MRH website and read the full thread.

[Read the full thread on the MRH website](#)

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Modeling a roundhouse interior

Forum member **lloydthomson** asked what you might find in your typical roundhouse interior and several folks posted some sample photos. Forum member **gogebic** writes:

“I did a cutaway of my eight stall C&NW roundhouse [4] based on the prototype located in Ironwood, MI.”

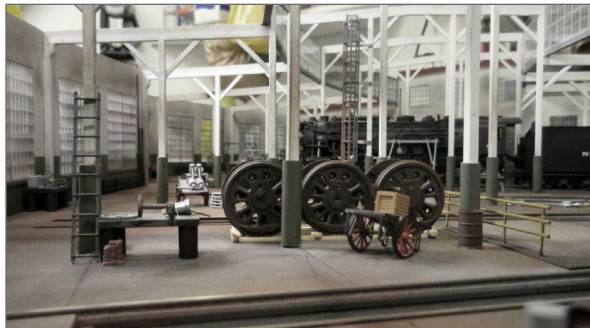


4. MRH forum member **gogebic** shared some photos of his roundhouse interior from the first generation diesel era.

Member **gmpullman** shows his steam era roundhouse interior:

“When I did my Walther's roundhouse [5], I scrounged lots of bench and tool details as I could find.

Herpa Minitanke makes a handy set of tools and benches (including a vice) that make a nice addition. I also simulated some steam-heat pipes along some of the outside walls.”



5. Also MRH forum member **gmpullman** posted several photos of his steam era roundhouse interior.

[Read the full thread on the MRH website](#)

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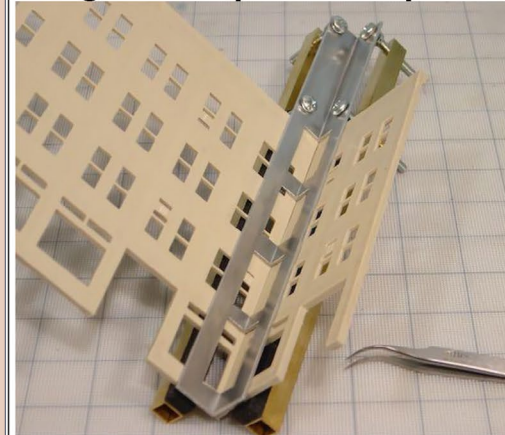


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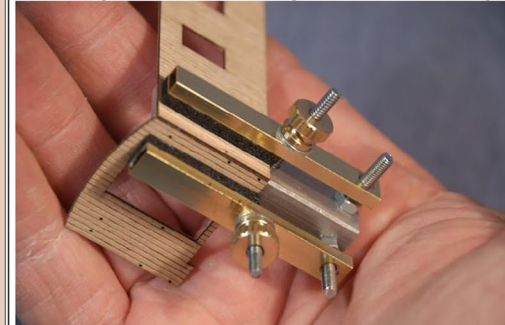
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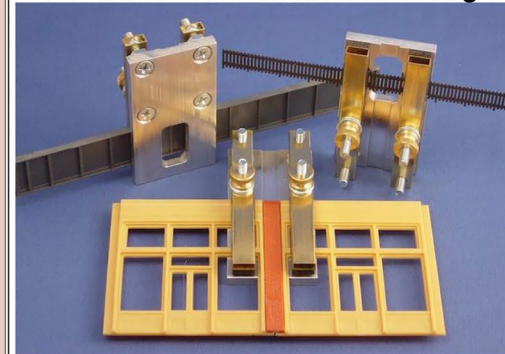
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Let's do an orange grove!

Forum member **Daylight484** needed to model an orange grove, so he relays the story of how it came to be:

“What is a Southern California rural community set in the 1950s without an orange grove?

“El-cheapo unmodified Chinese made orange trees (via eBay one bag of 20 for \$8 including shipping), added some ladders and fencing by Central Valley plus a couple of Preiser HO figures I had in the parts drawer. Also an old die-cast Jeep and trailer, plus a hand water pump leftover from the Campbell Kiowa trackside buildings kit. The Chinese oranges are a little oversize for HO, but not that obvious in reality. So, quite happy with the results.”

For more details, visit the MRH website and read the full thread.



6. If you model an area such as southern California, you may need to model a citrus grove.



7. Here's a closeup of the citrus grove modeled by forum member Lyndon Spence.

[Read the full thread on the MRH website](#)

Stunning model photography

Forum member **erikclindgren** posted a holiday greeting thread with a couple awesome photos he recently shot. Here's one of them [8].

For more, visit the MRH website and view the full thread.

[Read the full thread on the MRH website](#)



8. MRH forum member **erikclindgren** uses actual smoke to make some amazing model photographs. For more of Erik Lindgren's photos, [click here](#).



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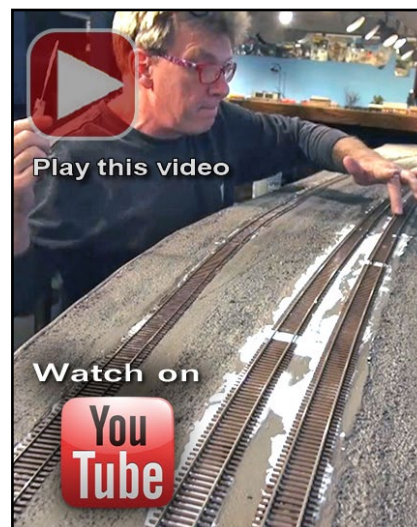
column



Model Railroad Hobbyist | January 2020

KEN PATTERSON SHOWS BIG AND LITTLE
RUNBYS – IN G SCALE, HO AND HO_{N3};
JOHN SCHINDLER DESCRIBES HIS LAYOUT
PROGRESS ON THE ST. LOUIS JUNCTION
RAILWAY, AND **KEN** TACKLES NEW HOME
LAYOUT SHELF MODULES ...

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MRH

January 2020 show

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St. Louis Junction Railway



1. John Schindler started building his layout, the St Louis Junction Railway, in September of 2004 starting with cement basement walls in a space measuring 60x32 feet. He built out the room finishing everything with new electric wiring, 2x4 studs, and drywall painted sky blue. John doesn't like layouts where the models runs around in circles, instead opting to design an operating layout whereas the trains only move with written train orders and a dispatcher to make sure everything runs smooth.



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2. John started by building three huge staging yards and connected the yards to very long main lines with plenty of industry in between the holding yards. The layout is fully signaled using the JMRI platform in a computer connected to Digitrax hardware to control the signals. He said he had a lot of help from friends designing the scenery and building the structures. Many of the buildings are built from cardboard laminated with printed exteriors to save time in construction.



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WHAT'S NEAT | 4



3. His railroad's minimum radius is 36 inches with most of the benchwork measuring 54 inches high. He designed the layout with very wide aisles of about five feet so the operators would not feel cramped when running freight. One part of the layout has a hidden lower staging yard that uses a helix to bring the trains up to the mainline where all the action takes place.

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WHAT'S NEAT | 5



4. You can visit this layout during the upcoming St. Louis 2020 NMRA National Convention and Train Show. There will be a bus tour for one day and an operating session during one of the nights during the show. Check Gateway2020.org for more information on show dates.



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Layout construction with Ken Patterson



5. In this month's video I show you how I build my entire home layout with one new 13-foot long module as the example. In the video we show various tips and tricks in the process that I do not cover here in the text. It all starts with simple shelf brackets from the hardware store. The brackets are attached to the wall with the dimensions of the foam's thickness in mind. It all comes down to keeping the track rail height even and smooth for smooth train operation over my entire 157-foot main line. I do not use the open benchwork of 1x4s which has been a standard for more than 40 years in our hobby.

6. (Right top) Instead, I use metal stud material which can span gaps of six feet or more without sagging like wood.



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7. Once these studs are glued into place with simple Liquid Nails adhesive I stack and glue 2-inch foam sheets together to form the basic earth as a platform for all the scenery. I build all the sections of my layout so I can take them outside to shoot still photos and video runbys for the various manufacturers I represent for advertising media.

WHAT'S NEAT | 8



8. To keep the foam sections from flexing when being moved, I rout a groove into the foam to which blocks of wood are imbedded. Then I securely attach a plywood face with staples. The blocks are held in the routed groove with Gorilla Glue, an adhesive which sets up with water to start the curing process.



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WHAT'S NEAT | 9



8. Once the glue has set up, I use a Stanley Surform plane to clean up the expanded excess. The plywood in this case is 1/4-inch oak secured to the sides of the foam with Gorilla Glue and 1/2-inch staples. After the glue sets up, I use a cabinet trimmer to contour the sides of the wood to conform to the foam scenery.



WHAT'S NEAT | 10



9. The foam scenery is carved with bent and straight rasps along with the Surform plane until I have satisfactory topography. I take into account where rainwater runoff will flow in a prototypical manner.

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10. The wood sides of the module are treated with wood stain to match my layout room finish and sealed with three coats of polyurethane which ensures a shiny professional finish to the module. In between coats, I sand the polyurethane with 1000 grit fine sandpaper and water.

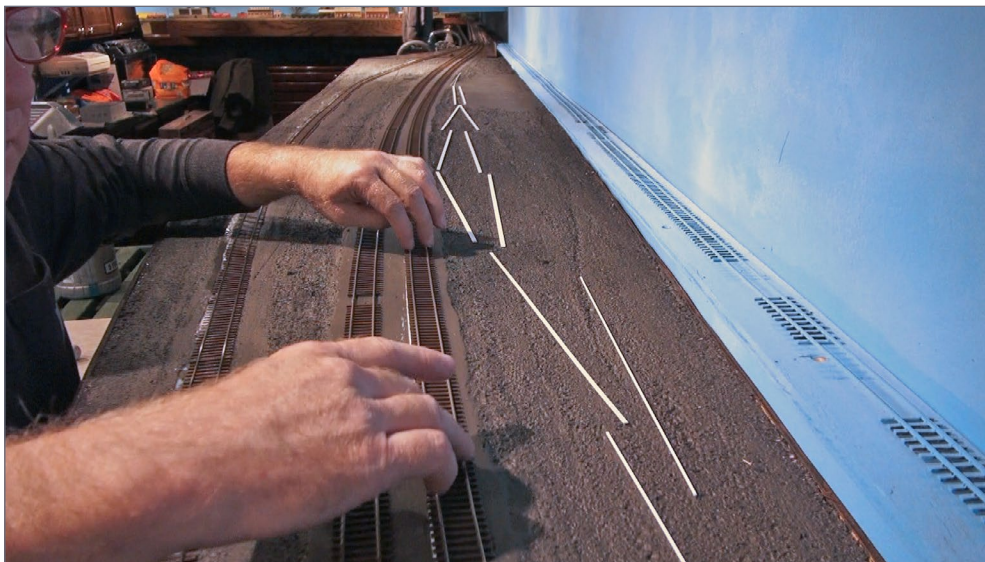
11. (Top right) I elected to use code 83 track from Micro Engineering on the double track main line, laid at 14 foot on center as per the prototype. Code 55 track from Micro Engineering is on the side track.

12. (Bottom right) Now, one trick I want to share with you here: How do you connect code 55 rail with the approach track of code 83 on the adjoining modules and the yard? It's very simple. Using Atlas N scale rail joiners, slide the rail joiner on to the code 83 track and flatten the rail joiner where the code 55 track will sit on top of this flattened rail joiner. Solder everything into place and you have a perfect flat and smooth transition between the two types of rail, as seen in this photo.

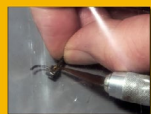


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13. To glue down the track and to add super-elevation to the curved mainline, I use Evergreen styrene .040" strip styrene glued to the surface of the foam and laying under the outside rail of the mainline. Simply glue all the track into place using a painter's knife to spread the DAP Kwik Seal and that's it.



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14. The glue dries clear and is paintable, allowing the ballast to stick as the scenery is put into place.

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WHAT'S NEAT | 15



15. Next time on "What's Neat" we will add scenery, roads, buildings, lights, block switches to control power, and additional details to make this module ready for amazing runbys and outdoor photography. ✓



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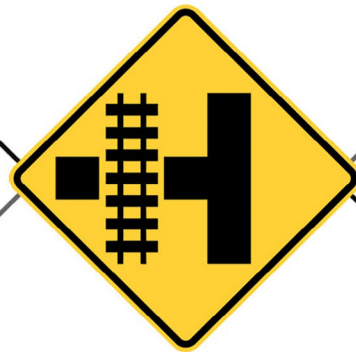
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Remote control with reed switches



Model Railroad Hobbyist | January 2020

1. With a latching magnetic reed switch, you can control the lighting in rolling stock such as a caboose with just with the pass of a magnet.

THE MRH STAFF on using latching reed switches for hands-off on/off control ...

BY USING A MAGNETIC REED SWITCH, YOU CAN easily turn on or off lighting or other electrical functions in rolling stock just by swiping a magnet close to the car. This can be far simpler and cheaper than wiring up a DCC function decoder to do this action.

A reed switch typically can be activated with a strong magnet even when it is separated from the switch by a thick wall or roof. The form E bi-stable or latching reed switch is a special type that remembers how it was last set (on or off).



On the other hand, a common form A reed switch is normally open, but closes when a magnet is brought near it, making the electrical connection. Upon removing the magnet the form A reed switch reverts to open again, it does not “latch” or maintain the closed (on) state after the magnet is removed. The magnet must be nearby to keep the form A reed switch closed.

Bringing a magnet near a form E latching reed switch will turn the switch on or off, and it will remain on or off even when the magnet is removed. Bringing the magnet close again can turn it back off or on. However, the magnet polarity (termed N for north and S for south) must be reversed for this switch to flip states.



2. A magnetic reed can also be used to control the lighting in a passenger car such as this GN business car.

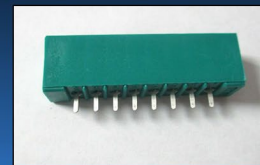
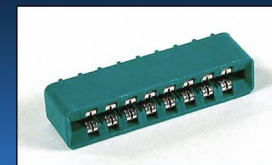
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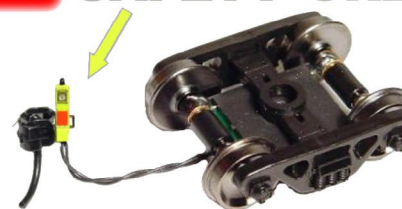
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REMOTE CONTROL WITH REED SWITCHES | 3

For more on the different kinds of magnetic reed switches, see the sidebar, "About reed switches."

Working with a latching reed switch

With reed switches, if the triggering magnet is strong enough, you only need to bring the magnet close to trigger the latching action. This means you can hide the reed switch behind rolling stock walls. Very convenient!



3. You can use a latching reed switch to control the lighting in a special foreground building such as this one.
David Kilborn photo



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REMOTE CONTROL WITH REED SWITCHES | 4

Form E latching/bi-stable reed switches are not easy to find, and are available only from a few online stores. Smaller latching reed switches tend to come and go on the market, so when you see some you're interested in, stock up!

See the shopping list link at the end of this article for full details.

The bi-stable latching reed switch MK24-B-2-OE on the shopping list is extremely small [4] and has a specific polarity due to the magnet inside the package. Just place the reed switch near a trigger magnet and allow the reed switch to orient itself. It will self-align to the actuating polarity of the trigger magnet.



4. The DigiKey MK24-B-2-OE reed switch is less than $\frac{1}{4}$ " long, seen here next to an HO bay-window caboose. This is small enough to be used even in N and Z scale.

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REMOTE CONTROL WITH REED SWITCHES | 5

You control a reed switch with a magnet along its length. You can buy a small strong cylindrical magnet and epoxy it to the end of a 0.040" styrene strip to make a convenient control wand [5].

The shopping list includes a magnet that works well for this control wand.

It helps to label one side of the styrene handle as "ON" (same orientation as the reed switch actuating polarity as mentioned earlier) and the flip side as "OFF."

You activate the latching reed switch placing the control wand magnet close to it, and flipping it between the "on" and "off" sides.



5. By locating the latching reed switch inside the caboose bay below the window, it's easy to use the control wand to switch the lights on and off. In this caboose, it's installed in the bay closest to the roof lights as a reminder of where to pass the magnet.

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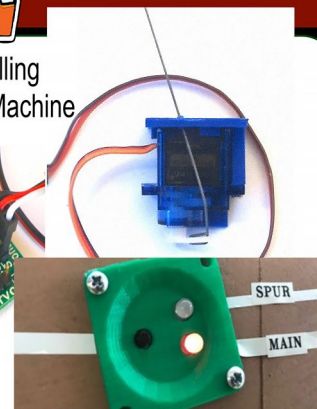
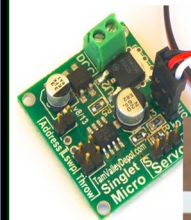
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REMOTE CONTROL WITH REED SWITCHES | 6

In [5] you can see the control wand magnet and the location of the reed switch behind the caboose wall in the bay window. Use the wand with the magnet oriented in the "ON" position to turn on the latching reed switch and flip it over to the "OFF" orientation to turn the reed switch *off*.

Using magnetic latch reed switches in this way is less expensive and simpler to install than a full-blown DCC function decoder. They provide great one-swipe on-off control of any low voltage circuit.

It's beyond the scope of this article to get into any specific circuits. Just wire the reed switch into your circuit like you would any on-off switch.

Do give magnetic reed switches a try. They work especially well for controlling lighting in rolling stock in a convenient hands-off manner. ☒

SHOPPING LIST: Find the latest shopping list for this article here: mrhmag.com/magazine/mrh2020-01/electrical-impulses.



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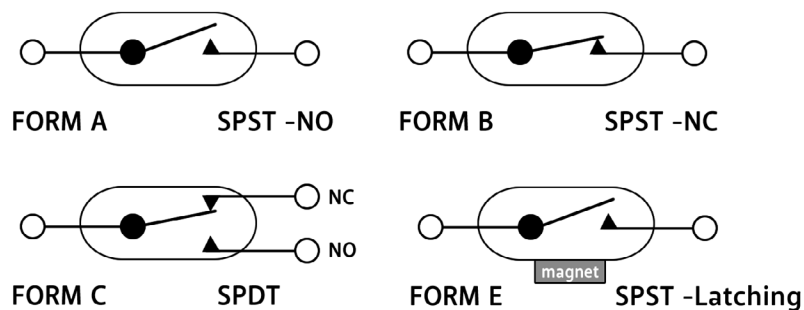
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ABOUT REED SWITCHES



Types of reed switches

Form A: Single-pole single-throw (SPST) normally open (NO) magnetic reed switch. Bringing a magnet close to the reed switch closes (turns on) the switch. Upon removing the magnet, the switch goes back to open (off). Note the closing is momentary.

Form B: Single-pole single-throw (SPST) normally closed (NC) magnetic reed switch. Bringing a magnet close to the reed switch opens (turns off) the switch. Upon removing the magnet, the switch goes back to closed (on). Note the opening is momentary.

Form C: Single-pole double-throw (SPDT) magnetic reed switch. One contact is normally closed (NC) and one contact is normally open (NO). Bringing a magnet close to the reed switch causes the open contact to close and the closed contact to open. Upon removing the magnet, the contacts go back to their original state. Note the switching of states is momentary. ... *continued, pg 8* →

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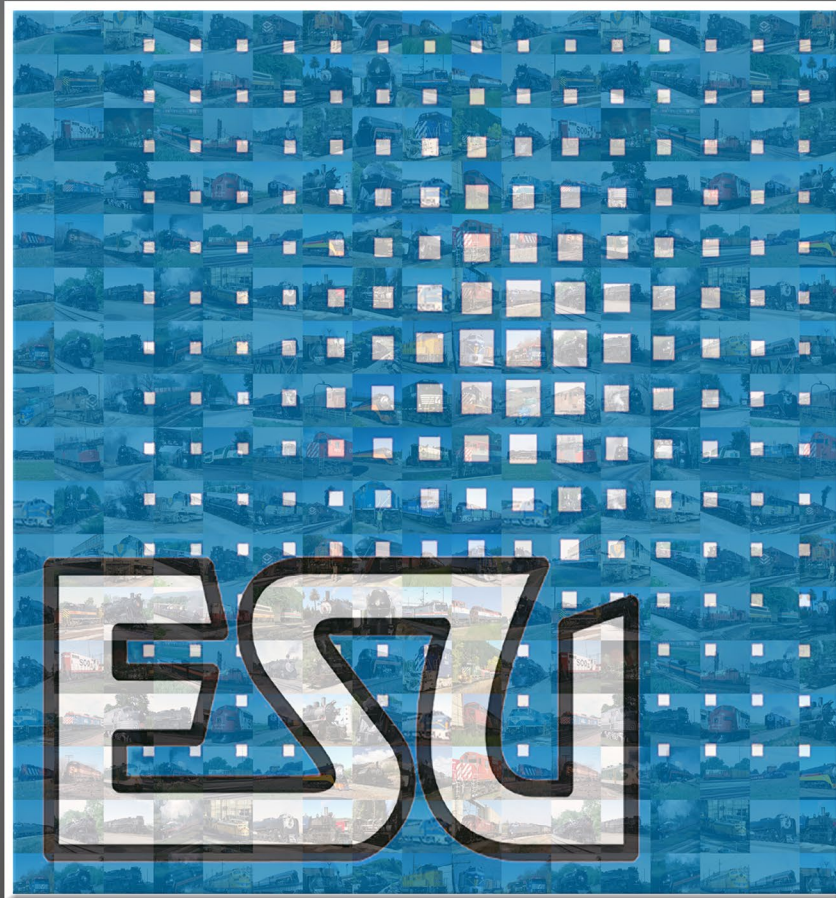
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ABOUT REED SWITCHES, ... *continued*

Form E: Bi-stable latching magnetic reed switch that typically starts normally open. Bringing a magnet close to the reed switch causes the state to flip, depending on the polarity of the magnetic field. One polarity causes the contacts to close, the other polarity causes the contacts to open. Upon removing the magnet, the reed switch remains in its last state, either closed or open. Note the switching of states is permanent until the magnet comes close again with reversed magnetic polarity.

A latching reed switch includes a tiny magnet on its glass tube, not strong enough to close the contacts itself. When bringing the control magnet close with its poles oriented in the same direction as the tiny magnet, the magnetic fluxes add up, and the contacts close. When the control magnet is removed, the tiny magnet holds the contacts closed.

To open the reed switch again, bring the control magnet close, but with its poles reversed. This time, the magnetic fluxes subtract, and the tiny magnet releases the contacts. Since the tiny magnet alone is not strong enough to close the reed switch, it now remains open. ■





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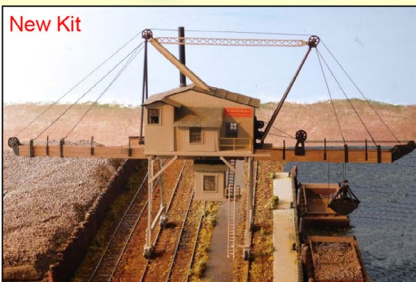
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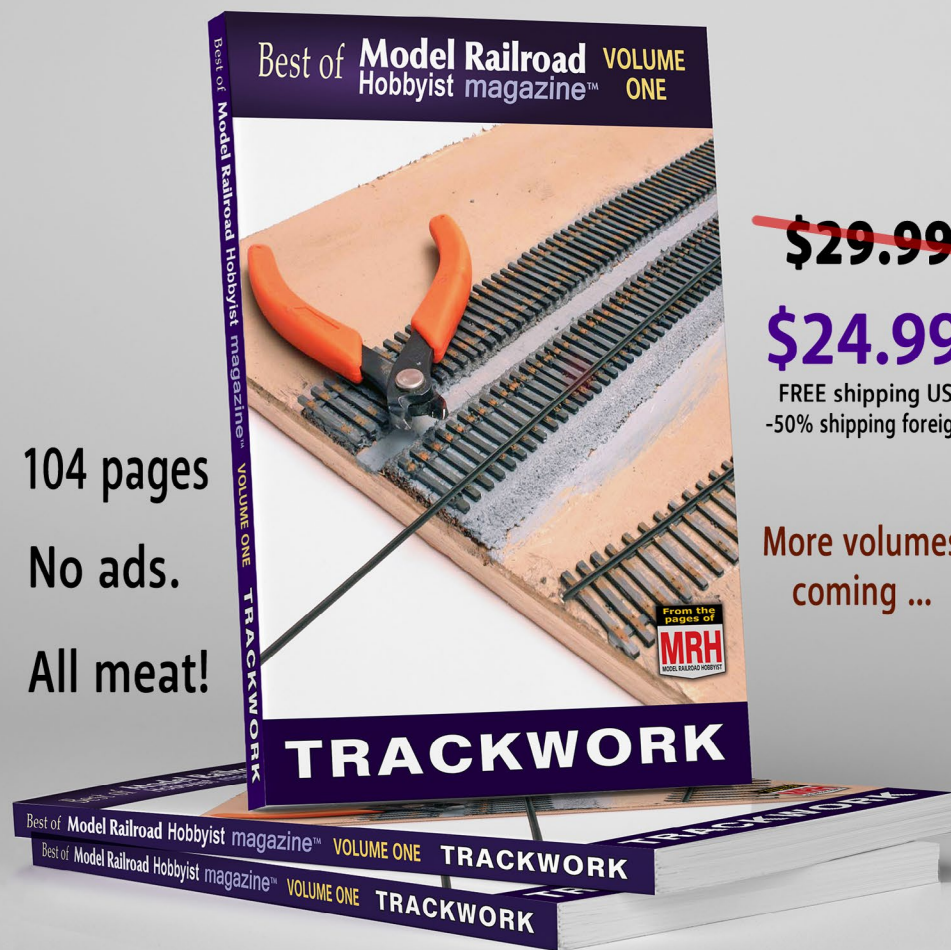
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Bob Truax's **GREAT NORTHERN**



JOE FUGATE visits with Bob Truax and witnesses the results of an enthusiastic model railroader tirelessly mentoring a newcomer ...

1. Bob Truax models the Great Northern in the mountainous Montana area during the steam-to-diesel transition era. Bob started this layout on a whim in the late 1980s, but thanks to an enthusiastic model railroader who was willing to tirelessly tutor him, Bob's model railroading interest blossomed into this visually stunning layout.



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MRH: BOB, HOW DID YOU FIRST GET STARTED in the hobby?

Bob Truax: I had a Standard Oil Station and a lot of old timers would come in, have coffee, and just chat. One customer of mine, Dick Coble, came in one morning and he mentioned he was taking pictures of his “railroad tables” he built for his grandkids because he wanted to sell them. His grandkids were no longer interested.

I was just getting out of car racing, and I had been into trains as a kid. So I thought, well, maybe this would be something else to do – so on a whim I bought the tables!

In the meantime, Dick took me to visit a model railroad layout open house in Grand Ledge, MI, just outside of Lansing. It turned out to belong to Doctor Hewett, the doctor who had delivered my three boys twenty-five years before!

I never knew *he* was into model railroading!

MRH: Yes, you just never know, do you? So what did you do with those train tables?

Bob: I brought the train tables home and set them up. Along the way I had also met Walt Griffin – he was working with Doc Hewett. I asked Walt to come over to the house and look at my new train tables and see what else I might do with them.

Walt looked at the tables and said, “If you’re serious about the hobby, I’ll draw you up a track plan and I’ll work with you – and tutor you.”



2. Freshly washed FT-A number 410 and its matching B unit idle in the yard at the head of a manifest freight train while the Montana rockies loom in the distance.

So Walt came over two nights a week and tutored me. He would give me a project to do, like I was doing homework.

First, I had to build walls in the basement and put in a ceiling. You need to prep your room before you can start the railroad, so I did all that.

Then Walt did a track plan and helped me get a good start with the benchwork. Pretty soon, I had all the benchwork done.

As I put up the fascia, I said to myself, “Well, if I’m going to do this, I want it to look like a piece of furniture.”

Walt next taught me how to do track laying and to do hand-laid track. We used code 83 on the main line, and code 70 in the yards.

Walt taught me how to install the switches and wire them up.

Walt also showed me how to build scale buildings.

I did all the scenery on the railroad with Hydrocal. That included things like the highways and the roads – even the sidewalks I hand-carved from hydrocal.

I wanted the layout to have a museum-like quality and look real, that's what I was shooting for.

Believe it or not, this is my first real model railroad project I've ever done – and I'm pretty proud of this.

MRH: Walt sounds like a great tutor. How did he think you were coming along with your hobby skills?



3. Bob kitbashed this ten-stall roundhouse by using a number of Heljan turntable stall extension kits. Bob laminated the brick sheets on the interior as well, giving a realistic brick texture on the inside as well.



4. Here's a closeup view of Bob's turntable, which is long enough to turn an articulated like this 2-8-8-0 number 2023. Looking at the locos here and in [3] you can also see some neighboring road power from the SP&S and the Northern Pacific.

Bob: Walt just couldn't believe what I came up with. He just shook his head and said, "Man oh man, I give you a project to do, then I come back a week later and you've done so much!"

In Walt's original plan, the railroad was supposed to end only about five feet behind me here. I decided to keep going, so I busted holes through five concrete walls and one closet!

Now the main goes all around the basement with a branch line and everything.

MRH: What do visitors first think when they come down into your basement and see all this?

Bob: When they walk down that stairway and see the layout, they freeze and can't believe it. Many say, "My gosh, I've never seen anything like this before!"

I just tell them, "If you can get a dream or a thought in your mind – if you can get a vision – you just go from there."

Like me you can start out small, but once you get into it, it slowly gets bigger and bigger – and better and better. It just keeps growing. And eventually you can end up with pretty much what you envisioned.

That's what I have done!"



5. This short stock car transfer run rolls through town, pulled by 4-6-2 number 1376. The characteristic GN Belpaire firebox clearly shows in Great Northern's attractive olive green boiler and red cab roof Glacier Park paint scheme.

MRH: What specifically are you doing in this space?

Bob: I model the Great Northern Railroad. Some ask, "What's the Great Northern Railroad?"

I tell them the Great Northern Railroad ran from Minnesota, across Montana, and all the way up into Oregon. I like the Northwest part of the line up through Montana, so I picked



J. Fugate

THE POWER OF MENTORING A NEWCOMER

One thing really stands out to me about Bob Truax's journey in the model railroading hobby: how he was mentored by modeler Walt Griffin.

Walt did the hobby a great service by mentoring Bob – just look at the fantastic layout Bob has built! The hobby would be just a little bit poorer if Bob's very scenic layout did not exist.

Bob got started in the hobby as something of a lark: he bought some cast-off modeling railroading tables built for kids on a whim. It's easy to imagine Bob's hobby experience would have been very different had Walt not stepped in to mentor Bob like he did.

Walt's willingness to help and mentor new-and-upcoming modeler Bob Truax serves as a great example for us all. It also serves as exhibit A on how powerful mentoring a newcomer can be.

Plus Walt's example also should act to prod the rest of us into watching for ways we can mentor and tutor hobby newcomers.

If more of us were willing to step forward and tutor hobby newcomers, what do you think that might mean for the future prospects for this hobby we all love?

I also address this idea somewhat in my "Publisher's Musings" editorial this month. The more popular hobby special interest groups need start taking a more long-term view of their mission. Let's go beyond just serving those already in-the-know – let's secure the hobby's future and make tutoring newcomers a core part of the group's mission.

I love Bob's story of how Walt Griffen contributed to his success. More of us old timers need to take this message to heart!

Montana to model. I like the mountains and trestles, so that's what I decided to do. I didn't want to go with a flatland railroad.

I also like the great Northern colors. As you can see, my shirt has the GN goat, so they like to call me the "old goat."

I wanted different elevations and different levels on the layout.

MRH: To get those different levels, what kind of grades do you have?

Bob: I have grades that run mostly 2% but I do have 2.5% on the branch line.

The railroad climbs from 52" then goes through a tunnel and keeps climbing to reach an area that's from 54" to 56". Then it goes around a curve and keeps climbing up around, and it goes to 58" total – all without a helix.



6. Bob likes to model railroad and highway maintenance equipment as well. Here we can see a couple pieces of track maintenance equipment along with a nice model of a road grader.



7. Here's one of Bob's highway truck models with a very nice diesel Cat load. Bob has an extensive collection of HO truck models from the '40s and '50s on display in his layout room.



8. Here is some of Bob's extensive collection of '40s and '50s vintage semi trucks. Several more reside on the layout in various scenes. Bob's dad was into trucking, so the interest comes naturally!



9. Bob also loves to model structures, such as those you see here in this nice city street scene on his layout. Notice the cosmetically pleasing curve and the nice sidewalk modeling!



10. Here is an overall wide view of the scene in [9]. Note Bob's care with layout esthetics and the nice furniture look to the fascia.

I was told by a hobby shop owner when I was first getting into trains that steam engines would never pull a 2% grade. But I did it, it looks good, and things run perfect.

MRH: Why model the Great Northern in Montana?

Bob: I like the Great Northern and the Northwest because I was in a logging family. The Truax name ("True Axe") is a logging name.

My dad was a logger – I worked in the woods with my dad. So I had to have a sawmill because I remember the old steam engine sawmills that cut lumber back in the early fifties. The lumber business has always been in my blood, so I had to have that.

On my railroad, I have Truax Mining that bought one diesel engine for their company. And of course, I have a logging area, which is just what I wanted.

MRH: How did you develop the track plan – was it very hard?

Bob: My tutor Walt Griffin did the mainline track plan and I just did the rest as it came to me. I like to build buildings, and once you get the buildings to go somewhere on the layout – you need to build track to the buildings! I would add several buildings to make a nice diorama-like scene and run track into the scene.

I would determine where I needed to add switches and cut the track out to add the switches. Walt showed me how to measure and cut track to make room for switches.

If I wanted to diorama of a logging area, for example, I'd just concentrate on building that with the sawmill and everything. I added a branch line for many of these new scenes.

The whole thing just kind of happened.

MRH: When was it you started construction?

Bob: I built the benchwork in 1988. By 1990, some I had scennicked some 90% of it in just two years. We really worked hard on it, including the electronics because I used Bruce Chubb's computer-directed progressive cab control on the layout. Doc Hewett was getting out of the hobby, so we inherited all his electronics and controls.

Walt and another fellow did all the progressive cab control programming to go with all the relays and electronics we acquired from Doc.

As to the electronics underneath, there's 52 pairs of phone cable in the main room. And then for the side room there's another 25 pairs going out there for signaling.



11. Griffin Trestle, named after his mentor Walt Griffin, stands out as one of the most breath-taking scenes on Bob's layout. It certainly gives that Rocky Mountain feel to the layout.

It was all hooked up to the switches, so the computer read the status of everything and allowed us to control everything through it.

That means there's a lot of wiring underneath this railroad. I had never done anything like this before, but I did most of it myself. And then Walt came in and he'd do the programming.

To make a long story short, in 1997 the hard drive crashed on the computer. So I went DCC. Now I tell modelers if you're going to start a railroad, you don't build it unless go DCC on it!

MRH: What DCC system did you elect to go with?

Bob: NCE ... North Coast Engineering. I like NCE because the throttle has a big screen on it and you can recall six engines, for instance. It's really the way to go.

MRH: What decoders are you using and why?

Bob: I started with the original DSD Soundtraxx sound decoders for steam and diesel. I am now going to Tsunamis and I recently installed an Econami 100 with a current keeper on it. I love the Tsunami steam sound. You close your eyes and swear to God you're right there with a real steam engine. I really do enjoy those decoders.

MRH: How do you program the decoders?

Bob: I program right on the main with my NCE. You can just type in your CV values. I like to get into advanced programming on my engines. For instance, you may notice as the engine takes off, the bell rings and the whistle blows automatically. You also get the siderod noise and it just comes up automatically.

I want to go to Tsunami2's so I can really get the dynamic exhaust and everything. That's my next project!

I've got probably eight brass steam locomotives with sound in them and probably six first-generation diesels. I just love the sound – they don't make smoke, but they do sound good!

MRH: You're not using JMRI to program with, then?

Bob: No, just programming on the main with my NCE hammer-head throttle.

MRH: Let's talk about building this layout. How did it go?

Bob: I started the construction by installing L-girders around the room and everything went fast. I had no problem.

Matter of fact, I had the Michigan State volleyball coach, Chuck Erbe, come visit. He was just getting into the hobby and told me "this is what I want."

So I went over there and we started cutting L-girders and I showed him how to put them up. But I told him, Chuck, before you go very far, you need to get this room ready. Put your drywall and your backdrop up first. Then I'll come back and we can do the rest of the benchwork.

I did the same thing to him that Walt did to me – get these things done, then I'll be back over. I enjoyed helping and it turned out to be quite a fun project!

MRH: Nice to hear you're passing along Walt's good teaching! What kind of track are you using?

Bob: It's all handlaid track using rail in three-foot lengths. I'll solder two pieces together into a six-foot section on curves.

I lay the rail on Central Valley ties – that's what really what makes it look good. The CV ties come in a 12 inch strip.



12. Every so often, Bob rolls out this eye-catching fire prevention car as a special run. It's certainly hard to miss!

You draw your track center line, line them and glue them down.

Every tenth tie, I put a spike in. And then you alternate on the other side, like a skip and a hop. That's a lot of spikes and a lot of drilling! I lay the track on cork roadbed in yards and taper it up to meet the elevation of the main.

I use Homasote roadbed for my main on my railroad because I like how it absorbs the sound. I don't like the hollow sound from plywood.

I handlaid all the track and put a golden spike over here where I finally connected it.

MRH: What has been the hardest part of doing this layout?

Bob: The wiring was the hardest. When you use Tortoise switch motors and you have a computer, you have to run wires from the turnout to the tortoise control cards and then to the input cards connected to the computer.

And then you have your leads from your fascia switches. And then the three wires that go up to the switch to power the frogs. I had to learn it all. Walt taught me everything.

I did it all over again with the move to DCC. I did all the wiring the hard way starting out. But I learned a lot going the hard way.

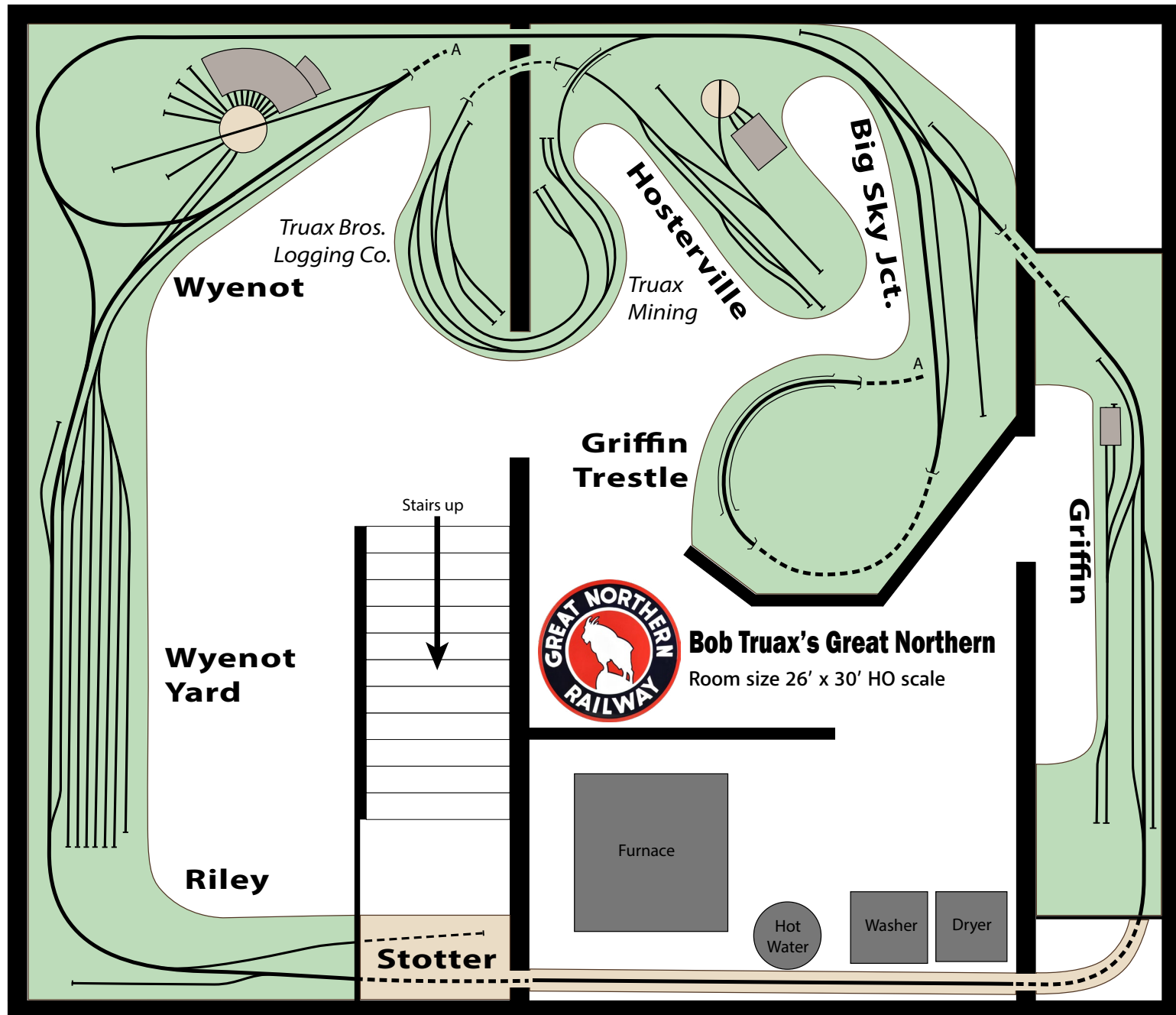
They have so much new stuff out today, it's a lot different than it was when I got in.

MRH: So no nasty surprises?

Bob: Not really. I had a lot of good tutors. For example, down here in Riley, I did not know how to do ground cover. And my buddy, Robert Ferrick, showed me how to do a six inch piece of dirt road, ground cover, and all.

From there, I just took off. I used a lot of latex brown paint to lay it down and then put my ground cover on it so I could blend it in. And it came pretty easy, I was really surprised.

13. Bob's track plan. His layout fits in a 780 square foot space.



On the buildings, I do a lot of kitbashing on the buildings. I'll cut them up to fit a certain area. Walt would come over and he would say, "You know, I just don't have the patience you do. You learned this so quick."

I must hand it to Walter. He was the best tutor.

MRH: Walter really helped you a lot. What do you think of how it all turned out?

Bob: I love that I can come in here every day, look at it, and go back in time.

I like to study it, look at from different directions. When I do, I see new views I had not seen before. Once you build something like this, it's a real pleasure, I'll tell you.

I also enjoy sharing with other people. I have a lot of open houses I like hearing the comments from those who visit. It's a real trip.

MRH: Looking at the displays on your walls, we can see you're big into making models of trucks. Tell us about that.

Bob: I'm from a trucking family. My dad had a steel rigs when I was a child and being in logging he was around trucks. I drove my first semi at 15 years old and got away with it, but I always had an adult with me. They would just slide over and let me drive.

You look at these trucking companies in the 40s and 50s and they had different trailer paint schemes.

When I got into model railroading, one of the fellows here in Lansing wanted me to do some work on some HO scale semis for him. I said, "Sure, I'll do that."

And, and it just grew from there. I built all these log trucks, for instance. I do a lot of Ulrich, kitbashing them, cutting the frames and putting sleepers on them. I also do a lot of Sheepscot. I've got so many of them now I don't have any more room to put them.

So I don't build any more trucks for myself – I still build a plenty of them for my buddy, for his layout.

If you're going to do the 40s and 50s, you could buy a Mini-Metal, but everybody's got those. I want something different. When you come down here looking at my layout, what you see here you won't see on another layout. That's a lot of fun for me.

MRH: Any other thoughts about your layout?

Bob: To me a model railroad is like a painting only more. You look at a painting and it just sits there. A model railroad, though, comes to life.

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BOB TRUAX'S GREAT NORTHERN | 21

Once you turn the switch on, you bring it to life. It has the steam sound and all that. And I used to have a box underneath the layout with a thunderstorm and dogs barking.

I found a chip of other day for doing sounds but I'm missing my sound box. I had it up on the branch line because there's an old dog up there barking at a cat and a thunderstorm coming in on the backdrop. It was really cool.

I'm looking forward to my next open house and I also have a New Zealand fellow coming in later. I just like sharing this thing.

At my wife's chiropractor, she was speaking to one of the ladies over there and the doc and everyone was talking about my railroad. "Oh, my husband loves trains ..." she said!

So I invited them to come over with their kids. I like to share it with the kids and maybe get them started in the hobby! ☑



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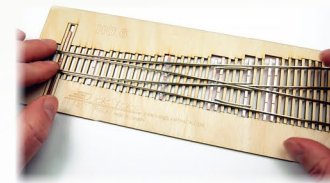


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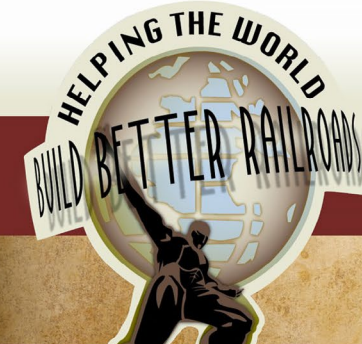
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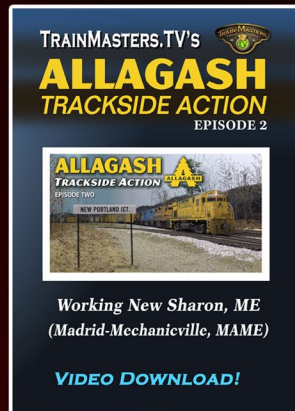
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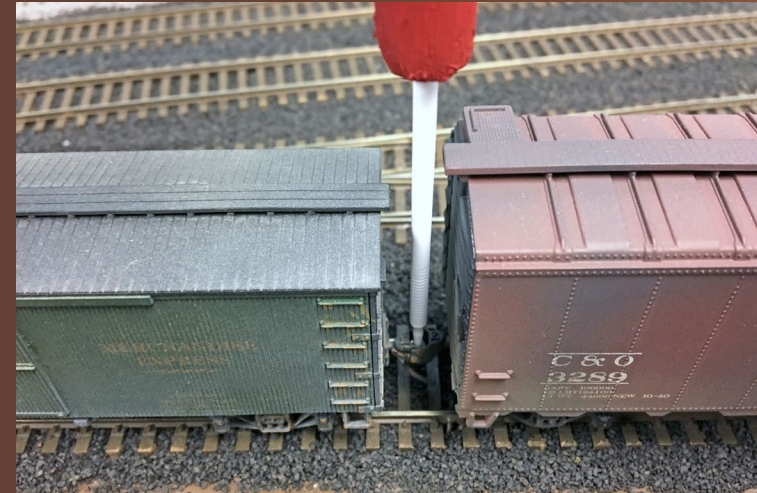
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Making the ultimate uncoupling tool



Model Railroad Hobbyist | January 2020

MICHAEL ANTEAU pursues getting the best uncoupling
tool ever ...

I MODEL IN HO SCALE AND I AM CONSTANTLY looking for new ways to uncouple cars. I have some uncoupling magnets on my layout, but in many cases I want to uncouple where I don't have a magnet and that means using an uncoupling tool.

I have uncoupled cars using commercial tools by RIX and Kadee which work pretty well. I have also used the trusty bamboo skewer. The skewer is okay, but it often gets stuck and I end up derailling cars.



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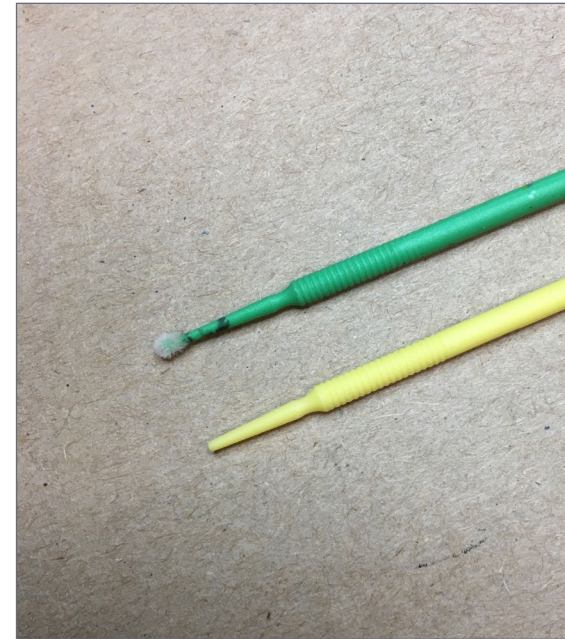
I use Microbrushes for some of my model painting, and I use disposable foam brushes for painting benchwork and scenery. It occurred to me that instead of throwing these away, I could combine them to make a great uncoupling tool.

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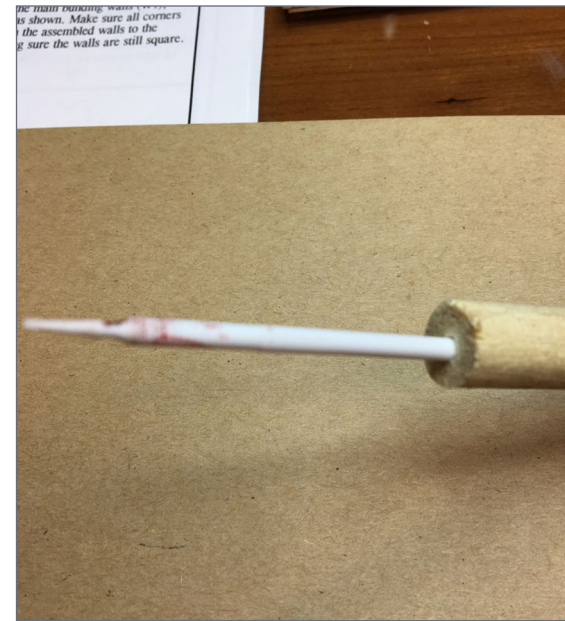
Follow along as I create this uncoupling tool.



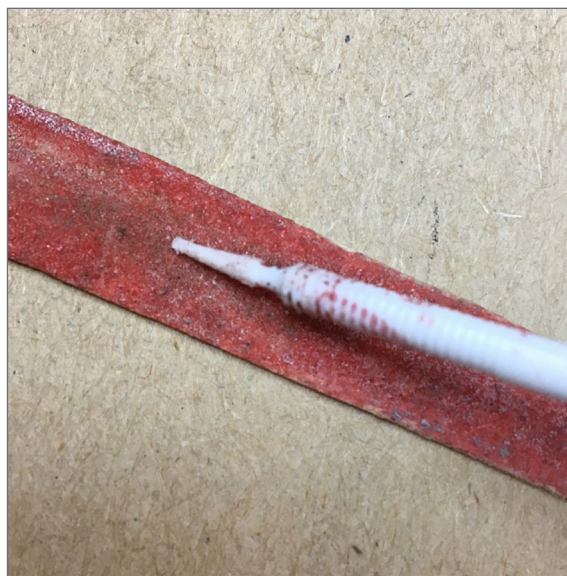
1. Prepare Handle: I start with a used, disposable foam paintbrush. The size doesn't matter. Cut the foam top off the used paintbrush so you just have the handle. This larger handle size makes the uncoupling tool easier to hold.



2. Prepare the pick: You will need a used Microbrush. The brand and color don't matter, although I've found the white and yellow ones are the easiest to see when inserting between cars to uncouple. Cut the foam tip off of the brush with a nipper or hobby knife.



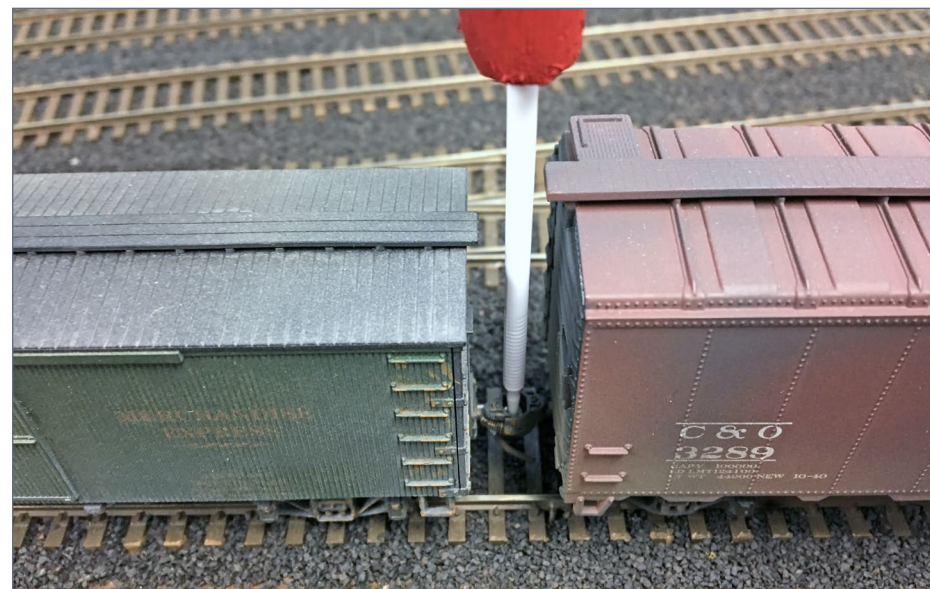
3. Assemble the tool: Drill a 1/8" hole in one end of the handle. Insert the Microbrush into the hole. The fit will be tight enough to hold the plastic brush handle, but you will be able to pull the Microbrush out and replace it if it gets too worn.



4. File the tip: The secret to making the tool work better is to file the tip of the Microbrush flat. This makes it easier to insert between the coupler knuckles. I use an emery board and file both sides of the tip, so it forms a chisel end.



5. Paint the tool: I paint my uncoupling tool handles red to make them easy to find around the layout. I use inexpensive craft acrylic paint. The exact color doesn't matter, so use any color you like.



6. Insert and twist: To use the tool, simply insert the chisel blade between two coupler knuckles and give a gentle twist. The fat handle makes the tool easier to hold than a bamboo skewer. If the plastic tip becomes marred, file it again with the emery board. When it becomes too worn, pull it out and replace it with a freshly filed Microbrush. Happy uncoupling! ☑

TOOLS AND MATERIALS LIST

Tools

Drill
1/8" drill bit
Hobby knife
Small paintbrush
Emery board or fine sandpaper

Materials

Used disposable foam paintbrush
Used Microbrush
Acrylic craft paint (red or preferred color) ■

MICHAEL ANTEAU

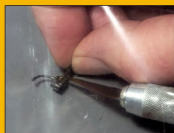


Michael Anteau comes from a railroading family. His grandfather was an engineer for the C&O and his father was an engineer for CSX.

Michael was bitten by the model railroad bug watching his dad's Lionel trains, and he built his first 4x8 layout at the age of 10 on a sheet of plywood on the dining room floor! Michael is now working on

his "dream" layout, a prototype freelanced coal hauling railroad set in transition-era West Virginia. His lovely wife Angie leased him the largest room in the basement and she actively encourages his hobby.

Michael lives in Northwest Ohio and works in Information Technology. He has two grown children. When he is not working on the Nicholas & Ashley Creek RY, Michael also enjoys playing piano, biking, hiking, traveling and winemaking ■



PUBLISHER'S WELCOME

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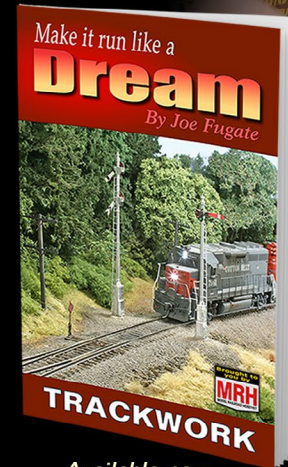
JOE FUGATE: Keep tiny parts from flying off into oblivion.

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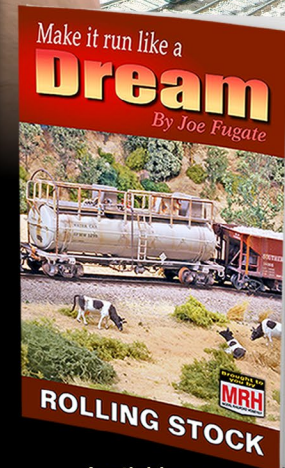


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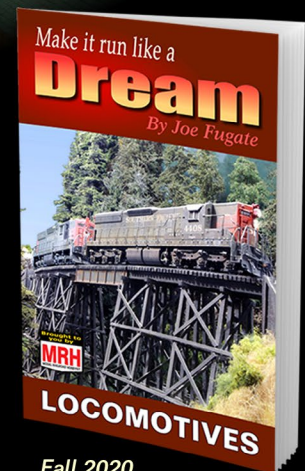
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Youth in Model railroading



Model Railroad Hobbyist | January 2020

1. Craig Willett briefs the youth members at a La Mesa club's youth-only operating session. Craig rides in from Wisconsin to help, bringing his expertise as retired Amtrak Assistant General Manager Train Operations: Midwest Corridor – and as Milwaukee/Soo Director of Operating Rules. *Scott Maase photo*

AL CUEVAS details the La Mesa club youth operating sessions ...

APRIL 2019 MARKED A SIGNIFICANT MILESTONE for the La Mesa Club. The club's noted Tehachapi Pass layout was turned over to a group of youth members for an op session. Regular Member Al Cuevas wrote this letter to the members about his experience that day:

YOUTH IN MODEL RAILROADING | 2



Recently, a fantastic ops session took place on Tehachapi. It was unusual and groundbreaking for the La Mesa club. Youth members ran the under the hands-off supervision of a few senior club members.

Let me start from the beginning:

A few months ago, Vic Yoder and Mike Cartabiano proposed a different kind of operating session. This session would be governed by track warrants, and run by youth members. As I am not a big fan of operations, I didn't pay much attention to this.



2. SP Bakersfield Yard set up for operations to start.

However, when Mike offered me a free ride down to the club I accepted.

The day started off with Vic and a few others giving a short planning session for the entire group.

Trains would be staged at Bakersfield and Mojave. A youth member was assigned at each location to start them off.

Once trains arrived at Tehachapi or Bena, the crews would contact the train dispatcher for a warrant giving them main track authority between these two points.

Vic gave the dispatchers (there were two different ones while I was there) some basic track warrant instructions. He, along with



3. Deangelo Rodriguez is the yardmaster at Famoso (West Bakersfield staging).



4. Travus Clark writes out track warrants at the dispatcher's desk. The CTC machine was turned off for this session.

other senior members who included Mike Cartabiano, Wayne Penn, and Bryn Ekroot, provided guidance and resolved issues during the session.

It was really rewarding to see the energy and seriousness that our young members gave to this event.



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5. Bryn Ekroot helps with crew assignments while Mathew Tommasino assists.



6. Zach Franey copies a track warrant at Caliente.



7. Greg Whalen waits for a warrant at Woodford. Radios were in short supply, so some warrants were transmitted over the TTTO telephone line.



8. Cameron Centel checks his warrants as his train descends the Loop.



9. A BNSF train occupies almost the full length of the main at Woodford.



10. John Gerdes and Greg Whalen enjoy their time at Woodford.

Every once awhile I hear that the hobby members are “getting old” and that the hobby will die out. Not if our youth members have anything to say about it!

We got to witness the future of the La Mesa Model Railroad Club during this session. It looked pretty good. I have added a few more pictures of some of the members participating. Take some moments to enjoy them. – *Al Cuevas* ✓



RAILROAD GRAFFITI
TONY THOMPSON looks at railroad markings and graffiti

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11. Front, left to right: Travus Clark, Philip Kovelman-Ottillie, and John Gerdes; Rear: Jacob Giglio, Deangelo Rodriguez, A.J. Picken, Greg Whalen, Cam Anderson, and Zach Franey. *Scott Maase photo*



D. Mitchell

HOW THEY HANDLED IT

The Young Member program has increased youth interest and participation in club activities to a point where the special event witnessed by AI was created. This first session was so popular that a second session soon followed, with a 50% increase in the number of young operators participating.

Most of the modern equipment is brought to the operation by the participants. It gives a contemporary look to the almost timeless setting of Tehachapi as well as giving the participating youth a chance to run trains contemporary with what they see in their lives.

The required preparation for these track-warrant-controlled sessions is minimal. The equipment used for the obligated daily running during Museum hours is sidetracked ahead of time, making room for the modern equipment to be placed on the rails the morning of the session. The first train is then ready to leave by the time the Museum opens for the public.

We are watching the torch being passed to a new generation of prototype operation modelers.

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KEEPING YOUTH OPERATIONS ON THE RIGHT TRACK



The La Mesa club was formed in 1961 by a group of teenagers who couldn't gain admittance to existing clubs because of their youth.

Since that start over 55 years

ago, the club has continued to admit young modelers. The Youth Member program now provides guidance, education, and a sponsor for each young modeler.

Included among the sponsors and advisors are professional railroaders from Amtrak, BNSF, Metrolink, and UP. They bring exposure to "real railroading" that guides the conduct of TWC operations by the youth. – *Don Mitchell*

Continued on next page ...

12. From the left, Amtrak Engineer Matt Neal, BNSF Senior Manager PTC Interoperability-Reliability Tom Batts, and Train Dispatcher Vic Yoder are among the group of professional railroaders who help keep Youth Member operations on the right track. *Mike Cartabiano photo*

KEEPING YOUTH OPERATIONS ON THE RIGHT TRACK CONTINUED ...

LAMESA MODEL RAILROAD CLUB, INC.

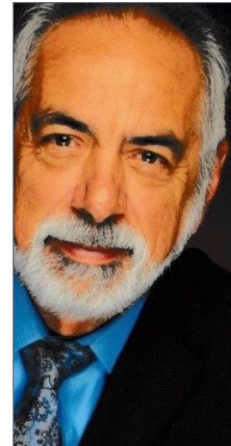
YOUTH MEMBERSHIP PROGRAM V1.6

1. **Youth Membership:** The LMMRRC will establish and maintain the Youth Membership Program defined here under for the management of minor aged members who are defined in Article 1, Section 1 of the current LMMRRC Bylaws.
2. **Youth Membership Program Goals:**
 - a. Provide a dynamic and fulfilling learning experience about model railroading.
 - b. Help youth members acquire new skills.
 - c. Help youths learn how to be contributors to a community with common interests.
 - d. Provide youths with a positive outlet for their energies and interest in model railroading.
 - e. Give adult members guidance for youth member interactions.
3. **Code of Conduct:** ALL members are required to follow ALL rules and regulations in the LMMRRC Bylaws, a copy of which is available from the LMMRRC Secretary. All members are expected to contribute to the well being of the organization, creation of the exhibit, exhibit maintenance and to present the exhibit in the best possible manner to the public. ALL members are required to conduct themselves at all times while in and around the museum with courtesy and respect to all others. Membership may be revoked as defined by Article III, Section A, Items C & D in the LMMRRC Bylaws for any violation of the CODE OF CONDUCT.
4. **Maximum Number of Youth Members:** The maximum number of youth members shall be limited to no more than 10% of the Adult Regular and Associate membership in good standing in January of the current year. The General Manager may increase this limit to no more than 30% at any time until January of the following year. The General Manager may also impose a moratorium on accepting Youth Membership applications should the Youth Membership program management become unmanageable. The General Manager will end the moratorium when they determine the program can be managed effectively.
5. **Youth Membership Terms and Conditions:**
 - a. **Acceptance Age:** Youth membership in LMMRRC shall be open to youths aged thirteen (13) through seventeen (17) who wish to participate in the activities offered by the LMMRRC.
 - b. **Applications:** Applications for Youth membership shall be submitted to the Membership Committee (LMMRRC OFFICERS). There shall be an application fee of four (4) months dues imposed for Youth membership applicants. The application fee will be applied to the first four months dues. If the applicant fails to become a Youth Member, a prorated amount of their application fee shall be returned. Youth members must have written permission from their parents/legal guardians to join and must have completed and submitted all required documentation (see 3e).
 - c. **Application Review:** The Membership Committee or its designate shall review the application and then meet with the applicant and their parents/guardians to discuss the requirements and responsibilities of the Youth membership program.
 - d. **Application Acceptance:** Acceptance of applications for Youth Membership shall require a majority vote of the LMMRRC membership at a regularly scheduled business meeting.
 - e. **Emergency Contact Information, Medical Care Release, Release of Liability Forms:** Parents/Guardians must have an emergency contact name and phone number, Medical Care Release and Release of Liability form on file with the LMMRRC and promptly notify the LMMRRC when any changes are made to the provided information.
 - f. **Youth Membership Probation Period:** Youth members shall be required to complete a probation period of three (3) months beginning upon approval of their membership at a LMMRRC business meeting. During the probation period they must have attended and participated in three (3) LMMRRC events. Any of the following events satisfy this requirement: Public Operations, Scheduled Operations, Work Times, and Other sanctioned events and have followed the Code of Conduct and Bylaws.
 - g. **Sponsors:** All Youth members shall have a volunteer Sponsor approved by the LMMRRC Officers upon acceptance of their application. The Sponsor will be an Adult, Regular or

1

13. In this month's [bonus downloads](#) are the La Mesa Club's Youth Membership Program guidelines. ■

AL CUEVAS



Al Cuevas is a former Air Traffic Controller and Information Systems Manager for AT&T. He lives in San Marcos, California, with his wife and two dogs. Al has been a member of the La Mesa Model Railroad club for ten years.

Before joining La Mesa Al was active in the North County (San Diego) Model Railroad Society. He is an avid traveler and never misses a chance to ride a train. ■



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Model Railroad Hobbyist | January 2020



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Make your own ground foam flocking

YouTube modeler **Great Chesterford Junction Model Railway** from across the pond in the UK demonstrates his process for homemade ground foam flocking (it works to color sawdust too). Using this method allows making large quantities of greenery for your layout at a cost of mere pennies. Far less costly than the \$8-\$10 bags you get from hobby suppliers! ■



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JANUARY NEWS

column



Model Railroad Hobbyist | January 2020

RICHARD BALE and
JEFF SHULTZ report the
latest hobby industry news

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NEW PRODUCTS FOR ALL SCALES



Chooch Enterprises is selling flexible material that replicates a dry stacked field-stone rock wall. The material is available in 1.5 x 0.6 x .25-inch sheets. For additional information visit choochenterprises.com.

Motrak Models has released a new supply rack, suitable for holding up to 20 Pan Pastel containers. Measuring 10.6 x 1.5 x 13.25-inches, it is made of .125-inch hardwood and includes 3 holes along the top to hang it on a wall or door. Screws and

► THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS



sheetrock anchors are included. The rack is designed to hang only, it is not freestanding. For more information visit motrakmodelsusa.com.



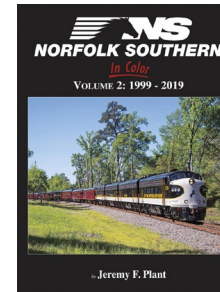
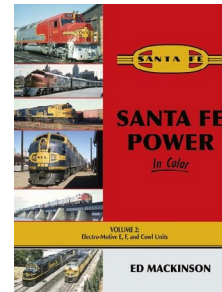
Woodland Scenics has announced new fences in O, HO and N scale. Six fence styles will be available in early 2020: barbed wire, log, rail, chain link, picket, and privacy. Most of the kits include 192 scale feet of fencing. For more information visit a dealer or woodlandscenics.com.



Frenchman River Models Works is selling sheets of wood shingles. The material is available for HO (5.75 x 3.625-inches) and O scales (7 x 4.74-inches). The shingles are cast in resin from a master made of oak with a distinct wood grain.

The resin material will not warp

when exposed to water or alcohol based paints or stains. The cast resin can be warmed and wrapped around a form to make towers or silos. For additional information visit frenchmanriver.com.



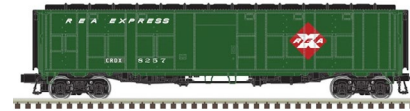
New railroad books from **Morning Sun** include Volume 2 of *Santa Fe Power in Color* by Ed Mackinson. This volume covers Electro-Motive cab units including E, F, and cowl locomotive types. Also new is Volume 2 of *Norfolk Southern in Color*.

In this volume author Jerry Plant reviews the NS from 1999 to the present with particular attention given to the former Conrail and Virginian lines and the coal country of West Virginia. For additional information contact a dealer or go to morningsunbooks.com.

O SCALE PRODUCT NEWS



Atlas O will also offer surplus troop cars repurposed by various railroads. They include a troop kitchen car converted to a Chicago & Eastern Illinois express boxcar.



Express boxcars rebuilt from troop sleepers will be available for Railway Express and Chesapeake & Ohio.



MOW sleepers will be available for Chicago & Eastern Illinois, Detroit & Toledo Shoreline, C&O, and Delaware, Lackawanna & Western.



Also coming from Atlas O during the third quarter of 2020 is a 52-foot 6-inch 70-ton war emergency composite gondola.

Road names will be Chicago, Rock Island & Pacific; Pennsylvania, Reading, Lehigh Valley, and Santa Fe. All Atlas O models are available for either 3-rail or 2-rail operation. For additional information contact a dealer or visit atlaso.com.



Berkshire Valley Models has released an O scale kit for a 1934 tow truck. The kit is comprised of detailed white metal parts. The hoist mechanism, which is suitable for both O and S scale, is

available as a separate item. For more information visit berkshire-valleymodels.com.



Chooch Enterprises is selling laser-cut flush windows for Golden Gate Models O scale P-70 coach. Also available are replacement flush windows

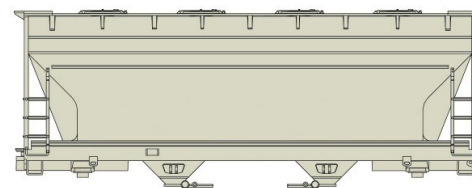
for the Atlas SW-8, and peel-and-stick wood roof walks for Intermountain boxcars and reefers. For additional information visit choochenterprises.com/Oparts3.html.

Frenchman River has an O scale kit for Poseidon Canning Company, the main building to its five-structure cannery complex. The resin cast kit consists of separate walls and



roof sections. Window and door castings and laser-cut window glazing by Tichy are included. The approximate footprint of the assembled structure is 4 x 8 inches. The roof peak is 7.6-inches tall. For additional information visit frenchmanriver.com.

HO SCALE PRODUCT NEWS



Accurail is preparing tooling for a new ACF twin-bay covered hopper. The HO scale kit is expected to be ready for release in late 2020.

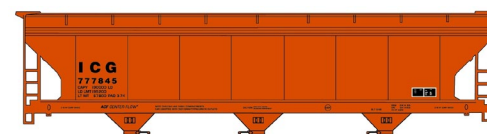


New HO scale kits just released by Accurail include this 40-foot Illinois Terminal PS-1 steel boxcar built by Pullman-Standard in July 1971.



Accurail's Louisville & Nashville 40-foot outside-braced six-panel wood boxcar has wood doors and Dreadnaught steel ends. The

HO scale kit is based on a prototype that was built in 1924.

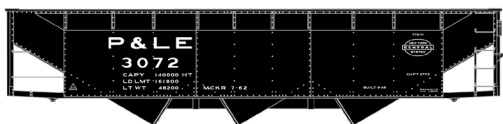


The prototype of this ACF Center-Flow triple-bay covered hopper decorated for Illinois Central Gulf was

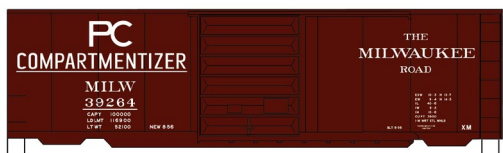
built in August 1966.



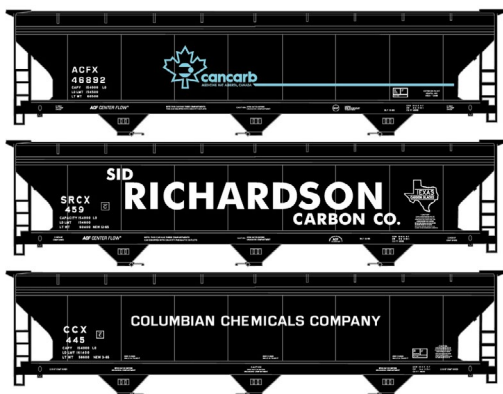
Built in 1923, the prototype of this 41-foot 11-panel steel gondola saw several decades of service on the Michigan Central Railroad.



Accurail's HO scale kit for this Pittsburgh & Lake Erie 70-ton triple-bay open hopper with offset sides is based on a prototype built in the late 1940s.



The HO scale kit for this 40-foot PS-1 boxcar follows a prototype Pullman-Standard car delivered to Milwaukee Road in August 1956.



Accurail has released a limited edition three-pack of ACF covered hoppers built in 1965 and dedicated to transporting carbon black. The trio includes ACFX Cancarb, SRCX Sid Richardson Carbon Co., and CCX-Columbian Chemicals Co.



Accurail has released a limited-run of Union Pacific 40-foot steel boxcars that represent three similar but slightly different cars. They include a class B-50-41 car built in 1938 with Youngstown sliding doors, a class A-50-19 double-door boxcar built in 1947, and a class B-50-52 built in 1959 with Pullman-Standard sliding doors.



The prototype of this Southern AAR 40-foot standard steel boxcar with Youngstown sliding steel

doors was built in March 1941. All Accurail HO scale kits include appropriate trucks and Accumate knuckle couplers. For additional information contact a dealer or visit accurail.com.

New **Athearn** products scheduled for release this month include AC4400CW, ES44DC, and Dash 9-44CW diesel units, eastern-style 4-window cabooses, 50-foot PS 5344 boxcars, 50-foot plug-door smooth side boxcars, and PS4740 covered hoppers. Contact your favorite dealer for availability.



Athearn has released information on the HO scale models it

plans to deliver in November 2020. Heading the list is a group of

Genesis EMD SD75M diesels based on former ATSF units. Spotting features on the model decorated for Santa Fe will be the turbo bulge, an early dynamic brake grille, two grab irons on the cab roof, and a Nathan 3-chime horn.



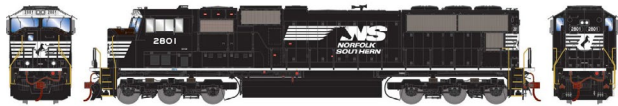
After the merger with Santa Fe, BNSF had the good sense to retain the

famous warbonnet paint scheme on many of its SD75M diesels and merely changed the initials on the sides.



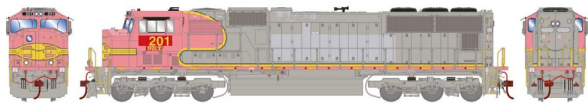
When fully repainted BNSF applied the late

Heritage Scheme to many of its refurbished SD75M units.



In addition to repainting the former ATSF and

BNSF units, Norfolk Southern changed the horn to a Nathan 5-chime model, tinted the cab windows and added a nose door with a window. Athearn's HO scale NS model reflects all of these changes.



Other than hastily applied patches, Progress Rail made

no changes to the aging SD75M diesels it purchased from BNSF.



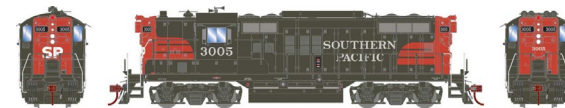
★★★★★
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R. Bale

EMD GP9 Road Switcher

In 1949, EMD introduced the GP7. The basic design followed most diesel switchers with the addition of a short hood instead of an end cab. The hoods were full height to better accommodate the diesel engine and mechanical and electrical components. In 1954 EMD upgraded the GP7 to become the 1,750 horsepower GP9. Externally, the first GP9s were virtually unchanged from the last GP7s. Later versions would include different louver arrangements and the last ones would come without the frame skirting. The GP9 was available with all of the fuel tank, steam generator, and dynamic brake options as the GP7, including torpedo tube air tanks mounted on the roof. Many railroads found it economical to rebuild their GP7s and GP9s rather than purchasing expensive new locomotives.



Also scheduled for release next November is another production run of Genesis GP9 diesel locomotives. Two Southern Pacific versions will be available including a commuter unit (above) with a steam generator, front and rear gyalights, and torpedo-style air tanks mounted on the roof.



Athearn's second SP GP9 is essentially as-delivered in the late 1950s with front and rear access doors, SP type number boards, a 2,600 gallon fuel tank, air tanks mounted under the frame, and a gyalight in the front only.



A Grand Trunk Western GP9 in Maple Leaf scheme is set up for

operation with the long nose forward. Other GTW spotting features include a barrel-shaped spark arrestor, and a ratchet-style brake stand.



Canadian-style handrails. It is otherwise equipped much like the GTW unit.

Athearn's Central Vermont GP9 has dynamic brakes and



snowplows, and dynamic brakes. Completing this release of Genesis GP9 locomotives is a Canadian Pacific Phase 1a passenger version that has footboard pilots, a Pyle-National headlight, steam generator intake, and a Peacock hand brake.

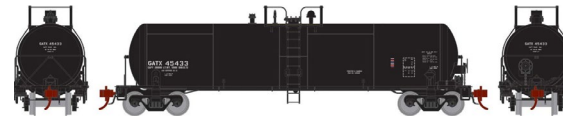
Athearn's Great Northern version is a Phase II GP9 body with



and trainline hoses, detailed cab interior, walkway tread, Celcon handrails, lift rings, wire grab irons, and fuel tanks detailed with fuel fillers, fuel gauges, and breather pipes. The GTW, CV, and GN models come with alternate lowered steps for installation by the modeler if desired.

Athearn Genesis locomotives feature an onboard DCC decoder with SoundTraxx Tsunami2 sound that functions in both DC and DCC environments. DCC-ready locomotives operate on standard DC and come with a QuickPlug 21-pin NEM connector for installation of an aftermarket decoder.

Athearn's November 2020 production schedule includes a group of GATC 20,000 gallon tank cars. Features on the HO scale Genesis



model includes roller-bearing trucks with rotating bearing caps, and either 33-inch

(70-ton) or 36-inch (100-ton) machined metal wheelsets. Road names will be GATC general service (black) with COTS & ACI, GATC general service (white), GATX Emery, GATX Service Driven (black), Alaska Railroad with FRA yellow conspicuity striping, Reagent Chemical & Research, and Relco Tank Line.



A 40-foot boxcar with Youngstown sliding doors is among the HO scale ready-to-roll models Athearn plans to

release next November. Road names will be Canadian Pacific (grain service), Baltimore & Ohio (Timesaver), New York Central (Pacemaker), Western Pacific (silver with large feather), and both silver (above) and black versions of Southern Pacific Overnight Service. Completing the decorating schemes are five versions of Great Northern.



Athearn's November release includes a 60-foot bulkhead flat car. An Illinois Central Gulf version will be available in

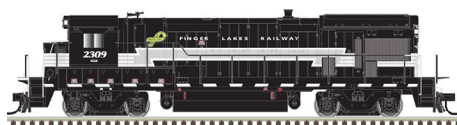
Primed for Grime with the base color faded. Additional road names will be British Columbia Railway, Burlington Northern, Burlington Northern Santa Fe, Soo Line, Union Pacific, and two Trailer Train schemes.



A 3-pack of HO scale 53-foot Stoughton containers will be available in November decorated for EMP, NACS, APL, DRT, Stax, HUB, Ferromex, USA Truck, Burlington Northern Santa Fe, JB Hunt, Schneider QuikTrax, and DART.

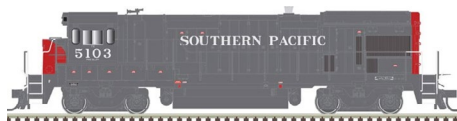


Roundhouse brand models coming from Athearn next November include a 40-foot stock car. Road names will be Canadian Pacific, Canadian National, Northern Pacific (Pig Palace), Pennsylvania Railroad, Wabash, and Union Pacific. For additional information on Athearn and Roundhouse brand products contact a dealer or visit athearn.com.



Atlas will release an HO scale GE B23-7 diesel locomotive during the third quarter of 2020. Models on this run represent

both Phase 1 prototypes built through the spring of 1979 with a 36-foot 2-inch wheelbase, and subsequent Phase 2 units that, until the fall of 1980, were built with a 37-foot 2-inch wheelbase.



Road names will include Southern, Southern Pacific, Santa Fe, Metro-North, Minnesota Commercial, Finger

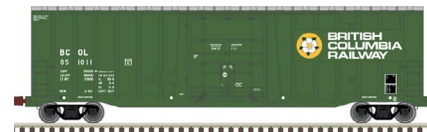
Lakes, and Conrail. Features on all schemes include windshield wipers, metal grab irons, coupler cut levers, multiple-unit hoses, snowplow, train line hoses, fine scale handrails, see-through step detail on the sill, etched metal radiator grilles, and directional lighting. Atlas will release Gold series DCC locomotives with factory installed LokSound Select Dual-Mode decoder, and Silver series locomotives for standard DC operation. Silver models have an NMRA compliant socket for installation of an aftermarket DCC decoder.

HO scale rolling stock coming from Atlas during the third quarter of 2020 includes a Master series 50-foot 6-inch plug-door boxcar



based on a prototype built by National Steel Car between 1975 and 1980. Two versions of the car were built. A 5111 cu. ft. car had ends with nine box corrugations, nine-foot plug doors, and

70-ton trucks. Atlas will offer the 5111 car decorated for Quebec Gatineau, Canadian Pacific International, Ontario Northland, and Norfolk Southern in a First Responder scheme.



The slightly larger 5277 cu. ft. version had 10 box corrugations in the ends, 10-foot plug-doors, and 100-ton trucks. Atlas' HO

scale version of the 5277 cars, which were used primarily for paper service, will be available for UNPX, Canadian National, and British Columbia Railway. The HO scale model has a suggested minimum operating radius of 22 inches.



Atlas has included a Master series 48-foot well car in its

third quarter release. Since the initial release of this HO scale model, the tooling has been reworked to improve stability and add more details to the car body. Features include correct ovals and cut-outs in the floor, two hitches, etched walkways, and four IBC bins.



In addition to the TTX pink On Track for a Cure scheme, road names will be TTX Next Load Any Road and

Maersk. The BNSF car is shown for illustrative purposes. For reliable operation Atlas recommends a minimum 24 inch radius for this HO scale car.



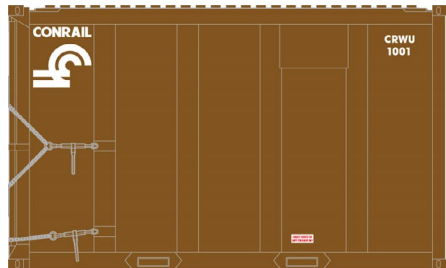
Also coming from Atlas during the third quarter of this year is a Master series ACF 5800 cu. ft. quadruple-bay covered hopper specifically designed for trans-

porting bulk plastic pellets. The HO scale model features nine full-width body panels with ten weld seams, a transverse mounted air reservoir, etched-metal roof walks, and 100-ton roller-bearing trucks with blackened metal wheels.



Road names will be ASOX-American Styrenics, DBCX-BASF, AMCX-Amoco, ETCX-Eastman Tennessee,

HPIX-Himont USA, OCPX-Oxyvinyls, TGCX-Polyone, ROIX-Shintech, and WFRX-Wells Fargo Rail. The Cargill SAMX car shown is from an earlier production run.



Atlas has included an HO scale Trainman series 20-foot high-cube MSW trash container in its third quarter release. MSW (municipal solid waste) containers differ from conventional intermodal containers in that

they are 12 feet tall and have a top lid. Each MSW container has a fire port on one side, and forklift pockets to facilitate loading/unloading. Road names will be DSEU, Southern Pacific, RSGU, OVAU, NWSX, ESIU, and undecorated.



To transport the MSW containers, Atlas will

produce an 85-foot trash flat car. The Trainman series model is based on a specialized open-deck prototype. Road names will be Conrail, Southern Pacific, RSGX, GIMX, East Coast Carbon, and Covanta.



Atlas' late summer release will include an HO scale Ford F-100 pickup truck decorated for Southern, British Columbia, Rock Island, Union Pacific, Erie

Lackawanna, Boston & Maine, Great Northern, Canadian Pacific, Chicago North Western, Delaware & Hudson, Central of New Jersey, Southern Pacific, Milwaukee Road, Chessie System, Penn Central, Canadian National, and Richmond, Fredericksburg & Potomac. For additional information on Atlas products contact a dealer or visit atlasrr.com.



Bowser is accepting reservations through January 10th for three new HO scale freight cars with delivery

planned for next fall. The ready-to-run models include a 40-foot steel boxcar based on a prototype built in the 1940s and 50s with Dreadnaught ends, running boards and full height ladders.



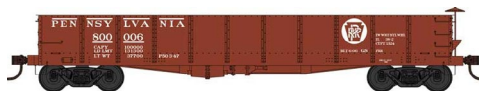
Road names will be Atlantic Coast Line, Bessemer & Lake Erie, CB&Q (pre-merger green), Canadian

National, Clinchfield Railroad, Detroit & Mackinac, Erie Lackawanna, and Great Northern with double doors.

Additional road names include Green Mountain Railroad, Illinois Central Gulf, Minneapolis & St. Louis, Northern Pacific, Santa Fe, Tennessee, Alabama & Georgia; Wellsville, Addison &



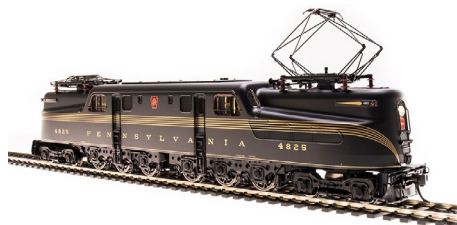
Galeton; and Nickel Plate Road. The models come with knuckle couplers and appropriate trucks with metal wheels.



A 40-foot general service steel gondola with a fish-belly frame is included in

Bowser's 2020 fall release. Road names include Grand Rapids & Indiana, Vandalia Line, Westmoreland Coal, and four Pennsylvania Railroad schemes including a yellow MOW car.

Completing Bowser's fall production schedule is a class F30a flat car. Road names for the HO scale ready-to-run model will be Conrail MOW, Lehigh Valley, Penn Central, and two Pennsylvania Railroad schemes. For additional information contact a dealer or visit bowser-trains.com.



decorated in Brunswick green with five gold pin stripes.

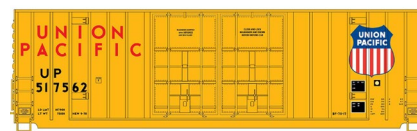
Broadway Limited is selling an HO scale version of the Pennsylvania Railroad's famous GG1 electric locomotive. PRR rostered a total of 139 GG1s with the first unit entering service in 1935. The GG1s were originally



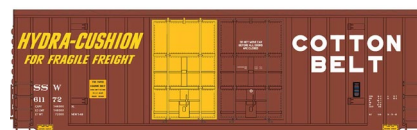
In 1952 the locomotives color was changed to Tuscan Red. In the mid-50s the pin striping was replaced with a single solid stripe and the lettering was changed to a large Roman style.

During the era of the Penn Central the GG1s were painted black and carried a large PC logo of their side. In addition to these

three liveries, Broadway Limited offers their HO scale GG1 painted but unlettered in both Brunswick green and Tuscan red. BLI's GG1 comes with Paragon3 Sound & Operation System including Rolling Thunder. For additional information contact a dealer or visit broadway-limited.com.



Intermountain is selling HO scale models of a Gunderson 50-foot high-cube boxcar with double plug doors. Models with flat roofs are available for Union Pacific, Burlington Northern, Milwaukee Road, Santa Fe (large logo), CP Rail (ex-Milw Rd), Golden West Service, and two BNSF schemes.



Cars with a peaked roof are available for D&RGW, Golden West, Southern Pacific (B-70-43R), Southern Pacific (Hydra-Cushion B-70-43), Cotton Belt (B-70-42R), and Cotton Belt (Hydra-Cushion B-70-42). Six numbers are available for each road name. The ready-to-run models come with metal knuckle couplers and appropriate trucks with metal wheelsets. For additional information contact a dealer or visit intermountain-railway.com.



Kadee has released a 50-foot PS-1 boxcar decorated for Missouri Pacific "Route of the Eagles." The HO scale ready-to-run model accurately represents a car built by Pullman-Standard in 1959. Details include 8-foot PS doors, see-through running board and brake step, a nicely detailed brake wheel with proper

curved contour, Kadee metal couplers, and self-centering plain-bearing Bettendorf-style trucks with metal wheelsets.



Also released is a PS-2 two-bay covered hopper decorated for Boston & Maine. Built in 1956, the model replicates the car new from the factory in 1957. Details

include finely detailed grab irons, ladders, stirrups, handrails and see through roof-walk and brake step. The model also comes with Kadee metal couplers and self-centering trucks. For additional information contact a dealer or visit kadee.com.

Maple Leaf Trains has announced lumber stacks and “Hamilton” park benches in HO scale.



The lumber stacks consist of laser scribed and cut .6mm plywood representing layers of 24 scale foot long 2x4 boards.

Additional individual lumber

pieces are included, and there is enough material to build two high or four low stacks.



The park benches are based on prototype benches located in Hamilton, Ontario and consist of laser cut material. An assembly jig is also included. Each kit comes with enough materials to assemble 10 park benches. For

more information on these or other Maple Leaf Products, visit www.mapleleaftrains.com.



Germany based **Modelrailroadworks** has developed a spring-loaded “easylock” drawbar for older brass steam locomotives. With it installed, engine and tender can be coupled together by moving

one towards the other until the tender pin engages the slot of the drawbar. The drawbar includes two installation holes for different coupling distances. Available as both ready-to-install and a kit, the drawbar can be ordered from info@modelrail-roadworks.de.



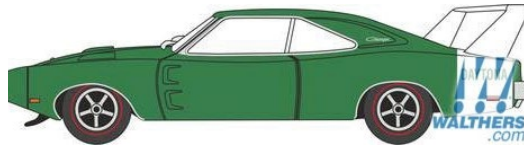
Nick & Nora Designs

has announced the Hartly Wright Sign Co. An HO scale craftsman kit, it includes laser cut clapboard, scribed and corrugated walls. Also

included are Tichy doors and windows and fully illustrated instructions. To purchase or get more information visit nickandnoradesigns.com.



New cast metal 1:87 vehicle models from **Oxford** includes a 1961 Cadillac Sedan DeVille in Nautilus Blue.



This 1969 Dodge Charger Daytona has a green body and a large white spoiler.



Oxford has released two versions of a 1946-1947 DeSoto sedan including a two-toned brown Suburban with a roof rack

and luggage, and a yellow and red taxi.



For additional information contact a dealer or visit walthers.com.



Prototype Junction is a new manufacturer of prototypically accurate injection molded HO scale freight car models. The company will offer kits as well as ready-to-run plastic models assembled

with a high degree of detail including authentic lettering and paint schemes. The inaugural project will be tall 40-foot Pratt truss single-sheathed automobile cars and boxcars based on prototypes that saw service from the 1920s into the 1960s.

Models in the initial release will include ATSF 124000-125999 Bx-11, ATSF 124000-125999 Bx-11 with 8-inch raised roof, ATSF 126000-129499 Bx-12, ATSF 126000-129499 Bx-12 with 8-inch



raised roof, ATSF 211050-214549 Bx-12 with 12-inch raised roof (above), and ATSF 135000-135999 Bx-13.

Additional models in the first release will be L&N 46000-463999 40-foot double-door auto car (above), RI 141000-142999, PM 89350-90349 40-foot double-door auto car, PM 89350-90349 40-foot single door converted from a double-door auto car, C&O 289350-290349 40-foot double-door auto car, and C&O 289350-290349 40-foot single door converted from a double-door auto car. The cars will be available as undecorated kits as well as ready-to-run models built to order. The ready-to-run models will be offered in prototypically accurate paint schemes with multiple numbers in each scheme.

The individuals behind Prototype Junction are Randy Hammill and John Drake. Hammill is a steam-era freight car enthusiast whose background includes manufacturing experience with True Line Trains (Life Like of Canada) and consultation on multiple projects with various model manufacturers. Drake is a dedicated railroad historian and a founding member and first president of the Pittsburgh & Lake Erie Historical Society. He has more than 30 years of experience as an international finance executive.

Prototype Junction will be at the Prototype Rails in Cocoa Beach, FL, January 9-11, and at the Amherst Railway Society Railroad Hobby Show in West Springfield, MA, January 26-27.

This is a crowdfunded project and will only be produced if enough pledges are made before the end of the 30-day funding period, which cannot be extended. For additional information including how and when orders can be placed visit prototypejunction.com.



Rapido has announced a second production run of New Haven 8600 series coaches. The HO scale models replicate equipment that

served as the backbone of New Haven's postwar long-haul passenger fleet. This production run will feature new car numbers and will include McGinnis cars with full skirts that were previously available only from the New Haven Railroad Historical & Technical Association.



Decorating schemes will include New Haven stainless steel, New Haven McGinnis with skirts, New Haven McGinnis without skirts (above), Penn Central, MTBA

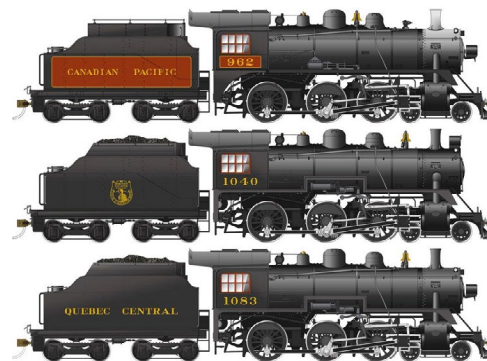
(below), and an unlettered stainless steel car.



Special features on Rapido's HO scale models include full underbody detail, operating diaphragms with end gates, separate grab irons, extensive interior details, track-powered

constant lighting, and type 41-BNO trucks with blackened metal wheelsets. The order deadline is February 10, with delivery scheduled for fall 2020.

Rapido has announced that the Canadian Pacific class D-10 4-6-0 steam locomotive project has received sufficient pre-orders to justify going forward with the final design phase including committing funds for production tooling. Road names will be as illustrated below.



Although not cancelled, Rapido has stated that the project to produce a Canadian National 4-6-0 class H-6 steam locomotive has not received enough orders to justify advancing the project. For additional information, including details on

placing a reservation for a CN H-6, contact a dealer or visit rapido-trains.com.



Resin Car Works has released an HO scale mini-kit to build an Illinois Central 40-foot Howe-truss single-sheathed boxcar. The model

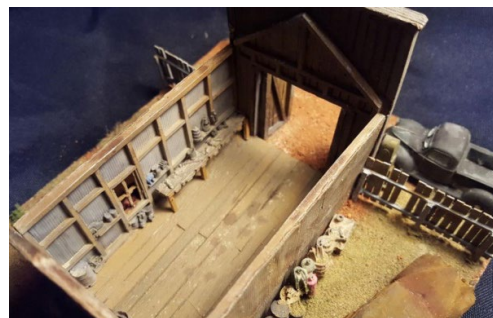
accurately portrays the 1,000 prototypes Illinois Central added to its roster in 1927. The mini-kit consists of an Accurail body and underframe, resin detail parts, Tahoe Model Works 40-ton ARA trucks with Barber lateral motion side frames, and Tichy K brake hardware. Precision Design Company decals are included for both the original 176000-series lettering and for the later 16000-series renumbering and relettering. All other parts including couplers are to be supplied by the modeler.

The 50-foot Santa Fe whale belly automobile car that Resin Car Works introduced and sold out at the recent Chicagoland RPM Meet is again available. For information on all RCW kits visit resin-carworks.com.



River Point Station has released a 2010 Ford F-550 based mini-pumper fire truck. Available in USGS (green), USCG (white), Park Service (white), two red and one yellow

paint schemes. East Coast Circuits will also be making LED lighted versions available. For more information visit www.riverpointstation.com, and www.eastcoastcircuits.com.



Rusty Rails is selling a corrugated metal work shop that can be signed and detailed to represent a variety of businesses. The interior can be accessed through the removable tin roof. Details provided with the kit include a set of work benches and a gas pump. The vehicle and fence are not included.



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Additional new HO scale resin castings from Rusty Rails include a miscellaneous pile of junk and a group of five abandoned cars. For additional information visit rustyrail.com. A free instructional video on painting resin castings is available at www.youtube.com/watch?v=oDPOMIdQ6Ic.

Tangent Scale Models has released a group of seven HO scale PS4750 triple-bay covered hopper cars. This release accurately replicates the prototype cars with solid side posts Pullman-Standard built from 1972 to 1974.



The prototype of this Chessie System/B&O car was produced in July 1973. Like the prototype, Tangent's HO scale version is equipped with a

U.S. Gypsum expanded metal running board, Portloc outlet gates, and plate-mounted ACI labels. This HO model will be available in 12 numbers.



This former Chessie car got its CSX patch in 1988.



This CSX model represents cars fully repainted and placed in service from 1989 forward. Four numbers are available for this model that has replacement roof hatches and Self-lok outlet gates.



In addition to the 1978-era Conrail patch shown here, Tangent offers this green car lettered in its original Penn Central scheme with smooth roof hatches and Morton end crossover platforms. The model is also available decorated for NAHX with ghost PC lettering.



This NAHX Garvey Elevator scheme from December 1973 completes the decorated versions of Tangent's PS4750 covered hopper car. An assembled

but undecorated model is available along with an undecorated kit. All versions of the PS4750 come with Tangent's new 100-ton Barber S-2 trucks that feature separate brake beam parts and rotating roller-bearing end caps. For additional information visit tangentscalemodels.com.



Walthers plans to unveil a new 85-foot General American G85 flat car late

this month. The HO scale model is based on a prototype built in the 1960s that handled general trailer-on-flatcar (TOFC) and container-on-flatcar (COFC) service into the late 2000s. The cars appeared in passenger consists in the 1960s hauling expedited trailers and containers.



Road names will be Santa Fe, Trailer Train GTTX, Trailer Train VTTX, Penn Central, Railway Express Agency REX, and Southern Pacific.



The Walthers Mainline series models feature a die-cast metal center sill, and 70-ton roller-bearing trucks with 33-inch machined metal wheels. Depending on the practice of the prototype road being modeled, the car will be equipped with container pedestals or positionable GATC hitches. For additional information contact a dealer or visit walthers.com.



Westerfield Models has released three new prototypically accurate HO scale resin kits based on 50-foot automobile cars Pullman built for Santa Fe in the 1920s. The Santa Fe class Fe-Q

single-sheathed automobile car (above) has a peaked metal roof, 7-5-5 corrugated steel ends, and 1-1/2 plate metal doors covering a 10-foot opening.



This otherwise identical Santa Fe class Fe-R car has a black radial roof.

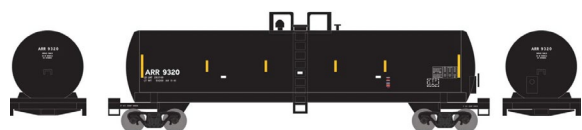


Westerfield's version of Santa Fe's class Fe-V single-sheathed automobile car has a peaked metal

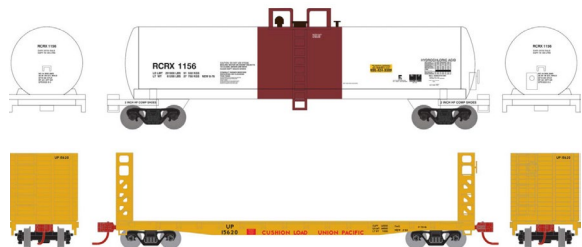
roof, 7-5-5 corrugated steel ends, and double Youngstown corrugated steel doors covering a 12-foot opening.

Features on all versions of the Santa Fe auto cars include a one-piece cast urethane body, Hi-Tech rubber air hoses, Yarmouth etched-bronze corner steps and eyebolts, and thoroughly researched proprietary decals that cover all variations of the car. Although the kits do not include trucks or couplers, they may be purchased separately from Westerfield. For additional information visit westerfieldmodels.com.

N SCALE PRODUCT NEWS

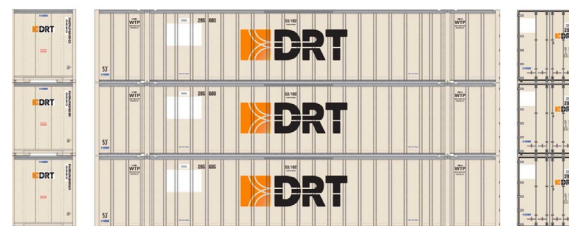


Athearn's production schedule for November 2020 includes an N scale GATC 20,000 tank car. Road names will be Alaska Railroad (above), GATX Service Driven, GATX (early scheme with COTS & ACI), GATX white, GATX Emery, Relco Tank Line, and Reagent Chemical & Research (below)



Also scheduled for release next November is an N scale 60-foot bulkhead flat car. The model will be available decorated for Illinois Central Gulf, British

Columbia Railway, Burlington Northern, Burlington Northern Santa Fe, Soo Line, Union Pacific, and Trailer Train.



A 3-pack of N scale 53-foot Stoughton containers will be available from Athearn in November. They will be decorated for EMP,

NACS, APL, DRT, Stax, HUB, Ferromex, USA Truck, Burlington Northern Santa Fe, JB Hunt, Schneider QuikTrax, and DART. For additional information contact a dealer or visit athearn.com.



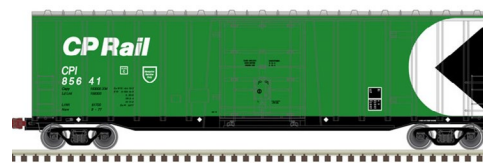
Atlas plans to release a new production run of N scale GP38-2 diesel locomotives during the third quarter of

2020. The model represents a Phase 2 version of the GP38-2 that EMD unveiled in 1972. Road names will be Southern Pacific, Rock Island (three schemes), Norfolk Southern, GMTX, Conrail, South Shore Freight, Canadian Pacific, and Alaska Railroad.



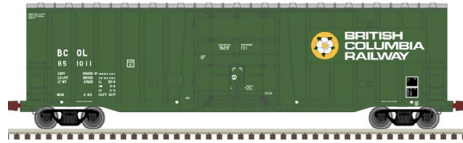
Special features on the N scale GP38-2 includes golden-white LEDs, directional lighting, uncoupling levers,

and blackened metal wheels. Atlas Master Gold editions of the model are equipped with an ESU LokSound DCC Decoder. Silver sound-ready models come with a speaker installed to aid conversion to sound with the addition of an aftermarket decoder.



N scale rolling stock coming from Atlas during the third quarter of 2020 includes a Master series 50-foot 6-inch plug-door boxcar based on

a prototype built by National Steel Car between 1975 and 1980. Two versions of the car were built. A 5111 cu. ft. car had ends with nine box corrugations, nine-foot plug doors, and 70-ton trucks. Atlas will offer the 5111 car decorated for Quebec Gatineau, Canadian Pacific International, and Ontario Northland.



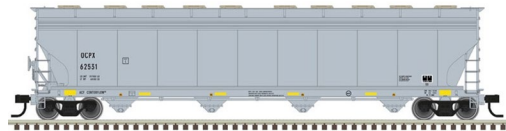
The slightly larger 5277 cu. ft. version had 10 box corrugations in the ends, 10-foot plug doors, and 100-ton trucks.

Atlas' N scale version of the 5277 cars, which were used primarily for paper service, will be available for Canadian National and British Columbia Railway.



Also coming from Atlas during the third quarter of this year is a Master series ACF 5701/5800 cu. ft. quadruple -bay covered

hopper specifically designed for transporting bulk plastic pellets. Decorating schemes will be ASOX-American Styrenics, DBCX-BASF, AMCX-Amoco, ETCX-Eastman Tennessee, HPIX-Himont USA, OCPX-Oxyvinyls, TGCX-Polyone, ROIX-Shintech, and WFRX-Wells Fargo Rail.



The N scale model features nine full-width body panels with ten weld seams, ten 20-inch roof hatches, pneu-

matic outlets, a transverse mounted air reservoir, etched-metal roof walks, and 100-ton roller-bearing trucks with blackened metal wheels.



Atlas has included an N scale 20-foot high-cube MSW trash container in its third quarter release. MSW (municipal solid waste) differ from conventional

intermodal containers in that they are 12-feet tall and have a top lid. Each MSW container has a fire port on one side, and forklift pockets to facilitate loading/unloading. Road names will be DSEU, Southern Pacific, Solid Waste Transfer, OVAU, NWSX, ESIU, and Conrail.



To transport the MSW containers, Atlas will produce an 85-foot trash flat

car. The N scale Trainman series model is based on an 85-foot open-deck prototype. Road names will be Conrail, Southern Pacific, RSGX, GIMX, East Coast Carbon, USA Waste, and Covanta.



Atlas' third quarter release includes an N scale Ford F-100 pickup truck with headlight glazing, side view mirrors, and a moveable tailgate.

The model will be available in

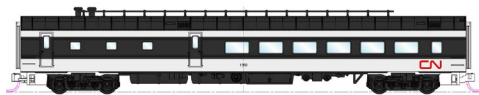
2-packs for Southern Railway, British Columbia Railway, Rock Island, Union Pacific, Erie Lackawanna, Boston & Maine, Great Northern, Canadian Pacific, Chicago North Western, Delaware & Hudson, Central of New Jersey, Southern Pacific, Milwaukee Road, Chessie System, Penn Central, Canadian National, and Richmond, Fredericksburg & Potomac.

New Atlas N scale items shipped to dealers this month include 41-foot ballast hoppers, 50-foot Sieco pulpwood flat cars, 45-foot logging flat cars, Russell snowplows, and SD50/60 and SD60E diesel locomotives. For additional information contact a dealer or visit atlasrr.com.

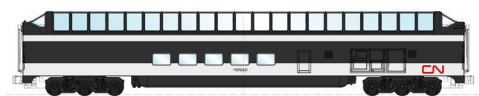
Kato's next N scale passenger car set will be the Transcontinental as operated by Canadian National Railway during the late 1960s



assemble its Transcontinental.



include a coach, baggage car, and ACF diner (left).



all acquired from Milwaukee Road. Completing the seven-car consist will be a Pullman 10-6 sleeper previously owned by the Pennsylvania Railroad (below). The set of seven N scale passenger cars will come in a bookcase style package.



F7A-B sets and the passenger cars equipped with interior lighting are scheduled to follow in June. The locomotives will be decorated in CN's black and white striped scheme and will be available in a choice of analog-DC or DCC, as well as with ESU LokSound DCC & Sound as a special-order item. For additional information contact a dealer or visit katousa.com.

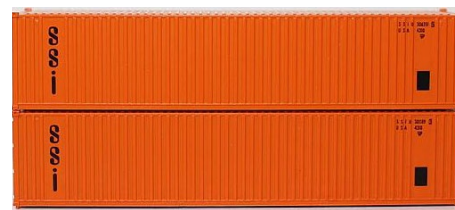
Jacksonville Terminal Company has released 40-foot standard height 3-42-3-rib X panel side containers in N scale. Containers are equipped with either a ribbed or flat style roof and multiple front and door end variations, depending on the prototype. In service from the 1970s through the 1990s, the containers are available

and 70s. Kato will follow CN's practice of using a variety of pre-owned equipment to

Ex-Union Pacific equipment in Kato's N scale

Transcontinental train will

A Super Dome (above), Pullman 10-6 sleeper, and lounge-observation car were



with the JTC Magnetic connecting system.



Also now available from JTC are 40-foot standard height smooth-side containers. Available with a variety of door, front end and roof configurations, the containers are available for NYK Line, U.S. Lines, SEATRAN, and JAPAN LINE, with NOL, K-LINE, OOCL, and MITSUI expected soon. The Inter-Box Connecting pins are located in the scale ISO locations and the containers are equipped with the JTC Magnetic connecting system. For more information visit jtcmodeltrains.com.



with a pair of PRR keystone heralds. The heavyweight steel car comes with six-wheel trucks.



Also new is a Southern Pacific ACF 4650 cu. ft. triple-bay covered hopper that received a Union Pacific herald following the merger of the two western railroads in 1998. Micro-Trains N scale version comes with Barber roller-bearing trucks.



Micro-Trains is selling this 39-foot single dome 8,000-gallon tank car that was built in the mid-1930s and was later decorated by Cosden

Petroleum to commemorate the attack on Pearl Harbor, Hawaii.



This N scale model from Micro-Trains represents a 50-foot PS1 boxcar with an 8-foot plug-door built by Pullman-Standard for Chicago

& North Western in 1966. The prototype featured a cushioned underframe. For additional information on Micro-Trains Line products contact a dealer.



ScaleTrains.com has announced a June delivery date for a new production run of N scale PS-4785

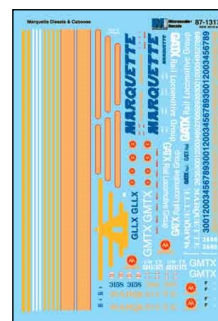
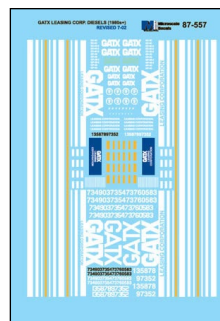
covered hoppers. Road names are Penn Central, New York Central, Norfolk Southern, and Milwaukee Road.



The Rivet Counter series model features photo-etched stainless-steel see-through Apex slotted roof walks and

end crossover platforms, plus several road specific details such as trough or individual roof hatches, and variations in the end-cage support. For additional information visit scaletrains.com.

NEW DECALS, SIGNS AND FINISHING PRODUCTS



Microscale has released water slide decals for GATX Leasing diesels (above left) that reflect accurate decorating schemes from 1989 forward. A similar lettering set is available for GATX Capital Corp diesels for 1980 forward. Also new from Microscale is a

decal lettering set for GATX Rail Locomotive Group circa 2000 forward (above right), and Marquette Rail locomotives and caboose. For additional information contact a dealer or visit microscale.com.



TIME FOR A SCALE CHANGE?
JEREMY DUMMLER talks about when it's time to finally change to modeling a larger scale.

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The Amherst Railway Society Railroad Hobby Show

Our 2020 Show will be

January 25 & 26, 2020

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! BRIEFLY NOTED AT PRESS TIME ...

Chris Lane, Sr. has announced the availability of the **14th HOn3 Annual**. The 116 page book is available from dealers or online at shop.whiteriverproductions.com ...

New HO scale items coming from **Walthers** include a Mainline series GP9 Phase II diesel locomotive with a high hood, and a Proto series 50-foot Canadian Car & Foundry bulkhead flat car. Also on the way are a Mainline 60-foot NSC 5150 triple-bay covered hopper, more UPS vehicles, and several N scale structures. Watch for full details and illustrations next month ...

Wiseman Model Services has established a new, easy to use web site. It may be accessed at www.wisemanmodelservices.com ...

Following the sales success of the N scale TurboTrain, **Rapido** will produce an HO version of the Rohr Turboliner if sufficient reservations are received by March 17, 2020. Details are available at rapidotrains.com/products/ho-scale/diesel-locomotives/ho-scale-rohr-turboliner. Also announced were an F59PH and MLW M420 in HO scale.



REPOWERING F1 A & B SET
BART HOLLIS repowers a set of two F1 A & B diesel locos.

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SELECTED EVENTS



Model Railroad Hobbyist | January 2020

JANUARY 2020

(Many events charge a fee. Check individual info website for details.)

CANADA, ONTARIO, PARIS, January 19, Paris Junction Model Train Show at Paris Fairgrounds, 139 Silver Street. Info at www.facebook.com/events/paris-fairgrounds/paris-junction-model-train-show/537835057060810.

COLORADO, COLORADO SPRINGS, January 11-12, TECO-Train Expo Colorado, at Chapel Hills Mall Event Center, 1710 Briargate Blvd. Info at tecoshow.org.

FLORIDA, COCOA BEACH, January 9-11, 2020, Prototype Rails, at Cocoa Beach Hilton Oceanfront, 1550 North Atlantic Avenue. Info at www.prototype Rails.com.

INDIANA, NOBLESVILLE, January 26, Train Show, hosted by NMRA Central Indiana Division, at Avon Town Hall, 750 E. US Highway 36. Info at www.cidnmra.org/services.

MARYLAND, BALTMORE, January 12, Wonderland Express, at One Charles Center, sponsored by Center Plaza Foundation and Baltimore Society of Model Engineers. Info at www.modelengineers.com/visit-us.html.

MICHIGAN, GRAND RAPIDS, January 4, Trains at The Showplace at 4 Mile Showplace, 1025 4 Mile Rd NW. Information at www.grmrhs.org/special-events.

SELECTED EVENTS | 2

February 2020, by location

KANSAS, WICHITA, February 1-2, Train Show & Swap Meet at Cessna Activity Center, 2744 George Washington Blvd. Request info from Phil at aylward1@cox.net.

SOUTH CAROLINA, EASLEY, February 7-8, Great CRMHA Model Train Expo hosted by Central Railway Museum at Rock Springs Church Impact Center. Request info from John Johnston at jwjohnston@crmha.org.

WEST VIRGINIA, St. ALBANS, February 22-23, Model Train & Craft Show sponsored by Kanawha Valley Railroad Association, at The Event Center, 6400 MacCorkle Avenue S.W. Info at kvrail-road.org.

WISCONSIN, MADISON, February 15-16, Mad City Model Railroad Show & Sale, hosted by NMRA South Central Wisconsin Division at Exhibition Hall, Alliant Energy Center. Info at nmra-scwd.org.

WISCONSIN, STEPHENS POINT, February 1-2, 23rd Annual Model Railroad Show, sponsored by Central Wisconsin Model Railroaders at Holiday Inn Convention Center Hotel, 1001 Amber Avenue. Request info from Jim Miller at jimb67@gmail.com.

Future 2020, by location

AUSTRALIA, SYDNEY, ROSEHILL NSW, June 5-9, 34th National Model Rail Convention, Info at mrhmag.com/sites/model-railroad-hobbyist.com/files/webform/news/convention_flyer_5-jpeg.jpg.

CANADA, BRITISH COLUMBIA, BURNABY, May 22-24, 2020, 5th Annual Railway Modellers Meet of BC, sponsored by Burnaby Railway Modellers at Simon Fraser University's Burnaby campus. Info at www.railwaymodellersmeetofbc.ca.

SELECTED EVENTS | 3

NEW ZEALAND, CHRISTCHURCH, April 10-13, National Model Railroad Convention. Info at www.modelrailcon.co.nz.

NEW ZEALAND, DUNEDIN, MOSGIEL, May 9-10, Model Train Show at Taieri Bowling Club, 12 Wickliffe Street. Request info from Trevor Buchanan at dunedinmodeltrainshow@gmail.com.

CALIFORNIA, OCEANSIDE, April 11, Train Show & Swap Meet sponsored by North County Model Railroad Society at Heritage Park. Info at swapinfo@ncmrs.org.

CALIFORNIA, REDLANDS, March 28-April 5, Train Days 2020, sponsored by N-Land Pacific, at San Bernardino County Museum, 2024 Orange Tree Lane. Request info from Chuck Coker at chuck@ix23.com.

FLORIDA, SARASOTA, March 21-22, 43rd Annual Real Rail Train Show at Bradenton Convention Center, 1 Haben Blvd, Palmetto. Request info from David Fontaine at davidf34205@yahoo.com.

FLORIDA, TALLAHASSEE, June 29, 26th Annual Model Railroad Show & Sale at Forth Florida Fairgrounds. Info at www.facebook.com/events/564525630749478.

ILLINOIS, EAST PEORIA, May 14-17, NMRA Midwest Region Convention, at Holiday Inn, 101 Holiday Street. Info at www.peo-riarocket2020.org.

INDIANA, INDIANAPOLIS, March 7, Train Show sponsored by Naptown & White River Model Railroad Club at Emmerich Manual High School, 2405 South Madison Avenue. Info at nap-townrr.org.

KENTUCKY, LOUISVILLE, March 21, NMRA Division 8 Mid-Central Region Train Show and Sale, at Holy Family Parish Saffin Center, 3938 Poplar Level Road. Info at mrhmag.com/sites/model-railroad-hobbyist.com/files/webform/news/2020.03.21_tss_news_release.pdf.

SELECTED EVENTS | 4

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.

MISSOURI, ST. CHARLES (METRO ST. LOUIS), September 2-5, 40th National Narrow Gauge Convention, St. Charles Convention Center/Embassy Suites Hotel. Info at www.40nngc.com.

NEW YORK, ROCHESTER, March 7-8, Open House sponsored by Rochester Model Railroad Club at 120 South Clinton Avenue. Info at RocMRRC.com.

OHIO, GREENVILLE, March 1, Swap Meet sponsored by Darke County Model Railroad Club at Darke County Fairgrounds Youth Building, 800 Sweltzer Street. Info at mrhmag.com/sites/model-railroad-hobbyist.com/files/webform/news/2020dcmrr_swap_meet.jpeg.

OREGON, EUGENE, April 21-24, Make Tracks to Eugene in 2020 PNR Convention. At Valley River Inn, 1000 Valley River Way. Info at maketrackstoeugene.com.

OREGON, PORTLAND, March 14, Swap Meet sponsored by Willamette Model Railroad Club at W.D. Jackson Armory, 6255 NE Cornfoot Road. Request info from Brigg Franklin at wmrc-swapmeet@gmail.com.

PENNSYLVANIA, MALVERN (Valley Forge), March 26-29 2020, Railroad Prototype Modelers Meet, at Desmond Hotel. Info at rpmvalleyforge.com.

TENNESSEE, NASHVILLE, May 31-June 6, National Garden Railway Convention, at Gaylord Opryland Resort. Info at ngrc2020.com.

VERMONT, ST. ALBANS, March 14, Vermont Rails Model Railroad Show at Collins Perley Sports & Fitness Center, sponsored by the Northwestern Vermont Model Railroad Association. Info at www.nwvrailroad.org.

Beyond 2020, by date

CALIFORNIA, SANTA CLARA, 2021 NMRA National Convention and National Train Show.

ENGLAND, BIRMINGHAM, August 14 - 21, 2022 NMRA National Convention and National Train Show. www.nmra2022uk.org. ■

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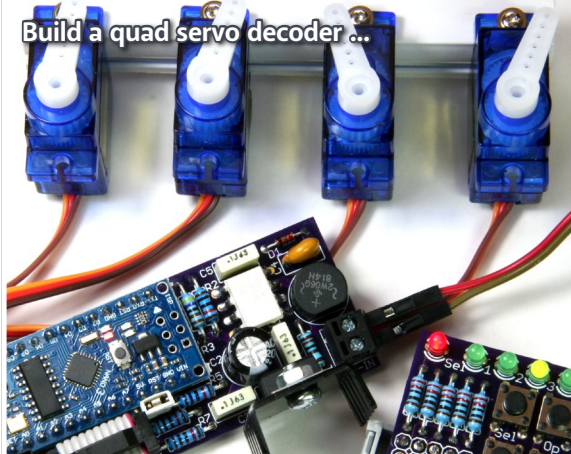
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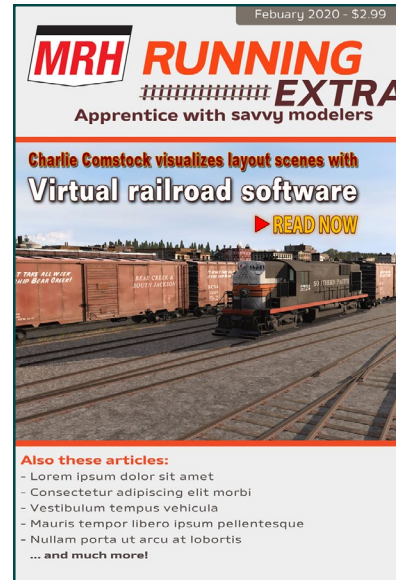
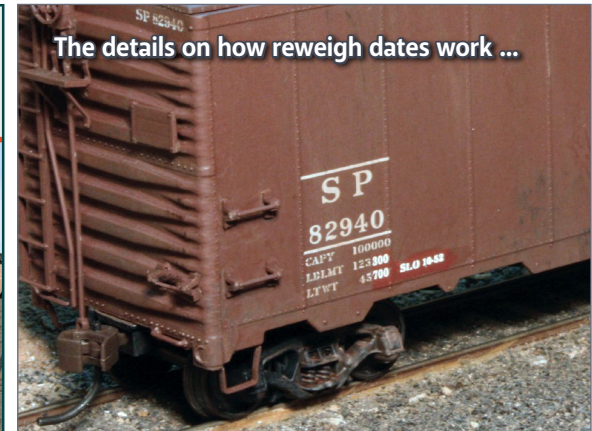
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