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70 Observations – Joe Giannovario
Like many model railroaders, I got my start with a Lionel trainset Dad gave me for Christmas in the late 1940s. One day, while riding my bike, I passed by a local hobby shop and spotted a bunch of tiny railroad dioramas in the shop window. Each was just 9" x 9", built on a little square plywood base as I recall. One close look at these magical little scenes and I was hooked. I mean hook, line, and sinker. I dove into HO with a passion that lasted for many years. In the 1970s my layout, The Oriana Bay Connecting RR, was featured in MR, RMC, and other publications. While I loved HO, I felt it was missing something, but I didn't know what. So I dabbled in Z Scale for awhile. It was really cute and novel, but it was way too small. I tried G, but it was too big. I finally settled on O Scale 2-Rail in the late 1990s. It had the heft I missed in HO, and the size was "just right."

My first O Scale layout wasn't really a layout at all. It was an experiment to find out if one could build an O Scale layout in a small space and still manage to get some operation and "railroad-y" feeling into it. I built a 3' x 6' open-frame layout with 3' x 4' wings, hinged at each end so they folded down when not in use. The whole affair sat 52" above the floor on rubber wheels. It could be folded down to 3' x 6' and rolled into a corner of my garage. When open, the layout was 3' x 14'. I was surprised at how much O Scale I was able to squeeze into that space. I developed my own techniques for integrating my backgrounds and other elements into the layout scheme to create the illusion of a much larger railroad. I worked on that experiment for several years just to "get my legs" in O, thinking I would make all my mistakes there, and then build myself a mistake-free layout. Ha!

I have to admit I was somewhat disappointed by the paucity of items available when I began shopping for what I wanted in O Scale. HO and N Scalers, those lucky ducks, can find almost anything their tiny hearts desire (and with considerably less damage to the wallet)! Much of what I wanted had to be scratchbuilt, searched out, or kitbashed. Oh well, that's part of the challenge, right?

In 2003, we moved from Northern California back down to the Ironbound Railroad by Andy Romano photos by the author

A GE depressed-center flat carries a transformer, headed for the Port Newark docks. It's an old All-Nation kit, modified with extended ends to ride on Buckeye six-wheel trucks. The transformer load was made from an old toothpaste pump and "junk". (Photo location #4 on the trackplan)

The Jersey Central's "Baby-face" awaits servicing at the Ironbound Diesel facilities at Jersey City. This unit was semi-scratchbuilt, as was the sanding facility. The CNJ DR-4-4-15's couldn't MU with other model Diesels, so they work alone on the Ironbound. The background looks across Hudson River at the midtown Manhattan skyline. (Photo location #10)
Prototype-wise, I really like the feeling of the CNJ in the cluttered, grimy, industrial areas of Newark, New Jersey, the city of my birth. The CNJ was called “The Big Little Railroad”. That’s exactly what I wanted, a small O Scale layout that gives the illusion of a larger railroad. I just had to have certain “big railroad” elements on my small layout, such as an engine yard with a roundhouse, turntable and sanding facilities, a water scene with a heavy steel bridge, a big city feeling, a heavy industrial area with tight clearances, a passenger station, and so forth. All these elements usually require lots of space, the one commodity that I didn’t have. I devised ways to “squeeze” these elements into the Ironbound. As an example, I used a small HO Scale turntable pit with a cut-down O Scale bridge just large enough for a medium-size Diesel or our 4-6-0 Camelback. The roundhouse, which would normally fill an entire corner of any layout, is a radically modified and squeezed Atlas model. The “squeezing” technique seems to work fine, particularly since the squeezing is usually only necessary in one or two dimensions of a structure, the depth, sometimes the depth and width, but never the height.

Truth be told, I find more enjoyment in creating and detailing “railroad-y” scenes, and photographing them, than I do in operating. Perhaps this is due to the influence of those magical Southern California to be closer to our now-grown children. I decided it was now or never. I designed The Ironbound RR as a shelf layout around three walls of our new two-car garage. We only park one vehicle in the garage, so I wasn’t super-restricted on the shelf depth on the two side walls. The accompanying plan shows the dimensions. The Ironbound (that’s a nickname for my Newark & Elizabethport RR) uses typical open-frame construction of 1x4 knot-free pine fastened with screws. The wall side of the frames sits on steel “L” braces screwed into the wall studs, while the outside edges of the frame stand on legs made of two 1x4 boards screwed together to form “L’s”. These are fastened to the many corners of the layout frame. Strand board is screwed to the frame in flat areas of the layout. This construction is relatively lightweight, cost-efficient, and can hold a tremendous amount of weight. The strand board acts as the sub-roadbed for Vinyl-Bed roadbed, laid upon carpenter’s caulk-type adhesive. A mix of Atlas and Old Pullman track, in two weights (heavier for the mains and lighter for the yards), was employed.

A favorite hang-out for local teens is the corner soda-fountain and drug store in old East Newark. One of the local girls furtively glances out the window, probably awaiting someone her dad doesn’t want her to see. Lighting is a major factor in making a scene draw the eye and tickle the viewer’s imagination. (Photo location #2)

The PRR branch passes behind the Ironbound’s East Newark Station, while the CNJ’s line to Newark’s Broad Street Station passes underneath, just to the right in this yet-to-be-completed scene. The station is a modified Berkshire Valley kit with an extended umbrella platform added. (Photo location #1)
O Scale 2-Rail shelf layout built in a garage. Center is left open for parking.

1 grid square = 1 foot

Vito Piancone takes a break from the hot ovens to get some fresh air and “bend ears” with neighbors. Cops don’t have to go far for the best pizza in Newark. The New Jersey State Police are here this evening; pizza pick-up no doubt? (Photo location #2)

Gilroy’s Warehouse #3 is a long semi-flat structure kit squeezed into a tight space behind a scrapyard and refinery mural, perfect for easing the foreground into the background. Rust unifies the color palette used on the layout, providing theme and character. (Photo location #3)

THE IRONBOUND RR

Drawn for O Scale Trains by Carey Hinch

1 E. Newark Station
2 Town of East Newark
3 Scrap yard
4 Industrial yard
5 Interchange track
6 Rwy Express depot/station
7 Dutch Boy Paints
8 Kearny Steel Fabricator
9 Yard Tower
10 Engine Yard
11 Warehouse
12 PRR electrified line
13 Chemical factory
14 Sand, water, fuel
15 Fuel depot

Two-section drawbridge

Covered Tracks

Elevated Section

Ramp joining upper and lower lines

O Scale 2-Rail shelf layout built in a garage. Center is left open for parking.

1 grid square = 1 foot
little HO dioramas I saw so many years ago. We live in a small town with few model railroaders in the area, so I had limited operating plans. This, coupled with my hatred of rail cleaning, energized me to try “on-board” battery powered DC with wireless control. An RCS system is being tested and evaluated at the present. The advantages are many, however one must also be aware of the disadvantages if one is considering this type of power. That’s a subject for another day, though.

In terms of operations, the Ironbound receives loaded freight cars in a small interchange yard from the Pennsylvania’s freight line running through the Ironbound section of Newark. We have our eye on a big PENNSY GG1 to improve the illusion of this service. This will mean we have to electrify the upper line. More poles and wires to squeeze in. Cool!

The name “Ironbound” derives from an actual industrial section of Newark, surrounded on four sides by the high-iron of the Pennsy, Lehigh Valley, and Jersey Central. My Ironbound RR crew shuffles the interchanged freight cars in the receiving yard, getting them lined up for local delivery to industries along the line. There is a steep grade from the PRR interchange yard down to the Ironbound main, so either our heavy SD9 or SW “Cow & Calf” units handle this run. Proceeding on the lower mainline, the freight cars are dropped off at their respective destinations, with the large industrial area being the final area of activity for these drops. Usually the SD9 will drop the final cut of cars on a yard lead in the industrial section, run around the train, return to town, and park on a siding in East Newark where the crew will take a lunch-break at one of the nearby beaneries.

A small GE 45-tonner, dedicated to the industrial yard, distributes incoming freight cars. The sidings are short and sharply curved, making it impossible for an SD9 to negotiate them. The 45-tonner will then stack outbound cars in that same yard leg. This requires many moves, keeping the operation spicy and challenging. After lunch, the SD9 crew returns to pick up outbound empties and loads, and hauls them back up the steep ramp to the Pennsy interchange yard. So goes the daily routine.

We don’t use schedules, cards, or other devices. A cut of cars is randomly assembled and rolled into the interchange yard. Each type of car suggests its own destination. They are shuffled and the challenge is to figure out how to deliver them in the smallest number of moves, especially in that tight industrial yard. A gondola full of scrap metal goes to Debski & Sons Scrap Metals, a tank car goes to Dutch Boy Paints, boxcars to the huge Schmid Warehouse; you get the idea.

The monkey wrench in the gears is that provision must also be made to allow our maintenance-of-way trains access to yard trackage which takes a daily pounding. The Ironbound is still using 39' lengths of rail with joints that produce nice clickety-clacks. Of course we don’t use real 39’ lengths; we file faux “joints” in the tops of the rails every 39’ or so. Whatever contributes to the illusion is a good thing. That’s our philosophy. Scheduled passenger service is available to our area factory workers. This is provided by the CNJ, which has running rights over the Ironbound. Normally, a single Jersey Central RDC unit suffices for the few regular daily commuters, but occasionally a couple of old CNJ heavyweight coaches are called into service behind an Alco RS3.
The SD9 is a Max Gray brass model, which I re-motored with one of Jerry Snow’s slow-speed geared motors. This unit now runs like a Swiss watch, and can be throttled down to a crawl even under heavy load. It’s a joy to run her up or down that long ramp with a heavy load. Eventually, every engine on the Ironbound will receive slow-speed gearing, since they are restricted to maximum speed of 25 mph.

If there is one thing I really miss from my HO days, it is old Hobbytown “Centri-clutch” drives. These were basically centrifugal transmissions, which had many advantages over transistor-throttle “electronically manufactured” coasting and other effects. I installed them in all my HO engines. Even when lashing-up engines with different gearing, the clutches would automatically compensate so they all ran in perfect synch. At high speed you could cut the power completely and, with their heavy flywheels, these girls would coast for five to ten engine-lengths. You could also have the engines remain stationary with the motors running, idling just like the real thing. Then you’d rev them up and they’d start a train at a snail’s pace. What a kick they were. Hey, O Scale after-market manufacturers, take note! Drop-in upgrade mechanical clutch transmissions are where it’s at! If you haven’t ever tried one, readers, I guarantee your eyes will go wide and you’ll grin like a ten-year-old the first time you do.

I feel we have squeezed an awful lot of O Scale into our relatively small space, and we are still squeezing! I have a number of unopened structure kits and such, just waiting to be built. There is no more space available for them to fit as is, so I will use my “squeezing” and weathering techniques to shoehorn them into the layout. Manufacturers won’t recognize their own models by the time I’m done, but there they’ll be in all their compressed and grimy glory!

So, that’s the story of the Ironbound so far. There’s still a lot of detailing and developing to do. I guess you could say (next to my wife, Jeanne of course) the Ironbound is my “main squeeze.”

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Ahhhh, civility. I'm sitting here in the library, a snifter on the end-table, pipe in hand, and cat in lap, comfortably reflecting back on the track and benchwork exercise now completed (The scars are pretty well healed now, thank you.) Sure, there are some tweaks here and there, but I have a good handle on the locations and purpose for each feature, and they are actually in place, wired, and under wheel. I'm also thinking of all the less-than-stellar features I had incorporated in railroads-past, and decided not to incorporate in railroad-present. Here are a few, in case you want to think about them, too. Before you ignore this sage commentary, I fully support the idea that you're free to add them if you wish. Of course, I will now feel free to tell you, "I told you so!" because I wrote this all down.

**Turnout Location**

I was very careful about turnout placement on this iteration. In several previous railroads, I let prototype scenes dictate the turnout and track locations as a priority. That was fine, except where a turnout ended up in a constrained location. Switches are the primary trouble source in trackwork maintenance, so this version has them out in front of God and everyone. I thought about turnouts within the context of this rule of thumb. If you can't reach it to work the points with a groundthrow, you can't reach it to fix it, either. You might want to consider moving the fool thing somewhere more accessible, just so you can fix it when it breaks. The turnout you can't reach is the one that will cause trouble first (Eschbach's Corollary to Scace's Third Law). You're back? You're done! Good.

**Reverse Curves**

They look so cool, and cause so much trouble. Two abodes ago, I had this absolutely lovely three-track super-elevated reverse curve, reminiscent of the B&A trackage climbing out of Pittsfield up to Washington Summit. I designed it in and it certainly looked, well, curvaceous. It also caused me the most pain of any feature on that railroad. If you have to have a reverse curve, make sure you allow enough room between the curves for a tangent (straight piece) equal to the length of your longest car. I didn't, and I ended up having to increase the lateral of the draftgear boxes so passenger cars would go through the fool thing. They looked ridiculous, even in success, so the magic was lost.

Remember that a crossover on a double-tracked main, or a switch between single-track and parallel double-track, constitutes a reverse curve. Here, because you are constrained to the standard spacing between track centers (usually 4-1/4” or so) for the width of the form, salvation comes in the form of loooong turnouts. Use the longest car in between them. (How I’d love to see MRC marry the eight-amp guts of the Powerstation with the Controlmaster front end and make a stronger version, especially when folks are running three unit Diesels with China drives in cab control nowadays. That's six loaded motors summed up real quick-like!) Add to the list some power supplies for scenic lighting, "button" supplies for stationary sound and some Miller Engineering neon signs, soldering irons, hot glue guns, the chargers for my DeWalt and a Dremel, and it doesn't take long before there's no place to plug in the coffee pot. I still didn't plan on enough outlets.

**Insulated Joints**

Don't merely leave gaps in the rail when you're gapping the rail. Take the time to physically insulate them with something, whether it's a commercial rail insulator, a piece of styrene or business card CA'd into the gap, or whatever your preferred method might be. Put this magazine down right now and go do this, if you haven't already. Fill the space with something, because the most invisible gap in the most inaccessible place will close first (Eschbach's Corollary to Scace's Third Law). You're back? You're done! Good.

**Hidden Trackage**

I've come to loathe hidden trackage, but for most of us it's a necessary evil. I'm sure I'll catch the most flak from these snippets of questionable wisdom, but here they are, anyway. If you don't need hidden trackage, don't build it. If you want the next traditional off-scene staging areas, go ahead and call 'em advance yards and build them on-scene, just so you can get to them to fix them, if nothing else. If you really have to hide trackage, at least keep the throst and ladders out in the sunshine, so you can maintain the turnouts. If you absolutely have to have completely hidden staging trackage, have a twenty-year-old friend with a hard head on hand to weave his/her way into the benchwork to fix that turnout we talked about in Scace's Third Law. That's where you'll find it.

Let's go Exploring!
On The Level

I like shelf-style layouts. They’re easy to build; things are easy to reach and maintain. The focus tends to be on the right-of-way and the trains, and you can pack plenty of useful storage underneath. Yes, shelf-style layout designs have a lot going for them. There are a few drawbacks though. The main one is that, like the shelves they’re named after, these types of layouts often tend to be, well, flat. It becomes too easy to put everything (all the tracks, scenery, buildings, etc.) on the same level, and this can get visually boring.

If you study prototype railroads, you’ll soon notice the secondary tracks, yards, and sidings are at many different levels or elevations from the mainline. The primary reason that all attempts are made to have main tracks higher than secondaries (if practical) is simply one of safety. Since cars are spotted and left unattended on secondary trackage, it helps them to stay off the mains (by accident or vandal’s design) where locomotives operate if they have to roll uphill to the fouling point. Proper drainage is another important consideration, as well as the conservation of roadbed and ballast material. In many areas, railroad tracks will be built on a low fill to raise them above the surrounding terrain. This is seldom modeled on our layouts. When it is, a high degree of realism is added to the scene. Doing so also allows for the changes in level for passing sidings and spur tracks to drop down off the main, adding a nice touch of visual interest to an otherwise common scene.

Photo 1 shows a prototype example from Connersville, Indiana. The sidetrack dropping down is the “Pole Track”, where the local utility company receives shipments of replacement line poles. As you’ll notice, the secondary track drops down quickly and rather abruptly from the main. Photos 2 and 3 show the beginnings of my interpretation of this scene on the Indiana & Whitewater.

This change in elevation was easy to accomplish. I simply took a length of my roadbed material and filed a gentle taper into it with a wood-rasp, followed by some 80-grit sandpaper to smooth things out. A tapering jig on a table saw would make very short work of this, as well. Then, I just laid ties and rail as usual. Admittedly, the transitions at the top and bottom of the grade change may be a bit severe, but then so it was on the prototype. As it turns out, my equipment goes up and down with nary a hitch.

You’ll notice I modeled a wooden retaining wall to help hold back the fill of the higher tracks, since my siding is closer to the main than on the prototype. There’s nothing complex here, just some extra crossties glued in place and suitably weathered. Though not seen, I also added some upright timber posts and a couple of short sections of rail to help hold things in place. Final detailing will include some new and used utility poles lying around, the cribbing used to hold them off the ground, and the racks used for sorting poles by size and grade. Once again, little details like these add up quickly, giving that extra bit of realism that may be hard to articulate but noticed nonetheless.

Best regards,

Mike
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#18505 $119.95

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**Junior’s Shiner**

Down by the tracks is the location for this early mobile home fit for any time from the 1930’s to the present. The nickname “shiner” came from the unpainted aluminum siding used on many of the early models.

It is a laser-cut kit featuring styrene sides and a wood core. Included are venetian blinds, color awning, and oil tank. Footprint, without awning, is a scale 29’ x 10’.

#17405 $49.95

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**McCabe Drying Kiln and Tramway & Storage Yard**

The McCabe Lumber Co. Series Tramway (above right) connects the Slatyfork Sawmill to the storage yard, drying kiln, and planing shed. It is a key feature of the complex. In this kit are the eight drying platforms, cart turntable, single and double track tramways, and the loading docks. Also now available is the Drying Kiln, shown at the left above.

This kit consists of laser-cut basswood, plywood, detail castings, and a very complex appearance. However, the well-engineered construction provides fast and easy assembly. Weathered code 70 rail and spikes are part of this kit, as are the laser-cut spike holes! And in the box are hundreds of pieces of pre-cut lumber for stacking in the yard. If the Drying Kiln (#18230) is to be included in your complex, it will be easier to build the kiln and the tramway at the same time.

The footprint of the Tramway and Storage Yard is about 100’ x 110’.

The footprint of the Drying Kiln is about 33’ x 50’ including 13’ of deck on the front. And because of our engineering, it can be assembled in one of several different positions to better fit your layout. HO model shown; some details may vary between scales. It is a limited edition kit.

<table>
<thead>
<tr>
<th>Product</th>
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<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Tramway &amp; Storage Yard</td>
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<td>$199.95</td>
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<td>Drying Kiln</td>
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Our saga continues in this issue with Part Two of “A Tale of Two Rail & Tie Cars”. In the last issue I covered the construction, in basswood, of a Jack Work rail and tie car. Jack’s original HO article ran in the October, 1968, issue of Model Railroader as one of the popular “Dollar Car” articles. In Part Two, I’ll show you how to build a more modern rail and tie car in styrene. I based this car on an article by Merk Hobson that ran in the December, 1953, issue of Model Railroader.

Merk based his HO car on a CB&Q prototype. Back in the early fifties, while walking through the CB&Q yards in Lincoln, Nebraska, Merk spotted a rail and tie car parked in an idle work train. Strolling through a rail yard with camera in hand today would be a rare, if not impossible, luxury. Luckily for us, Merk shot pictures of the Burlington car and MR included them in the article. Merk closely followed the prototype, which I also did with my O Scale car. It’s actually a simple styrene project, consisting of scratchbuilding a tie carrier, plus adding details to an existing flatcar. I’m sure the Burlington shops did it the same way, adding a shop-built wood-framed tie carrier to a flatcar no longer suitable for interchange service. My drawing of the tie carrier is shown in Figure 1 Page 16.

For my project, I chose a Red Caboose flatcar kit (in CNW livery) I had on hand. Other flats are available. AHM 40’ flats, though no longer produced, are still plentifully available at swap meets and on Ebay. Weaver just released a new 40’ flat. Smoky Mountain may still have some of their resin-cast 40’ cars available. A 53’ flat could also be used and are available from Berkshire Valley, Chooch, and Weaver. Whatever flatcar you choose, be sure to adjust the tie carrier post centers to match your flatcar’s stake pocket centers. The tie carrier post centers on my drawing match the Red Caboose flat. Other flats will have different stake pocket centers.

I began construction with the tie carrier side- and end-walls. To ensure uniform board and post lengths, I cut both on a NWSL Chopper with a stop. The horizontal 0.040” x 3/16” side- and end-boards were then pinned down over the drawing (which I covered with waxed paper). The posts were pinned down over the boards. With a small brush I flowed Testors liquid cement into each board-post juncture to hold everything in place. The sides and ends look delicate, but they are actually quite sturdy. Due to the irregular centers of the Red Caboose stake pockets, the two tie carrier sides must be mirror images of each other. I oiled my drawing copy and turned it over just like I did when I built the Jack Work cabin sides. The tie carrier ends are identical.

To replicate the carriage bolts that hold the boards to the posts, I drilled #77 holes at the board-to-post junctions and installed Tichy 0.030” rivets. By drilling all the way through each post and board, and then gently enlarging the interior holes to 0.030”, I was able to add Grandt Line nut/bolt/washer castings to the interior faces of the sides and ends. This is a neat, noticeable, and appreciated bit of detail.

On the prototype, the tie carrier floorboards rest on cross-members supported by right angle wrought iron angles. I made up my angles, ten were required, from Detail Associates 0.015” x 0.060” brass strip. Each leg is 3/16” long. They are positioned on the posts per the drawing and attached with CA glue. It’s easier to add these angles before you assemble the four tie carrier walls. With the walls still unassembled, I added the grabs at both ends of the car. Protruding grab ends on the interior faces of the ends are nipped off and filed flat. The tie carrier walls are ready to assemble.

A Tale of Two Rail & Tie Cars
Part Two
By Tom Houle
Alternate rail stop
1/8 x 1/4 Beam

Rail & Tie Car Scale 1:48
Drawn by Tom Houle
Ref: MR Dec. 1953

NOTE: All dimensions fit Red Caboose Flat.
I carefully positioned an end-wall and side-wall upside down, using a block of basswood and masking tape to ensure alignment and a square corner. Note the end-walls attach to the ends of the side-walls. They do not fit between the side-walls. I glued up the corner joints with Testors liquid cement and then joined the two halves together. Evergreen Styrene 0.100" angle covers the corner joints and finishes the corners. I added Tichy 0.030" rivets to both faces of each corner angle.

The five 0.060" x 0.125" styrene floor support cross-members went in next. They are CA glued to the brass angles. The 0.030" x 0.125" V-groove floor is installed on top of the floor supports. I cut the floor to size, then slid it into place through one end of the carrier. Testors cement holds it in place. Assuming you have added all rivets, nut/bolt/washer castings, and grabs, this completes the tie carrier.

To keep the rails on the car, the Burlington dropped short stakes into each unused stake pocket. The interior faces of these wood stakes were faced with steel strips to stave off damage from bouncing rails (another opportunity to use those Grandt Line nut/bolt/washer castings). Just to be different, I made my stakes from Evergreen 0.100" styrene I-beam. They are 9/16" long.

The Q also bolted 6" x 12" beams at the ends of the car to prevent the rails from shifting length-wise and spearing the adjacent car. I cut my beams from 0.125" x 0.250" styrene. I carved wood grain into the sides and left the beam tops smooth to simulate steel plated tops. More Grandt Line nut/bolt/washer castings were used here, five per end. The last detail I added to the flat was the six 0.015" x 0.080" styrene strips that run cross-wise on the deck at roughly equal intervals. On the prototype, these steel strips protected the deck planking from rail gouges and scrapes.

I painted the deck strips and tops of the deck end-beams with Model Master Steel Non-Buffing Metallizer. This stuff looks like old steel, to which I add thinned streaks of rust. I brushed Star Dust Smut weathering onto the deck and car-sides to kill the new car look and add a look of years of service. The tie carrier was lightly sprayed with Floquil Gray Primer. Jerry Roy airbrushed the tie carrier with a hue of boxcar brown, by Model Flex. We deliberately chose to use a slightly different hue than the flatcar itself to indicate the tie carrier was added later.

There you have it. Now you get to choose between two different looking rail and tie cars; build one or both. Either car would fit right into just about any work train.

(contd. pg. 18)
Bill of Materials
40’ – 53’ Flatcar – Red Caboose, Weaver, Chooch, Smoky Mountain, AHM, other
Evergreen Styrene
#4125 0.040” x 0.125” V-grooved Sheet
#124 0.020” x 0.080” Strip
#154 0.060” x 0.080” Strip
#147 0.040” x 0.188” Strip
#189 0.125” x 0.250” Strip
#293 0.100” Angle
#273 0.100” I-beam
#267 0.250” channel
Detail Associates
#2530 0.030” x 0.060” Brass Strip
Tichy Train Group
#8019 0.030” Rivets
Grandt Line
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- #9001 EMD F9, 36” fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

**POWERED F “B” Units:** Reg. $315, SALE $264.99
- #3001 EMD F3-Ph3, F7-Ph1, 36” low fans, 36” dynamic brake, 3 portholes, horiz grilles
- #4001 EMD F7-Ph1 (late), F7-Ph2, F9, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

**UNPOWERED F “A” Units:** Reg. $225, SALE $189.99
- #7002 EMD F3-Ph4, F7-Ph1 early, 36” low fans, 36” dynamic brake, 2 portholes, horiz grilles
- #8002 EMD F7-Ph1 late, F7-Ph2, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles
- #9002 EMD F9, 36” fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

**UNPOWERED F “B” Units:** Reg. $200, SALE $169.99
- #3002 EMD F3-Ph3, F7-Ph1, 36” low fans, 36” dynamic brake, 3 portholes, horiz grilles
- #4002 EMD F7-Ph1 (late), F7-Ph2, F9, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

**F Unit “A” Body KITS:** reg. $99.95, on sale $82.99
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- #8000 EMD F7-Ph1 late, F7-Ph2, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles
- #9000 EMD F9, 36” fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

**F Unit “B” Body KITS:** reg. $94.99, on sale $79.99
- #3000 EMD F3-Ph3, F7-Ph1, 36” low fans, 36” dynamic brake, 3 portholes, horiz grilles
- #4000 EMD F7-Ph1 (late), F7-Ph2, F9, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

All kits include brass etched grills, appropriate detailed parts, and preformed grab irons for indicated model. These kits include only the parts above the frame.
Roger C. Parker and Win Nowell

Like many other modelers in northeast Massachusetts, New Hampshire, and southern Maine, Thursday used to be one of my favorite days of the week. From 1:00 PM until 9:00 PM, modelers used to congregate at Bay State Models in Groveland, Mass. The star attraction was the ever-knowledgeable Win Nowell, along with a great HO scale layout that entertained generations of fathers and sons.

Origins

Like many model railroaders, Win Nowell was introduced to trains at an early age. “As a child, I was given a Lionel train set for Christmas,” he recently related. “Each year, my grandfather would present me with a new accessory. Eventually my father built a typical flat train-table for me in the cellar, so that I could use the train year ’round.”

When Win was 17, after working during the summer for Treat Hardware Corporation, he was asked to work the “train room” for the Christmas holidays. In his words, “Wow, what a job for a train enthusiast!”

His lifetime interest in trains culminated in starting Bay State Models in 1975. His goal was to produce O Scale models of Boston trolleys. His first was a Boston Center Entrance car, followed by an Eastern Mass. semi-convertible. The success of those cars, and customer requests for finishing parts, culminated in his opening a hobby shop in the basement of his home.

Early Years

Originally, Bay State Models was open on Saturdays (9-5) and on evenings (by appointment), as Win was working full-time at his mechanical engineering job. He soon established regular hours as Thursdays, 6-9PM, and Saturdays, 10-5. During the first six or seven years, Win reinvested all the profits back into the business. Marketing included attending all the local model railroad shows and passing out advertising at my table where I sold merchandise. “I originally intended to handle only O Scale kits, parts, and supplies. As a kit/scratchbuilder, this was the market I wanted to specialize in. But I quickly realized there was not enough demand for O Scale to support an enterprise.” Win subsequently expanded into HO Scale and a limited amount of N Scale. Win also carried an extensive line of railroad books and magazines (like O Scale Trains) that brought additional customers to the shop, but didn’t add much to the bottom line.

An Interview with Win

RP: What were the store’s best years?

WN: The best years were the early years. People had a lot of money and were looking for something to do in their spare time. On Saturday evenings, restaurants were PACKED! Parents and children were looking for something to do together; in many cases, it was model railroading. Hobby shops make much of their profits on newcomers to the hobby. They need EVERYTHING to get started, locomotives, cars, track, powerpacks, scenery, buildings, the works.

RP: What changed?

WN: In the early days, people had more time and less television. In addition, there was a lot of advertising in the general press about model railroading by the “toy” lines and this helped maintain an interest in trains. Today, railroads have lower visibility. In New England, you rarely encounter freight trains because so many travel at night. In addition, because of the pervasiveness of television, there are so many more gift alternatives for kids during their early years.

RP: When did things begin to change?

WN: Things began to change about 10-12 years ago. Just when demand was beginning to drop off, new hobby shops entered the field. They didn’t cause the drop in demand, but they picked the worst possible time to open a shop. They only lasted a couple of years, if that. It was about the same time that kids left the hobby, partly attracted by computer games. If I had had a storefront at that time I would have called it quits then, but could keep going in the basement of the home.

RP: What’s it like now?

WN: The hobby industry has changed as our lifestyle has changed. Kitbuilding and scratchbuilding are out. The emphasis, now, appears to be strictly ready-to-run. I’ve had detail parts hanging on the pegboard for years without interest. The hobby shops of today carry ready-to-run cars and locomotives with DCC and sound. Although this has increased the cost of locomotives by $100 to $200 and up, many newcomers to the hobby are accepting it, as well as the wealthy hobbyists. It’s just part of evolution. Look what has happened. Paper car-sides, metal car-sides, injection molding, decals, pad-printing, finer molding practices, this is all evolution! Should we have stopped? No, we can’t go back. If we had to, I don’t think so!

RP: What did you like best about running Bay State Models?

WN: The best part was my customers, and trying to have what they needed in stock when they asked for it. That got more and more difficult as the hobby expanded. Today, it has become nearly impossible for a small shop to operate. One would need a super-store in order to supply all the items available, and there is not a large enough market to support such a store. Today, one has to rely on quick turnaround from wholesalers to survive.

RP: What will you miss the most?

WN: The customers.

Conclusion

Thursdays and Saturdays are no longer the same for Win Nowell and his Bay State Models customers. It’s a sad commentary when traditions that have meant so much to so many (traditions that have taught virtues like patience and craftsmanship) become less relevant in our society. Thanks to Win Nowell, and the others like him, who keep the O Scale lights burning. We should all do our part in supporting them so that they can, in turn, support us.
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The Top 10 Coolest O Scale Things I Saw at York

"HiRailer Heaven" is probably the best way to describe the TCA Eastern Division's York train show. Nowhere on Earth can one spend a couple of days simply seeing more trains, more people, more manufacturers, and more hobby products on display, all in one location. The show normally draws 18,200,000 attendees who are all members or guests of members of the TCA. This show is not for those who have a casual interest in trains. This is SERIOUS stuff. Although it is known primarily as a 3-Rail show, you will find several dealers with 2-Rail scale offerings and lots of O Scale items that are really cool. This column is about my observations as my modeling moves in the direction of scale. That pursuit would not be complete without the York experience.

Here is what I found to be the top ten hits of new products and ideas displayed at York this April. My observations are provided for your information. Starting off my top 10 countdown is:

#10 M.T.H. ELECTRIC TRAINS displayed their new N&W Class A's in both #1218 and #1242 cab numbers. These are two totally different locos with lots of new details, new drawbar, scale smokebox hinges, and new sounds. Each locomotive was carefully modeled after the prototype, and each model has the correct and unique details right down to the tender trucks. They will be available with traditional 3-Rail and scale 2-Rail wheels and coming to a dealer near you on May 10 in a very limited production.

#9 WESTPORT MODEL WORKS continues their great line of model detail parts for architects and model builders. Scale mailbags and mailroom fixtures, several new industrial smokestacks and chimneys, and a new line of highly detailed resin building modules that allow you to design and build your own brick buildings. Gorgeous details!

#8 JOE'S MODEL TRAINS had available the newly-developed "Rusty Rail Painter" that allows you to apply paint to the rail sides of your track with a scale roller. A tiny needle dispenses the paint from a small jar, and makes painting the rails a dream. With a little practice, you will be saying goodbye to dipping and brushing the rail. This new technique is pretty cool! Special boxed sets of his weathering stains were also really cool for those who want to get started into serious weathering. All of Joe's products are environmentally friendly.

#7 ATLAS O, LLC, had on display their soon-to-be-delivered first steam project, the USRA 0-6-0 switcher. It features loads of details, include a hinged apron between the loco and tender and wire connections between cab and tender that simulate water and steam piping. Awesome! They also exhibited their highly detailed express refrigerator cars and the new F-3 Diesels. Their products can now be broken down into three main lines, Master, Trainman, and Industrial Rail.

#6 ST. CHARLES MODEL WORKS exhibited at York for the first time, and had a tremendous response. Their highly successful and realistic freightcar loads feature everything from several grades of coal, ballast, and ore, up to bales of scrap metal. Available for every type of car manufactured, these scale loads are considered to be the best available on the market. Just wait until you see 'em!

#5 SCENIC EXPRESS wins hands-down for the "Best in Show" with the most eye-appealing display. Can't see the trees for the forest? No problem! No excuses! Their trees and groundcover will make a big difference on your layout. Providing details for scenery is their specialty, and the new larger O Scale trees (available in both pine and hardwood) are simply gorgeous.

#4 CUSTOM SIGNALS had another great display, and featured their soon-to-be manufactured Pennsy-style round-faced signals that will be produced in conjunction with Atlas O. They are simply the finest O Scale signals available today. Watch for new item announcements as their offerings continue to expand!

#3 ARTISTA ACCESSORIES features their line of almost 400 superb hand-painted figures for O Scale. Lots of new figures and detail accessories were on display, including a scale clothesline with clothes, new construction workers, checker players complete with checkers, and more hobo figures! (Hobo figures are becoming very popular!)

#2 MILLER ENGINEERING had several new releases, just in time for the show. Animated and lighted signs for Goodyear, Breyers, Western Auto, Dr. Pepper, and Rexall Drugs are very unique. More animated signs are in the works and a special anniversary sign will soon be announced. These signs add a lot of character and look great on weathered and detailed buildings.

And the number one coolest thing I saw at York was...

#1 AAA PRECISION TURNTABLES is known for its solid cast-aluminum model turntables that perform and operate just like the real McCoy. Built by professionals in the engineering industry, these tables really perform with precision. Each table is custom-built to the owner's specifications, and they offer several detail options ranging from the basic turntable up to a museum-quality masterpiece. AAA also demonstrated their new coal dumper that allows "Coal- Porter" cars to flip and unload, just like the real thing. The dumper is manufactured with the same precision as their turntables. If you like machinery and operating accessories that perform just like real, and are built to strict specifications and rigid tolerances so they work right each and every time, one of these may be in your future.

That's all for now. I hear a long coal drag coming this way. Hobo has left the building!
Heavy Lifting

As mentioned in the previous column, the lifting and moving of heavy objects is an everyday part of railroad life. During the 1970s, when I started railroading, most Class 1 railroads maintained a recovery or wreck train at certain division points. In my area, the Southern Railroad had a wreck train stationed at Norris Yard in Birmingham, Alabama, and the Frisco had one stationed at Tennessee Yard in Memphis, Tennessee.

These trains consisted of a locomotive crane, dormitory and kitchen cars, supply cars, and material cars loaded with various supplies usually needed at a derailment site. When a derailment occurred, the necessary personnel, equipment operators, and work train crew were called for service. Engines were coupled to the train and it was dispatched to the derailment location were it would remain as long as needed.

During the 1980s, when high-rail service vehicles replaced the speeders and patrol cars, the railroads concluded it was no longer economical to maintain these cranes and their crews due to the cost and liability. Private companies were contracted to come in with their equipment and personnel to work along side railroad crews in both derailment cleanup and bridge and track improvement projects. The locomotive cranes may be gone, but lighter capacity self-propelled track cranes are still in use today.

Photo 1 shows an Ohio-built Diesel crane, BN575509, tied up on an industry track in Amory, Mississippi, a few months ago. I have always heard these referred to as “bridge cranes”, as they are used in bridge replacement projects to lift and place pre-fabricated concrete bridge panels and (with a pile driver attachment) drive steel piling. An electro-magnetic disk and rail clamp, used in rail and material recovery after a track improvement project, make these multi-purpose cranes.

On occasions when a lift is necessary, beyond the capacity of the bridge crane, heavy duty cranes are contracted. Photo 2 shows a pair of Grove TM-1500 cranes re-railing hopper cars a few years ago in BNSF's Birmingham Yard. The unique thing about this type crane is, when called for use by the railroad, they arrive with separate high-rail wheel and motor attachments. Once positioned under each end of the crane and connected to the electrical system, the crane can maneuver and travel on the track as a self-propelled vehicle to locations inaccessible by road or highway.

Regardless of the time period you model, take a look through the die-cast model pages of Ebay to see what’s available. To simplify the search for O Scale models, select the category of “construction equipment” in the scale of 1:43, 1:48, and 1:50. Here’s where the majority of construction vehicle models will be found. You will find models of various types of cranes, including the Grove TM-1500 six-axle crane shown in Photo 2. While you’re at it, take a look at other construction equipment models available. You might just find that particular model you wish you had to complete, or build, a scene on your layout.

While you’re surfing the model pages of Ebay, don’t forget to visit the “model trains, O Scale” section to see what’s available. For any time-period modeler, you can find models of locomotive, Burro, and other cranes produced by various manufactures over the years. While most models may be 3-Rail, they can usually be easily converted for two-rail operation.

No computer or Internet access? Not a problem. Visit your local hobby shop or toy store. If the item your looking for is not in stock, it can usually be special-ordered. Local model train shows, swap meets, and conventions are a good source for those hard-to-find models. It’s not unusual to see dealers or modelers from outside your area that may have just what you’re looking for.

While this column deals with a support side of railroad life, think about it the next time you put the five-fingered switcher to work re-railing that locomotive or rail car. How would they do this on the prototype? Heavy lifting, of course. Until next time, enjoy our hobby of O Scale trains and all it’s possibilities.
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Arttista Accessories
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In the last part of my series, I showed you how to build a grade crossing. As I mentioned, the purpose of a grade crossing is so that roadways can cross the railway. In these next two articles (since you'll need roadways), I'll show you how I make paved roads on my layout. I have tried several different methods of making paved roads over the years and have found this one works the best for me. Here is a list of materials that I use.

- **0.040” Styrene Sheet** (for the road surface and sidewalks)
- **0.040” x 0.125” Styrene Strip** (for the gutters)
- **0.060” x 0.125” Styrene Strip** (for the curb)
- **0.080” x 0.125” Styrene Strip** (for the sidewalk supports)
- Polly Scale UP Harbor Mist Gray Paint
- Polly Scale Concrete Paint

With all these materials at hand, let's start making paved roadways. Figure 1 shows where all these materials are used and how.

Making a Paved Roadway

In Photo 1, you can see that I have finished the road in the foreground up to the grade crossing. We still have road to make on the other, though. Photo 2 shows the finished product. The first thing you'll need to do is mark out where the road will go (Photo 3). Because the road is running up to the grade crossing, I had to install supports to change the elevation. These are made of pieces of tie material (Photo 4) that are glued in place with white glue. Once the glue is dry, we can go onto the next step.

The average width of a traffic lane in a road is about 12’ (or three inches in O Scale). A piece of 0.040” styrene sheet is 6” x 12”, which works out perfectly for our two-lane road. I place a sheet where the road will go, then mark where the grade crossing is using that handy curve template. Scribe along the line and then break off the excess. Glue the sheet in place using
along the side of the gutter strip, forming an L shape (Photo 9). Holding it in place with the map pins, glue it in place with the plastic cement. Once the glue has dried, remove the map pins. Now we have our gutter and curb.

Making Sidewalks

In this scene, I also wanted a sidewalk on the right-hand side of the street. To make this, I first marked a line one inch away from the curb (Photo 11). Then, I installed two 0.080” x 0.125” styrene strips, laying flat, with one glued along beside the curb and the other running along the line that we made one inch away (Photo 12). These are glued down with white glue. The next step is to cut a piece of 0.040” sheet styrene, one inch wide, and to the length you require. Then, scribe a line along the length of the sheet about 1/8” from the edge. This will be on the side away from the street. The next step is to scribe lines at one inch intervals across the sheet at right angles to the first line. Once this is done you can glue the sheet to the two strips
I find this color is good for older asphalt (If you want a newer asphalt look you can use Grimy Black). Let the paint dry and do any touch ups. There you have it, a finished road (Photo 15). In Photos 16 and 17, you can see two examples of how the curb is bent around a curve and at an intersection. To create this, first bend the gutter strip to the shape of the curve that you make in the road, glue it in place, then bend the curb to the same shape and glue it in place. It is that easy and, if I do say so myself, they look good. Now you could leave your roads looking like this, or you could weather them up to make them look used. In Part 17, I will show you how to make the lane markings and how I weather my roads.

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As the BRHRR develops towards a finished stage, certain ideas have been adapted as standard procedure for future projects. The “Turnout Operating Mechanism” is one of them. In the future, any turnouts installed or replaced on the BRHRR will use this form of control. The drawing (page 32) and photos show the construction, so any further description is probably not necessary.
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Brian Scace

Big soldering guns are nice because the tips are usually smaller and handier than the equivalent wattage soldering iron, and you can put them down without burning things up or melting things down. I lent a friend my MOASG (Mother of all Soldering Guns) the other day so he could knock out the feeder-wires-to-the-rails exercise on his railroad. He struggled with the big klutzy thing for a while, knocking over everything within a foot of the track on either side, and couldn’t get a good clean joint because the handle got in the way. Finally, in disgust, he said the fool thing was too big and went for his little weeny soldering pencil. That’s when I showed him the Really Obvious trick that allows you to get that little tip on the web of the rail where it needs to be, so you can enjoy all those advantages of a soldering gun over an iron. Hold the gun upside down.

Joe Giannovario

I am planning to build a bucket coaling-shed as part of my loco servicing facilities on the Coal Creek Railway. This shed was featured in the June 1955 Model Railroader, originally built by Paul Larson in HO Scale. I wanted to see how this structure would fit in my space, and I also wanted to see where it would fit best. So, I scanned the MR drawings into my computer and, using Photoshop and the dimensions on the plans, I re-sized the HO drawings to O Scale. I then printed the front and side views on my laser printer, trimmed the drawings, taped them together, and placed them on the layout. It’s a good thing I did, too. My original location was unsuited to the structure and now I know where it looks and fits best.

Mike Cougill

Here’s a REALLY obvious tip. Do this any time you have to custom mix something, such as a paint color or, in this case, a custom blended ballast mix. Write down the ingredients used and the amounts and proportions. Here, I’ve simply added a piece of tape to the ballast container and written out the colors of ballast used, along with the mixing ratio. Perhaps this isn’t too big a deal for blended ballast, but trying to match a custom paint color is a fun exercise in frustration without something to go by. This info could be logged into a small notebook or computer file for easy reference.

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Bachmann Forney With DCC & Sound

If you attended any of the recent National Narrow-Gauge Conventions, you are probably aware that On3 is still very prominent, but On30 has become much more popular over the past ten years.

The first National Narrow-Gauge Convention that I attended was in Denver, 20 years ago. Ten years ago, I presented an On30 clinic at the 1997 NNNGC in Cincinnati. At that time, both the Internet and the On30 Conspiracy were new. Bachmann Trains had been promising an On30 Mogul and passenger train set in C&S, PRR, and Christmas color schemes for several years. They finally introduced it at the Colorado Springs convention in 1998, and that narrow-gauge passenger set helped to create another choice for O Scale modelers.

The On30 Mogul was a superb model, and Bachmann followed that up with a series of locomotives including the tiny Porter 0-4-0, the Porter 0-4-2, the 18-ton Shay, the 28-ton Climax, and the 8-ton Davenport. The second generation of Davenports is now equipped with DCC decoders, as are the rail-trucks and the 2-8-0 Consolidation.

Recently, Bachmann introduced the Forney (see ad this issue), their first O Scale locomotive with both DCC and sound, and it’s a small wonder at a reasonable price. The Forney is available as an inside- or an outside-frame locomotive with either a wooden cab or a steel cab, lettered or unlettered, with sound or without. The Forney was a popular and efficient 24” gauge steamer on several narrow-gauge lines in Maine, and one version of the Bachmann model is beautifully lettered for Sandy River and Rangeley Lakes #11. In fact, there are so many versions to choose from that you have to be careful to read the descriptions in the catalog or on the website to select the one that has the particular features that you want.

I was particularly impressed with the attention to small details like the cab piping, valves, gauges, brake lever, and pull cords for bell and whistle. I tested both the inside- and outside-frame versions and found the operating characteristics to be virtually the same. Note that the center of balance is just forward of the rear driver axle, and the center point of the wheelbase is 11’ from the front beam and around 20’ from the rear. There is a whole lot of rigid frame behind those drivers, but the rear truck is designed to slide from side to side almost a half an inch from the centerline. My sample made it around my 18” radius curves with its rear end swinging prominently out to the side.

With a Bachmann coach or freight car on the rear coupler, it had no problem in forward or reverse direction. I do not have a 15” curve so I tried it on my 12” test curve and it still went around smoothly in both directions. With a coach or freight car on the front coupler there was no problem in either direction, but it was impossible to pull or push any car around that curve on the rear coupler. That really isn’t surprising. Some of the full-size Forneys regularly operated at high speeds in the reverse direction, pulling a full train on the front coupler.

All the Forney models have DCC installed, and can be operated with DCC or DC cab control. They are also available with Soundtraxx Tsunami sound modules. The sound is spectacular and, if you are new to DCC and sound, you will be mesmerized and thrilled by this feature until you become aware that the exhaust chuff is not regulated by a sound cam to produce exactly four chuffs per driver revolution. After a short while, that becomes very noticeable and mildly disappointing.

In every other way, this is an excellent model of a Forney, and the only way it might be improved is if it was available with the correct gauge of 24” for our fellow On2 modelers.

Happy trains to you until we meet again.

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3-RAIL SCALE DIESEL

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Our new 10-stamp gold mill kit has everything that our old gold mill kits had plus a lot more! Packed into the smallest possible space, the mill includes a building with all of the mill equipment plus a horizontal brick boiler, steam engine, ore cars, 3 figures and a mill office. The office interior and brick boiler are also available as a separate kit. The office includes a desk, chair, tables, file cabinets, pot-belly stove, safe, wall clock, coat rack, coffee pot and cup, and even a spittoon.

10-Stamp Gold Mill Kit M-95 O scale $475.00
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There are a large number of small line-side structures that you can add to your layout that can add detail and interest. Years ago, milk was transported by rail in a vast array of specialized reefer or milk cars. Along branchlines there would be small sheltered platforms for farmers to set out their daily collection of filled milk cans. These were picked up and transported into larger centers for combined processing and further shipping throughout the nation. These small milk stations can add an interest point, and also give you an excuse for making a brief stop to pick up a few milk cans off your rural branch line for transport into the nearest town.

I had seen that CMA made a styrene kit for a milk station in HO, based on an O&W prototype. However, this is a wooden structure. To my eye, nothing takes paint and stain and weathering like wood. Also, being an O Scale modeler, an HO kit can only serve as a starting point to build my version of this structure, board-by-board. This turned out to be a relatively easy build. It could be simplified by using commercial siding and decking, but that might sacrifice the scale wall-thickness along with the look of exposed framing.

I started by building the platform and set the dimensions to be 10’ x 20’. I made the 20’ front and back sills from 1/4” x 3/32” dimension lumber (Figure 1). The 9-1/4’ ends are 1/4” x 1/8” dimension lumber, while the rest of the 9-1/4’ platform joists were fashioned from 1/4” x 3/32” dimension lumber. The frame was assembled using Walthers Goo to hold it together until the deck was installed. The decking was made from one of my favorite sources of rough lumber, wooden coffee stirrers, which were CA’d to the platform frame leaving the excess to be trimmed off later with a sharp utility knife. I smoothed the ends off with my belt sander, but you could use a sanding block just as easily.

Twelve posts (each five feet long) for the platform were cut on the bandsaw from HO 10” x 22” stock. More often than not, everyone just glues these underneath onto the inside surface of the joists. This time I cut a mortise out of each leg on the band saw (mind the fingers), to accept the joists so that they would actually rest on the posts. Then I CA’d them into place. Diagonal bracing, made of HO 3” x 10”, was added front-to-back on both sides of each row of posts. They were added across the front and back as well. I dressed these up a bit by adding Grandt Line #23 nut-bolt-washer castings at every joint to complete the platform.

The station was built using 2x4 and 4x4 framing. There were two sidewalls (Figure 2) built on an eight-foot long 2x4 sill with 4x4 ends; one end was eight feet high while the other was ten feet high. The ten-foot long 4x4 was doubled inside the wall with a 2x4 that served to support the 2x4 cap. There were three 2x4 studs, each eight feet long, in the wall. All of these were assembled using Walthers Goo. Next, the interior surface (there is a left and a right as these were built as mirror images (Figure 3)) of the ten-foot long 4x4 was doubled with an 8’-2” long 2x4 that started flush with the sill base. I left a four-inch gap above this 2x4, then added another piece of 2x4 leaving yet another four-inch gap between that board and the top of the 4x4. These two gaps were left to inset two 4x4 boards that would connect the two sidewalls. The 12’ back wall (Figure 2) was framed entirely of 2x4 studs set on 24” centers. Seven rafters were made from rough scrap (approximately 2” x 12”). Each is 11-3/4’ long, beveled on each end, and mortised to set down onto the framing of the sides (Figure 2).

The structure was assembled by CA’ing the right side of the framing to the back. This assembly was, in turn, glued to the left side. Remember to make sure that the interiors of the
sides are facing each other towards the interior. Two 4x4s, cut to the length of the back wall, were then inserted into those mortises to connect the fronts of the sidewalls. These were secured with a dab of Goo. After the glue had set up, cripple wall studs made from scrap 2x4 were installed between those two 4x4s (Figure 3), aligned with the studs in the back wall. Then, the rest of rafters were installed resting above the studs in the back wall and those in the cripple wall.

The entire exterior was finished with board-and-batten siding. First, the exterior framing was sheathed in individual boards made from HO 2” x 20” stock, including the front area covering up the cripple wall studs. I mortised these boards, so they would tightly wrap around the rafters. After this, I covered the gaps with HO 2x6 to make the board-and-batten exterior. Roof sheathing was also added at this time. I made this from HO 2” x 24” board, cut to leave about four inches of overhang. It was left loosely spaced on the rafters.

At this point, I decided to do some staining and painting before further assembly. The deck and entire structure was stained with Pecan Minwax followed by darkening the posts and sides a bit with my Minwax mystery mix (leftovers in a bottle). After drying, the board-and-batten exterior was painted, first with Floquil Wisconsin Golden Yellow. This was pretty much quickly slopped on using a very stif brush. Then, while it was still quite tacky to the touch, the entire exterior was painted over with Polly S Sea Green and left to dry. This combination produces a visual effect of cracked and peeling paint over the yellow which, after drying, took on a more faded appearance. The tarpaper roofing was added. I cut some 600-grit sandpaper into something close to 4’ x 8’ sheets, glued it down with carpenter’s glue, and painted over it with Polly S Oily Black.

I glued the station structure to the back left corner with CA, and then wrapped up the finishing by painting the tar seams on the roof with Polly S Steam Black. Then I dry-brushed the exposed decking and posts with Polly S Milwaukee Road Grey. Lastly, I over-sprayed the entire structure with very dilute Floquil Grimy Black. The painting completed, I added a collection of milk cans both inside and out, a couple of barrels, a ladder, and a crow to the roof.

So, here’s a really simple project that can get you started building board-by-board, or you can shortcut it using scribed siding and commercial board-and-batten, or even clapboard siding. However you build it, this is simple enough that you can customize it and detail and weather it to suit your branch line. Have fun building!

Figure 1: View of platform from below and front & back with diagonal bracing example

Support posts
Figure 2: The left and right walls as viewed from the interior and the back wall.

Figure 3: View from the front showing how the cross-members fit into the mortises and support the cripple wall.
The assembled 2x4 framed walls mounted on the platform, painted, weathered, and with added milk cans, and other details.

The assembled 2x4 framed walls with the rafters, and cripple stud framing spanning the front.

The 2x4 framing for the left, right, and back walls.

View of the completed deck showing the diagonal stringers.

View of the deck from underneath showing the framing.

View of the deck showing the decking arrangement.
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In Issue 31 of OST, I discussed simple electronic units to control light emitting diodes (LEDs) in passenger cars (Photo 1). I would like to wrap up that topic here, so that I can move on next time to cover the inexpensive sound systems that are appearing for the smaller scales. Since sound does not have a scale, they are also applicable in O Scale.

LEDs, and integrated circuits to control them in model railroads, are not that new. The new factor is the decreasing cost that makes their use attractive. The main advantage of LEDs is their low power needs. It is quite possible to have a long passenger train with internal car lighting wherever appropriate. However, as with any car illumination technique, the light flickers as the car wheels move over the track. If that bothers you, it can also be fixed.

Figure 1 and Photo 2 are a circuit diagram and photograph of my universal controller. I’ll show how it can be used to eliminate flicker, but first let me walk you through the components. As you can see by comparing it with the circuit in the last installment, the controller consists of two rectifier/current-limiter circuits. There are two slight differences, though. I used a single bridge-rectifier instead of four diodes (for simplicity), and I put a capacitor between the rectifier and the current-limiter to smooth out the DC voltage. As you recall from last time, the 317 regulator keeps the voltage across its resistor from exceeding 1.2 volts, so the current can be controlled by the value of this resistance. This dual unit can be used to provide 0.02 amperes to each of two circuits of lights with 68 ohm resistors. The plastic board can even be cut in half horizontally and the two sub-units can be put in two different cars.

Figures 2, 3 and 4 show how this unit can be modified to do different jobs by a few wire changes. In figure 2 one rectifier is omitted and both current-limiters are connected to the other rectifier. This can be used several ways. If you use DC cab-control, thus variable track voltage, sometimes there might not be enough voltage for all the lights that you want (Recall that the rectifier and limiter take up about three volts.) We’ll put the lights in two parallel strings with this circuit. Perhaps you might want two illumination levels at the same time; an example would be bright interior lights and dim marker lights. This can be set by the value of the two resistors in the unit. You might
want to control incandescent lights, like the grain-of-wheat bulbs that go into marker-light assemblies. They can be driven by a current-limiter also, which will prolong their life.

Now, back to the question of flicker. A locomotive tolerates dirt and gaps in the track by having a flywheel to carry it over the bad spots. The electrical equivalent to a flywheel is a capacitor; it stores up electricity during the good times and gives it back during the bad times. A capacitor needs DC (and we just happen to have the DC after the bridge rectifier), so we just need to hang a big capacitor across the power leads and we can say, “goodbye flicker”. I added a 10,000 micro-farad capacitor (C1) and it removed most of the flicker. When I used a 1000-microfarad capacitor, it removed all of the flicker, but it is physically larger. If you want to use more current, you can replace the first 317 with the big brother version LM317AT. It can handle up to 1.5 amperes, if you use a smaller value of resistor. Its leads fit into the same holes in the board as the smaller unit, but it sticks up higher. This circuit is only practical with the full track-voltage that comes with command control systems, because it takes up about five volts, leaving ten volts or so for the lights. This version does require some more space for the bigger capacitor.

Now, I would like to consider turnout signal lights, not car lighting. This is a completely different application. A prototype railroad will have some indicator telling which way a turnout is set. It may be a simple mechanical signal that is a part of the turnout controller, or it may contain electrical signals. Electrical signals are popular in model railroads. They add some pizzazz, but also the engineer (who is not actually on location in the locomotive) can see the turnout status. These are controlled by extra contacts on the turnout actuator. If you use (computer friendly) turnouts that have points that are always electrically connected to the adjacent rail and a frog that is isolated and has its power switched with the turnout, then you get signal power for free. Just use the voltage between the frog and the two side-rails to light the appropriate signal lights.

Figure 3 shows the same unit with one rectifier omitted and the upper half feeding the lower half. The first unit is charging up a capacitor to prevent flicker. It has a 12-ohm resistor to limit current to 0.1 ampere, the maximum current that the tiny LM317LZ can handle. The second unit has the usual 68-ohm resistor to limit LED current to about 0.02 ampere. I used a 47-microfarad capacitor (C1) and it removed most of the flicker. When I used a 1000-microfarad capacitor, it removed all of the flicker, but it is physically larger. If you want to use more current, you can replace the first 317 with the big brother version LM317AT. It can handle up to 1.5 amperes, if you use a smaller value of resistor. Its leads fit into the same holes in the board as the smaller unit, but it sticks up higher. This circuit is only practical with the full track-voltage that comes with command control systems, because it takes up about five volts, leaving ten volts or so for the lights. This version does require some more space for the bigger capacitor.

Figure 4 shows how two rectifiers are connected together and fed from the two outer rails at a turnout and the isolated turnout frog. Then, as the turnout is thrown and the frog voltage switched, the two circuits power the appropriate LED signal. I use three signals, one for each path into the turnout. They have green and amber lights at the “points end”, green and red lights at the other end, and amber and red lights at the diverging track end.

In this installment we used the following additional parts:

- 1 Bridge Rectifier (1 amp 100 volt Digi-Key W01G/1G1 or equivalent)
- Electrolytic Capacitors (47 to 1000 microfarad, 35 to 50 volt)
- Perf-Board for mounting (1-7/8” x 2-7/8” Radio Shack 276-149 (can be cut down))

This universal controller is small and inexpensive, but it is awkward to solder together all those little parts. I am making printed circuit boards for this unit because they simplify the assembly so much. I would be interested in knowing if anyone else is interested in these PC boards.
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David Gairo

I was born and raised in Philadelphia when there were still a lot of trolleys operating. I rode them all over the city. I have been building and operating model trolleys since 1965, and I am very much involved with the trolley museum in Scranton, Pennsylvania, and one of the organizations that became a part of the volunteer group there. With a background of operating and riding the real thing for many years, I want to have my model trolleys operate as much like them as possible.

I like city trolley operation with complicated trackwork in the streets. A previous layout, measuring only six by eight feet, had 21 blocks and 30 track switches incorporated into it. Before digital command control (DCC), I was limited to carefully running two trolleys at a time. This was accomplished with a lot of block-toggle throwing. Now, with DCC, I can have a car pull up behind another car at a car stop and have multiple cars at an intersection at the same time. The limitation is the number of throttles available and people to run them. Even that can be gotten around with a computer!

A decoder is the controller for every powered unit on a DCC layout. It recognizes commands addressed to that car (trolley or locomotive) and controls its motor. For my O Scale trolleys, I use HO decoders rated for 1.2 to 1.5 amps because most O trolleys use HO motors in their power trucks. Even the older open-frame motors (DC-60 size) will operate well on these decoders. I have used decoders from most DCC manufacturers. I generally select the basic models, as I do not require a bunch of functions since I wire the car's interior lights on all the time and only use the forward and reverse headlight functions of the decoder. All decoders include the two headlight functions.

Everyone who writes about selecting decoders tells you to test the "stall" current of your motor. I cannot remember ever stalling a motor. I weight my cars to slip the wheels if the load is too much. I then select a decoder that handles the "normal" motor load. I have not lost a decoder yet. You decide! By the way, don't forget that any lights driven by the decoder have to be added to the total load.

Since I detail the interiors of my passenger trolleys, I usually mount the decoder under the floor with double-sided tape. The decoder gets enough air circulation, and most of the car's wiring is under the floor already. Photo 1 shows the bottom of a single-truck car with the decoder near the left platform. This is a small car, but it has little underbody detail so there is enough room for the decoder. It is an open car with running boards and they hide the decoder from view. Photo 2 shows the underside of two similar Philadelphia cars. The car on the left has its decoder under the front platform, out of the way of any detail. The other car's decoder is mounted between the center-door steps and other underbody details. In both cases, the decoders cannot be seen when the cars are on the layout. Photo 3 is the car with the decoder under the platform. If you look really close, you may be able to see a trace of yellow wire! (Yep! There are a few paint chips on that car. I do run them and no Philadelphia trolley ever went unblemished!) On freight motors and other large-motored cars, I mount the decoder inside the car. These decoders are usually larger, to handle more current.

Now we get to the wiring of the decoders (see Fig. 1). Trolley models are typically wired to pick up power from the overhead wire, and the poles are set up to reverse polarity when they are changed. Pole-reverse required the motor to be isolated from the car, and so does DCC. DCC-equipped cars can also use pole-reverse, but only if they are operating on a DC layout. When running with DCC, the decoder controls the direction. It doesn't matter which pole is up or what polarity is on the overhead. I used to wire my cars for pole-reverse, but I've pretty much quit. The few times my cars operate on DC, the layouts are in a loop configuration. Since the cars always go one direction, the pole reverse is not needed.

Basic connection of a DCC decoder requires only four wires, two from the track and overhead to the red and black connections on the decoder, and two to the motor from the orange and gray of the decoder. All the other wires are for functions and are optional. To have reversing headlight requires three wires, white to the front, yellow to the rear, and the blue one is a common (for all functions) return. What can we do with any extra functions your decoder may provide? Photo 4 is a Philadelphia snow sweeper. I used a decoder function to turn on the motor that runs the brushes. At train shows, it fascinates people when I bring the car to a stop in front of them and then start the brushes. I have also used extra functions to control marker lights and interior lights, separate from the headlights. You do have to be careful, though! Function leads can usually support a current of only 200 mA, and the maximum capacity of the decoder includes any function load plus the motor. So, how do we handle a heavy...
Just after WWII, John W Barringer III became president of the Monon (Chicago, Indianapolis & Louisville). He found a property worn from the rigors of depression and war, and set about a massive modernization program including new power and rolling stock. Many Hoosiers remember fondly the passenger trains painted in the crimson and gray of Indiana University and the slick new freight Diesels in the black and gold of Purdue.

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The 2007 O Scale National Convention is proud to announce Monon #1 is its convention car. Thanks to Tom Kepshire, JD, Ken Weller, and Ron Marquardt for their assistance in getting the lettering correct.

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Mort Mann, the founder of Sunset Models, passed away suddenly on Sunday May 6, 2007, after attending his granddaughter's college graduation. An Air Force Korean War vet, Mort began his professional career as an engineer in New York City, developing the first radar array at O'Hare Airport. Mort founded Sunset Models in the late 1970s, importing HO and O Scale models. In the mid-90s, Mort added O Scale 3-Rail brass locomotives to the line, and the business became known as Sunset/3rdRail. He was inducted into the O Scale Hall of Fame at the 2006 O Scale National Convention in Parsippany, New Jersey.

Mort is survived by his wife of 51 years, Gerre, three children, and six grandchildren. Scott Mann will now take the helm of Sunset/3rdRail.

We offer our condolences to Scott and his family. Mort will be most fondly remembered.
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Layaway Available
A Simple Spin-casting Machine

William W. Davis

Have you ever wanted to build a model but the parts were just not available to you? You probably thought about having castings made, but the cost of having them made commercially was prohibitive, so the project went undone. Well, I’ve been there, and I discovered a solution to this dilemma. Many years ago, I read a booklet published by Finelines about making your own casting machine. Ever since, I have wanted to build a spin-casting machine. The problem was finding the old Mix Master mixer, called for in the Finelines book, and not having to pay a fortune because it was considered an “antique”.

Several years ago, I used a machine (built by Jim Dunlap) using a drill motor. This worked well, but I didn’t want to have to assemble and disassemble a casting machine to use my drill as it was intended. The hassle of doing this would mean I probably wouldn’t do it at all. Call me lazy! To solve this problem, I bought a replacement motor for a sewing machine and a dimmer switch that I could use for speed control from my local electrical supply. From these parts, I started designing a spin-casting machine of my own.

I began by designing a box that would hold the motor and spin-table. This was a simple square box, 11” x 10-1/4” tall, with a shelf 3-1/2” from the top and a partition 2-3/4” from the left side to support the motor. I built this out of 3/4” particle board and I dado’d all the joints. It probably isn’t really necessary to dado the joints, but I’m a cabinetmaker so it’s a habit. There’s no reason that you couldn’t use lighter material, but I had this on hand as scrap from other projects. I test-fitted the pieces, then drilled the motor mount partition.

The motor I used was, as I mentioned, a standard sewing machine replacement motor and was purchased at a local electrical supply. For the speed control I planned to mount a dimmer switch on the right side of the machine. With the motor and dimmer switch located, I was ready to assemble the box. I mounted the motor and then glued the box together. I cut a hole in the right side of the box to mount the dimmer switch, then wired the motor to the dimmer switch and the dimmer switch to an old electrical cord I had lying around. It sounds a little complicated, but it really isn’t; it’s just basic wiring. After a successful test, it was on to building the spin-table.

The trick to using a spin-casting machine is figuring out how to securely mount the two-sided mold while the table is spinning at high RPM’s. If it isn’t held tightly, the casting material will fly everywhere and you won’t get clean castings. We need a way to securely support the mold. I began by cutting a piece of 3/4” plywood, two pieces of 1/2” plywood, and a piece of 1/4” Plexiglas on my band saw to 8-1/4” in diameter. I clamped the pieces together and drilled three holes through, using my drill press, for the screws that would hold them together. I then glued the two 1/2” pieces together and cut out the center area to hold my mold. This allowed me enough space for a one-inch thick two-sided mold. That’s more than enough for most things I want to cast. You could make the chamber deeper if you are planning larger castings. I mounted the bolts used to close the chamber, using three 1/4” x 20 bolts and T-nuts screwed into the bottom 3/4” plywood piece. I made sure the bolts were long enough to hold the one-inch mold holder and the 1/4” Plexiglas cover, while leaving enough thread to tighten it all together with washers and wing nuts. This might not have been really necessary, but I also cut an alignment notch in all four pieces to ease the assembly of the spin-table. Lastly, I need to mount the table to the motor. A friend made me an aluminum mounting-disc that bolted to the shaft of the
motor and the bottom of the spin-table I built. You could use a mounting disc designed for a small disc sander and bolt the spin-table to it. This way, one wouldn’t need to be custom made. Sander discs are available at most large hardware stores or tool supplies.

The photos show the various components and their assembly. Photo 1 shows the assembled spin-caster and the dimmer switch used to control the speed. Photo 2 shows how I mounted and wired the motor. In Photo 3, all the components for the spin-table are shown, disassembled.

Photos 4-7 show the order of assembly for the spin-table. An example of the mold itself is shown in Photo 8. Note that the cavities are arranged in a radial orientation, so the material is forced into the cavities by the centrifugal force generated by the motion of the spin-table.

Well that’s it! I think you can spin about any type of low temperature material. I designed it for white metal, but I recently loaned my machine to a friend. He used it to spin an epoxy-type resin material. With that in mind, I guess you can spin just about any material. All you need now are some molds and casting material, and you’re on your way to making unique homemade castings for that special project for which commercial castings aren’t available. Casting materials can be purchased from Micro-Mark [www.micromark.com] or other sources.
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**NEWS: #009-O (1/48) Scale 34’ Lobster Boat Kit, MSRP: $75.00**
Frenchman River Model Works, 72191 VM Hwy, Stratton, NE 69043
308-276-2174 • www.frenchmanriver.com

“This super-detailed waterline kit builds into a beautiful representation of a typical East Coast lobster boat. Our lobster boat kit is designed to assemble quickly while giving you the look of a scratchbuilt plank-on-frame model. It is complete in details down to the nail holes and wood grain on each plank. Some of the many details include, laser-cut wood detail parts, four laser-cut lobster traps and four lobster boxes, lead-free pewter davit, pulley, five lobster buoys, an anchor, and yes, even lobsters! This kit features three highly detailed resin castings that consist of the hull, the cabin and the wheelhouse. For your convenience, we’ve included precision laser-cut window glazing material, and two different thicknesses of rope. This kit will quickly assemble into a super-detailed scene that’s sure to make even the most hardened landlubber yearn for the sea. Measures approximately 8-1/2 inches long by 3-3/4 inches wide.”

We, at OST, have one of these kits for review. Although I intend to modify it a bit to make a pilot boat out of it, I’ve never seen a photo-etched O Scale brass lobster before! They may end up on a table or two in one of my diners...

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**NEWS: Harris Interlocking Tower Kit; MSRP $179.95 plus shipping**
Harry Hieke, Jr., 635 Charles St., Mt. Ephraim NJ 08059
856-264-3263 • harrys_trains@comcast.net

Harry Hieke, Jr., a well-known craftsman in O Scale, has announced the first of a new series of kits made of plaster and resin castings with Grandt Line and lost wax details. The Harris Interlocking Tower kit comes with fully detailed instructions and occupies a footprint of 7” by 9” and stands 10” high. Available options for the tower include a standard interior kit, a deluxe interior kit with sequential lighting for the display board, and the option of purchasing the kit pre-built by Harry. The kit is available starting June 1st. The next kit will be a water tower. Details will be announced at a later date. A $75 reserve deposit is required to order the Harris Tower kit.

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**NEWS: SceneScapes(TM) Trees; MSRP: $7.95 - $8.95**
Bachmann Trains, 1400 East Erie Avenue, Philadelphia, Pennsylvania 19124 USA
215-533-1600 • www.bachmanntrains.com

SceneScapes(TM) is a new line of realistic trees from Bachmann Trains. Of interest to O Scalers are:
- #32001 (5”-6” Pine Trees, 6 pieces, as shown)
- #32002 (5”-6” Pine Trees with Snow, 6 pieces)
- #32003 (5”-6” Conifer Trees, 6 pieces)
- #32004 (5”-6” Spruce Trees, 6 pieces)
- #32005 (5”-6” Cedar Trees, 6 pieces)

Each set is priced at $7.95. Sets #32006 through #32011 are small deciduous trees intended for HO and smaller scales. The deciduous sets are all $8.95, and might work as shrubs or bushes. Check with your local hobby shop or Internet retailer for availability.

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**NEWS: Railway Express Agency 54’ Steel Express Refrigerator, MSRP: $74.95**
Golden Gate Depot, 231 Market Place Suite 223, San Ramon CA 94583 www.goldengatedepot.com

Golden Gate is producing the REA 54’ steel welded-seam express reefer in O Scale. Features include full scale length, exquisite underbody detailing, opening ice hatches, ABS plastic and diecast construction, and highly detailed diecast trucks. Minimum recommended curvature is 042 for 3-Rail and 48” radius for 2-Rail. 3-Rail couplers can be replaced with Kadees. Three car numbers available per road. Reservations are being taken now.

Available in the following roads: REA (original white/green stripe), REA (green with red REA logo), Pullman, B&O (Blue), NYC (Green), ATSF (Green), and REA (green, unlettered).
NEWS: O Scale Wooden Trains
Magnificent Woodworkings, c/o David Cunningham
485 Emerald Blvd., Christiansburg VA 24073
540-382-2525 • ordermail2@aol.com

Magnificent Woodworkings Laser Works has created the first in a series of O Scale locomotive, tender and caboose display kits. All pieces are pre-cut of walnut and cherry. At their debut at the April York TCA meet there was a lot of interest. Three kits will be ready for shipment through Summer 2007.

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Review: Trainman AAR 70T Hopper, MSRP $42.95
Atlas O, 378 Florence Drive, Hillside, NJ 07205
908-687-9590 • www.atlaso.com

Reviewed by Brian Scace

There has been a lack of 70-ton outside-stake three-pocket steam-era hoppers in O (unless you’re a PRR or C&O guy), over the years. Even the brass market doesn’t give many choices for this common type of car.

The Atlas car is a nine-panel outside-stake car. For those of us who care, the model follows the AAR Alternate Standard 70T design of the late ‘40s and early ‘50s, making it an earlier design than Weaver’s three-pocket car (the NYC Pattern 959 hopper of 1954), but not as early as the ARA/AAR offset-side or USRA 70-ton cars from the pre-war era.

The model, in keeping with the Trainman line, has most of the finer details cast on the carbody, such as grabs, door-locks (They’re there!), and the like. The brake gear is present and decently done, along with a see-through grate-type brakewheel platform, internal bracing, and slope-sheet braces.

Trucks and couplers are the standard Atlas fare. This is a free-rolling car, and all the important stuff for compatibility checked out with the ever-present NMRA and Kadee gages. The fit, finish, and graphics are up to Atlas’ usual standards, as well. The cars are available with both straight ends and peaked ends.

All and all, a car worth looking at (both for the budget fleet-minded folks as well as those of us who can’t resist breaking out the various sharp objects and brass wire) to break up the same-ness of those two-pocket 50-ton cars.

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Scale University’s O Scale grade crossings are made of 100% laser-cut wood with etched planking and spike heads. They look like the real thing and are made for both two-rail and three-rail track. They are 7-1/8” long and come two-per-pack for only $17.95. They are designed for two-lane roads, but you can cut them for a single lane “back road crossing” if necessary. They can be stained, but we recommend that all you need to do is take some pencil sharpener shavings and rub them over the planking then take your thumb and run it over the tire track areas for a tremendously realistic look. Made in the USA. Add $4.95 for shipping. Orders over $100 are shipped free.
Review: Chesapeake and Ohio J3 and J3a 4-8-4,
MSRP: $1199.95
Sunset/3rd Rail, 37 S Fourth St, Campbell, CA 95008
408-866-5764 • www.3drail.com

Reviewed by Brian Scace

Sunset has chosen the C&O’s J3 and J3a as their latest effort. These were elegant engines, in reality, and one of them was a dogged survivor. The earlier J3 version comes from Sunset in a couple numbers, while the postwar J3a is numbered for the redoubtable 614.

The 614 survived the end of steam, re-surfacing as the power for the Chessie safety specials, as Ross Rowland’s test-bed engine for the American Coal Enterprise’s concepts for a mid-'80s steam locomotive resurrection to counter rising oil prices during the “energy crisis”, and on various trips by Iron Horse Enterprises in the 1990s. As far as I know, Iron Horse still owns 614.

It seems like everything opens on this engine. Turret covers, sand box fillers (Yep, there’s screening inside.), tender hatches, doors to the stoker motor, and the hatch atop the cab all beckon the finger-pokers. The level of detail on Sunset’s engines seems to keep rising, yet the model is quite handle-able. I have to be careful about the absolute accuracy of the model, because we have the pre-production sample of the #614 version in hand. Several details have been corrected (or, in the case of the 614, backdated) from the pre-production sample to the production run itself. The general form measures out with a few flips of the scale rule, and the details are appropriately different between the versions.

Fit and finish are what we come to expect (We're getting spoiled!) from Sunset’s offerings. Everything that can be checked with a Kadee gage and an NMRA gage looked good. I tested the engine out on my 56” radii and 1.5% grades with a twenty car train of mixed freight cars. My trackage isn’t quite stellar, but the locomotive did just fine in this environment. I still wish for a switch installed in one of those empty slots under the water hatch so I could shut those markers and class lights off!

Overall impressions are all I can give, not having a production model. It’s a bit of a challenge to get something out there for you to see before they all sell out, so this is a different approach to see if this is still useful while getting the word out sooner. Certainly the detail level is at the top of Sunset’s game, the performance is quite nice, and the capacity for work is there, out of the box. You might want to check one out in person, and judge the final product for yourself.

Review: On30/On3 Hardscrabble Ore Bin;
MSRP: $52 plus postage
Firebox Models-Stubborn Dog Studio, 11757 W. Ken Caryl Ave., F-333, Littleton, CO 80127
sales@fireboxmodels.com • www.fireboxmodels.com

Reviewed by Joe Giannovario

I plan to build a small coal mine for the Coal Creek Railway to fill a corner of the layout. I also intend for it to be the subject of a future article. As soon as I saw this “ore bin” kit, I knew it would fit the bill for what I had in mind. Even though this kit is marketed as “On30/On3”, it is perfectly suitable for O Scale standard-gauge as well.

The kit is a set of polyester resin castings with a few pieces of brass and wire details. Everything is included. The only things you will need to complete the kit are CA glue, paint, and some basic tools. The very first instruction is to wash all the parts to remove any mold release residue. I cannot emphasize how important this step is. I neglected to wash the trough casting and, when I went to paint it, the paint just balled up and slid off.

The castings are crisp, and are very nicely detailed with a wood grain. There is quite a bit of flash to be cleaned up, but that’s SOP for resin kits. A sharp hobby knife and a medium emery board are all you need for this step.

The instructions call for a very elaborate process of painting all the parts before assembly. They mean ALL the parts, including the front and back of every piece. I estimate it would take about 10-12 hours to complete. I started to follow the process but got impatient and only did the first of three weathering steps.

To assemble the model, you need to scrape away the paint so the CA glue contacts the unpainted resin. Were I to do this over, I would assemble the model unpainted, then paint and weather it. The result may not be as nice as the manufacturer’s process, but I think it would be “good enough” for most purposes. It really depends on how much you enjoy painting and weathering.

I spent about four hours assembling the model. The instruction sheet is very detailed and includes color photos of the model being assembled. The real key to building this kit is to make sure all the parts are orthogonal (90 degrees square in all directions). I used a small machinist’s square and a combination square to insure my parts all lined up correctly.

This kit has two nice touches. The door to the bin can be assembled to slide up and down. This can be tricky when using CA glue, but with a little care it’s possible. The second item is the trough, which also moves up and down.

It’s been a while since I’ve done any kit-building, and I thoroughly enjoyed assembling this model. The Hardscrabble Ore Bin is a limited-production kit. If you want one of these, contact Firebox Models soon. They also have several other On30/On3-specific models listed on their website.
Some History

In the mid-1920s the N&W had a large fleet of compound articulated locomotives. For those not familiar with "compound-articulateds" or "Mallets", these engines supplied higher-pressure steam from the boiler to the rear pair of cylinders first, then, the exhaust steam from the rear pair was reused at a much lower pressure by the huge cylinders of the front pair before being exhausted up the stack. These were fine for slow drag freight, but the N&W needed something these engines did not and could not provide. They needed speed.

The N&W attempted to remedy this with their K3 class 4-8-2s and wasn't satisfied. They made a further attempt by converting a Z1 class 2-6-6-2 from compound to "simple" (engines using high pressure steam in both cylinder pairs), but this did not provide the answer either.

So, it was back to the drawing board. This time the N&W came up with a radically new design that took advantage of the maximum clearances and track curvature on the railway. The result was the Class A 2-6-6-4, a four-cylinder simple articulated, with 70-inch drivers.

In 1936, the first two Class As (1200 and 1201) made their debut. These locomotives had Laird multiple-bearing crossheads. The tenders had cast steel water-bottom beds with a coal capacity of 26 tons and 22,000 gallons of water. These tenders initially sat on six-wheel Buckeye trucks. The engine was a huge success and, in 1937, the N&W completed eight more identical engines (1202-1209).

In response to wartime traffic needs, the N&W built 25 more Class As during 1943-44. These were numbered 1210-1234. This group was built with old-style alligator crossheads and a heavier design lead truck casting. The tenders were the same design as the 1200 and 1201, but this time sat on six-wheel Commonwealth trucks.

After WWII, the N&W did not jump on the Diesel bandwagon. Instead, they started building more steam locomotives. In 1949, Class A number 1235 came off the assembly line, followed shortly thereafter by 1236 and 1237. These new locomotives were distinguished from their older brethren by a redesigned tender sitting on different Commonwealth tender trucks.

The last five Class As (1238-1242) were further distinguished by the use of Timken lightweight roller-bearing side rods, similar to those used on the Class J 4-8-4. Also during this period, numbers 1200-1235 had their tenders rebuilt to the new design, but kept their older Commonwealth trucks.

As had coal board extensions added to their tenders, however the coal capacity remained rated at 30 tons.

M.T.H. has manufactured two versions of the Class A, represented by numbers 1218 and 1242. The 1218 is the last Class A still in existence, and the 1242 is the last Class A built by the railroad.

The Models

I received a model of 1242 to review. The first thing I did was to check it against the drawings in Hundman’s cyclopedia. As far as I can tell from all my measurements, the chassis, boiler, and tender castings are dead-on to scale. I can find no major discrepancies. I knew, however, that there must have been a trade-off in the chassis somewhere, and it is in the drivers. They scale out to 66-1/2” over the tread, rather than 70”. This does not look bad at all. In fact, other than the slightly smaller diameter, the drivers are perfect replicas of the prototype’s drivers right down to the webbing around the axle hub. This is a neat, often overlooked, detail.

The locomotive has lots of added details, and a newly redesigned smokebox front that has scale-sized hinges (hooray!!). The smokebox door does not open, nor do the sandbox hatches open. I don’t consider this a negative. The cab windows do slide, as do the cab roof hatches. The cab windows are also painted the correct cadmium orange, and the cab interior is the correctly painted green. There is an engineer and fireman in the cab.

The tender casting for both the 1218 and 1242 models is identical to the earlier M.T.H. Class A (circa 2000). Although this means the one behind the 1242 is incorrect, each rides on the correct Commonwealth truck for the appropriate engine. The tender water hatches open to reveal control pots. The tender also has a doghouse (with a figure in it), as well. The tender floor is drilled and tapped for a scale coupler box. I fitted a scale coupler to the test engine with the screws provided by M.T.H.

This new locomotive uses a new “wireless” drawbar, eliminating the large tether common to previous M.T.H. steam. It is not really wireless, but a clever bit of technology that carries all the DCS connections through a flat, printed-circuit drawbar. M.T.H. fans will need to get used to coupling this new drawbar. I had a bit of trouble getting the plug on the drawbar seated properly in the tender socket. Following the directions in the instruction booklet did not result in a proper connection. Finally, I laid the engine and tender on their sides and inserted the drawbar while applying pressure with my thumb. I was rewarded with a satisfying crunch and the connector was correctly seated. The drawbar on the Class A is 45mm (1.75”) long, which results in a large space between loco and tender. A source at M.T.H. informs me that shorter length drawbars will be available down to 25mm (1”), and can be changed out with just a screwdriver.

Performance

I always turn down the smoke when testing an M.T.H. 2-Rail locomotive, as it adds a huge current bias to the readings. So, I was surprised when the A began to move at just six volts DC and 400 mA with sound, but without lights. At
seven volts and 700 mA, the lights came on. I measured a speed at these readings of 2.2 scale MPH. At 12 volts DC, the locomotive drew one ampere on level track, with a string of 12 heavy hoppers. The current rose to 1.4 amperes on my 3%+ grade with the same string of cars. This is excellent for such a large locomotive. Scale speed at 12 volts DC was about 25 scale MPH.

Using DCS, the locomotive ran smoothly and quietly in both directions. The smoothest slow speed I achieved was at 2 scale MPH on the handheld display. I coupled up the hopper string and walked off with the load as if it wasn’t there. I set the speed on the handheld at 20 scale MPH and the train ran at that speed all around the layout, even up and down the stiff grades. Performance under DCS was excellent.

**Picking Some Nits**

I found lots of things to pick at on the model, but none of them really serious. To start, the coloring of the lettering seems off to me. It’s too orange. The lettering on the rear of the tender reads “35 tons” where it should read “30 tons”. The only N&W tender with a 35-ton capacity was behind the J. Maybe when 1218 was in excursion service its tender was rated at 35 tons, and this is where that notation came from.

The engine walkways should be perforated. Instead, they’re dimpled as a compromise. The mechanical lubricator linkage is oversized and connected improperly to the valve gear. The siderods are one piece rather than jointed, but it’s hardly noticeable. The bell on 1242 is centered, but should be offset to the engineer’s side of the boiler. The handrails on the front engine porch are shaped incorrectly and missing a crossbrace. The feedwater casting on the smokebox sits too low, and is missing a small pipe that goes back to the stack. Two pipes on the fireman’s side of the smokebox are cast-in rather than added. The air pumps have no piping to the air reservoirs. These details can all be fixed if you want but, unless you are intimately familiar with a Class A, you probably won’t notice most of these things.

My only real issue with the model is the area of trailing truck. It is the correct sideframe style, but the overall shape of the truck at the front is incorrect. There are no ashpans simulated, so there is quite a bit of air that can be seen above and in front of the trailing truck. I presume this was designed this way for 3-Rail curve clearance. This can be improved by replacing the truck. Precision Scale Co. makes the correct trailing truck in kit form (#PST-9145. $36) and the ashpans can be added easily. Maybe I’ll do an article on this later.

**The Bottom Line**

The N&W Class A was done in brass in the late 1980s, and that one does not have a great reputation as a model that runs or holds together well. Williams did a Class A in 2-Rail as its last brass model, and that one has issues with undersized boiler dimensions. The M.T.H. N&W Class A looks very good, is painted and lettered, and runs extremely well. It ain’t perfect, but for most of us it’s certainly acceptably close.

Interestingly, M.T.H. wasn’t even going to make any of the Class As in 2-Rail. A bunch of dedicated N&W fans lobbied M.T.H. to do them in 2-Rail, and this is the result. There are only 20 of each number in 2-Rail, so you better move if you want one.

**References:**

- Norfolk & Western Railway: Pocahontas Coal Carrier, Richard E. Prince, 1980, R. E. Prince Publisher, NE.
Special Report: Atlas O Factory Installed QSI DCC/Sound System
Atlas O, 378 Florence Drive, Hillside, NJ 07205
908-687-9590 • www.atlason.com
by Brian Scace

The long anticipated change-over from the Atlas 2-Rail TMCC command equipped motive power is indeed complete, with the delivery of some of the first “Gold” locomotives. Several different models hit the streets at the same time with the new system. We’d like to thank Fred Lundgren for lending us two of his new SD40s, so we could run some tests and tell you what we found. We ran these very un-structured tests using three different control methods. The system is dual-mode control, either running on conventional DC cab control or with the Digital Command Control (DCC) protocol. The third method we tried out becomes a review onto itself, using a little gadget from Model Rectifier Corporation they call (background organ music in a minor key plays now…), the “Black Box”.

DC Cab Control

Atlas and QSI calls conventional cab control “analog” in their instructions. You merely take the thing out of the box and put ‘er down on the track, I used an MRC Controlmaster 20 to run this sequence. About half of the speed control is dedicated to supplying enough voltage to light the lights and start the sound. Manipulation of the reversing switch on your power supply triggers the bell (latched) or the horn (momentary) depending on the duration of the reversal in polarity. You have to turn the power (hence the sound) all the way off to change direction. There are several “programming” sequences you can do in analog mode, using the supplied magnetic wand thingy and the book. There are a couple things to be aware of here. The units travel together, dictated by track polarity as you would expect. This sounds normal, but figures in the rest of the testing results you’ll read. I found it disconcerting, having to hear the restart sequence every time you wanted to change direction and would probably turn the sound off before living with that effect for long. Also, losing half the throttle range just to start them up costs in controllability. On the plus side, once they were in motion, the two units ran well together, maintaining speed with varying gradient profiles. Also nice is the fact that, having run them through the DCC tests and resetting the sound level, the volume settings from DCC operation were retained in the analog mode. There is an alternative for the DC cab control guys, however, in MRC’s little Black Box, which we’ll discuss later.

DCC

I actually tried DCC operation first, re-addressing the units to their road numbers, then getting into the book to learn how to turn the fool things down. The volume was set from the factory at maximum; I reset them down to about 20%. Be ready for a surprise, here, my fellow Luddites. When you change a control variable (CV), a voice sounding like a track detector is heard to say something like, “Cee vee one equals six two one seven”. Scared the b’junior out of me the first time, but really not to say something like, “ Cee vee one equals six two one seven”. Scared the b’junior out of me the first time, but really scary basic fashion for those of us who don’t do hexadecimal anything. They operated in multiples very nicely using basic DCC operation and the basic DCC function keys, right out of the box.

A Recap

So, what do we have here? These units do very well in a DCC environment, both for those of us who are “basic” users who want to run trains primarily, and for the more advanced control system hobbyist out there. It’s probably expecting a little much for the system to be as satisfying in the DC cab-control “analog” mode at the same time, because these two environments are so dissimilar. However, there is salvation for the cab control guys in the next review.

Review: MRC “Black Box” Controller, MSRP: $72.98
Model Rectifier Corporation, 80 Newfield Ave, Edison NJ 08837
732-225-2100 • www.modelrectifier.com

MRC designed these things for the HO world initially, what with the high-end factory-installed sound-equipped stuff from folks like BLI. Frank Verico of MRC sent me this to try with the new Atlas/QSI system, and here’s what I saw.

For the folks with blocks and DC cab control, this thing makes the Atlas O/QSI sound system much more agreeable and accessible. You take two wires from the box, which is a handheld controller about the size of a cigarette pack, and hook it the variable DC output of a power supply. You take the other two wires and hook them to your block selector or to the track. Crank up the power on the power supply and you’re ready to go. What you get out of the deal is the full range of the knob back for speed control, and the various function keys on the box take the place of having to twiddle the direction switch on the DC supply to make the horn and bell work. Even better, you get access to all the DCC functions (F1-whatever) that the DCC guys have, using the keypad on the handheld, without having to change out control systems.

The Black Box actually could be described as a digital controller, without the “command” part of DCC. It sends instructions to all the locomotives in a block, rather than to a particular locomotive. It also can be described as a controller without the “programming” part of DCC. You can’t change “control variables” with it.

Running our pair of AtlasO Gold SD40s was much improved over straight DC (“analog”) operation; the lights behaved at constant intensity, the sound/reversing issue went away, and controllability was enhanced because you have the whole knob travel devoted to speed control. Although this unit was created for the HO market, and the manufacturer only rates it for 1.5 amps, our four motors (two in each unit) pulling a twenty-car freight up and down my grades didn’t trip the circuit breaker. Be aware that a couple twin-motor Diesels are probably operating pretty close to the top of the design load from the manufacturer, though. Perhaps we can con MRC into
beefing up the Black Box a bit, now that dual-mode is becoming mainstream in O, so we can run five units and fifty cars!

There are some things to be aware of. You can’t run anything but dual-mode DCC decoder-equipped stuff with this, so a bypass toggle is called for while running your straight DC stuff. Better yet, call it a separate cab and wire it appropriately. Also, when you run multiple units, know that forward here is “locomotive forward”. If you have two back-to-back, they’ll run in opposite directions. If you have a friend with DCC, he can set your choice of “locomotive forward” for you, so you can set up consists to run back-to-back rather than elephant-style. He can also set sound volume and the like, as well.

A good read of the manual that comes with the Atlas/QSI system will yield instructions for dealing with programming stuff, using the magnetic wand thing in the locomotive box, if no-one near you has DCC.

Here’s something to know, if you run your stuff on both a DCC-equipped railroad and a DC Black-Box equipped one. Initially, our two SD’s wouldn’t run with the Black Box. The instruction sheet recommended that I “reset the system” by punching <shift-9-9>, if the box wasn’t working. I did so, and the SD’s happily fired right up. It turned out that the Black Box doesn’t recognize reprogrammed addresses on locomotives run in DCC. The Black Box reset sequence re-addressed the locomotives back to the generic factory default address of “3”.

I found the operation of the Atlas/QSI locomotives vastly improved using this controller as opposed to straight “analog”. The same functions on the DCC pad are used on the Black Box, and control was smooth, predictable, and reliable. For those who don’t want to go to full DCC, here’s an alternative worth looking into.
**August 2007**

**4: Denver, Pennsylvania**  
Eastern O scalers 2-Rail Swap Meet at the Denver Fire Hall, 4th and Locust St, 9:00 AM – 1:00 PM. Admission $5; (spouses & children under 14 are free). $16.00 for the first table (includes one admission) and $12.00 for each additional table. Dealer’s set-up Friday evening 6:00 PM to 9:00 PM and Saturday morning 7:00 AM to 9:00 AM. Info/reservations, SASE – EOS, PO Box 1781, Bensalem PA 19020; (215) 264-9623, eostrains@comcast.net. Bring an index card with your name, address etc., for a dollar off your admission.

**26: Parma, Ohio**  
Cleveland All Gauge Model Train Show held at UAW Hall Local 1005, 5616 Chevrolet Blvd, Parma, Ohio. 10:00 AM to 3:00 PM. Admission $4.00 (under 12 free) Phone 216-398-9313 for table reservations. Layouts, and over 180 tables filled with model and toy train items. Contact: mograham@hotmail.com.

**September 2007**

**15: Merchantville, NJ**  
Cherry Valley Model RR Club Fall Swap Meet at Grace Church, Maple Ave & Center St, Merchantville, NJ on Saturday, Sept. 15 from 9:00AM to 1:00PM. The Cherry Valley Model RR will be open during the meet for visitors. Admission is $5.00, children under 12 are free. Tables: $16 for first table (incl. 1 admission), second or more tables $12 ea, Helpers: $4 ea. For more info contact CVMRRC, PO Box 192 Maple Shade, NJ 08052 or send email to Chris Crane, p2c.crane@verizon.net or Harry Heike, harrys_trains@comcast.net.

**20-22: Indianapolis, Indiana**  
2007 O Scale National Convention sponsored by the Indy “O” Scale Meet and O Scale Trains Magazine. Held at the Indianapolis Marriott West, 7202 East 21st St, Indianapolis. Rooms are $75 to $94 per night with free parking. Three-day admission is $33. Tables are $40. We will have 20,000 sq. ft of selling and display space for nothing but O Scale trains! For more details contact Jim Carter, 317-782-3322, jcanternkp@sbcglobal.net. Held at the Indianapolis Marriott East, 7202 East 21st St, Indianapolis, IN 46219, Ph: 317-322-3716.

**October 2007**

**13: Gardner, Massachusetts**  
Southern New England Model RR Club’s O Scale Train Show on Saturday at the United Methodist Church, 161 Chestnut St., Gardner, MA from 9:30 AM to 4 PM. White Elephant table, sales & exhibits, operating layout, model display area, door prizes, food on site. 6 ft. vendor tables $15 before Labor Day, $20 after, 8 ft. vendor tables $20 before Labor Day, $25 after, setup 7:00 to 9:30 am. Admission: $5.00, $8.00 Family max. Contact: Larry Grant, (508) 337-6661 BigBrotherLar@netzero.net, www.snmrr.org.

**18-21: Albany, New York**  
NMRA Northeast Region Convention Hudson-Berkshire Division of Northeastern Region of NMRA is hosting fall convention in Albany, NY. Contact: insleyh@verizon.net.

**27: Wind Gap, Pennsylvania**  
Eastern O scalers 2-Rail Swap Meet at the Plainfield Fire Hall, 6408 Sullivan Trail, 9:00 AM – 1:00 PM. Admission $5; (spouses & children under 14 are free), $16.00 for the first table (includes one admission) and $12.00 for each additional table. Dealer’s set-up Friday evening 6:00 PM to 9:00 PM and Saturday morning 7:00 AM to 9:00 AM Info/reservations, SASE – EOS, PO Box 1781, Bensalem PA 19020; (215) 264-9623, eostrains@comcast.net. Bring an index card with your name, address etc., for a dollar off your admission.

**July 2008**

**23-24: Worcester, Mass.**  
The 2008 National O Scale Convention will be held at the DCCU Center in Worcester Massachusetts. The DCCU center will provide us with over 50,000 square feet of exhibition space. In this large area we plan to have a large amount of dealer tables, wide isle spacing and many operating layouts including the Southern New England Modular Layout that measures 27’ x 81’. The DCCU Center is located in downtown Worcester about 2 blocks from the newly renovated Union Station. Click on the Union Station link to see more about the station. One of the Providence and Worcester mainlines runs across the street from the front of the DCCU Center. An all-day rail-fan trip is in the planning for conventiongoers on Wednesday 7/23/08.
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2007 Convention News

I goofed! I neglected to update the Convention ad to reflect the latest room rates. Jim Canter sent me new flyers a couple months ago and I did not notice the room rates had changed from previous flyers. Also, the room rates published did not include Occupancy Tax which, in Indianapolis, is 15%. So, here’s the straight scoop. There are two hotels available for you to choose. The Marriott Indianapolis East has a convention room rate of $85 per night, plus tax which brings that to $97.75 per night. Across the parking lot from the Marriott is a LaQuinta which has a convention room rate of $70. With tax, that rate is actually $80.50 per night. Both hotels offer free parking. You can make a room reservation at the Marriott by calling (317)-322-3716. If you want the lesser rate, call the LaQuinta at (317)-359-1021. I sincerely apologize for any confusion caused.

The 2007 Convention runs from Thursday, Sept. 20th through Saturday, Sept. 22nd. This is a day shorter than usual. If you are a subscriber, a registration form is printed on the back of the carrier sheet that comes with your magazine. For those not subscribing, you can request a convention registration form from Jim Canter, 1203 Rotherham Ln, Beech Grove, IN 46107 or you can download a form from the convention website at [http://www.2k7oscalenat.com].

At this time, the clinics will all be held on Thursday the 20th. Here is the current lineup:

- **Harry Hieke: Hands-on Micro-Torch Soldering** (2 hrs). The usage of micro-torch soldering for repair and improvement of brass models.
- **Brian Scace: A Look at "Givens and Druthers" as a Concept Planning Tool**. Brian will explore an expanded version of John Armstrong’s “Givens and Druthers” method of defining a railroad design.
- **Glenn Guerra & Jerry Huth: O Scale Module Roundtable**. Glenn and Jerry have been working on a new concept for joining O Scale modules together.
- **Joe Foehrkolb: 3-Rail to 2-Rail Conversions**. Joe will discuss a lot of the 3-Rail engines and cars that are excellent candidates for conversion to 2-Rail.
- **Rod Miller: Basics of DCC Decoder Installations**. The basics of DCC operation will be described in order to support understanding of the decoder’s job and why certain steps of the installation process are required.
- **Jim Burch: Painting, Decaling & Weathering**. Preparation, painting, lettering and weathering of railroad models.
- **Dave Brumagin (of Brummy’s Ballast): Ballasting Track**. Details TBA
- **Bob Lavezzi: Catenary Operations**. Bob will provide handouts and articles he has published on how to build and place catenary on a layout
- **Bob Lavezzi: Billboard Reefers**. Bob will bring drawings, examples, and a powerpoint presentation on Bob Wagner’s lifelong research on billboard reefers.
- **Robert Langlois: Tools & Techniques**. While most of the tools and techniques are identical with all other scales and professions, there is a way of thinking that evolves and leads to modifications which are peculiar to this hobby, and O Scale in particular.

If I receive further submissions for clinics between now and September we may add Friday to the schedule for clinics. As of now, both Friday and Saturday are for self-directed layout tours and vendor selling days. A list of layouts to visit will be available at the convention.

The 2007 Convention car is Monon #1. The car is being made by Weaver Models and comes with diecast trucks and couplers. This is a two-rail car. The quantity is limited to 100 pieces, so order quickly. If you will pick up your car at the convention the cost is $50. If you would like your car shipped to you as soon as they are available (probably by the time you read this), the cost is $60. Checks only for pre-orders. Checks and cash will be accepted at the Convention. There is an order form on Page 52 of this issue and the form is also downloadable from the Convention website. The car was suggested by Brian Scace and my thanks to Tom Kepshire, J.D., Ken Weller, and Ron Marquardt for their assistance in getting the lettering correct.

I want to remind everyone that the Convention banquet and awards ceremony is on Friday evening, not Saturday as usual. I like this idea because most everyone will be there for the banquet. The banquet cost is a modest $36 per person.

Other activities include a model contest and door prizes hourly on Friday and Saturday. You must be present to win a door prize, and believe me, you will really want a chance to win some of these prizes. Weaver has donated their new RPO and baggage cars and Atlas O has donated a Gold Master Series USRA 0-6-0.

Well, that’s it for now. If I’ve forgotten anything I’ll be posting updates on the Convention website. I hope you will come to Indianapolis in September and join us for the Convention.

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Alert: Less than 25 of each cab number have been produced.  
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