NEW! The 1947 Great Northern Western Star 8 car set and single cars lettered for CB&Q in O Scale!

Prototype photo by courtesy of GN.

#17409 Great Northern Western Star 8 car set, factory painted Empire Colors, lettered Great Northern.
(1) RPO/Baggage painted #1102 (1) 60-seat coach painted #1112 (1) 48-seat coach painted #1128
(1) Coffee Shop/Dormitory painted #1143 Coeur d'Alene Lake (1) Dining car #1151 Lake McDonald
(1) 8-4-4 Sleeper painted #1165 Triple Divide Pass (1) 16-4 Sleeper painted #1174 Many Glacier
(1) 2-1 Buffet/Lounge/Observation painted #1193 Kootenai River

Prototype photo by William J. Neill. Similar to PSC #17423-1

GN Empire Builder 1947 Pullman Standard cars, painted Empire Builder colors lettered for CB&Q

#17411-1 GN RPO/Baggage car painted CB&Q #1104.
#17413-1 GN 48-seat coach painted CB&Q #1132, 1133 and #1134.
#17415-1 GN 60-seat coach painted CB&Q #1115.
#17417-1 GN Coffee Shop/Dormitory car painted CB&Q#1144 Red Eagle Lake.
#17419-1 GN Dining car painted CB&Q #1155 Lake Michigan.
#17421-1 GN Sleeper 8-4-4 painted CB&Q #1166 Red Gap Pass and # 1169 Swift Current Pass.
#17423-1 GN Sleeper 16-4 painted CB&Q #1178 Sperry Glacier and #1179 Siyeh Glacier.
#17425-1 GN Buffet/Lounge/Observation 2-1 painted CB&Q #1194 Marias Pass.

#17365 1947 Great Northern Empire Builder 8 car set, painted and lettered Empire Builder:
(1) RPO/Baggage painted #1100, (1) 60-Seat Coach painted #1110, (1) 48-Seat Coach #1120. (1) Coffee Shop/Dormitory painted #1142 Two Medicine Lake, (1) Dining Car painted #1152 Lake Chelan (1) 8-4-4 Sleeper #1168 Gunsight Pass
(1) 16-4 Sleeper painted #1170 Black Foot Glacier and (1) 2-1 Buffet/Lounge/Observation painted #1192 Flathead River.
#17365-1 RPO/Baggage car painted Empire Builder colors, #1101, #1102 and #1103.
#17365-2 48-Seat Coach painted Empire Builder colors, #1121 thru #1131.
#17365-3 60-Seat Coach painted Empire Builder colors #1111, #1112, and #1113.
#17365-4 Coffee Shop/Dormitory car painted Empire Builder colors #1141, #1142 and #1143.
#17365-5 Dining car painted Empire Builder colors #1151, #1152 and #1153.
#17365-6 Sleeper 8-4-4 painted Empire Builder colors #1161 thru #1166.
#17365-7 Sleeper 16-4 painted Empire Builder colors #1171 thru #1177.
#17365-8 Buffet/Lounge/Observation 2-1 painted Empire Builder colors #1191 and #1193.

Precisely handcrafted brass models Super-Detailed per prototypes.

*Exact paint colors from original paint chips *Full Interiors with all new PSC tooling *Interior Shades
*Detailed Underbodies * Lighting System *Sprung and Equalized Trucks *Working Doors and Vestibule

See your local Hobby Shop and reserve yours today for fall arrival!
Features

4  Alex Azary’s DAMN Railway & Transportation Co.
John Henke spins the tale of his friend Alex’s layout.

11  Babbitt Atlantic Modifications: Cab & Boiler
Personalizing a common kit, Bob Garrelts makes his unique.

15  Super Detailed Track
Want to make your trackwork look super realistic? Clark Howell gives us the details on how it’s done.

18  Southern New England Model Railroad Club
Rich Godfrey spreads the word about a very active club

26  The L&N and Southern RR
Carey Hinch’s contest entry is a switching layout built on a helix.

34  Scale Command - Part III
The final installment in Don Woodwell’s coverage of TMCC™ for 2 rail operation. Don gives recommendations and some costs.

38  Where The Eagle Meets The Chief
A photo layout from the 2003 O Scale National

44  Track Cleaning Car
A scrape a day keep the locos on their way says Stuart Ramsey

54  Floor Modules
Who says you don’t have room for a layout? See how Gary Woodard solved his dilemma.

58  Modeler's Tricks
A better solution for the InterMountain operating doors is what Harry Hieke, Jr., says he has. You decide.

Departments
8  Easements for the Learning Curve – Brian Scace
20  Traction Action – Roger Jenkins
23  Proto48 – Gene Deimling
24  The Workshop – Neville Rossiter
31  Crapola From The Cupola – John C. Smith
45  Modeler's Shelf – pages 45 & 57
46  Reader Feedback – Letters to the Editor
48  Product News & Reviews: Golden LEDs & Aristo Craft RC Throttle
50  Narrow Minded – Bobber Gibbs
59  Buy-Sell-Trade Ads
60  Events Listing
60  Ad index
61  OST Dealers List
62  Observations – Joe Giannovario
Alex Azary’s O Scale Layout In A Small Place

by John A. Henke

One often hears the statement, “I just don’t have enough room for it” or “I love the detail and realism of O scale, but...”. Some then go on to fill half a room with HO layouts, which although very nice, just can’t match the authenticity of the “King of Scales.” Others claim that the cost of O scale is just too high (arguably a justifiable claim) and then proceed to spend large amounts of cash on numerous HO engines and rolling stock or on a few high-priced, brass HO products.

Alex Azary’s Dayton and Michigan Northern Railway and Transportation Company (D.A.M.N.), a former Pennsy branch line, on which Ann Arbor Railroad has trackage rights, is an answer to those who just don’t seem to be able to make the step to O scale.

Alex, a man of many interests, converted to O scale in 1976 after being involved in HO for a number of years. He has developed his skills over the past 60 plus years, repairing, rebuilding and painting models for himself and others. In 1990, he moved to a new home and because of limited space had to downsize his layout to its present L-shaped 23 feet long by 10 feet wide size, the southern 10 ft of which narrows to 6 ft wide. A workshop, a den and an area for Mrs. Azary’s hobbies forced Alex to improvise in the small area indicated.

Over the past 12 years, Alex has built and modified his layout and collection. He has constantly upgraded his roster of engines and rolling stock through trades and purchases following the lineage of Max Gray through U.S. Hobbies and Westside models to Iron Horse models, with side trips to Overland, Precision Scale and NJ Custom Brass. He has one lonely plastic AHM Indiana Harbor Belt 0-8-0 switcher.

A lover of steam and large locomotives, Alex has downsized to Moguls, Atlantic’s and GP35’s. He still maintains a beloved Pennsy Q2, but it just can’t make it around the curves on Alex’s layout so it is stabled on a friend’s layout with 84 inch radius curves.

Much of Alex’s present collection of engines is based on experiences from the past. As a child living in Dayton, Ohio, Alex and friends used to bum rides on a PRR B6sb switcher at the sidings on Dayton’s west side. Alex fell in love with the Pennsy Atlantic #460 (the so called Lindbergh engine) after seeing Charles Lindbergh fly over his home after his return from Europe. A Max Gray model fills the niche. Pulling his ore train is a Kemtron Wabash Mogul. A prototype of this engine...
the Pennsylvania Railroad. Thus the dual-purpose layout has evolved. The D.A.M.N. Railway Trolley Museum, complete with a trolley barn and overhead wires, allows him to run a fine collection of interurban models based on prototypes from both East and West coasts, as well as several from in between. An Eastern Mass. Street Railway snowbrush, a prototype of which can be found in the Sea Shore Trolley Museum in Kennebunkport, Maine, represents the East. The West is represented by a Pacific Electric 1000 series “Big Red Car”. Several other trolleys make up the museum collection. Recently acquired Division Point Rail Diesel Cars (RDCs) fit nicely in the Ann Arbor Michigan locale. RDCs were once used on the Jackson to Ann Arbor, Michigan, commuter line. These cars are among Alex’s favorites.

Although a variety of passenger rolling stock has resided on the D.A.M.N. in the past, currently passenger operations are limited to the Trolley Museum and its inhabitants. For sentimental reasons Alex does retain a GI Pullman passenger car (in which he rode many miles during WWII) and a Wabash heavyweight (because of its past connection with the Ann Arbor railroad). The present layout features mainly freight operations, with a variety of hoppers, boxcars, gondolas, tank cars, and cabooses.

Carefully selected and weathered structures and accessory vehicles accent the 1950s venue. Pennsylvania Railroad style signal towers give the railroad a distinct Pennsy flavor, as do the overhead wires. The setting is a combination of the Ann Arbor area and an elevated Pennsylvania mining town, which is situated atop a hill traversed by a two-track tunnel.

Alex’s wife, Jan, a miniaturist and artist, has supplied the artistic talent that has converted a somewhat ordinary layout into a
Wooden trolley poles, by John Pilling, support the system. The layout has a double track mainline with designated east and westbound tracks. Three sources of power are utilized, a dual Kurtz-Kraft power supply rated at 18 volts D.C. and 5 amps, each furnishes power through two cabs. For trolley operations, the Kurtz units are disconnected and two A.C. transformers, rated at 24 volts and 4, amps provide power one to each track. A recently installed North Coast Engineering 10 amp “Power House” system provides Digital Command Control. This array of options provides tremendous flexibility on a small layout.

Bench construction utilizes 2 x 6 ft sections, many of which were moved from Alex’s previous layout. Each section is coded for easy assembly and disassembly. Atlas flextrack and Roco #6 turnouts on quarter inch cork roadbed, applied using rubber cement, has allowed rearrangement of trackage on more than one occasion. The present layout has 48 inch and 36 inch radius curves. The detection system and Pennsy-type block signal system was designed and constructed by Jay’s Engineering (Joe Kocsis) of Westland, Michigan.

If you happen to be in the Ann Arbor area and want to see a magnificent small O scale layout, look Alex up. You will be impressed!

◆
Alex Azary's
Dayton and Michigan Northern Railway and Transportation Company
(D.A.M.N.)

1. Control Panel
2. RR Shop
3. Hardware Store
4. House
5. Hoist House
6. Ore Tipple
7. Packing Co.
8. "Jiffy" Mill
9. Trolley Barn
10. Chelsea Station
11. Silo
12. Warehouse
13. Engine House
14. Tower
15. Coal
16. Water
17. Freight Station
18. Ann Arbor Michigan Passenger Station

Note: Entire layout is electrified with overhead wire system.
Easements for the Learning Curve

Brian Scace

Well, this column is a year old, now, and this magazine has grown rapidly in that year. For all you folks who have signed on after the initial one of these musings hit the stands, I'll recap a couple things. First, of course, is a hearty welcome to our somewhat dis-functional band. As the title of this lamentable error in judgement by the Editor implies, we are exploring those things that a newcomer would find useful. By “newcomer”, we are also assuming that you have come from other modeling disciplines, such as the HO and N world, or perhaps you've made the leap from the three-rail community. Now, repeat after me: “I'm an O scaler, and it isn’t my fault!” Whoops! Wrong meeting…

Scace's Snappy Patter

Not too long ago, I attended a train show that was a real eye opener. No, it wasn’t an O scale show, but it gave my fuzzy brain a real boot, and (with the assistance of suitable libation) subject matter for this issue’s Snappy Patter. The show in question was a “Large Scale” show. These folks are the garden railway types, LGB aficionados, live steam addicts, and a small but growing number of scale neurotics and rivet counters. All said and done, a nice group of people. So, why would Scace the O Scale Guy want to go to a show like this? Well, to learn something, that's why. We all have a tendency, especially after being at this for a few years, to pull our horns in and only go to the gatherings of, in our case, O Scale folks. At this show, for instance, I saw all kinds of useful stuff for us.

These folks need power, and lots of it, for instance. We’ve had several letters here at OST regarding power sources, yet the garden folks have several power supplies we’d love to use if we only knew about them. How does a 14 volt/20 amp clean DC power supply for about $150 sound to you? It is marketed by Crest Hobbies and sold through Micro-Mark as item number 82721 (call 1-800-225-1066, or visit www.micromark.com). I bought one and am very pleased with it, using it both with conventional DC cab control, and now with Loco-Link. Loco-Link, a very robust command control system (using radio as the carrier rather than through the rails as in NMRA DCC), is another product marketed (in this case, by Kiethco) for the G scale and #1 gauge crowd that I find very advantageous for use in O.

Here’s another case in point. One day, while shopping with my darling bride (earning those points, don’t you know!), there befell upon my delicate virgin ears an unholy screeching sound. Quickly realizing that this was an unusual sound to be heard in a sober state, I hastened to investigate this apparent case of air tool abuse, only to discover grown men racing R/C gas race cars about in the parking lot. I had stumbled on a radio controlled race car convention. Feeling it was my moral duty to wade in amongst this gathering of heathen and lend tone to what was otherwise a vulgar brawl, I passed through the portals and went in to see what I could see. “What happened next?”, asked the breathless congregation leaning forward in the pews. Illumination!

These people use slippery plastic stuff much like what we have for handrails on diesels and cabooses to make bodies for their race cars. And, they have paint that sticks to these carbodies. It doesn’t even flake off upon impact with the proverbial li’l ol’ lady in the parking lot (bent the by-junior out of one leg of her walker, though; she must have been a rum-pot.). I left, clutching a bottle (of yellow paint! Jeez!), and found this stuff works nicely on plastic handrails as found on the older Weaver RS-3’s, for instance. No chipping or flaking like the stuff we use.

The lesson here is most valuable for you folks coming to us from such disciplines as the HO world and the Hi-rail community. In your old worlds, you’ve been very used to having everything you need at your fingertips. 'T ain't so, here in O scale, and it wasn’t necessarily so then.

The Big Lesson:

Other modeling disciplines, like us, bring out techniques and products useful to them. They, like us, tend to operate in somewhat of a social vacuum, so there is some wheel re-invention going on as these separate groups find solutions to what really are common problems. The ship modeler folks have stuff to make their own pewter-like castings and lots of really neat woodworking tools we don’t know about. Go to an IPMS (International Plastic Modeler Society; you know, the military diorama folks) show. They have different scenery techniques than we do, many of which are much more realistic than what we’re used to. They are the pioneers of foam/hot-wire scenery, and can teach you to paint figures as nice as the ones we buy from Artista. Diecast car collectors show automobiles we lust after. The race car people have paint and several neat lines of gears. Plastic airplane folks do vacuum-formed parts in amazing detail. The doll house folks have useful hardware such as hinges and small power tools that we would find more than useful. My wife even showed me a lighting system for buildings made for the Department 56 folks (those expensive miniature ceramic houses that your wife sets up into towns at Christmas-time, which is why the cat becomes nervous and hides with you in the basement dur-
ing December). Found: a simple elegant solution to my building lighting issues, and they even have a pretty fair “snow” in a spray can!

The Challenge:

Here is where Scace throws down the rubber gauntlet with a resounding “thwapp”. As you folks who have loyally read this column in spite of your better judgement and your mother’s advice may remember, we started something here called “Really Obvious Tips”. After a very cerebral discussion with the Editor (followed by the expected cranial throbbing the next morning) we agreed that a pamphlet of “Really Obvious Tips” would be of Great Value to the congregation as a future offering from this august journal. If you have learned something from the other modeling forms that would be of great interest to the masses, send it in and we’ll continue to sprinkle R.O.T.’s throughout the magazine. Once we get enough ROT from all you ROT-ers, we’ll assemble all the rot in one pot. Thanks a lot.

Conclusion:

Get thee hence, and explore the world around you! There is treasure (and knowledge) everywhere, even in places you wouldn’t expect. You might feel like a pilgrim in an un-holy land among the dollhouse people or in the craft store (take your wife along like it’s her trip! You get points for that!), but you’ll find solutions, tools, and details in the most bizarre places. Some of my best tree models started with the twigs and that weird brown waxy tape the “dry arrangement” folks push at the craft store. Let’s go Exploring!  

ooops...

gee Scace...I’m really sorry.
As important and famous as the PRR K4’s became in the East, the Southern Pacific “P” Series 4-6-2 were equally famous in the West. Get ready for the first models of the SP P-8’s and P-10’s as they look today. The P-8’s #2472 and #2467 are now operational and the P-10 #2479 is under construction in San Jose.

Look for these exquisitely detailed and fine running models due to arrive in early 2004. Limited quantities, reserve yours today. Under $900 Suggested Retail. Check our website www.3rdrail.com for more exciting details.

Features Include:
- Opening Cab Roof Vent & Tender Water Hatch
- Directional Constant Voltage Lighting
- Fully Detailed Backhead, Glazed Windows
- 48” Radius Track or Larger
- All Brass Construction & Detailing With Smooth Ball Bearing Drive
- Prototypical Detailing and Lettering
Bob Garrelts

I started this article in 1998. As you may grasp I’m not one to stay with a project straight through to completion. This is a follow up to the 4-4-2 article published in O Scale News, #167. I thought I would finish the boiler and cab and see what I could do in the way of other changes. (Ed. note: OSN #167 is available from Gate VI Publishing, 630-833-3658.)

In the original article I left the tail piece of the frame in limbo with the statement that I wasn’t sure how, or even if, I was going to finish the boiler and cab. After much procrastination on my part, and a little prodding on Joe’s part, I decided to go ahead and use the Babbitt boiler and cab with some modifications.

I spent some time looking at the Model Railroader Cyclopedia (Kalmbach Publishing) and a couple of other reference books to see if the Babbitt Atlantic was close to any prototype. Many were built with inside valve gear, easy to model! Driver diameters were all over the place from 63” to 81”, give or take an inch or two and many had very different style domes.

The Erie had two Atlantics, numbers 535 and 536, that were similar except for the Baker valve gear, an inside bearing trailing truck and sand dome placement. They had 72” drivers, close to the Babbitt’s 70 inch. I decided not to try for the Erie look but just continue with what was at hand.

I modified a Babbitt cab for another “O” scaler by replacing the sides with Precision Scale’s Wabash Mogul cab parts. At the time I was pleased with the way it turned out so I decided to do it again. The work started by removing the old cab sides. A jeweler’s saw or a small hacksaw can make short work of it. The Wabash sides are a little thicker than the ones just removed. In order to make the pieces come back together properly it was necessary to remove about 1/16” from each edge of the cab front and rear. I scribed a line to file to (using blue layout dye makes it easier to see) then clamped the piece in a vise and cut away with a hand-driven “Milling Machine” (a 12” smooth cut mill bastard file) until I was satisfied with the fit. I took enough off each edge to allow the roof to just overlap the top of the sides. I filed the rivets off the inside of the cast sides to give a smooth surface. I cleaned the joints with fine sandpaper and added some rosin flux and used 60/40 rosin core solder. A small torch makes this kind of assembly easy. I did the same to the cab rear. It took a little shaping to get the roof and the other pieces to come together but when it looked right, I soldered away.

Since I reused the original cab roof. I added the Babbitt roof hatches that came with the kit. Some cab roofs have a distinctive shape at the rear overhang. I reshaped the cab roof slightly to make it more to my liking. I didn’t want the smoke deflector on the cab roof so I filled the slots with some “Lab Metal” epoxy from Micro Mark.

I used the original cab front so it could be attached to the boiler with the three pan-head screws provided. I attached the boiler to the cylinder saddle with the long 5-40 flat-head screw. That enabled me to decide how and where to attach the cab rear to the frame extension. Now you can see why I didn’t cut the tail piece to length in the first article about modifying the frame.

The cab rear can be fastened in a cou-
Babbitt Atlantic
Modifications: Boiler and Cab

Domes, domes, domes. They come in all shapes and sizes. If I were happy with the cast on domes, then a little clean up with a file and emery cloth would suffice. The cast domes appeared too modern for my taste. I had two slightly reshaped Babbitt Ten Wheeler domes that I thought would work well. I removed the original domes using my Dremel tool and cutting discs and finished with the large file. Removing the domes leaves fairly large holes so a strong back patch was needed inside the boiler to provide a home for the screw to attach the steam dome. It's possible to plug the hole for the sand dome with a piece of brass sweated in place. I sliced a piece off a ½" brass rod. I rounded the hole for the sand dome with a carbide bit till the plug fit. I put flux on the plug and sweated it in place with a torch. It was necessary to drill a hole in the bottom of the boiler to allow a screwdriver to pass through to tighten the sand dome in place. Removal of the turret cover left a rectangular hole that required filling in with a slab of brass. When I was ready to install the domes, I sighted along the boiler with the cab front and smoke stack in place to position the pieces so they all lined up properly.

The Atlantic boiler does not have cast on running boards like the Ten Wheeler. It's easy to polish the boiler. It's even possible to remove the cast-on boiler bands and replace them with thinner brass strips. After I was satisfied with the clean up from the dome removal, I used a strip of emery cloth like a shoe polishing rag. It removed most of the surface blemishes. The next step was to drill the boiler for handrail posts. All the post positions are dimpled except the two on the smokebox but they can be located with some careful measuring. A word of caution here, the kit contains a package of two longer handrail posts that are meant for the smokebox area. I missed it and had to cut the shorter ones out and redrill for the longer ones. This is called “read the instructions dummy”!

The running boards must be cut to shape to fit the contour of the boiler. I used blue layout dye and scribed a line to file to. The instructions tell you to drill the appropriate holes in the boiler then drive short pieces of brass rod into the holes and bend to a horizontal position. I soldered the boards in place and cut off the excess rod. It pays to taper the rod slightly and put CA glue or Loctite in the hole while driving the rods in.

The air tanks, cooling coils and other fittings such as the bell, generator and check valves were added to suit my whims. The instructions talk about these details so it’s builder’s choice, but options abound such as cab mounted injectors, single or cross compound air compressors and anything else I could think of. Since most Atlantics pre-date
the Pacifics and larger engines I used a single stage air compressor and, instead of a power reverse, I hooked up a Johnson bar to the valve gear reverse lever. I also made a change when it came to mounting the air tanks. Babbitt supplies stamped brass brackets for the tanks. I didn’t use them. I took a piece of \( \frac{3}{8} \)" I.D. brass tubing that just fit over the solid tanks. I cut four rings off the tube to simulate bracket bands. I drilled up through the tanks to clear 0-80 flat head screws. I tapped the matching holes in the running boards. After making the appropriate air pipe coils, I clamped the pipe brackets between the tanks and the running boards so when I tightened the tanks it held the pipe brackets. Last, I cut off the protruding screw flush with the running boards.

The boiler front is the original Ten Wheeler casting. It looks fine but it has 8 drilled holes around the edge. That’s okay if you can find a use for all of them. The three lower ones are for a handrail, if wanted. Two more are for mounting the marker lights with 0-80 screws. The one at the top could be used to mount a headlight bracket, but that leaves at least two or more with nothing to do. I threaded the holes 0-80 and put round head screws in from the inside. I made them as tight as possible without breaking the screw. You guessed it. I took a Dremel with a cut off disc and just trimmed the end of the screw flush with the front. Oh yeah, I thought the stack looked a little whimpy. I had another Babbitt stack that was for the Pacific. I think it makes a difference. The headlight? There aren’t too many of you out there that can identify the heritage of that piece (see end of story).

By the way, the Erie attached most of their boiler front mounted headlights without a platform. They used 3 studs through the back of the light fixture. It made a delicate look. I mounted this one with a 1-72 flat-head screw right through the center into the brass bushing that holds the boiler front on.

One item not covered in the chassis article was assembling the valve gear. The Babbitt valve gear kit consists of a set of nicely made stampings, cast return cranks and Walschaerts links and all the needed rivets. I HATE VALVE GEAR RIVETS! I have a my own solution. Many years ago (early 1960’s) I acquired two vials of Mantua (yes Mantua of HO fame) 00-90 shouldered screws. They were supplied with some of their early brass boiler kits to hold parts in place. These little gems were made in a couple of lengths and are plated. I simply ream one valve gear piece to clear the screw and tap the other and Voila, no rivet needed. Another item in the valve gear system is the return crank. That nasty little beast fits on the main crankpin and is advanced slightly (15 degrees?). The instructions call for a pin to hold the crank in place. It is possible to drill through the crank and pin with a #61 drill and then thread it (yes, thread!) for a 00-90 screw. The pin is steel, so if you try it, go very slow, use tapping fluid and back the tap out frequently. After threading the pin I drilled one side of the crank for screw clearance, put the crank on the pin and continued the thread through the other side. Use a 00-90 screw to hold it in place.

Boiler smokebox braces are easy to add. The holes are already in the pilot deck. It’s a matter of locating and drilling the appropriate holes in the smokebox and fitting a piece of brass wire. The front steps are an optional item. Some early engines had very rudimentary steps. The steps supplied with the kit were too shallow an angle for my taste. I found a pair of ladders (probably Central Locomotive Works) that looked like I could adapt them. I soldered the top of the ladders to the running boards.

At the lower end I fit a small plate of brass to slide under the pilot deck. I filled the old screw holes in the pilot deck with “Lab Metal”. Another item I replaced was the cast Delta trailing truck. I replaced it with a Cole Scoville truck from Precision Scale. It seemed more appropriate than a modern Delta truck.
I don’t know what went through the minds of the Varney engineers when they designed the original Ten Wheeler kit which has provided the basis for the rest of the line. Of course, that was the “Bronze Age”. Maybe they had an “Uncle Louie” who had a hot supply of 5-40 machine screws. 5-40 screws? They are almost impossible to find but a lot of the kit is put together with them. Babbitt does have them if you get stuck.

One tool I’ve found indispensable is my Dremel motor tool (I know the instructions tell you to give it to your brother-in-law) with an arbor fitted with a hard cut off disc. Properly used, it can slice all types of brass things. The discs come in two thicknesses, regular and extra thick. They are brittle and break easily. The floor of my shop is littered with broken pieces. I buy them two or three containers at a time. They work best when I slow the tool down to about one-quarter of full speed by using a variable transformer.

Oh, that headlight. A genuine antique! A BLW gem. No, not Baldwin Locomotive Works. “Before Lost Wax”! It’s an original Lobaugh headlight, maybe from a C&NW Berkshire kit. I picked it up in the 50’s when I was working at Ma Webster’s in N.Y.C. (Model Railroad Equipment Co. on 45th St.).

Some items I’ve found useful:

- Blazer or similar small torch fueled from Ronson lighter Butane. Both Model Expo and Micro Mark offer torches.
- Blue layout dye for marking brass and tapping fluid are both helpful.
- Micro Mark offers a soft soldering pad in a couple of sizes that is great for holding pieces together for soldering. Get some of their T-pins too. They are useful to pin parts to the pad while soldering.
- 60/40 rosin core solder is available at Radio Shack in several different diameters. The smaller sizes work well and 60/40 melts at a slightly lower temperature than 50/50.
- I have a small supply of 00-90 optical screws to hold the return crank to the main crankpin. And, no, I won’t part with my valve gear screws!
- Back in the fifties (middle of the last century) I read a “kink” about a solution that could dissolve broken taps and drills out of brass or bronze. I mixed a solution that I’ve carried with me for all these years and it still works. I’ve been trying to remember what the chemical was and Jace Kahn (the Yahoo OTrains list) confirmed my suspicions that the stuff is Alum and came from a tip by Bill Schopp of Railroad Model Craftsman magazine. Thanks Jace! Mix the Alum with water and heat in a non-metal container, drop the piece in and it will simply dissolve the errant tap or drill over a period of a few days.

For an encore I’m going to put rivets on the Babbitt tender, add different trucks and a Kadee coupler. Watch for that in a future issue of OST.

I’ve built many model railroad layouts in several different scales, over the years and surprisingly, seem to enjoy the building process as much as the operating sessions. I enjoy laying track and have always wanted to try my hand at superdetailed, hand laid track. Well here’s my experience.

There are several suppliers of track details, but I remembered those magazine ads from the 60’s & 70’s for Right-O-Way (ROW) products and decided to standardize with them. I was surprised to find that Lou Cross had picked up the product line after Gene LaVancil’s passing and that the line has actually been expanded. A complete price list is available from: Right O Way, 23682 Road 15¾ Chowchilla, CA 93610, 559-665-1001

My original plans were to build a small switching layout about 12 feet long and I expected to take several years to complete it. Then Joe asked me if I could write an article about my experiences and by the way, could I have it done by the March 14th deadline. So I scaled down my plans and designed a small (1’ x 4’) diorama to showcase the laying of a short piece of track including a #6 switch. I know we model railroaders usually call them “turnouts”, but in this case I’m building a scale model of prototype trackage and prefer to call it by it’s fullsize railroad name.

Getting information from my favorite prototype, the Erie Lackawanna (EL), was easy. I live in western NJ and commute every day to New York City on New Jersey Transit, former Conrail, former Erie Lackawanna, former DL&W, etc. For the most part I have based my details on current practice with the exception of welded rails.

The project started out with a small 1’ x 4’ pine box, topped with the traditional sandwich of half inch Homasote and ½” plywood. Before starting any track, I always paint everything flat black. This gives a good undercoating that will not show up in sections that are left bare. After that I glued down some standard O scale cork roadbed that was fastened with white glue and small Atlas brand track nails.

For this project I used a pre-assembled #6 turnout (switch) I picked up from P&D. It provided ties and basic switch parts already attached to a flat piece of cork. After removing the rail castings, I glued the entire piece to my mini-layout and weighed it down with 30-year-old encyclopedias.

Next came the ties. I used sugar pine ties from ROW and did several experiments trying to color them. Years ago I would have used Campbell tie stain but unfortunately it doesn’t seem to be available anymore. The ROW turnout kit came with pre-stained ties but they were a little too warm brown for my taste. I experimented with a couple of Minwax stains starting with Ebony. That turned out to be too black. Dark Walnut was only slightly too brown so I finally mixed the two together and came up with a pretty good facsimile of the prototype color. In the end I decided to use all the ties that I had tested and find the mix of different colors looks good.

**Laying Ties**

This is a pretty standard procedure. I created a jig using a short piece of clear pine with shallow grooves cut on my radial arm saw. For spacing I matched the turnout kit of 30 ties per foot but you might want to measure your prototype and simply divide by 48. The grooves should be fairly uniform but not too perfect. A bit of variation is one of the reasons that hand laid track looks more realistic than plastic tie flextrack. The grooves also should not be too deep, as they will cause problems when removing the tie strips. I suggest a depth of about ¼ inch.

Stained ties are placed in each slot in the jig and a single piece of masking tape stretched the length of the jig. I usually fold the ends of the tape under itself so that it won’t stick to my fingers and risk an accident when everything is covered with glue. After a trial fit of the tie strip, I apply a generous amount of white glue to the roadbed and position the ties carefully. I then weight the assembly down with volumes of my 1967 Encyclopedia Britannica. You, of course, can use any books you have available, but I would recommend hard cover books rather than magazines. Soft cover books and magazines tend to follow the bumps and valleys of an uneven foundation, whereas hardcover books will be self-leveling. Double check that
the weights are sitting level before leaving them to cure.

Years ago I was inspired by an enormous track laying project by Lorrel Joiner, an O scaler from Texas. Lorrel’s next step after gluing down the ties would be to sand them level with a long sanding board and then re-stain the tops. I find, on small stretches of track, that careful placement of the weights during the gluing process produces an acceptable result without the need to re-stain.

Preparing Track Parts

All the castings and rail pieces need to be pre-cut and fitted in place before starting actual construction. I use a marker pen to note a spot between ties for the power lead to be attached. I solder a short piece of wire to every separate piece and feed them down through 1/8 inch holes drilled in the road-bed. Then I paint all rail parts with Floquil’s Rail Brown. The tie plates and rail braces get a coat of Rust, which may seem a little bright at first, but we’ll subdue it later with a final dusting of black.

Constructing The Switch

Once the ties are in place, it’s time to get started with spiking rail. It’s best to start with the stock (straight) rail. Attach the rail by inserting a tieplate and spiking the ends first and then the middle. Continue dividing and checking with a straight edge until you have most of the ties spiked. I usually end up with the spiked ties about 2 or 3 inches apart, being careful not to insert one where a rail-brace or flat tieplate will eventually be required. Once the stock rail is secure, the frog/point assembly can be fitted. This consists of the frog, points and 2 approach rails that were cleaned with lacquer thinner and soldered ahead of time. I also attach power feeder wires at 3 places, one on the frog itself and one on each approach rail about half way down.

It’s important to fit the assembly to the ties first so you can mark places for the feeder wires that will fall between ties. The frog/points should be painted before attaching. I use Floquil’s Rail Brown and an airbrush.

As soon as you’re happy that the frog/points assembly is shaped correctly, you can cut the insulating gaps with flush cutting nippers. Be sure to allow for the 1/16” gap required by the ROW insulating joiners.

The frog is attached first using a couple of Kemtron rail gauges that I picked up many years ago. Next is the point assembly, aligning the straight point rail with the stock rail. The frog will require flat tieplates. Line up the gaps on the point rails and remember to leave a gap for the insulating rail joiner. The joiners may need fitting with a file or hobby knife in order to make them fit snugly into the rail web. Tie plates should be installed at the same time with spikes holding the fishplate (joiner) as well. After all is in place, a couple drops of gap filling ACC glue will hold everything together.

Moving along the point rails, continue spiking until you are about an inch or so from the fishplate on the point casting. From here all the way to the point, flat tieplates are used and are not attached to the points that must be free to move.

With the frog-points assembly in place you can now continue with the second rail on the straight approach track. Again, set the rail in place, held by several rail gauges, spike tieplates at the ends, the middle and continue the dividing process. You will likely find some of the tie plates difficult to insert using this process. There are two solutions: You can carefully set out all the tieplates needed for this section of track or you can use a small screwdriver to pry the rail up while inserting each new tieplate.

When the straight approach rail is secured (you don’t need to finish all tieplates before proceeding), place the inside curve rail by eye. This rail should follow the curve of the point rail and line up with the frog casting already in place. Remember to leave the insulating gap.

Finally the curve rail is installed and the long process of filling in the remaining tieplates begins.

Rail Details

Rail gauge plates are optional and I found that on my prototype the number per switch varied from zero to three. I suppose the number depends on how much stress is expected to be placed on the switch. Tie bars also vary from one to three. I chose a compromise for my model and installed two of each. The tie bar must be insulated and it is necessary to built a jig to assemble them. The ROW instructions show a built-up jig but I made mine out of a single piece of hardwood. The instructions call for a small piece of paper glued between the mating pieces but I thought it would be easier to use masking tape. That turned out to be a mistake as the ACC glue was not able to saturate the tape like it would paper.

Outside rail braces can be added in addition to the ones included with the gauge plates. Again, a check with your prototype will give you ideas. New Jersey Transit practice ranges from none to six or more. I thought it looked fine with five, two from the gauge plates and three individuals. The last detail to be added is the fishplates. ROW calls them “cement on joiners” but I didn’t find it necessary to actually glue them. If you carefully extract 2 spikes far enough to insert the plastic fishplate and then press them back in, avoiding the nut-bolt detail, they will hold just fine.

Finishing up I use normal methods for adding ballast. Woodland Scenics coarse gray ballast is soaked with a fine spray of water and dish detergent. Next I used Woodland Scenics glue administered with an eye dropper. After a couple days dying time, a light dusting of Floquil’s Weathered Black will subdue the bright colors. The final step is to remove the paint from the top of the rails using an eraser-type rail cleaner. Be careful not to remove paint from the guard rails and the parts of the frog that don’t get any traffic.
Ties are spaced out on a jig made on a radial arm saw. A piece of masking tape holds them in position until they’re glued to the roadbed.

The detail castings available from ROW.

A spiker available from hobby shops is used to drive 3/8” low profile spikes.

Encyclopedias used to weight down the ties until the glue cures.

A hardwood jig for gluing a tiny piece of paper to insulate the two halves of the gauge plate. A hardwood jig for assembling the throw rod.

Gauge plates are fastened by nut-bolt castings.

Frog casting and point rails are spiked in a few places. Note gap for insulating joiners (plastic fishplate castings).

A view of the completed points.

A view of the completed frog and guard rails.

Fishplates add a lot of detail to track.

Rail braces and a switchstand add final details to the turnout.

Plastic insulating joiners are spiked in place and a drop of super glue placed in top. The protruding tabs are filed down after the glue cures.

Closeup of the gauge plates.

Another view of the completed points.

A long shot of the whole project.
The members of the Southern New England Model Railroad Club (SNEM-RR) think of ourselves as a relatively new club, but we have been formally organized for nine years, and have been informally operating our modular layout since 1990. Initially the layout was a reasonable sized 21' x 45' double tracked oval. Today it has grown to a rather large 21' x 81' with interior peninsulas that provide a 200 car storage yard, a steam locomotive facility, diesel terminal, and a busy industrial park. Scenery is nearly complete and we are working on signaling.

We began using Digital Command Control (DCC) in 1995 in order to simplify wiring (a real plus on a modular layout) and increase the number of trains that can operate simultaneously. We typically operate three or four mainline trains while other club members are kept busy making up trains, switching the industrial park and hosting locomotives. SNE members model many prototype railroads from across North America (no one can stick to just one), with New England railroads well represented. Sixty-car freights with 5 or 6 diesels are not uncommon, but all types of trains from the 1920s to the current day get a chance to show their stuff.

In April 2002 we began construction of a 40' x 60' permanent layout. This major undertaking is designed to take advantage of the walk-around versatility of DCC, allowing each train crew to move with their train and pass through each section of the layout only once. John Armstrong’s “Mushroom” concept is used to create a visible mainline run of over 600 feet with many switching opportunities along the way. We are hand-laying Right-O-Way steel rail using code 148 for main lines, code 125...
for yards and code 100 for industrial sidings.

Most of our turnouts are built by members and we are even cutting our own ties! While all this track work is rather labor intensive it does save money, and working together helps the time pass quickly.

Initial construction is focused on the major yard area at Springfield Junction, the home of the Southern New England Railroad’s corporate headquarters, and the point at which the double tracked Western Division meets the single tracked Eastern Division. With freight and passenger yards, a passenger station, and both steam and diesel facilities, as well as industrial switching, Springfield Junction will take quite a while to complete. Meanwhile we keep operating interest high on the modular layout.

The Southern New England Model RR Club is located in Gardner, Mass., just off of US Route 2, in the basement of the United Methodist Church at 146 Chestnut Street. Members get together every Wednesday evening from 7:30 to 10:00 PM to work on the layouts. While visitors are welcome at any of these work sessions we recommend visiting on the third Wednesday of a month in order to catch an operating session. For up to the minute info regarding our schedule please call 508-829-4529.

Southern New England sponsors an O scale show each fall, complete with dealers, displays, and layout operation. Food and beverages are available and there is ample free parking. This year’s show will be held on Saturday, October 11th, during the peak of the New England fall foliage season. If you are in the central Massachusetts area why not drop by and check out our two layouts and buy some O scale rolling stock and supplies.

For updates on the club’s progress, directions, our fall show, and railfan trip to Steamtown, USA please visit our website at http://www.snemrr.org/. We hope to see you in the near future.
Roger Jenkins

More on Trolley Poles

When putting up wire, the poles in cities can be the metal type as seen in the last issue, or made from wood. If you choose wood, you can buy 5⁄16" dowels at your local hardware supply store, Ace, Home Depot, etc. These are cut into a length so that about a scale 30 feet (or more) remains when inserted into the tabletop. Then crossarms for feeder lines can be placed above the span wires.

The final height depends on the number of cross arms used. Span wires across the street can be put into the wood pole through pre-drilled holes of very small diameter and wound around the span wire after bending it back to the front. Rivers Traction & Trolleys* sells hangers (p/n 610) that can be pressed onto the span wire with a pair of needle nose pliers. You also can put up his cast hanger (p/n 615), but you must cut the span wire wherever these are placed, bending the wire back on itself to feed thru the holes in the wings of these hangers. The running wire must be over the center of your track on straightaways, but follow the inside rail on curves.

When reaching a switch, the frog made by Rivers Traction & Trolleys (p/n 640) is placed over the switch halfway between the switch point and the switch frog area. This usually works but the frog is equipped with pull-off positions cast into the sides. You can place a pull-off wire in there to adjust the frog. Longer cars sometimes need the frog to be adjusted, compared with shorter cars. You sometimes need to move the frog position closer to the switch frog to get them to track right. Leave enough running wire after bending it to fit into the frog so you can re-adjust the position of the frog forward or backward. You can only bend the wire a couple times before it breaks, so be careful.

The pictures shows a layout with wire constructed to accommodate pantographs and poles. The hangers here were made by Bronze Key Models (no longer available) and are on the layout of John Bishop who is modeling the Sacramento to Northern Ry. This line used pantographs and poles on their equipment.

Here’s what John has to say:

“Roger asked me to send you the attached pictures from my layout in Riverside California with the idea one or more might be used to illustrate his upcoming article on trolley wire work. He also asked me to give you a description.

My layout is based on the Oakland, Antioch and Eastern, the South End of the Sacramento Northern. It is a work in progress, and the scenes shown still lack sidewalks and residences and other things. Construction has progressed as far as the entrance to the tunnel in Sheppard Canyon.

The scenes are shot on Shafter Avenue, near the yard at 40th Street. The wire is #26 phosphor-bronze, the hangers are from Bronze Key (not currently available; I bought him out), the insulators are made from .08" (2mm) square styrene rod. Those that truly insulate (I block the wire to simplify signaling) are drilled as compression insulators, those just for appearance are drilled lengthwise so they can be strung on the wire like a bead. They are secured by ACC and painted brown-red.

The guards on the bottom of the guy wires are aluminum tubes. The poles are wood dowels, tapered by putting them in a drill and applying sandpaper; then I applied walnut stain. The insulators on the crossarms are brown Indian beads, secured with Walthers Goo®. The poles are mounted in brass tubes; the tubes are aligned in the somewhat oversize holes in the homasote and plywood using a dummy pole and then glued; I have never been able to drill a straight hole the first time.

Oh, yes, The PE car is leased equipment to deal with a traffic surge!”

I use 26 ga. nickel-silver wire obtained from Rivers Traction & Trolleys for the overhead wire and 26 ga. phosphor bronze wire for the span wires and pull-off wires. The price for 100 ft of Nickel Silver is $5.75 and the Phosphor Bronze is $6.30 for 100 ft. He also has bracket arms for the track under wooden poles for $6.50 per Dozen.

I use the #615 casting for pull-offs on the curves, as you have to follow the inside rail with the overhead wire. I put slack in the wire on curves so it can be pulled up to the proper curve. This position can be determined by having a test car on the curve with its pole up and the running wire must fit into the wheel or slider on your trolley pole. This is very critical so that the pole wheel follow the wire at all times.

A handy tool to use to solder these castings on the wire is a reverse tweezers that will hold both the wire and casting together so you can solder the wire to the casting. Use flux when you solder these. The tweezers will act as a heat sink so the heat will not take the temper out of the wire. In starting to string wire, place the end on a brick or a 2x4 and place a lead weight or similar heavy item on the end of the wire. This will keep the wire taut so the first solder point will be attached and subsequent solder points will be taut as well. You can hold the wire with your fingers beyond the hanger you are soldering or duplicate the 2x4 and weight beyond the hanger like the other one and just move this to the next point to be soldered. You will be amazed at how fast the wire goes up.

*Rivers Traction & Trolleys is at 540 County Line Road, Gates Mills Ohio, 44040

Any questions, contact me at [rogettrolley.1@juno.com]
P&D Hobby Shop
31280 Groesbeck, Fraser, MI 48026
Mon-Fri 10-8; Sat 10-6; Sun 12-5

• WE STOCK ALL BRANDS IN DEPTH •
OPEN 7 DAYS — CREDIT CARDS ACCEPTED

Information 1-586-296-6116 Orders 1-800-874-7443
Fax 1-586-296-5642 E-mail info@pdhobbyshop.com

ALL TRAINS & MODELING ACCESSORIES
0 SCALE: 2-RAIL & 3-RAIL and more
BRASS DECALS DETAILING PARTS
LOCOMOTIVES ROLLING STOCK STRUCTURES
TRACKAGE TRUCKS & COUPLERS VEHICLES

The web site does not list all items that P&D stocks; if you have inquiries on other items, please call or e-mail for the latest news.
P&D accepts MasterCard, Visa, Discover, American Express and money orders for “Same Day Shipping.” Allow 2 to 4 weeks for shipment with personal checks. Layaways (excluding sale items) are accepted with 20% down, balance due within 90 days. Canadian and foreign orders are charged appropriate shipping charges, and US orders $6 shipping charges.

Get Real Productions
11 Out of Bounds Road, Palmyra, VA
22963-2318
434-589-2660
fx434-589-4898
kjkriigel@aol.com

O Scale Signals
Highly detailed, accurate, affordable. Made in the USA. Assembled and hand-painted by a model RR craftsman.

Double Semaphore Train Order Board $59.95 + ph
3-Color Block Signal w/Equipment Box $49.95 + ph
3-Color Block Signal w/Standard Mast $49.95 + ph
Dwarf Signals (2/pack) $39.95 + ph

Your O Scale headquarters
Check our website at www.pdhobbyshop.com

Fine Quality O Scale Brass Models

PRR H21a
Our model features all brass construction and Kadee couplers. Reservations are being taken now with cars being delivered in August. Brass @$220, with Crown trucks $240.

GE 45 Ton Switcher
Our model features all brass construction, all wheel drive, fly wheel, directional lighting and Kadee couplers. Models offered painted black or unpainted for $335.

Baldwin S12
Our model features all brass construction, all wheel drive, fly wheel, directional lighting and Kadee couplers.

USRA Steel Gondolas
Our model features all brass construction, Kadee couplers and drop ends. Models will be built with details for five different versions, PRR, NYC, P&LE, B&O and RDG. Priced: brass w/ trucks $225; Ptd Black $240; Custom finished $265.

RY Models

Instock Models
GE70 tonner

Upcoming Models for 2003
C&O Wood Caboose
GE 45 tonner
GE44 tonner Pn3
USRA Gondolas
Baldwin S12
PRR H21a.

Direct Sales Only
Visa and Master Card Accepted

7 Edgedale Court, Wyomissing, PA 19610 - Phone: 1-610-678-2834

Sept/Oct '03 - O Scale Trains • 21
**NEW YORK CENTRAL L-3b**

**MOHAWK 4-8-2**

Built by LIMA in 1940, this L-3b added to the over 600 “Mohawks” that ran on the NYC. A must for any collector or operator.

Sunset Models is bringing this version of the NYC “Mohawk” to you in stunning brass detail and in very limited quantities (75 2R, 175 3R). This L-3b “Mohawk” comes complete with removable smoke deflectors, directional lighting, lighted markers and classification lamps, 9000 series Pittman motor with coasting flywheel, sprung drivers with carbon steel tires, ball bearing gearbox, fully detailed backhead with painted handles and dials.

Designed to operate on 56” Radius O Scale track or larger this model will be an excellent addition to your NYC roster.

Call your dealer or 408-866-1727 today! Coming Late 2003, MSRP $999.95!
The Basics Are Still Needed

Do you wonder what thought process goes into the selection of models for kits or Ready-To-Run cars? It seems there are some obvious holes in the steam era rolling stock scene. I would like to share my thoughts on the subject.

We have really been short-changed in the gondola and flatcar selection so far. Two of the most common in the WWII to early 1950’s era are the 53’6” War Emergency flat cars and the Greenville-built 53’6” gondola. Yes, I know that Lionel brought in a “drop dead” Pullman PS-5 gondola. The steam to diesel era still dominates the hobby in terms of interest and the Lionel car reflects a later era. Lionel has announced a PS-4 53’ flatcar for this year. That car also misses the steam era by a few years but was probably made into the 1990’s until the forty year rule caught up with them.

The Greenville gondola was very popular with the Erie, NKP, WP and NYC. There were large numbers of them built either by Greenville Car Company or railroad shops. The car’s 53’6” length would make an impressive model on any layout. Bethlehem Steel produced a similar design which had its prototype road following. Another gondola that would have possibilities is the AC&F welded 53’6” gondolas used by the WP and Lackawanna and is very similar to the PRR G-31 class. Atlas imported a G-31 model done by Roco but it was shortened a few feet and had riveted construction. The majority of the Pennsy cars were welded.

The 53’6” War Emergency flat was about as common as a car can be. The car was done in brass by Pacific Limited but a good plastic/metal car is needed since the imported brass cars are hard to find and expensive. Thirteen railroads used this style car. The design was pioneered by the UP as the F-50-11 class. It was later adopted as a war emergency design during WWII. Roads like the NP, NKP, UP, MP, SOO, C&NW, IT and others acquired impressive numbers of cars. Many of the cars lasted well into the 1970’s.

I am sure that we all have favorites to include in the list. One such car for me is the Enterprise General Service gondola. It was sold to a number of roads that used to haul all sorts of materials. The multiple drop-bottom doors added a great deal to the clutter and charm. It is the western modeler’s equivalent of the eastern modeler’s hopper.

Speaking of a common car that has been overlooked for years, how about the Pennsylvania Railroad’s X-29 class. They had over 20,000 of them. That is more of one car class than most roads had in all rolling stock. You could find them all over the country. I am always amazed when I come across a picture of an X-29 on some obscure line like the Sierra Railway. I wonder why no manufacturer has taken up the challenge of a well-done kit or R-T-R plastic model. Instead we get models of a USRA single sheathed boxcar that were rather scarce by the early 1950’s.

While we are on the subject of Pennsy equipment, their huge fleet of hoppers has escaped the manufacturer’s eye. Cars like the H-21, H-25 and GLa were found all over the East and Midwest for a long time. For years, I have never understood why manufacturers have totally ignored the most common cars East of the Mississippi. These hoppers are well represented in brass with more than one importer doing them recently. Brass cars are great and I do own a few of the better ones. If I were modeling eastern railroads, I would be broke paying $225 to $325 plus for hoppers to fill out a decent train. It would take roughly $5000 to put 20 brass hoppers in a train. Just think if you could get them in plastic, you could afford to build a decent string to tax the drawbar of an I-1 “hippo”. Speaking of taxing the drawbar, the Atlas twin hopper weighs in at around 30 oz. A string of these diecast beauties will tax most locomotives. Diecast has its value but plastic would be far more practical from a weight and cost standpoint.

If O scale manufacturers and importers are lacking inspiration, they need only look at what is going on within the HO community. Most of what I mentioned above is readily available from people like Life Like and Bowser. HO modelers are very interested in prototype modeling. Their insistence on correct models accurately decorated is a concept that hasn’t quite caught on in O scale. A large scale like O should have more detail, accurate models and correct lettering. The detailing possibilities of 1/48th scale got me to convert from HO along with seeing inspirational work done by the likes of Bob Brown, Gordon Cannon, Bill Coffee, Al Armitage and others. While these guys were all narrow gauge fans, it wasn’t hard to see the possibilities of doing the same in standard gauge.

In the next issue I will get back to a discussion on the topic of Proto48. Better freight cars benefit standard O and Proto48 equally. They allow us to create a more accurate portrayal of the prototype. You don’t have to be a “rivet counter” to see the difference. ✦
Tips from Neville Rossiter
Perth, Australia

In this issue of The Workshop, I would like to write about my experiences at the Model Railway Show that was held here in Perth West Australia in June of this year. The show is an annual event and runs for three days over a long weekend that includes Saturday, Sunday and Monday. There is a day allowed for setting up on the Friday.

This year I entered a layout called the Brooklyn Terminal Railroad (BTR). The BTR is a module layout consisting of seven modules with a total length of 54 feet. It is an O scale 2 rail layout and is based on one of the many terminal railroads that were once numerous in New York Harbor. I won’t go into more details about the layout, as I intend to do an article for OST at some stage on the BTR, but would like to talk about my experiences at the show as I am sure you would have similar experiences in the US.

To move a layout this size required two autos and two trailers. The trailers are covered and fairly high (we call them furniture moving trailers here in Australia) and can be hired out on a daily basis from your local service station.

On the Thursday night before the show we loaded the trailers and drove down early Friday morning to the Perth show grounds. The floor in the pavilion was already marked with our space and we proceeded to unload the layout that took no more than an hour. By midday we had the layout connected and running. The afternoon was spent tidying up and touching up any areas that were missed during construction.

The layout was operated with two operators each having a cab, and half the layout under their control. Each operator would make a train up and send it to the other. We found that after a while we could turn trains around at each end very quickly so the public always had something to watch. I think with a switching layout where trains are not continuously racing past the public you need to have lots of details to amuse them while they are waiting for a train. This was where the BTR stood out.

Some of the important points for a successful large switching layout at a show are:

• Have lots of details and small scenes to amuse the public.
• Make the track plan interesting but not too difficult and have plenty of industries to switch so the operators don’t get bored.
• Recruit plenty of operators. You can never have enough for three days!
• Check all your rolling stock and locos before the show especially the couplers. It’s nice to have Kadees, but I found that Weaver and Atlas couplers were not a problem.
• I used hand uncoupling with the plastic coffee stirrers.
• Have someone out in front talking to the public (I was given that job most of the time!)
• Have some kind of communication link between the operators so they are not shouting at each other! We used hand telephones and spoke to each other regularly. Next year I will use headsets.
• Have all the turnouts controlled from control panels that are located in front of the operators. Also, have many isolated track sections to hold locos. Disregard this if you have DCC.

Every morning I would be there early and clean the track with a Centerline track cleaner using some solvent on the rollers. The loco wheels were also cleaned every morning using the cradle that was in my article in OST#4 (Sept. 02).

What makes a person want to do this for 3 days of the year?
It’s a great chance to share a large layout with your friends that normally you couldn’t at home. I really enjoyed it and will be back next year with an even bigger layout.

◆
CHICAGOLAND’S “O” GAUGE SPECIALIST!

THE CLASSIC ARTICULATED RETURNS!
by SUNSET 3RD EDITION

COMING SUMMER 2004!

“O” GAUGE BRASS NORTH SHORE ELECTROLINER
AVAILABLE IN 2 RAIL & 3 RAIL
-POWERED • ALL BASS
-PAINTED (LATER YEARS SCHEME)
-FULL INTERIOR
-SOUND (RAIL ONLY - TMCC)

ALSO AVAILABLE IN THE RED ARROW LINE
“LIBERTY HALL” & “VALLEY FORGE"

WE DISCOUNT ALL NEW PRODUCT RELEASES FROM:
-K LINE • 'KEW' • SUNSET • LIONEL • ATLAS • ATHEARN • NTH • RADEE • RED CABOOSE • PEGASUS RIVER • VALTHERS • BACHMANN • INTERMOUNTAIN
CALL FOR SPECIAL PRICES!

LSASE for Complete List
Shipping 6% - $6.00 Min., $12.00 Max
Ohio Residents Add 5.75% Sales Tax

September/October 2003 - O Scale Trains • 25
Let’s suppose you have a spare room or a corner of the basement. If the attic ceiling is high enough, maybe... you can start a layout! A dream layout in two rail O scale. Think it is out of reach? Look no further, a simple solution to cramped space is the helix. A helix switching layout has numerous advantages compared to an around-the-wall design. The most obvious is space usage and the ability to run trains with no duck under. By utilizing a multideck design, scenes that would take considerable space to string along in a layout room 20’ x 30’ can fit in a room 11’ x 14’.

What’s In A Name
This helix design, with six switching levels, includes upper and lower staging yards. It is a basic point-to-point railroad. The helix allows the operator to traverse from any given level to another. The helix begins at the lower L&N yard and progresses at a 3.15% grade to each successive level to terminate at the TOFC yard. The 3.15% grade is well within the parameters of the Atlas RS-1 or SW8/9 series engines. Minimum radius on the helix is 36 inches. The Atlas #5 switch can be modified (shortened to the points and frog) to fit into the helix curve so a diverging line can feed each level. Turnouts are #5 throughout. Simple open-frame grid construction can be utilized for the level sections. Plywood or foam board can be used for the top of these sections. The helix is, in short, a circle which could be “cookie” cut from 4x8 foot sheets of ½” or ¾” plywood. I have noticed there is even a manufacturer of a plastic helix system that could be used for O scale.

Tools and Gadgets
Anyone with the slightest knowledge of a jigsaw, drill, screws, and a square would have little trouble planning and assembling the helix and level sections. I think the intimidation lies in the thought of the helix. Much has been written on the virtues of helix use in layout design and articles have
A Switching Layout Built on a Helix

An O Scale Trains Magazine Contest Entry

appeared in many magazines over the years on constructing a helix. See the sidebar "Round and Round We Go...". If desired, this layout could be built in stages to facilitate money and material by only building as much of the helix as is necessary to go to the next level-section. Layout wiring would be minimal with DCC. Conventional block wiring could divide the layout into blocks for each level-section. The helix could be divided into blocks allowing a train to hold a level-section while another passes on the helix. Turnouts could be controlled with ground throws or remotely by Atlas switch machines.

Variety of Life

The level sections can be highly diversified in structures and scenery. The height difference between level sections is around 20 inches. The L&N yard would begin around 24 inches from the floor. This would put the TOFC yard at 69.25 inches from the floor, near eye level and still reachable. While at 24 inches the L&N yard is low, a roll-around chair would make it easier to view the first three levels.

The L&N and Southern yards are essentially fiddle yards. A car/card system for train routing would function well here. Rolling stock can include almost any car made with exception of the very largest 89'6" cars. A time frame for this layout could be set from the 1920's to today. Two operators could move easily in the wide isle space.

Reaching the backs of level-sections is easy since they do not go much deeper than the NMRA's recommended three feet. The back of the helix is another story. At six feet in diameter the helix is a spread. Since the main level section starts at 24" off the floor, the front of the helix section would be around 30" from the floor. This could vary since not everyone is
A rolling chair would greatly assist an operator when switching the lower level yard.

Sitting in a rolling chair, the operator could switch the middle sections at near eye level.
5'10” as I am. The main reason for the 30” height is the ability to roll under the helix on a mechanics dolly. Fill'er up and check the oil. A dolly is the easiest way to go under the helix. Stepping through is not possible. Reaching through is a possibility and you could use one of those reaching tools as seen on T.V. By lining the edges of the helix with a three inch strip of 1⁄8” hard board panel, you can keep trains from falling to the floor in the event of a derailment.

◆

The upper staging yard and TOFC Yard are just below eye level and easy to switch.

Round and Round We Go...How to Construct the Helix

A helix is a vertical spiral, much like a spring. The trick to building a railroad with a helix is building the helix itself. This process is no more complex than layout wiring can be to a beginner. To start, let’s break down the helix into its most basic element - a circle. The minimum radius for the layout is 36”, but we need some space to either side to safely guard in case of a derailment. By adding 2½” to the minimum radius and subtracting the same amount from the minimum radius we have a width of five inches and a maximum diameter of 38½” and a minimum of 33½”. To cut a circle out of wood is as simple as laying down a pattern and cutting. But if you are not careful you will waste more wood and money than necessary. By dividing the helical circle into quarters and cutting from a pattern you can maximize your wood purchase.

Figure 1 (next page) shows how to lay out the pattern on a 4x8 foot sheet of plywood. The thickness of the plywood is not critical, ½” to 3⁄4” is sufficient for strength. To make a radius cutting template I use brown package paper to lay out the helix pattern. This paper is used to wrap packages for shipping and can be found at an office supply store or craft store. Give yourself some working room. Since the paper is only 24” wide, two pieces can be taped together to get the required space. Figure 2 (next page) shows the layout. Start 40” in and at the edge closest to you. You really should have a protractor to give yourself an idea of where 45° is in relation to your starting point. Make a mark at 38½” and at 33½”. Using the protractor, place 0 degrees on the edge of the paper and mark 45° without moving the protractor. Now use a straight edge long enough to draw a line from your starting mark out to 38½” on the 45° angle. Make a five inch line from 38½” toward your starting point. Voilà! You have the quarter section needed to make the helix. To make the curved lines that join the outer and inner marks you will need a string and a nail or tack. Tie the string to the nail or tack and with it partially driven into a suitable surface, loop the string around a pencil several times to prevent slipping. Stretch the string tight and move the pencil from one mark to the other. Repeat the steps for the inner circle. Done! Cut out your template and trace the edges to the plywood. Using the template
over and over will give consistent results. The ends are the most important they should all be cut straight as possible for the best fit.

To join the helix sections (Figure 3) glue and screw is the best method. To insure the sections are straight before joining two sections completely, measure from the inside edge of one section to the other. It should be 47\(\frac{3}{8}\)". If not, make it that way and finish joining the sections. A half section of helix should measure 67" inside to inside. It doesn’t have the be 0.0001 exact, but over and over and it will throw the helix out of alignment.

So how do you join two sections and not compromise the clearance below the sections? Use a shortened curve section cut from ¼" ply, if you use cork or vinyl roadbed, and join the sections on top. When you lay roadbed, just stop at the section joint and continue on the other side. Run the track right over the joint as if it were roadbed. If you use homasote for roadbed use ½" plywood for the joint. Support the helix with 1"x4" lumber glued and screwed at each section joint. The helix sections should rise ½" every joint. An assistant is very helpful when trying to assemble the helix. To prevent a train disaster when the helix is completed, use 3" wide strips of ¼" hardboard to line the outer and inner edges of the helix sections. If a train derails the strips prevent a car from pulling the rest of the train to the floor.

Now that the easy work is out of the way, you can get on to the hard part of deciding what track arrangement you’ll use at each level-section for your operating enjoyment. And, that is what it’s all about!
I was met at Kimpo airport by Steve Olm, and Mr. Kim, spokesman and owner of FM Model Co., (and later owner of Brother Brass which is another chapter.) They took me to the Koreana Hotel in the center of Seoul. This was one of the cheaper of the downtown first class hotels but two blocks from the center of Seoul. I had been up for many hours and went right to bed. I got up fresh and had another of those famous Korean hotel American breakfasts for $15. These were fresh and had another of those famous Korean breakfasts. I got up and left the room leaving me standing there. What was this?

The Korean brass world is very small. Everyone knows what everyone else is doing. The designer at firm A is a drinking buddy of the stamping man at factory B. There are no secrets. I wasn’t in Korea for 24 hours and that afternoon, I received no less than 4 phone calls from model factories wanting to meet with me. They all knew my situation, and they all wanted a piece of me. I never say never, so I agreed to meet with them and see what they offered. I set up a schedule. The next day, I would meet Charlie Sandersfeld (now dead) of Omnicon Scale Models, strictly an S Scale importer.

He was in a similar situation and looking for an alternative builder and agreed to meet and visit several factories with me.

It was now into the early evening. I had sat around the hotel room most of the day, I went for a couple of long walks. I had a light dinner, not knowing what I might be eating. I retired early to my hotel room and watched Armed Forces TV, about the only English speaking TV in Seoul, and a link to home. I fell asleep about 11:00 pm, but was awakened by a phone call at 2:00 am. It was Jun, and I sat up in bed, wide awake. He asked me if it was alright if he came to my room. I asked where he was and he said he was in the lobby. I said come up. I quickly put on some clothes, and Jun, Ho Chul Lee and Namh Il Park were at my door in just minutes. To say the least, this was a very emotional moment for us. Jun and I were very close, and I knew instantly that he was in trouble. To this day, I still don’t know all the story, and I have asked Jun many times. It just doesn’t translate well I guess.

Jun was hiding. Not only from the police but from the Korean equivalent of Guido and Bruno. I guess there were street loans out there too, at very high interest rates. The only time he dared visit me was in the middle of the night. He explained what had happened, and explained that he could no longer be in business, but that Lee and Park had been looking for another financier. They also had all the machinery, plans and samples, including my HO heavyweight passenger cars, half built, and they would surface again with my projects and finish what they had started. Jun promised me that Lee and Park would take care of me and all would be OK. I then asked about PSC and Sunset. Jun responded, you are my friend. I will take care of you first. All of their models would be returned to them.

This is one time when being his friend, above business, paid off for me. I cared about him, more than about his business, and it was returned. Jun and I are still friends and I visit with him often. He is in another profession, in the Christian church.

I asked one more thing. If he had all my stuff, and the models that belonged to PSC and Sunset, I wanted to see it to be continued...
In the first part, I introduced Lionel’s Scale Command, described its functions and features for the 2-rail operator, and listed several locomotive manufacturers that include 2-rail Scale Command in their product lines.

In Part II, it was shown how Train America Studios’ makes it easy to connect Scale Command technology to a 2-rail DC track system. Their Inverter connects directly to the track with input from both the DC Power Pack’s variable and a fixed voltage posts, and the Lionel Command Base that injects the radio signal into the rails.

In Part III this month, I’ll discuss how to get started with Scale Command by describing typical component configurations and pricing.

**Scale Command Guidelines**

Every layout is different and each layout has its own unique power requirements. Therefore, it is difficult to apply one rule to suit all track plans. The following guidelines will help layout operators get started with Scale Command.

In a Scale Command operation, the entire model railroad must always be powered at 14-18 volts. Layouts with extensive block wiring and multiple cab setups can be converted to work in a Scale Command environment by simply turning on all the insulated blocks. Power to every track loop may be supplied by a primary DC power pack with a TAS Inverter (see Figure 1) or by an AC transformer.

Similarly, stub and passing sidings, and yards must have a selectable cab control for each track. Determine which power pack will be powering individual sidings and wire a TAS Inverter between it and the track.

Reverse loops or crossovers where the polarity of the rails is mismatched require a TAS Auto Reversing Booster (ARB). Each ARB controls one reverse loop and connects on one end to the isolated reverse loop or crossover and to mainline power on the other end. An ARB immediately reverses the track polarity when a short is detected. Each layout will require one Lionel TMCC™ Command Base and one CAB-1 Remote Controller® (CAB-1) regardless of the size of the layout. Either a Lionel SC-2 or ASC enables the CAB-1 to control four or six switches, respectively. For example, a layout with 23 switches requires either 6-ASC’s or 4-SC2’s.

If your layout is equipped with a turntable there are two options for controlling it: (1) Use whatever pre-existing turntable mechanism is installed; or (2) Use a Scale Command receiver to power the turntable motor and control speed and direction with the CAB-1 remote.

Scale Command is the on-board electronic motherboard that must be installed into each locomotive and allows the addition of a command receiver and the optional Lionel Railsounds 4.0™. Minimally equipped Scale Command boards have a command receiver, but options include electrically operated coil couplers, smoke units, and various lighting effects.

As an example, here’s what it takes to upgrade a Weaver O scale Pacific 4-6-2 steam locomotive with Scale Command electronics:

(1) Base Scale Command control includes directional lighting, smoke unit on/off control, and scale coil coupler control.

(2) Optional equipment includes:

- Command control with Railsounds 4.0™ digital sound system
- Directional lighting
- Coil couplers
- Smoke unit on/off control
- High-output fan driven smoke units that can be added to engines with either Seuthe units or no smoke units
- Special lighting effects like strobe lights, Mars lights, and oscillating ditch lights can be added.

**Recommended Scale Command Components**

**Beginning operator required components:**

1. Lionel Part # 6-12969, Command set (CAB-1 and base) $129.99
2. Lionel Part # 6-22983, 80 Watt, 10 Amp Powerhouse $89.99
3. TAS Part # TAS-4002, Signal Enhancer $29.99

A Signal Enhancer must accompany each Powerhouse, e.g., two loops of track require two Powerhouses and two Signal Enhancers.

**Optional equipment:**

- Optional to control any manufacturer’s switches:
  1. Lionel Part # 6-14182, Accessory Switch Controller $79.95

Total Cost = $329.88

A single ASC controls up to 4 individual switches or multi-
ple switches grouped for crossovers, passing sidings, or double slip switches. Twenty-five ASC devices may be used on a single layout.

Operators who already have a DC transformer and toggle their switches need these components:

1. Lionel Part # 6-12969, Command Set $129.95
2. TAS Part # TAS-4001, 60 Hertz Inverter $49.95

Each loop of track requires one inverter that permits switch selection of DC operation or AC Scale Command operation.

- Optional to control any manufacturer’s switches:
  1. Lionel Part # 6-14182, Accessory Switch Controller $79.95
  
Total Cost= $259.85

These component recommendations also apply to existing DCC operators who must select which track loops will be Scale Command controlled. For example, if a DCC operator wants to run only one Scale Command loop, he could use either AC or DC transformers with the stipulation that they deliver 18VAC to the Scale Command-controlled track. He must use a TAS Signal Enhancer with AC and a TAS Inverter with DC.

The final required Scale Command components are onboard controls. These vary from simple to complex depending on the desired locomotive features. For example:

1. A Weaver dual-motored locomotive like the U25B or RS-3 would need the following for a complete conversion to command control, sounds, and coil couplers (See Figure 2):
   1. TAStudios ‘SAW’ board w/ diesel Railsounds 4.0TM $164.95
   2. TAStudios Scale Coil Couplers $12.00 each
   4. 12 Volt Grain of wheat bulbs (for directional lighting) $1.50 each

Total conversion cost: $194.95

2. Steam engines like the Sunset Hudson or a medium sized articulated locomotive would need:
   1. TAStudios ‘SAW’ board w/ steam Railsounds 4.0TM $164.95
   1. TAStudios Scale Coil Coupler $12.00
   1. TAStudios 6-Pin Tether $8.00
   2. 12 Volt Grain of wheat bulb $1.50 each

Total conversion cost= $187.95

Other add-ons such as Engineer on Board (EOB) cruise control, oscillating and flashing ditch lights, and Turbo Smoke units are also available. More feature information may be found at:


Comparison to DCC

DCC decoders are designed to control the locomotive’s motor, lights and one or two auxiliary features. Purchasing DCC decoders and installing them into non-command equipped locomotives can cost upwards of $100 per engine. Adding sound to a locomotive may require an additional decoder that could drive the decoder cost up to $200. Compared with Lionel’s Railsounds 4.0™, the features of the DCC sound system may be severely limited.

All DCC decoders must be programmed prior to using. Operators must follow detailed programming instructions to locate the values for various configuration variables. By comparison, reprogramming is very easy with Scale Command. Simply slide one switch located on the frame of the locomotive or tender to Program, press a few buttons on the CAB-1 remote, slide the switch back to Run, and you are finished. Reprogramming a Scale Command locomotive may be done anywhere on the layout as no special programming track is needed.

Summary

Train America Studios’ Scale Command system components are based on the proven, full-featured 3-rail TMCC™ system pioneered by the Lionel Corporation. Two-rail operators may want, therefore, to consider Scale Command as a serious alternative to DCC.

For Scale Command operation, an entire model railroad must always be powered at 14-18 volts. Layouts with extensive block wiring and multiple cab setups can easily be converted to work in a Scale Command environment by simply turning on all the insulated blocks. Power to every track loop may be supplied by a DC power pack with a TAS Inverter or by an AC transformer.

Compared to DCC, the cost of getting started with Scale Command or adding it to an existing layout is usually less expensive. Virtually any O scale locomotive may be either factory equipped or retrofitted by TAS for a relatively low cost. Scale Command features are generally more extensive than DCC features.

All prices quoted are subject to change by the Lionel LLC or Train America Studios without prior notice.
New GE AC44CW & C60AC's in ‘O’ scale

Overland Models is pleased to mark our return to ‘O’ scale motive power with the powerful and colorful General Electric AC44CW and C60AC locomotives. These units are used to power everything from manifest freights to coal drags to expedited Intermodal hot shots! Each locomotive will be highly detailed and feature crisp lettering, directional lighting, power from a Pittman can motor with dual flywheels and the construction you have come to trust from Ajin Precision over Korea. Be sure to place your deposit today. Total production for all versions will be around 120 units or approximately 20 units per version produced. Visit our website to find out more or to locate an Overland Models dealer near you!

BNSF AC440CW #5833, 5860 (up shangrila) ground yellow, silver, black, white, black lights.

C&NW AC440CW #2302, 2303 (up red/silver) with beamless headlight, black, white, black lights.

CSX AC440CW #582, 585 (up dark blue) yellow/white, black, white, black lights.

UP AC440CW #5721, 5722, 5730 (up yellow/grey) red w/ USO, front and rear light black, black.

CSX C60AC #5902, 5906 (up blue) grey, black, white, black lights.

SP AC4400CW #106, 199, (up scarlet red dark grey) black, white, black lights.

OVERLAND MODELS INCORPORATED
620 Wright Loop Williamstown, N.J. 08094 — 2-RAIL

SS PRR 1-2-0 Original Unpainted (SHORT TDR.) $1,120
SS PRR 1-2-10-0 Original Unpainted $1,480
SS PRR S-1 6-4-4-6 F/P Shrouded Unshrouded $1,500 each
SS PRR P5a F/P BOXCAB $800
SS PRR FF2 F/P $850
SS PRR P5a F/P MODIFIED (baby GG1) $750
SS PRR B-1 F/P $750
SS PRR E-6 4-4-2 Original U/P $725
SS PRR N-1 2-10-2 F/P $1,150
SS B&O 2-8-0 F/P $750
SS PRR J1 2-10-4 F/P $1,275
SS PRR HH1 2-8-8-2 F/P $1,650
SS PRR G-5 4-6-0 U/P $850
CB PRR T-1 4-4-4-4 C/P Light weathering $3,500
WSM PRR J1 2-10-4 C/P Light weathering $1,750
WSM PRR Q-2 4-4-6-4 U/P $2,500
WSM PRR M1 4-8-2 U/P Cab detail (NOB) $1,380
USH PRR M1a 4-8-2 C/P extra detail, by H. Hieke $1,500
OMI UP 2-8-8-2 EX N&W Y3 $2,550
ALC PRR K-4 4-6-2 UP Broadway Limited Streamlined $1,400
WL PRR T-1 4-4-4-4 UP 2 Railed by Trackside $1,170
WL PRR L-1 2-8-2 2 Railed by Trackside $750

Call 856-629-9702 Between 6 and 10 PM EST

The Public Delivery Truck

Attn: RS-41, GP-31-2, C-630-2, GP-38,
Pennsylvania 2-8-2, GP-35, GP-30,
SD-40, GP-35, SD-45, SD-40”, W12-2B,
RD-12, RD-18, RD-18, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
RD-10-2B, RD-10-2B, RD-10-2B,
Where The Eagle Meets The Chief!

A small station sits in front of a HUGE warehouse on John Smith’s Texas Western layout. John is the owner of Pecos River Brass and sponsored this year’s National convention.

Left: This was the scene on Sunday evening at the BBQ dinner. OST sponsored dinner for all the vendors.

Right: A small part of the Pecos River Brass band entertained on Sunday evening.

Above: Goodies were for sale everywhere. These shorty coaches and trestle were on Jim Cantner’s table.

Above: Need structures? There were plenty here.

Above: Weaver displayed their revised John Wilkes & new Milwaukee Road S-3 4-8-4.

Above: A gallows style turntable for sale.

Left: Richmond Controls shows off their line of golden white LEDs.

Above & Below: BTS had a great display with several of their kits built up. The Cabin Creek Coal Co. is impressive.
Right: Gordon Payne took 3rd Place, Steam Locomotives with his SP 4-4-0.

Below & Below Right: He also built this Southern 2-8-8-2 an Southern 2-8-2.

Left: Charles Goodrich won 2nd Place, Steam Locomotives with this Shay.

Below: Charles also took 2nd Place in Diesels with this On20 Mine loco.

Left: Bernard Brock really hates Diesels. He put together this homage to those flatulent boxes of horsepower with his “Diseasel” entry.

Right: Tom Mix took 1st Place, Steam Locomotives with his CB&Q 4-6-0. OST readers were treated to a detailed look at this loco last issue.

Left: Tom Mix took 2nd Place, Traction & Other with this CB&Q Gas Electric. By the way, all of Tom’s stuff is made from scratch.

Where The Eagle Meets The Chief!
Above: Chuck Lind’s Logging Camp took 1st Place, Display.

Above: Charles Goodrich’s Flour Mill took 3rd Place, Structures.

Above: Tom Mix was another busy guy building’ models for the convention. Shown are two of his cabooses (cabeese? cabice? What the heck is the plural of caboose, anyway?). The C&S is standard gauge not narrow gauge.

2003 O Scale Nation Contest Winners

Steam Locomotives
1. T. Mix CB&Q 4-6-0
2. C. Goodrich, Shay #7
3. G. Payne, SP 4-4-0

Diesels
1. M. Nelson, SP SD-40
2. C. Goodrich, On20 Mine
3. C. Christiansen, TNO F9

Freight Cars
1. T. Mitchell, D&RGW boxcar
2. C. Goodrich, Crowell Lumber
3. C. Goodrich, D&RGW gon

Passenger Cars
1. T. Mitchell, D&RGW Combine
2. G. Payne, MoPac Bus. Car

Caboose/Non Revenue
1. J. Zwerneman, RI caboose
2. Tom Mix, CB&Q caboose
3. T. Mitchell, D&RGW caboose

Traction & Other
1. C. Lind, Track Removal
2. T. Mix, CB&Q Gas-Elec.
3. T. Mitchell, RGS Goose #6

Structures
1. C. Goodrich, D&RGW Tank
2. C. Goodrich, Chama Station
3. C. Goodrich, Flour Mill

Display
1. C. Lind, Mining Camp
2. J. Zwerneman, Gas Station

Above: Terry Mitchell took 1st Place, Freight Cars with this D&RGW narrow gauge box car.

Right: This Rock Island Diesel was built by E. W. Green.
Left: Charles Goodrich was a busy bee... his rendition of Chama Station was fully detailed but still only took 2nd Place, Structures.

Below: On the final night of the convention the full 19 piece Pecos River Brass provided the evening’s entertainment.
There were plenty of clinics and they kept everyone busy.
If there is one thing that makes us all mad it’s dirty track that interferes with good operation. I live in Florida and with the humidity, dirt and oil that gets on the track it is a never ending process cleaning the track. I prefer dry cleaning over a wet type of cleaner, unless the track is really dirty.

I made a simple track cleaning car from an All Nation depressed center flat car. The car uses a regular track cleaning pad. I prefer the type that has some grit in it, but isn’t too hard. The spring motion pushing the pad down exerts about 15 oz. of pressure and about an extra 2-3 oz. of drawbar pull. This amount of drag hardly effects the performance of the train. I added weight to the bottom of the track cleaning car to counteract the upward force of the cleaning pad.

In the picture of the car on the track it is hard to see the cleaning pad under the car number. The first thing I did was to cut out the bracing at one end of the car. I then cut out a small piece of ¼” masonite to fit into the cavity. I drilled 2 holes at either end of the pad and through the bottom of the car and tapped them for ⅛” 2-56 screws. I redrilled the pad to accept a ⅛” inch brass tube ⅛” long on each end. You can over drill or ream it out to make a smooth travel for the pad up and down. I made a soft spring by cutting a 0.005” brass sheet to 1⅛” wide by 1⅛” long and rolling it so it stands up about ½” in the bottom of the car. You need to roll the ends up a little so it pushes smoothly against the bottom of the car floor. Adjust the spring by bending it to get the pressure you want. I then took the cleaning pad and rounded the front and back of it so it wouldn’t snag on any of the track or uncoupling ramps. I used tiny screws, countersunk, to fasten the pad to the masonite. The spring is installed in the car with the round side toward the pad and then the screws with a washer and the ¼” spacer tube are screwed in.

After running it for awhile you’ll notice better operation of your engines.
The word is going around the rail fanning grapevine that the Great Central Railway has just purchased three of Rich Yoder Models GE 70 ton diesels to use as their main motive power, replacing the SW and GP units that they had. I received a call from my rail fanning friend, Trevor, that #22 was on the Paper Mill turn. He had seen it heading North through Tara Mills, so I grabbed my camera and headed to Abbie Springs. I just got there in time to catch #22 switching some empty box cars into the Paper Mill and then departing town, heading South back to Inwood and the interchange. I am looking forward to many enjoyable days rail fanning the Great Central, now that they have these 70 tonners around. –Mike Culham

Photos by Mike Culham

Kerry Jones’ Intermodal train
Reader Feedback

More On Power Supplies

Congratulations on an excellent magazine. I noted in your letters section that some readers were looking for a low priced power supply. There is a constant 18 volt AC power supply manufactured by Lionel for their command system, in both 8 amp and 10 amp sizes, the Powerhouse 135 and 180. The prices for those are between $50 and $65 from the big Lionel mail order houses, such as Island Trains or Charles Ro. Add a suitable sized rectifier from Radio Shack and there you go. Also, you can find 200 to 300 watt 12 volt lighting transformers at Home Depot. Hope that helps.

Regards,
John Mallard
PS. the part number for the 10 amp Powerhouse is 22983. These can be paralleled for more juice.

A Correction

In a letter published in Issue #8 Reader Feedback, I stated that all versions of the NCE D408SR DCC decoders did not support DC operation. I must eat some crow—I was wrong. My assumption was based on the instructions that came with a unit I purchased. I have since learned that there was a typo in the instructions. NCE says all their decoders support DC operation.

Jim Wood

Still More On Power Supplies

Thanks for the Rose River article. When I moved to Florida I lost a 22’ by 28’ basement. I settled for 2 bays of a three car garage. After moving all my “stuff” including a big ol’ 9” South Bend lathe, work bench and a huge pile of other stuff it kind of looked like a layout was pretty much out of the question. I normally don’t pay too much attention to track plans but the longer I looked at the Rose River RR track diagram it became apparent that with a few minor modifications it might just work for me. So thanks to Daniel Wehrli and his friends who built it and thanks to you for publishing it. By the way, great scenery and buildings.

Having read some letters concerning power supplies I guess I might as well toss in my two cents worth. The best power supply I ever made for big old open frame permag motors was built out of scrap components from the last New York Worlds Fair. No matter, the components are still around from surplus electronic suppliers. The basic idea is to control the input voltage to the power transformer by using a variable transformer on the input side. The variable transformer controls the input potential from zero to 120 volts. Then through the power transformer to a diode bridge or rectifier. I put a huge capacitor across the output to smooth out the ripple. Then on to meters, a circuit breaker and reversing switch. This scheme eliminates the need for a rheostat as the train speed is controlled by the variable transformer. It works on large can motors too but the small trolley and interurban trucks don’t respond well to this scheme. Single phase variable transformers aren’t much bigger than an old Ohmite “O” gauge rheostat!

Bob Garrelts, Tarpon Springs, Florida


This convention was outstanding because of the [better than average] organization. There were a lot of clinics and several excursions, even for the ladies, and also several good layouts to visit. Besides there was the trolley layout of Dick Kuelb and the magnificent modular layout from the Baton Rouge group. I want to thank O Scale Trains Magazine for the delicious BBQ. Thanks to Brady Mc Guire for opening his layout the days before and after the convention, thus filling in for those who came early or stayed late.

I noticed the absence of several importers (who make money on O scale) and also of several noted hobby shops. Luckily there were others present, even from very far up in the United States. I would like to emphasize that if O scale wants to survive, we should stick together and be at the shows and/or conventions. Also we need to meet the leaders of the different O scale groups.

Congratulations to John Smith and his group having done their best to make it a good convention.

Roger Segers     Mentor Ohio

Some Traction Action

Got # 9 yesterday and read the article on traction. For a great selection of traction dealers and supplies go to www.EastPenn.org or type East Penn Traction Club with a space between each word in your browser and check out the great pictures and dealer directory. Jason’s Brass Poles carries the caps for the poles. This is an excellent site for downloading info for traction modeling.

Keep up the Good Work!
Rich Crooks

A Suggestion Taken

Issue #9 is great. Types of articles cover a variety of facets of the hobby. Most anyone should find something of interest. Suggestion: at the bottom of each page along with the page numbers is “O Scale Trains;” is it possible to add the date of issue or the issue number? Reason: I copy articles of interest for future reference. Later, when I look at the copies, sometimes I want to go back to the original to double check something, look at a color picture or something. If the date of the issue is not on the copy, I have to write it on the copy
for future reference. Adding that would be a convenience.
Bud Brock, PC&C RR

Joe G. responds: Bud, your wish is our command. Actually, several people have asked us to add a date on each page, and we meant to several issues ago... honest... really... but we kept forgetting to do it. So, starting with this issue we have the month and year added to each page.

Who Says It's Hard to Model O Scale

With the addition of the Atlas pig flat, I completed an inter-modal train that I have been working on for some time. It is made up of twenty-two cars: sixteen well cars, three Front Runner cars, one eighty-nine foot pig flat, and two spine cars. In the wells and on the flats, are forty-five containers and truck trailers. A very impressive train. Sources I used are: Bowser, Atlas, K-Line, Skillfingers, Weaver, MTH, and PRB. The train is not broken up and runs as a unit. No variety in O Scale? You have to search it out but there is more available than people realize.

Kerry Jones, Paradise, CA
(For more of Kerry’s Intermodal train see page 45 this issue.)

Wants It Both Ways

Hi, this is Bill, the guy who wanted to run both a.c. and d.c. powered trains on his Atlas layout. Well the mainline is up and running fine on either type. I have a nice Weaver chain drive diesel and it’s pulling a nice set of O-scale cars I got off Ebay for $20. These were built by someone in 1956 (date on the bottom).

Anyway I found an easy way to make an Atlas pratt truss bridge into a pull out bridge for a walk way. I have a long way to go but at least I have something running and I have your fine magazine to read to inspire me.

Thanks Again, Happy Bill

A Comment on the Z5 Review

Refer to product review of the Sunset Northern Pacific Z-5 locomotive by Jon Heller in July/Aug 2003 issue #9 of O Scale Trains. Refer to page 29 where Mr. Heller makes this statement, “This was the ultimate design for NP steam for freight. After these, the only new designs NP took delivery of were diesel units dedicated to freight.”

The 5000 was delivered in 12-1928, the 5001-5011 delivered 4-1930 thru 9-1930. The Z-6 5100-5120 delivered 10-1936 thru 5-1937. The Z-7 5121-5126 delivered 10-1941 thru 12-1941. The Z-8 5130 thru 5149 delivered 01-1943 thru 09-1944. These figures are from Supersteam Era 1925-1945 by Robert L. Frey & Lorenz P. Schrenk. The overall review of the model was very good. I have one and I’m very pleased with it.

That one statement was very misleading so I couldn’t let it go by.

Truly yours, Gayle Christen

And neither could Jon, he sent a correction which you will find on page 59.

Comments on the Schnable Car Conversion by Norman Hills

I did one of these as soon as I could get one. I used 36” wheelsets made by Northwest ShortLine specifically for the MTH trucks. The problem I had was getting the vertical motion of the various trucks. Had to reshape flat bottoms of bolster that rode on the truck bolsters. The first set took three tries before getting the shape of the flat round enough so that the truck would have vertical movement. The second set went much easier and faster. The unit tracks and rides very well now.

I have quite a few MTH cars and 3 locos that were made for 2 rail use and the boxes had that printed on them. I don’t understand why Mr. Hills had such a hard time determining the car was for 3 rail.

Very impressive car on the track. Hope Mr. Hills enjoys his as I have mine. I, too, had doubts at first but decided to go ahead with it when I found out about the NWSL wheels. Very satisfying when the car went around all the track and through switches without derailing. Congratulations Mr. Hills.

Truly yours, Gayle Christen

On the Way to Sunriver

The watercolor by Ted Rose that was the subject of a letter to the editor in OST#7. Steve Miller who owns the original painting sent this print.
REVIEW:
Golden White LEDs
Richmond Controls
PO Box 1467 Richmond,
TX 77406 281-342-4895
www.richmondcontrols.com
Reviewed by Ted Byrne
Cost: $9 for two

I always love it when I go to a train show and find something that I didn't even know existed. At the O Scale National in Dallas, Texas, I found Golden White LEDs. These are light emitting diodes that are built to light in an old-time incandescent lightbulb color. Previous white LEDs were actually a blue-white color. These LEDs also have a small lens built in to focus the light into a 30 degree beam. As a result they are bright! Instrument LEDs have a diffuse face so they can be seen from any direction, but then they glow more than shine. The Golden LEDs can be used to simulate old electric lights and gas lights. In particular, one can be the headlight in your locomotive.

So I couldn't wait to get home and hook one up. I happen to use DCC control so I put a Golden LED in the headlight of a four-car South Shore interurban train. Those trains had two headlights, one at the top and the other at the center of the front of the first car. I convinced myself that the center headlight should be a Mars light. (William Middleton's 1970 classic book South Shore, the Last Intercity doesn't say they didn't have them!)

Put your eyeball down at track level and the result is awesome, just like standing on the platform in Mendota, Illinois, and watching the Zephyr come through with that bright stuttering light. (At least my wife says it is and she was there) Disclaimer: the light doesn't really move in a figure eight pattern; it winks-winks instead. But close enough.

LEDs are useful for O scale model railroads because they are very efficient, reliable and small. Standard diameters are 2, 3 and 5 mm, just the right sizes for crossing lights, loco headlights, block signals, etc. The lights in your passenger cars will not use up more track power than the locomotive motor! But they have electrical characteristics different than incandescent light bulbs, so you need to use them properly.

If you are replacing an existing LED, there will already be a series resistor and possibly a diode, and the only thing to remember is that the longer lead is the positive lead. If your rework is more extensive, you need to be aware that an LED is a dc current-driven device. In the DCC situation, which I described above, I connected the Golden LED to the headlight accessory output of my DCC controller (FO). Its measured output was about 15 volts and the Golden LED uses about 3.5 volts so the needed dropping resistor value is calculated using Ohms Law. We need to drop 11.5 volts across the resistor at the rated current of the LED (20 milliamps). The result is about 600 Ohms. There was one more gotcha: the DCC controller I use, the NCE D408SR, headlight output supplies negative voltage so I had to swap leads on the LED. So the circuit was as shown in Fig 1.

If you are lighting passenger cars, you will run the LEDs from track voltage. If that is DCC, as in my case, it is AC and a constant amplitude so you need a rectifier and a series resistor. A convenient rectifier is the Radio Shack 276-1152A. It is about a big as a pencil eraser and has 4 leads. The one marked + is the positive output and the opposite lead is the negative output. The two leads in between are the AC (track) inputs. The resistor has to drop track voltage (16 volts) minus the rectifier loss, (1.2 volts), minus the LEDs (I used two for 7 volts), divided by 20 ma. or about 390 ohms. The circuit is as shown in Fig 2.

If you are using DC power, you will still want the rectifier so the lights will work no matter which direction the train is moving, but the track voltage changes with locomotive speed. After all this work you don't want lights that get brighter and dimmer so you want a constant current power source. Fortunately that is easy to do as shown in Fig 3.

The new element here is the LM317 (Radio Shack 276-1778). It is a constant voltage regulator but can be “convinced” to be a constant current regulator instead. The only trick here is to know which lead is which on the LM 317. It is a block about ⅛” square and ⅛” thick. From one end extends a metal tab to bolt to a heat sink. We use so little power in this application that it doesn't need a heat sink but call that side the bottom side and think of the other side (with the printing) as the top side. Looking at the top, three solid leads come out the end opposite to the heat sink. They are (left to right) the adjustment control, the output and the input leads, commonly called leads 3, 2 and 1 but not marked on the unit. The circuit above shows the LM317 from the top side. By the way, the output lead is connected to the heat sink tab so keep that from touching anything electrical.

The LM317 will work its little heart out to keep the voltage between pins 2
and 3 from exceeding 1.25 volts. So if we put a 62 ohm resistor from the output pin (2) in series with the LEDs and connect its other end to pin 3, then, by Ohm's law again, the current through that resistor is 1.25 volts divided by 62 ohms or about .02 amperes or 20 ma. So it becomes a current source and we can use it to feed one or more LEDs in series. Actually I put two in a passenger car.

You can also call Jim at Richmond Controls to get literature about Golden White LEDs. He will also be happy to tell you about his various LED controllers, designed for the smaller scales but also useful in O scale. And you can get resistors at Radio Shack. They also have an envelope with an assortment of LEDs in various sizes and colors (but not Golden White) for a few dollars.


**Micro-Mark**
340 Snyder Ave.
Berkeley Heights, NJ 07922
www.micromark.com
Reviewed by Charlie Morrill
Retail price $99.95

During the O Scale National, I had a chance to witness the Aristo-Craft 2 amp “Basic Train Engineer” wireless walk-around throttle for DC powered trains in action on Michael Ross’s layout. That convinced me that this was just what I needed for my new layout-in-progress. The fact that it was also on sale for $77.95 from Micro-Mark didn’t hurt. My new layout is an around-the-wall arrangement located in a 30 foot by 40 foot basement which has a stairwell and utility and storage room complex in the center. I had already discovered that dragging the plug-in cord from my old memory walk-around throttle around the area was not going to work as well as it did on my previous smaller layout.

Although the reported 2 amp capacity may be a little light for O scale lighted passenger trains or the occasional visiting juice hog, that would still be quite adequate for my present limited operations (Micro-Mark also markets a 10 amp Aristo-Craft multiple train version). Later, I can use it for running a switcher or peddler freight.

The “Basic Train Engineer” has only two components: the hand held transmitter and the receiver on the layout. The transmitter sends a 27MHz FM signal when a button is pushed and the receiver controls the output voltage and polarity to the track from a DC power pack. Since the control is by a radio transmission, no “line of sight” is required and interior walls do not interfere with reception. I was able to control a train in my basement while standing about 30 feet away from the receiver.

Installation could not be much simpler. I disconnected the two output wires from my power pack and connected them to one side of the receiver box. Two wires from the receiver are then connected to the track (or PFM sound unit in my case). I attached the receiver on edge to the benchwork with a piece of double-sided tape so the box would have cooling airflow. The antenna is tacked along the layout edge. Attaching an antenna rod to the hand transmitter and installing a 9-volt battery completes the installation.

To operate, set the control on the DC power pack to the maximum voltage you want to use. Speed and braking with built-in momentum are two buttons on the transmitter. Two more buttons select direction and a fifth is the panic stop.

I find the transmitter is easy to hold in one hand and operate the buttons with the thumb, leaving the other hand and my attention free for watching the train, operating switches, couplers, etc. The momentum, which is not adjustable, gives a slow acceleration to the desired speed and an even slower braking to a stop, which is not unlike my own 1:1 cab experience. This forces one to keep to more realistic speeds when switching. That may take a little getting used to, but there is always the panic button.

The receiver has a circuit breaker, which automatically resets itself when tripped. My unit trips at just under 1½ amps although the spec sheet states a 2½ amp capacity, I contacted Aristo-Craft technical support about the discrepancy and they replied “The 5480 is designed to be a 2½ amp unit. The circuit breaker issue may be related to the power supply.” Presently, the lower amperage cut out is not a serious problem for me as this unit will still run my largest and heaviest loco plus a lighted caboose on my steepest grade, but not a lighted passenger train or a double header.

I’m very satisfied with this product although I would have preferred the circuit breaker operation to be closer to the rated amperage. Some further testing with another power pack may eliminate that complaint. I think this is an excellent throttle for the model railroader who likes switching with walk around control on an O scale layout.

**NEWS: Ultra Scale II by Chooch**

PO Box 1220, Maple Valley, WA 98038
425-788-8680, Chooch@jps.net

Mike O’Connell says that they’ve finally shipped the first #611 passenger car of the Great Northern Oriental Limited train series, and that they will begin shipping the whole train in September and October. This is a project that has taken 15 years to complete. More than 20 railroads ran all five of these Pullmans, so they can run on almost any layout. Each kit runs about $150 except the
Narrow Minded

Bobber Gibbs

Change Those On30 Couplers

To model any of the Colorado 36” gauge lines or the East Broad Top or any of the Maine 24” gauge lines in O scale, one follows the prototype exactly for coupler heights, wheel diameters and truck designs and anyone who does not may find his equipment is not compatible with others. The Colorado lines, the EBT and most three-footers used 26” as their standard coupler height and the Maine two-footers adopted sixteen inches. Coupler height is measured from the top of the rail to the middle line of the coupler.

In On30, although there were a few American and Canadian 30” lines, their coupler heights may have varied from one line to another, allowing a modeler to create a railway using any standard that he chooses. It makes good sense to choose 26” for larger On30 freight and passenger equipment and 18” for tiny industrial equipment.

Because much of the earliest On30 modeling involved converting HO locomotives and freight cars to 1:48 scale, couplers were often left at the standard HO height and they looked just fine on tiny O scale models. A ten foot wide HO standard gauge car is about five feet wide in O scale and 34” diameter wheels scale out to about 18”, appropriate for small rolling stock.

HO couplers at their standard HO height scale out to about 18.75” in O scale, which is also appropriate for smaller industrial equipment. Grandt Line On3/On30 ore cars are built so that HO knuckle couplers fit perfectly and also operate perfectly with undertrack uncoupling magnets. Those who convert HO equipment and use HO couplers can use an HO coupler gauge to ensure that their models operate perfectly.

When Bachmann Trains produced their first On30 Mogul and passenger car sets, they created superb O scale equipment that was appropriate for On3 but they installed 30” gauge wheelsets so they could use their existing HO track, which scales out to just about thirty inches. Then they lettered their equipment for lines that were really three-foot gauge like the Colorado & Southern. On3 modelers were pleased to be able to purchase inexpensive passenger equipment and all they had to do was trade the On30 trucks for On3 trucks for compatibility.

Bachmann also chose to install their HO couplers at HO height, (18.75”) which involves a thick spacer but many people think it detracts from the looks of the cars. Frankly, the Bachmann couplers droop down and do not look good in my opinion but On3 modelers cheerfully purchased the cars, cut off the spacers and installed their favorite knuckle couplers at 26” height to add more passenger coaches and freight cars for a fraction of what other On3 models usually sell for.

That left the On30 modeler with the choice to either model the Colorado & Southern with incorrect gauge track, wheelsets and coupler height or repaint the equipment and create their own fictitious or freelance 30” gauge lines, which many people are doing. The Bachmann coaches and freight cars are quite useable for 30” gauge equipment and look just fine on HO gauge track if one covers up the too-short and too-close-together HO ties, or uses On30 flex track available from several manufacturers, or hand lays his own On30 ties and rail.

If the couplers are left at the HO height, all equipment on an On30 layout might be compatible, but many modelers prefer to have the couplers on their freight and passenger cars at the usual 26” height with the coupler pockets right up under the floor, eliminating the unsightly spacers. It’s not hard to do.

It takes only a few minutes to make up an On30 26” coupler gauge. I used a block with two grooves for the rails and built up a pad so that the center line of my coupler is right at 26” (0.54” or just over 17⁄32”) and glued a coupler pocket on top. If every car mates with the coupler gauge, you know they’ll mate with each other.

This is not so much a how-to article as a why-to. In the photo on page 51 an American Flyer gondola with Bachmann trucks and Kadee couplers (mounted at 26”) mates perfectly
with the altered Bachmann boxcar. In future articles, I’ll show more photos of more altered freight cars and passenger cars. Like, how about a neat eight-window shorty coach from a Bachmann 12-window?

I hope that a few of our O scale standard gauge modelers are building narrow gauge industrial lines and will share some photos with us. I know that Neville Rossiter (from Western Australia, see OST#1) is doing just that. Anyone else?

For more On30 information, join the On30 Conspiracy on the net at: http://groups.yahoo.com/group/On30conspiracy/

Happy rails to you until we meet again.

bobber@sympatico.ca

---

**Product News & Reviews... cont’d.**

Observation which is $175. San Juan Car Company will be doing 4 and 6 wheel trucks for these cars. Champ has the decals and Precision Scale has brake details. Another new item mentioned is laser cut acrylic flush fit windows for the Weaver Pullman Bradley cars (reviewed in OST#8). Also noted is a War Emergency 53’6” flat car kit with the master patterns made by Gene Deimling (now, there’s a guy who gets things done. See his Proto48 column this month.) Release is early 2004.

**NEWS: Red Caboose**

PO Box 250, Mead, CO, 80542
970-535-4601, stacktalk@aol.com
www.red-caboose.com

Red Caboose is having a “Scratch & Dent” sale on their O scale RTR Reefers. The flaws in these cars range from broken brake lines, to broken steps and paint runs. Regular price on a perfect copy of these reefers is $51.95 to $54.95. The sale price is $39.95 for any version. The cars available are WP/PFE, ART w/shield herald, ART w/MP & WAB heralds, Italian Swiss Colony, PFE UP/SP, and NP. All cars are sold “as is” and the numbers are limited.

Other reefers previously announced are still on hold. These are the PFE double herald RTR, the Western Fruit Express/Great Northern wooden ice reefer and the MDT reefer, both in kit and ready to run.

**NEWS: Kohs & Company**

PO Box 689, Clarkson, MI, 48347
248-625-6396, www.kohs.com

Kohs & Company has announced several new projects, some of very limited quantity. One of those limited runs is a Norfolk & Western Y6a, 2-8-8-2. Those not familiar with the N&W may wonder if there is much difference between a Y6a and a Y6b, a Kohs former offering. On most railroads there probably wouldn’t be, but there is a huge difference on the N&W models. Kohs will produce only 50 Y6a models and already more than 30 of the models have been reserved. Cost is estimated at $4000 and no auxiliary tender this time. Kohs has also announced their PRR G22b gondola project is underway. The gon comes with one of two styles of containers. No price yet and they’re not taking reservations yet but if you’re interested in this car, contact them so you will be notified when it becomes available. Another announcement involves the future production of cabooses (cabin cars to PRR fans). First up is the PRR N5c car of porthole fame. Future projects will compliment previous and future Kohs engines. Planned are C&O, N&W, Erie, SP and UP cabooses. Future engines planned at this time include: PRR K4, C&O H8 Allegheny, NYC S1a, S1b, & S2 Niagara, UP Big Boy, Erie Class S Berkshire, and a C&O K3/K3a Mikado. And on a final note: all future Kohs engines will be delivered with documented performance information stating the actual measured range of scale operating speed and pulling power.

---
Master Creations’ O kit #18105 contains the tipple, headhouse, power house, storage shed, retaining walls, and a ton of character for $549.95! The tipple is approximately 45 x 90 scale feet with the overall diorama shown being about 24" x 48". Not all details are shown in the photo!

B.T.S.
Celebrating over 20 Years of Service since 1979

PO Box 561
Settler, FL 33583
Phone: 813-643-1105
Fax: 813-681-7326

Web: www.btsroom.com
www.master-creations.com
E-Mail: bill@btsroom.com
S.A.S.E. for price list
$6.00 cash on all US orders
Full Catalog - $5.00

NCE goes wireless
Model railroaders’ number one choice in Digital Command Control introduces the cordless cab!

Introducing wireless technology that has all the bullet-proof performance you expect from NCE.
- Every Pro Cab™ function is available
- The only 2-way wireless DCC system available that provides full functionality
- No annoying delay in speed control.
- Features engage instantly and on the fly
- Easily retrofitted to existing NCE cabs

The NCE Power Pro DCC systems bring you power and simplicity unmatched by other manufacturers. NCE has the widest array of decoders offered for all scales and "silent running" is standard. At your dealer now. For more information and request a free catalog email or write:

NCE Corporation • 899 Ridge Road • Webster, NY 14580 • www.ncedcc.com
<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMI NP A4 4-8-4 unpainted, new TRO</td>
<td>$1795</td>
</tr>
<tr>
<td>PSC D&amp;RGW L-131, F/P Road# 3600, black boiler, tender has correct</td>
<td></td>
</tr>
<tr>
<td>spacing between the Rio Grande unlike the production run. No film</td>
<td></td>
</tr>
<tr>
<td>decals from PSC. New, never run</td>
<td>$3695</td>
</tr>
<tr>
<td>Key SP E7 A&amp;B, latest run F/P Daylight, new, never run (pair)</td>
<td>$2595</td>
</tr>
<tr>
<td>Key NYC E7 A&amp;B, early run, FP lightning stripes, new, never run (pair)</td>
<td>$2250</td>
</tr>
<tr>
<td>OMI SP&amp;S Z8 4-6-6-4 Unpainted Very Little Tarnish TRO New</td>
<td>$3200</td>
</tr>
<tr>
<td>PSC SP AC-9 2-8-8-4 Coal 922 R-1 Tender FP - Black Boiler New</td>
<td>$3195</td>
</tr>
<tr>
<td>OMI NYC S1a 4-8-4 CP by Bernie Beedy Crown Series New</td>
<td>$3995</td>
</tr>
<tr>
<td>OMI 120 Ton Crane Open Cab Version Industrial Brownhoist Factory</td>
<td></td>
</tr>
<tr>
<td>Painted Black, Unlettered OMI No. 0027.1 New</td>
<td>$1195</td>
</tr>
<tr>
<td>Key B&amp;A K3n 4-6-2, Factory painted, Rd#506, New</td>
<td>$2550</td>
</tr>
<tr>
<td>Div Point RDC-3, F/P NP, new, never run</td>
<td>$1250</td>
</tr>
<tr>
<td>OMI UP FEF-3, F/P Road# 844, new, never run</td>
<td>$2550</td>
</tr>
<tr>
<td>OMI UP FEF-3, F/P Road# 835, triple stack, new, never run</td>
<td>$2550</td>
</tr>
<tr>
<td>Kohs &amp; Co. NYC J3a 4-6-4, Factory Ptd, Rd#5447, Late version P4</td>
<td></td>
</tr>
<tr>
<td>Tender, Boxpoke drivers, roller bearing rods</td>
<td>$4000</td>
</tr>
<tr>
<td>PSC C&amp;O T1 2-10-4, CP, like new condition</td>
<td>$2995</td>
</tr>
<tr>
<td>OMI UP DD40X F/P Road# 6931, like new w/Cockerham drive</td>
<td>$2250</td>
</tr>
<tr>
<td>OMI NP Z8 4-6-6-4, Unptd, New</td>
<td>$3200</td>
</tr>
<tr>
<td>PSC CB&amp;Q S-4a 4-6-4, Factory Ptd, Rd# 3003 new</td>
<td>$2850</td>
</tr>
<tr>
<td>Kohs &amp; Co NYC J3a 4-6-4, Factory Ptd, Rd# 5424, late version P4</td>
<td></td>
</tr>
<tr>
<td>Tender, Boxpoke drivers, plain rods</td>
<td>$4000</td>
</tr>
<tr>
<td>Kohs &amp; Co N&amp;W Y6b 2-8-8-2, F/P Rd# 2178</td>
<td></td>
</tr>
<tr>
<td>Kohs &amp; Co N&amp;W Auxiliary Water Car F/P</td>
<td>$650</td>
</tr>
<tr>
<td>PSC CB&amp;Q C-16a 0-8-0 Custom Painted for PSC Rd#242</td>
<td>$1750</td>
</tr>
<tr>
<td>PSC SRR Ps-4 4-6-2, F/P Rd# 1401</td>
<td>$1650</td>
</tr>
<tr>
<td>C&amp;LS C&amp;O H6 2-6-6-2 F/P Rd# 1477</td>
<td>$3995</td>
</tr>
<tr>
<td>C&amp;LS WM M-2 4-6-6-4, F/P Rd# 1901, late version</td>
<td>$3995</td>
</tr>
</tbody>
</table>

**Get Real Productions**

Prototypical Model Railroad Photography

Through the use of lighting, smoke, fog, and steam, our photographs project special moods and portray the romance of the rails. Our artistic images are all photographed in our studio and are unretouched for added realism.

- Prints
- Calendars
- Posters
- Greeting Cards
- Postcards
- Custom Orders

Call or write for our color brochure.

“Our photos make model trains look real!”

Get Real Productions
11 Out of Bounds Road
Palmyra VA 22963
Voice: 434-589-2660 • Fax: 434-589-4898 • kjkriigel@aol.com
Let me start with a little history. I have been a model railroader for more than twenty five years now. In that time, I have been involved in everything from N scale, including N scale detail manufacturing for a short time, to HO, to N, to HO, to N, finally getting to O scale in the early eighties. A disastrous experiment with outdoor O scale in the Texas sun put me off trains until 1999 when I discovered the internet. What a cool place. I could travel the world from the comfort of my own home.

I was looking at different websites and trying to decide which scale to model in. I was looking at the possibility of doing S scale and I discovered the BTS website [www.btsrr.com]. From there, I saw that O scale was still going strong and I ended up at the O Scale Kings website [www.oscalekings.org]. From there I ended up joining the Otrains list at Yahoo [groups.yahoo.com].

After being a member of the Otrains list for a couple of weeks, I started looking for equipment. The people on the Otrains list have been very helpful. The first thing I started looking for were my old favorites, Atlas F9’s. It took virtually no time to find a pair. I ended up buying two engines that a guy had listed on the Otrains classifieds for $25 each.

Then I discovered Ebay. Yep, Ebay is how I ended up acquiring most of my rolling stock. Now, all I had to do was find a way to build a model railroad.

It has been nearly four years now and I still don’t have what one would call a model railroad. I still seem to have the age old problem of space. However, I started building small modules using polystyrene foam insulation. I had found a piece of foam that was eight feet long and nearly two feet wide. I figured if I could cut it down to six inch widths I could build something that would have room for the track. Heck, there might even be room for some scenery. And that’s how I got started with my floor modules.

Why do I call them floor modules? Because they are designed for just that, to be used on the floor without risking any carpet fibers getting into the mechanisms of engines. Or they can be used outside. At a train show these can be set up across tables. There’s many possible locations but I still call ‘em floor modules.

The foam I had found was green, two inch thick, polystyrene foam insulation. So far, only Lowes carries it in my area (Florida) and they only carry the one inch thick foam. I had found another piece of this same foam a couple of days after finding the first but it wasn’t in very good condition. It will be usable when it comes to having a place to put buildings and such, more like a diorama that will fit next to the floor modules.

The foam I had found was green, two inch thick, polystyrene foam insulation. So far, only Lowes carries it in my area (Florida) and they only carry the one inch thick foam. I had found another piece of this same foam a couple of days after finding the first but it wasn’t in very good condition. It will be usable when it comes to having a place to put buildings and such, more like a diorama that will fit next to the floor modules.

The construction of these modules is pretty straightforward and it really is pretty easy. The first thing to do is cut down the foam. When working with this stuff you don’t need a saw or even a big knife. You score and break. It’s that easy. Since all I have at the moment are straight modules, it was ridiculously easy to do. Also, you want these things to be manageable so they shouldn’t really be much longer than four feet. I made mine about six inches wide. That is just enough to have a couple of inches off each side of the track and still provide for just a little scenery by shaping it after the track is laid.

After cutting the foam, I started laying roadbed. I’m using Vinylbed roadbed. You can use Vinylbed, Woodland Scenics, or any number of different brands of roadbed including cork that can be purchased in auto parts stores. (Whenever I go to the auto parts stores, or the home improvement stores, and even hardware stores. I’m always on the lookout for items I can use for my railroad.)

I attached my roadbed to the foam using latex Liquid Nails. Any good latex adhesive will work. You have to use latex based adhesive since petroleum based adhesives would dissolve the foam.

The next thing is painting. Yes, painting. Gee, you get to do a little scenery work here and you haven’t even laid the track yet! Just like the big layouts, these little modules take a lot of paint, which also has to be either latex or water based acrylic. I use a real cheap paint I pick up in the craft department at Wal-Mart. It’s called Apple Barrel and comes in a variety of colors, many of them earth tones. There are also several shades of gray which is what I use for the initial color on the roadbed. I also use some raw
umber, burntumber and some raw sienna. I like to mix and match the colors as I go along. This helps to bring about a cohesive color to the whole thing. The only part that stays gray is the roadbed.

While the paint is drying (about 24 hours), I get the track ready. I use Gar-graves two rail track. It has a rail height that is close to code 172. Most everyone else that would build these modules would probably use a much smaller rail size, like code 148. Whatever you use, the first thing is to solder some pigtailsto the bottom of the rail near the middle of the track section. These pigtails are short pieces of 20 or 24 gauge wire that will be used to make electrical connections between modules. I initially used some heavy duty solid 8 gauge wire but soon discovered that it wasn’t really necessary. I could just run the pigtailsthrough each side of the modules and make it come out close to the bottom. By doing this, you just run a jumper wire from pigtail to pigtail. Do this before the track is down on the roadbed otherwise you will melt the foam trying to solder the pigtails in place.

(Editor’s comment: Were I building these, I’d attach pigtail at each end of the track on a module and attach alligator clips to each pigtail. Then you can daisy chain the clips/modules. Attach your power supply at the “center” to minimize voltage drops across the modules.)

When all the paint on the module is dry, it’s time to glue down the track. If one was a glutton for punishment, one could always hand lay their track, but on these modules that would not be the best use of that talent. I put a little latex Liquid Nails on every third or fourth tie. I make sure the track section lays down good and flat against the roadbed. Then I let the adhesive set up and dry for a couple of hours.

Punch a hole on each side of the track where the pigtails will go through. Thread the wire down through the holes and out the bottom. This will neaten things up around the trackwork and allow the wires to be out of the way. It also makes things easier when you go to hook one module up electrically to the next.

Now for the anchors. When building regular wooden modules they are usually anchored one to the next with C clamps. But, since we are working with foam insulation that’s not going to work. I had to come up with something that would be durable enough to handle being put up and taken down and not destroy the foam. I use ¼ inch wooden dowels.

I measure back four inches from the each end of the module and ream a hole at the centerline of the module height. This is to make sure that I have enough foam holding the dowel. I use wood glue to hold the dowel in place. There is an inch of dowel exposed on each side of the module. To anchor two modules together, I wrap rubber bands around the dowels. I can hear you laughing now, but it works.

The next step is to enjoy running your trains back and forth after building a few of these modules. Of course, that will get boring after awhile. So, I guess a few curved modules and some switches are called for. Those will, of course, require wider modules. I’m still working out the design on these.

After you have enjoyed running your trains back and forth, it’s time for some scenery. This is pretty easy on these modules since there just isn’t very much ground to cover.

I start the scenery phase by painting the track. Yes, track is a detail also, and should be considered before anything else is done. I use Floquil Rail Brown mixed with just a little Grimy Black. I use my little sprayer from Testors. A really nice little paint shooter. You can’t regulate the paint flow but it is a cool little item. It fits right on top of a can of Propel and off you go.

After I paint the rail, I put a little paint thinner on a rag and clean the railheads. This makes the track look better as you can see in the photographs. I was considering doing a lot more like adding rail joiners with all the nut-bolt-washer detail at scale thirty nine foot intervals but decided against that at this point. Maybe in the future. Now ballast the track and add any scenery like ground cover.

Next, work on the sides of the module. There are several options. You could leave it all straight across and use styrene to make imitation concrete walls along each side of the right of way, or you could use brick or even
cribbing. That would give it the look of an elevated line above swamp land or something similar. Or, you could use a hot wire foam cutter to shape the ground work anyway you like.

I decided on concrete sides. These are made using plain styrene sheet. While you could go to your local hobby shop and buy the styrene sheet there, the amount you will need for this operation would be expensive. What I did was go to a local plastic supplier and for $5 bought a whole bunch of their scrap plastic. This has come in very handy not just for this project but for all of my other projects, too.

The scraps were all about six inches wide and most were eight feet long. I cut them down to more manageable sizes. Most were cut to one and two foot lengths. I measured off two inch heights along the length, scored and broke what I needed for sides. Measure the location of the dowel that is sticking out of the module and ream a hole in the same location of the strip of styrene to be laid down. Test fit the strip over the dowel and if it fits, glue down the styrene. All of my “concrete” walls were secured to the foam with White Lightning Adhesive Caulk available at Wal-Mart stores in the paint department.

As you can see from the photographs this isn’t brain surgery. These modules offer a solution for those who don’t have a lot of room, even a spare room can be too small in some cases. It’s my hope that I have inspired someone out there who is building O scale models for that dream layout that they will build “someday”. I realize this is only a temporary solution, but it will allow you to have trains up and running and not just sitting on shelves or in boxes in a closet or in the basement.

You will, of course, notice when you look at the photographs that these modules aren’t perfect; not in detail and not in execution either. But for now, I at least have a way of running my trains when I feel like it, or at least when it isn’t raining.

Until next time. happy railroading.
Bob Anson recently finished this car #27260 for a client in Texas. It is a Bob Parri cement gon in kit form. Bob was fortunate to have an original Parri car from another client on hand to use as the master instruction sheet to build these cars. Says, he could never have done it without it. The gon is finished in Scalecoat LV Cornell red (custom blended). All lettering was drawn and printed in Bob’s shop for both the gon and the canisters.

Another Roland Marx masterpiece. A Gilmaur SW1500 wears the paint scheme and markings of the Helm Leasing Company (HLCX). The model is sitting on trucks made from MTH scale truck sideframes with Weaver style P&D gearboxes. He’s promised us an article.

Mike Culham captures the Great Central’s new 70 tonners at Tara Mills on his layout. Mike hails from Toronto, Ontario.
I read Woody Matthews article on working InterMountain doors in the Nov/Dec ’02 issue of O Scale Trains (OST#5) and concur that working doors are needed on such fine models. I also concluded that the technique Woody described was a lot of extra work.

I confronted this problem about 10 years ago when these cars were first released and present my solution which I feel is much simpler and quicker.

A piece of piano wire! Bend as shown. Install as shown and pop it in the doorway.

---

FOR SALE
all n.i.b. except*

- GHB Doodle bug unptd. $495
- Overland Bascule Bridge $694
- Overland PRR PSa $749
- Early Atlas flex track box of 24 $120

SUNSET
- GN S-2, 4-8-4, Glacier Green $995
- Early U.P. Challenger $1545
- S.P. AC-6, late cab $1495
- Early Big Boy * $1450
- Late Big Boy $1795
- C44-9w U.P. & Santa Fe [each]$695

Trades of Interest:
- USH S.P. GS-4 Daylight 1/1
- USH U.P. FEF black or gray 1/1

Tom Thorpe
3768 Foulk Road
Boothwyn Pa. 19061-1802
ph: 610 485 1236
fax: 610 497 2883
tomthorpetrains@yahoo.com
www.curvedbenchwork.com

Modeler’s Tricks
Another InterMountain Door Solution
Text & Design by Harry Hieke Jr.,
Illustration by Richard Gardner

I read Woody Matthews article on working InterMountain doors in the Nov/Dec ’02 issue of O Scale Trains (OST#5) and concur that working doors are needed on such fine models. I also concluded that the technique Woody described was a lot of extra work.

I confronted this problem about 10 years ago when these cars were first released and present my solution which I feel is much simpler and quicker.

A piece of piano wire! Bend as shown. Install as shown and pop it in the doorway.

---

Train America Studios presents Scale Command

Are you ready for everything you could ever dream of in a wireless remote operating system and then some? Then 2-rail Scale Command is your dream come true! Look at these features: independent control of up to 99 locomotives; wireless control of switches; realistic on-board digital sounds; 100% Kadee-compatible operating scale couplers; and more! Scale Command can be added to any 2-rail O scale locomotive. Scale Command is the most affordable command/control system ever offered for O scale.

Visit our website for more information on how Scale Command can benefit you.

Train America Studios • 4137 Boardman–Canfield Rd., Ste LL02 • Canfield, Ohio 44406
Hours: Mon-Fri, 10AM -6PM • Voice: 330-533-7181 • Fax: 330-533-7208 • email: info@scale command.com • web: www.scale command.com
FOR SALE: Adirondack Car & Foundry products, Weaver, NWSL, Grandt Line, Kadee couplers, Athearn trucks, Intermountain (while supplies last), OSN, OST. Contact Ed Reutling, AC&PH: 423-477-5790. Email: reutling@xtn.net Ed Reutling, 160 Harwood Rd., Gray, TN 37615-3728

SUNSET MODELS NP A-5 #2681 $989; NKP #845 4-8-4 $979; RF&P #518 4-8-2 $979; GN Glacier S-2 4-8-4 #2558 $1079; AT&SF #5011 2-10-4 $989; B&O Early 2-8-8-4 #7615 $1499; B&O late 2-8-8-4 #7624 $1499 PENNSYLVANIA Q-2 4-4-6-4 #6184 $1499; Pennsylvania P-5a Streamlined Electric $699; AT&SF c-44-9w #654 $699; UP C-44-9w #9734 $699 Ph: 727-391-3135, John Clemens, 5273 97 Way N, St. Petersburg, FL 33708-3752

FOR SALE: Intermountain Builtcar Car J large inventory... Box cars, Reefers, Gondolas, Hoppers, Tankers, $39. If you demand Intermountain quality, buy while they are available. Ph: 727-291-3135, John Clemens, 5273 97 Way N, St. Petersburg, FL 33708-3752


YODER Chesapeake & Ohio hoppers, dreads, oval/notched ends, unptd, $175; Painted C&O cars all versions, $199; Pennsylvania GGa hoppers $175; Western Maryland woodchips, covered hoppers $175. SASE: (727) 391-3135, John Clemens, 5273 97 Way N, St. Petersburg, FL 33708-3752

FOR SALE: Atlas SW9 #6177-1, C&O #5241, $250; Atlas Coal Hoppers Rd #300402, 414, 422, 437, $50 ea. MG/USH C&O Steel Caboose, ptd., w/trucks, missing one step. $175. Plus shipping. Ph: 301-646-0611 (eve.) Gil Stimson, 4506 Rising Lane, Bowie, MD 20715-3228

WANTED: 2 rail - Anything C&O (except brass)- especially hoppers 1900-1960s, passenger cars, Atlas SW 8/9s, and structures. Email me list, phone no. [eef@medicine.wisc.edu] NO ADDRESS Ned Ferguson, 1021 Rooster Run, Middleton, WI 53562-3872

FOR SALE: Timber Creek Railroad Supply is offering the masters and molds for the "O" scale switch stands for sale at this time. For further details call (530) 273-9145. Or write: Timber Creek Railroad Supply c/o Gordon Briggs, 13371 Mystic Mine Rd, Nevada City, CA 95959-9023


FOR SALE: Very rare MG ATSF 4-6-4 w/lenk drive, beautiful new paint job, UHS ATSF 4-6-2, custom painted. USH SP MT-3 mint OB. Sunset ATSF 2-8-0 new OB. Complete details: SSAE or email gnschrader@aol.com. Gary Schrader, 4201 Kingspark Dr, San Jose CA 95136, 408-227-9491.

FOR SALE: New Sunset B&O EM-1, 2-8-8-4, and UP Big Boy, $1500 each; AT&SF 2-10-4, $1000; AT&SF 2-8-0, $750. All 2 rail. I take Visa, Mastercard, and Discover. Ph: 505-898-6956. Marius Vallecorsa, 4704 Sandpoint Rd NW, Albuquerque, NM 87114-4533

FOR SALE: Rare MG ATSF 4-6-4 w/lenk drive, beautiful new paint job. UHS ATSF 4-6-2, custom painted. USH SP MT-3 mint OB. Sunset ATSF 2-8-0 new OB. Complete details: SSAE or email gnschrader@aol.com. Gary Schrader, 4201 Kingspark Dr, San Jose CA 95136, 408-227-9491.

FOR SALE: Atlas SW9 #6177-1, C&O #5241, $250; Atlas Coal Hoppers Rd #300402, 414, 422, 437, $50 ea. MG/USH C&O Steel Caboose, ptd., w/trucks, missing one step. $175. Plus shipping. Ph: 301-646-0611 (eve.) Gil Stimson, 4506 Rising Lane, Bowie, MD 20715-3228

FOR SALE: Very rare MG ATSF 4-6-4 w/lenk drive, beautiful new paint job. UHS ATSF 4-6-2, custom painted. USH SP MT-3 mint OB. Sunset ATSF 2-8-0 new OB. Complete details: SSAE or email gnschrader@aol.com. Gary Schrader, 4201 Kingspark Dr, San Jose CA 95136, 408-227-9491.
Events

September 2003
6, Merchantville, New Jersey
2-rail, "O" Scale Swap Meet Held at the Grace Episcopal Church, 7 Maple Avenue, Merchantville NJ 9:00 am to 1:00 pm. Admission is $4.00; there is no charge for your spouse or children under 12 years of age. There are only 36 tables available, a check must be enclosed with your reservation. Tables are $16 for the first table (includes one admission) and $12 for each additional table. Contact Chuck Jacobs (856-234-1898) or Dave Richter (215-639-7290) E-mail eostrains@att.net. Make checks payable to Cherry Valley Model Railroad Club (CVMRC) P.O. Box 192, Maple Shade, NJ 08052

19 & 20, Indianapolis, Indiana
Indianapolis Midwest “O” Scale Fall Meet, at the Sheraton Inn, 7701 E 42nd St., 317-897-4000. O Scale, Proto-440, On3, On2, O, Trolley/Track displays and sale, 5,000 square feet, manufacturers and importers. INFO: Jim Canter, 1203 Rotherham Ln, Beech Grove, IN 46107-3322, Ph: 317-782-3322, [email: jcanternkp@aol.com]

20, St. Paul, Minnesota
Twin City Model Railroad Museum, Inc., Model RR & Hobby Sale, 9 am to 3 pm. Education Building at the Minnesota State Fairgrounds. Admission $4, under 5 free (includes admission to the RR Museum at Bandana Square on the day of sale if you get your hand stamped). Info: 651-647-9628, www.tcmrm.org

20 & 21, Dothan, Alabama
Wiregrass Annual Model Railroad Show and Sale, Sponsored by the Wiregrass Heritage Chapter of the National Railway Historical Society. Admission $4, adults, under 12 free. Open 9 am – 5 pm Saturday, 10am – 4 pm Sunday. For more info contact Danny Lewis (334) 792-4979, or email [dannylws@yahoo.com].

October 2003
3 - 4, Abilene, Texas
19th Annual Southwest O Scale (2 & 3 rail) Show. Regency Inn & Suites, 3450 S Clack St, Abilene, TX (800-676-7262 ask for “Trains” to get show rate.) Contact: Dean DeMain, yomodelrrclub@yahoo.com or table rental contact Jimmie Swann during evenings at 330-799-8691, or write to FRMR-RC, PO Box 884, Albany, GA 31702-0884.

November 2003
1, Wind Gap, Pennsylvania
Eastern “O” Scalers O Scale 2-Rail O Scale Swap Meet - Plainfield Fire Hall, 6480 Sullivan Trail. From 9 am to 1 pm. Admission $5 (1 discount on admission is given if you bring an index card with your name and address). Vendors: table $16 (includes 1 admission), additional tables $12. Info: EOS, PO Box 1781, Bensalem, PA 19020; (215) 639-3864; [web: http://www.EasternOScalers.com]

1,2,8,9,15,16, Youngstown, Ohio
Youngstown Model RR Assoc OPEN HOUSE, located at the corner of Raccoon and Four Mile Run Rd., Open 12:00 pm – 6:00 pm all 6 days $2.00 per person under 12 free. Info: Dean DeMain, yomodelrrclub@yahoo.com or call 330-799-8691.

15, Strongsville, Ohio (Cleveland area)
Annual Western Reserve O Scale Meet at the Holiday Inn Select in Strongsville. From 9 am to 3 pm. Admission: $5; tables $20. Info: Bob Boeddener, 32165 Hickory Ln, Avon Lake, OH 44012. Phone: 440-933-7169.

December 2003
20-21, Greensboro, Maryland
Caroline County Public Library Toy Train & Model Railroad Exhibit. North County Library at 101 Cedar St. From 10 am to 3 pm. Free Admission. For more info contact Richard O Smith, Branch Manager, 410-482-2173.

January 2004
10 & 11, Albany, Georgia
Flint River Model RR Club of Albany, Ga., 13th Annual Model Train Show. Open to the public. Sat 9am - 5 pm, Sun 11 am - 4pm. Adults $3, 12-18yo $1, Under 12 free w/adult. For info or table rental contact Jimmie Swann during evenings at 229-883-3517, or write to FRMR-RC, PO Box 884, Albany, GA 31702-0884.

July 2004
22-25, Washington, D.C.
2004 O Scale National Convention at the Hyatt Regency, Crystal City, Virginia at Reagan National Airport. Convention and Dealer registration info is available from the Capital Area O Scalers, 2004 O Scale National Convention, 10401 Grandin Rd, Silver Spring, MD 20902, or email to sonc2004@hotmail.com.

Advertisers Index

<table>
<thead>
<tr>
<th>Advertiser Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate O Scale</td>
<td>14</td>
</tr>
<tr>
<td>Andersen’s Train Station</td>
<td>30</td>
</tr>
<tr>
<td>AtlasO</td>
<td>IBC</td>
</tr>
<tr>
<td>BTS</td>
<td>52</td>
</tr>
<tr>
<td>California Roadbed Co.</td>
<td>9</td>
</tr>
<tr>
<td>Central Locomotive Works</td>
<td>30</td>
</tr>
<tr>
<td>Chicagoland</td>
<td>25</td>
</tr>
<tr>
<td>Get Real Productions</td>
<td>53</td>
</tr>
<tr>
<td>Jim Hackworth Model Trains</td>
<td>25</td>
</tr>
<tr>
<td>Hoke Hieke, Jr.</td>
<td>53</td>
</tr>
<tr>
<td>House of Duddy</td>
<td>43</td>
</tr>
<tr>
<td>JV Models</td>
<td>9</td>
</tr>
<tr>
<td>Keil-Line Products</td>
<td>37</td>
</tr>
<tr>
<td>NCE Corp</td>
<td>52</td>
</tr>
<tr>
<td>Norm’s O Scale</td>
<td>24, 30</td>
</tr>
<tr>
<td>O Scale Realty</td>
<td>9</td>
</tr>
<tr>
<td>O Scale Signals</td>
<td>21</td>
</tr>
<tr>
<td>Old Pullman</td>
<td>19</td>
</tr>
<tr>
<td>Overland Models</td>
<td>36</td>
</tr>
<tr>
<td>P&amp;D Hobby Shop</td>
<td>21</td>
</tr>
<tr>
<td>Pecos River Brass</td>
<td>BC</td>
</tr>
<tr>
<td>Precision Scale Models</td>
<td>IFC</td>
</tr>
<tr>
<td>PRR Brass</td>
<td>37</td>
</tr>
<tr>
<td>Public Delivery Track</td>
<td>54</td>
</tr>
<tr>
<td>Old Pullman Models</td>
<td>42</td>
</tr>
<tr>
<td>Rons Books</td>
<td>37</td>
</tr>
<tr>
<td>Russian River RR Co.</td>
<td>9</td>
</tr>
<tr>
<td>RY Models</td>
<td>21</td>
</tr>
<tr>
<td>Stevenson Preservation Lines</td>
<td>9</td>
</tr>
<tr>
<td>Sunset/3rd Rail</td>
<td>10, 22</td>
</tr>
<tr>
<td>T Bone Models</td>
<td>9</td>
</tr>
<tr>
<td>Tom Thorpe</td>
<td>58</td>
</tr>
<tr>
<td>Train America Studios</td>
<td>58</td>
</tr>
<tr>
<td>Weaver</td>
<td>43</td>
</tr>
<tr>
<td>Whitehall Models</td>
<td>53</td>
</tr>
</tbody>
</table>

60 • O Scale Trains - Sept/Oct '03
Arkansas
Hobby Shack
1200 John Harden Dr
Jacksonville, AR 72076
501-982-6836

Mickey’s Model Works
611 Court St, Ste 4
Conway, AR 72032-5417
501-450-9423

Arizona
Coroado: Scale Models
1544 E Cypress St
Phoenix, AZ 85006
602-254-9650

California
All Aboard Model RR Emporium
3867 Pacific Coast Hwy
Torrance, CA 90505
310-791-2637

Bruce’s Train Shop
2752 Marconi Ave
Sacramento, CA 95821
916-485-9288

Fulton Station
454 Larkfield Shop Ct
Santa Rosa, CA 95439
707-523-3522

Just Trains
5650-H Imhoff Dr
Concord, CA 94520
925-685-6566

Original Whistle Stop
2490 E Colorado Blvd
Pasadena, CA 91107
626-796-7791

Railroad Hobbies
119 Vernon St
Roseville, CA 95678
916-782-6067

Reed’s Hobbies LLC
8039 La Mesa Blvd.
La Mesa, CA 91941
619-464-1672

Train Shop
1829 Pruneridge Ave
Santa Clara, CA 95050
408-296-1050

Colorado
Caboose Hobbies, Inc.
500 S. Broadway
Denver, CO 80209
303-777-6767

Delaware
Mitchells
2303 Concord Pike
Wilmington, DE 19803
302-652-3258

Trains & Hobbies
313 Newark Shopping Ctr.
Newark, DE 19711
302-266-8063

Florida
Kirkland Hobbies
187 Concord Circle
Panama City FL 32405
850-215-1973

Georgia
Riverdale Station
6632 Hwy 85
Riverdale, GA 30045
770-991-6085

Iowa
Caboose Stop Hobbies
301 Main St
Cedar Falls, IA 50613
800-642-7012

Illinois
Chicagoland Hobbies
6017 Northwest Hwy
Chicago, IL 60631
773-775-4848

Des Plaines Hobbies
1468 Lee St
Des Plaines, IL 60018
847-297-2118

Hill’s Hobby Shop
10 Prairie Ave
Park Ridge, IL 60068
847-823-4464

Mike’s Scale Ralls
3008 N Sterling
Peoria, IL 61604
309-689-0656

Rails Unlimited
126 Will Scarlet
Elgin, IL 60120
847-697-5353

Indiana
Big Four Hobbies
1005 E Main St
Plainfield IN 46168
317-837-1024

Mishawaka Railyard Inc
410 S Spring Ave
Mishawaka IN 46545
574-252-7245

Kansas
J’s Hobby Haven
5303 Johnson Dr
Mission, KS 66205
913-432-8820

Maine
Norm’s O Scale
PO Box 147
S Casco, ME 04077
207-655-2550

Massachusetts
Modeler’s Junction
88 Lowell St
Methuen, MA 01844
978-683-0885

Tucker’s Hobbies
29 Bacon St
Warren, MA 01083
413-436-5318

Michigan
Eureka Trains
1219 Eureka Rd
Wyandotte, MI 48191
734-294-0521

P&D Hobby Shop
31280 Groesbeck Hwy
Fraser, MI 48026
586-296-6116

Rider’s Hobby Shop
2055 28th St SE
Grand Rapids MI
616-247-3933

Minnesota
Second Ave Shops
173 2nd Ave SE
New Brighton, MN 55122
651-633-5722

Missouri
Marty’s Model Railroads
9622 Gravois Rd
St Louis, MO 63123-4345
314-638-8250

North Carolina
Dry Bridge Station
236 N Main St
Mount Airy, NC 27030
336-786-9811

Nevada
Heritage Sierra Models
4020 Kietzke Ln
Reno, NV 89502
775-825-5557

New Hampshire
Custom Trains
PO Box 48
Bath, NH 03740
603-747-3492

New Jersey
Big Little Railroad Shop
206 W Main St
Somerville, NJ 08876
908-249-0220

New Mexico
Trains West Inc.
3351A Candelaria Rd NE
Albuquerque, NM 87107
505-881-2322

New York
K-Vals Hobbies
277 Hinman Ave
Buffalo, NY 14216
716-875-2837

Ohio
20th Century Models
32557 Pettibone Rd
Solon, OH 44139-5454
440-248-3055

M&S Trains
4157 W Broad St.
Columbus OH 43228
614-274-1178

Terminal Hobby Supply
10200 Springfield Pike
Cincinnati, OH 45215
513-326-3613

Western Hills Photo & Hobby
6319 Glenway Ave
Cincinnati, OH 45211
513-661-2141

Oregon
Whistle Stop Trains
11724 SE Division St
Portland, OR 97266
503-761-1822

Pennsylvania
C&E Branchline RR Shop
102 W. Grove St.
Dunmore, PA 18509
570-347-7909

English’s Model RR Supply
21 Howard St
Mountoursville, PA 17754
570-368-2516

G&K Hobbies
720 Gordon St
Reading, PA 19601-2312
610-374-8598

Lin’s Junction
128 S Line St
Lansdale, PA 19446
215-412-7711

Mainline Hobby Supply
15066 Buchanan Trail E
Blue Ridge Summit, PA 17214
717-794-2860

Strasburg Train Shop
Rte 74 E, Box 130
Strasburg, PA 17579
717-687-0464

Tennessee
Adirondack Car & Foundry
160 Harwood Rd.
Gray TN 37615
423-477-5790

Hobbytown USA, 8901
Town & Country Circle,
Knoxville, TN, 37923, 865-690-1099

Smoky Mountain Model Trains Ltd
1933 Pittman Center Rd
Sevierville, TN 37876
865-428-8595

Texas
Pecos River Brass
560 E Church St
Lewisville, TX 75057
972-219-0202

Virginia
Granddad’s Hobby Shop
5260-A Port Royal Rd
Springfield, VA 22151
703-426-0700

Railway Hobby Shop
7547 Williamson Rd
Roanoke, VA 24019
540-362-1714

Walt’s Hobby Shop,
PO Box 1805,
Petersburg, VA, 23805,
804-861-1333

Washington
Central Hobbies
1574 Gulf Rd #1136
Point Roberts WA 98281
604-431-0771

The Inside Gateway
14725 Northeast 20th
Bellevue, WA 98007
425-747-2016

Wisconsin
Depot Drygoods
220 W Wisconsin Ave
Neenah, WI 54956
920-725-8854

Greenfield News & Hobby
6815 W Layton St
Greenfield, WI 53220
414-281-1800

Non-US Dealers
Canada
George’s Trains
510 Pleasant St
Toronto Ontario M4S 2M2
416-489-9783

Switzerland
Trainmaster
3 Hochweidstr. Kilchberg
CH-8802
011-411-715-3666

United Kingdom
Quince Valley Designs
17 West Street
Wooler, Northants
NN7 4QU
044-132-734-1374
YEEEHA! Boy did we have fun at the O Scale National in Dallas, Texas. Pecos John Smith and his crew did it up right and they should be proud. Everything about the convention was top notch, the venue, the vendor space, the clinics, the entertainment, the food. About the only thing missing was a real crowd of O scalers. That was most likely due to the unusual Sunday to Wednesday schedule. And the economy had a bit to do with it, too, I'm sure.

But, we were happy and so were several other vendors we spoke with. We sold all our back issues, got cleaned out of every OST tee shirt we took and came home with a pocketful of new subscribers. You can’t really expect much better.

Several O scale vendors were conspicous by their absence and I don’t understand that. If you are a supplier of O scale products, then you should be showing those products at the National, if nowhere else. Why? Because at a National you get a more diverse crowd than at a regional (maybe the Mid-West National, if nowhere else). Why? Because at a National you get more exposure and more feedback. It also means that the two O scale magazines get a chance to see your stuff, too.

I can’t speak for our colleagues at O Scale News (who were present at the National), but we here at OST can’t make it to every regional meet. But, the one place we will always be at is the National convention. So, if we’re there and you’re showing O scale products, then there’s a really good chance you’ll get a mention in the magazine.

For example, Richmond Controls handed me some sample Golden LEDs. I gave them to Ted Byrne and sent him over to investigate more fully. The result is the nice review Ted wrote for this issue. Likewise, Charlie Morrill saw the Aristo Craft radio control system at the National, bought one and liked it so much he wrote up a review for us. So, if Charlie hadn’t been there in Dallas, nor Ted, nor OST, you guys wouldn’t be getting the real scoop on these products.

I didn’t get to sit in on any clinics but I heard they were all superb. I did, however, get to check out all the great contest entries most all of which are shown in this issue. It seemed to me (and several others more experienced than I) that the level of skill and quality of models in this year’s National was way above average. I beamed with some pride when Tom Mix’s CB&Q Ten Wheeler won First prize in the Steam category. I was beaming because I knew a photo spread of that locomotive was about to hit the street in OST#9. I know a great locomotive when I see one!

Before I get too far afield, let me mention the most recent inductees into the O Scale Hall of Fame: Alan Armitage, often called the “father of styrene modeling”; Stu Kleinschmidt, remanufacturer of locomotive drive systems (some feel they are the Rolls Royce of O scale); and Richard Wagner pioneer traction modeler and owner of the Wagner car Company and publisher of Trolley Talk.

Another reason to attend the National is the relationships you develop with fellow (and sister) O scalers from parts of the country you are not from and wouldn’t meet in any other way. I managed to make a C&O for N&W 0-8-0 swap with Jim Cantner from Indianapolis that wouldn’t have happened if we both weren’t at the National.

George Kohs was one of the several importers who did attend the National and I spent a little time chatting with him. George is a remarkable guy who keeps raising the bar for O scale brass models (and the price!). His latest “innovation” is to include performance data with every locomotive shipped. Here’s how he put it: “With all of our future locomotive models our clients will receive documentation that states the individually tested performance of the model they are taking delivery of. Included in the information will be the scale operating speed range and also the pulling power measured to the nearest 100th of an ounce. The data should prove useful to ensure that our models are performing to their maximum on each clients home road and if not where the problem may lie.” Now it will be interesting to see who follows suit.

George also told me he will be doing more N&W steam. We already know about the Y6a. And, yes, he’s been asked to do the J and the A. But, I think a few people will be surprised to see what he has in mind when it comes time to announce.

I had several conversations with readers in past weeks about O scale suppliers and the Internet. They all said basically the same thing: if you tell me to go look it up on your website, you’ve lost a customer. One gentleman said, “If I write to [a vendor] with pen on paper, that ought to be a clue I don’t own a computer. Without a computer, I have no net access.” The net is a great tool for sales and marketing, but we have to remember that there is still 40% of the population unwired to the net. Many more still have dial-up lines and web surfing to them is painful. We can’t give up our traditional paper sales info and hope the net does all the work for us.

As always, send us your comments, remarks, feedback, ideas and articles. We always respond as quickly as we can. And remember to spread the word about OST.

Meanwhile, keep high ballin’!
TWO NEW Steam Era Classics™ FOR YOU

NEW PAINT SCHEMES! O 36’ Wood Reefers

Features Include:
• Highly detailed ABS body
• Separately-applied grab irons, ladders and stirrups
• Opening hatches and doors • Die-cast chassis and detailed braking system
• 40-ton Bettendorf-style die-cast sprung trucks
• Minimum diameter curve (3-rail): O-31 • Minimum radius curve (2-rail): 24"
• And More...

NEW PAINT SCHEMES & NEW ROAD NUMBERS!
50 Ton War Emergency Hoppers

Features Include:
• Unique construction in die-cast and ABS
• Full interior details • Accurate trainline details and brake system details
• Separately-applied grab irons and ladders • Sprung hopper doors
• Removable coal load • 50 ton Bettendorf die-cast sprung trucks
• Minimum diameter curve (3-rail): O-27 • Minimum radius curve (2-rail): 24"
• And More...

ITEM # | 3-RAIL | DESCRIPTION | 2-RAIL |
-------|--------|-------------|--------|
8000   | Undecorated | 9000        |
8008   | Kingan’s    | 9008        |
8009   | Krey’s      | 9009        |
8010   | Nuckolls    | 9010        |
8011   | Selecto     | 9011        |
8012   | Swift (Red) | 9012        |

NEW ROAD NUMBERS!

ITEM # | ROAD NAME     |
-------|---------------|
6420   | Undecorated   |
7420   |              |

NEW ROAD NAMES!

ITEM # | ROAD NAME     |
-------|---------------|
6421   | Baltimore & Ohio |
7421   |              |
6423   | Chesapeake & Ohio |
7423   |              |

Four road numbers are available per road name.

To get your "Official Member" of the Atlas O Forum Pin shown at right, please send $3 to the address shown below.
New O Scale from Pecos River

Precast Double T
Tiltup buildings

First kits are available now, and more will follow.

Also available: Modular Railroad Structures

See what you can do with this line of modular kits. Combined with the Walther’s Water Tank, you can make this tire plant, or an entire city of enormous buildings. All of this can be done with a window, door or blank wall. We can customize a kit to build any building of your design.

Check out our website at http://www.pecosriverbrass.com

Pecos River Brass
560 E. Church • Lewisville, TX 75057
Phone and Fax: (972) 219-0202
john@pecosriverbrass.com • visit our NEW website at http://www.pecosriverbrass.com