THE B&O MODELER



Number 59

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AN INVITATION TO JOIN THE B&O RAILROAD HISTORICAL SOCIETY

The Baltimore and Ohio Railroad Historical Society is an independent non-profit educational corporation. The Society's purpose is to foster interest, research, preservation, and the distribution of information concerning the B&O. Its membership is spread throughout the United States and numerous foreign countries, and its scope includes all facets of the B&O's history. Currently the Society has over 1600 registered members.

Members regularly receive a variety of publications offering news, comments, technical information, and in-depth coverage of the B&O and its related companies. Since 1979, the Society has published a quarterly magazine, *The Sentinel*, dedicated to the publication of articles and news items of historical significance. Other Society publications include monographs, calendars, equipment rosters, and reprints of original B&O source material. Their purpose is to make otherwise unobtainable data available to the membership at reasonable cost.

Membership in the Society is a vote of support and makes all the Society's work possible. It provides those interested in the B&O with a legitimate, respected voice in the railroad and historical communities. By working together, B&O fans can accomplish much more than by individual efforts. No matter how diverse your interests or how arcane your specialty, others share your fascination with America's most historic railroad. We invite your participation. Review membership options on the Society website, print and complete the membership information and mail to:

B&ORRHS

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FROM THE EDITOR DAVID MURVIHILL

Here we are at the spring edition of 2024. I am hopelessly mired in two projects: the eight passenger cars of the 1935 Royal Blue are waiting for me to make a drilling template for the windows, and the 200 feet of St Louis Union Station going on the end of my passenger tracks is stuck filling in the window archways.

I get to a point in my projects where they sit for a few weeks or a month while I noodle through the current problem, then suddenly I solve it and the rest of the project is gravy, or I get stalled once again a few days later...

This edition of the Modeler features two articles about steam locomotives (though I admit I wrote one myself). To me steam locomotives and locomotives in general are the best part of railroading. Hopefully in the future we'll see more of them.

I didn't get any April Fools Day offerings, so I offer this pair of Alco PA's pulling a train of Varney shorties...



And as usual, if any of you have any projects you'd like to share with an admiring group of B&O fans, feel free to contact me and I'll put you in print...

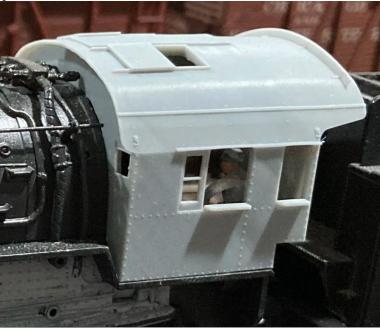
Feel free to contact me via e-mail (Davidmurvihill@gmail.com) or by phone (314-939-9028).

WHAT IS NEW AND WHAT IS NEWS

• Leopard Architectural Models has just released an HO scale model of the 12 x 15 ft. two story Standard Plan interlocking tower. Most modelers think that adding this structure is all that's necessary, well, it isn't. All towers had coal stoves. And where was the coal stored? In a Coal House adjacent to the tower. Well now, that keeps the operator warm in the winter, but what about a lavatory? A large tower may have had one inside, but the smaller the tower, the more likely that there was a Privy outside. Leopard Architectural Models have your tower operators covered with both an available Coal House and a Privy and Train Order Board. Unlike the past, where a kit had dozens of parts, this structure is a 3D print which minimizes both parts and clean-up.



 Mike Redden, of NE Model Works is releasing a resin print of a head-end brakeman's cab for the Broadway Limited Q-3 as a direct replacement. https://nemodelworks.com/projects/. Those that model a post WWII locomotive will find this part invaluable.



• Dennis Elliott reports...A very nice model of the Midland City Depot by Bob Kress. I have attached a Jaw Tooth YouTube Video screen shot of I took in October 2023 of the dilapidated Midland City Depot. He said it

probably will be demolished soon because some of the original doors and windows have already been removed.





Train Passes Abandoned Station & This Happens! GIGANTIC Indiana &...

Jaw Tooth · 54K views · 10 days ago

(From https://www.youtube.com/watch?v=MDbf1gHLI2Y)

B&O Coal Bin & Compressor Shed at Garrett, Pa. BY BRUCE ELLIOTT

(All photos by author unless otherwise noted.)



(from the Julian Barnhard Collection)

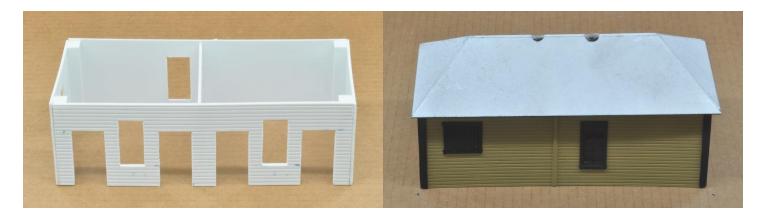
This unique and interesting structure sat just east of GA tower. The east end was for coal storage for the tower and the west end was a room for the electropneumatic compressor that operated the interlocking turnouts. Structurally it shared many characteristics of the standard plan pump house. Interestingly enough, their was no heat in this building, only roof vents. When GA tower was dismantled, so was the coal bin and compressor shed.

The east wall is blank. The north wall (track side) has what I perceive to be a door that a "service" train could use to unload coal for use in the tower on the left and one double hung window in the compressor room on the right. The coal door was built from a 3'x3' piece of Evergreen tongue and groove, with the groves mounted vertically, and framed with 2"x6"s. The west wall has a single double hung window located in the center, also in the compressor room. The south wall (Castleman River side) has an interesting combination of four doors and two double hung windows. Two doors and a window between for both the coal bin and the compressor room.

A note here about the doors that I used; these doors had a transom which had to be cut off first for this application. Structural size was a guessing game. I came up with 14 ft. X 30 ft. which again was close to that of a pump house. That said, the east and west walls are 11 ft. high and 14 ft. wide. The north and south walls are 11 ft. high and 30 ft. wide. The structure has a hip roof, covered with tar paper, with two cyclone vents. This structure was covered with "ship lap" siding.



(from the Julian Barnhard Collection)



For the hip roof, or should I say, what a guessing game, I chose to use .040 sheet styrene for the roof. The front and back were cut to 33 ft. wide and 9.5 ft. tall. Since this is a hip roof, a portion of the top corners has to be removed. I measured 6.5 ft. from the top corners and cut diagonally to the lower corners. When all was said and done, the roof overhang was about 1 ft. all around.

The end roof is 15 ft. wide at the base and 8.25 ft. tall. Like the front and back roof panels, they also needed to be tapered at the top; In this case, from the top center, down to each lower corner, triangular in shape. Roof vents are from Aksarben. Scotch Super 77 spray adheasive was used to secure the tar paper roof to the styrene underpinning. The black paper for the roof was cut into 4 ft. wide strips like the prototype. Like a shingle roof, tar paper is laid from the bottom up, and each sucessive layer overlaps the previous layer.



Construction material;

Evergreen styrene:
#4062 novelty siding (ship lap)
#398 .188 x .188
#9040 .040 sheet
#8206 2x6
#8208 2x8
#2060 V grove

Grandt Line:

5029 double hung windows 5058 D&RGW doors

Kodak: black paper – a spacer for 4x5 sheet film (tar paper roof)

Floquil: Engine black Depot Buff

MEK was used to "glue" parts.

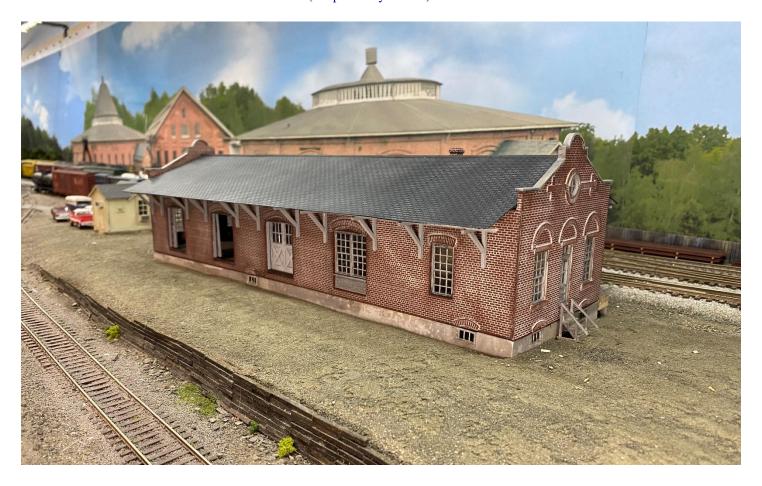
Scotch Super 77 spray adheasive

Aksarben; roof vents.



The Martinsburg Fruit Exchange BY JEFF HANKE

(All photos by author.)



BACKGROUND

Imagine the surprise when I was reading Issue 57 of the B&O Modeler Magazine and saw a snippet on my finishing the NMRA Achievement Program. Thanks to John Teichmoeller for the recognition. But my shock continued when he recognized the area I was modeling in my photo and challenged me to write an article on the Martinsburg Fruit Exchange. So John, here it is.

THE PROTOTYPE

Founded in 1915, the Martinsburg Fruit Exchange was a cooperative of area farmers that brokered their crops for local and distant customers. Their main products were apples, peaches, and paw paws (papayas). Joining the Exchange only cost \$5 in the 1920's. Shippers paid a 5% charge to use the Exchange. Surplus funds were distributed at the end of the year to the members, so it was essentially a not-for-profit business.

The building being modeled was constructed in 1923 for \$12,000. It sat right behind the B&Os Martinsburg "NA" interlocking tower. Both were situated on a triangle of land bordered between the B&O main lines, the Frog Hollow Industrial Branch and Burke Street. The building was owned by the Exchange but the land remained the property of the B&O.

The structure was a 30' x 100' brick building with a "leading platform" for rail deliveries. It was divided into two main areas. The warehouse area composed about 80% of the structure with four large sliding doors on each side. This was where the fruit was stored and orders processed. The other area was made up of two offices and a bathroom.

The Exchange thrived for decades. In 1923 over 700 carloads were shipped. I am not sure when it closed, but I would guess it was in the late 60's or early 70's. I model 1982, so am using my modeler's license to keep it as an active industry on my layout.



THE PLAN

Around 2007 I took a field trip to the area and measured the building. A great way to make sure you don't miss any dimensions is to measure a single brick, including half the mortar on all sides. You can then take those brick dimensions and extrapolate a good scale plan with detailed photos.

Unfortunately, I couldn't see inside the building. An inquiry to the Roundhouse Authority put me in touch with one of the volunteers who had taken some interior measurements and photos. Those office and warehouse shots were invaluable toward finishing the model.

Using the dimensions taken at the site, I created a scale plan on graph paper. I make the plan first with the actual inch measurements and then go back when the drawing is done and convert them to HO scale lengths.

There were two significant challenges with this build. First, I wanted to use it for the NMRA Achievement Program Structure Certificate. To meet those requirements the building had to have a detailed interior. Unfortunately, I could not find any appropriately thick brick sheets that had the pattern on both sides. This meant that each wall would have to be a sandwich of thin brick embossed sheets with support structure inside. The brick sheet I chose to use was the N-Scale Architect's HO Scale American Bond sheet (SKU 50033). The American Bond is very common on early 1900s era brick buildings. The brick pattern repeats with five rows laid horizontally and a sixth row on end. They offer not only large sheets of the brick pattern, but also a sheet of detailed brick arches to use over the windows and doors (SKU 50049).

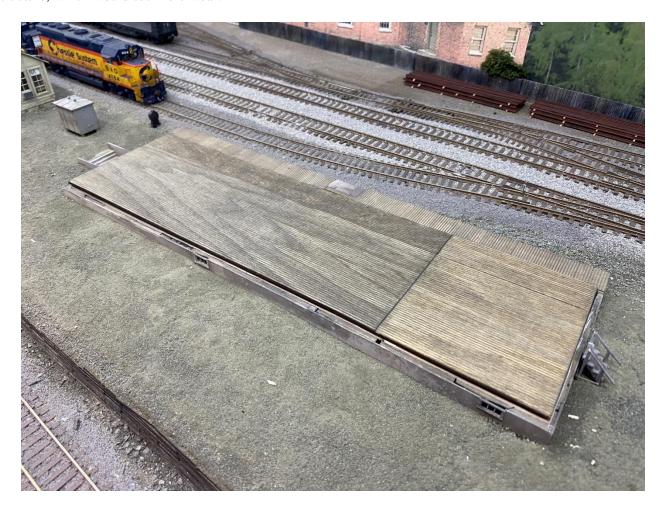
The second challenge was the large sliding cargo doors. No commercially offered ones had the appropriate look. It was easy to browse the Grandt Line product website to find appropriate office windows, bathroom window, basement windows, office door and basement doors. However, what to do for the cargo doors? Enter a random tour of a local layout to the rescue. The layout owner was proud of his recent efforts with his laser cutter making siding and windows. I asked if he'd do a job for me and sent him the dimensions of the cargo doors. A few weeks later a set of perfect cargo doors showed up in the mail.

THE MODEL

I started the model with the foundation and loading platform. The cement walls are 0.040 sheet styrene. Glued together with gel type super glue, each side was cut to the appropriate size including the window openings. The NA tower end had a larger opening for the double door leading to the basement. I scratchbuilt a staircase and retaining walls for the basement access. The interior of the foundation is braced to keep its shape. The foundation was painted with automotive

primer and weathered with a black acrylic wash and weathering powders. Since the basement has no detail, I represented the glazing with 0.010 clear sheet styrene painted black on the back.

On top of the cement foundation, I attached Northeastern Scale Lumber scribed sheet to represent wood planking. These sheets were unfortunately not long enough to span the whole building. I planned the seam between the sheets to fit underneath the office wall. I made sure that the wood floor stopped short of the buildings edges, to leave space for the brick walls. The loading dock was also scratchbuilt with Northeastern Scale Lumber scribed sheeting and dimensional wood pieces. I weathered the wood with successive washes of Tamiya Flat Black, going heavier on the warehouse end of the structure, which would see more wear.



I mounted the foundation and loading dock at this point into the foam scenery on the layout. I build my structures this way now, so that only the foundation is attached. The upper portion of the structure is removable.

Constructing the walls using the sandwich technique was the next step. To build a brick wall with detail on both sides, I first cut out interior and exterior pieces from the N-Scale Architect sheets. The material cuts quite easily. I just took my time and made sure each opening was cut to the correct size and square. Just like the wood flooring, the brick sheets are not wide enough to make the long side walls in one piece. I put the seam on one edge of a cargo door, which hides most of it. I also made sure that the interior sheet pieces were about 1/16 of an inch shorter than the outside ones. This accounted for the corners once the four walls were glued together. Around the top and bottoms, each side of the loading doors and the windows, I put bracing between the two sheets. This is the key to making the walls rigid enough to stand up.



I used the N-Scale Architect's brick arch sheet to dress up the outside of the structure. I put an arch over each door and window, like the prototype. The basement windows even have a brick arch over them. I also used these arches to make a complete brick circle around the small window on each end. Straight brick pieces were then used to create the ornamental plus shape of bricks on either side of this window. The Grandt Line windows and doors were installed at this time.



I glued the four walls together, using the foundation as a guide to get a tight fit. I removed the now glued together walls and painted them with Krylon Red Oxide Primer. To get the mortar joints appropriately colored, I used Robert's Brick Mortar Formula. This was the first time I'd used this product and was fairly happy with it. The walls must be flat when applying it. The material takes a very long time to dry which made this step lengthy. Once dry, a damp paper towel rubbed across the brick surface cleans the brick and leaves the off-white product in the grooves, simulating mortar. I sealed the walls with Krylon Flat Clear when I was happy with the appearance.



To simulate the window glazing on all the windows and doors, I used Microscale Krystal Clear. This viscous fluid goes on white but dries clear. It took quite a bit of time to get them all put in, but I do like the look. I added the large cargo doors after the windows were in place. They hang on chemically blackened brass bar stock rails by small pieces bent to the shape of a J.



After the walls were complete, I turned my attention to the interior walls. They are simple affairs of sheet styrene with wood baseboards and moldings. Grand line doors are used where needed. The walls are Tamiya Depot Buff and the

trim is Tamiya Red Brown. I decorated the office with some office furniture. I even added wall decorations of actual Martinsburg fruit labels. The bathroom has a toilet and sink. I cut a large chimney casting to be able to fit under the eventual roof.



The last large part of this project is the roof. I started with scratchbuilding eight wood supports. Each one is based off the interior photos, including three metal rods in each. The brass rod was chemically blackened prior to installation. I also attached the eave brackets at this time. There are eleven on each side of the building. Each support structure and eave bracket is painted with automotive primer and weathered with a black wash.

The exterior of the roof is quite simple. I used 0.040 sheet styrene with shingle embossed plastic sheet on top of it. Just like the wood flooring and side walls, the shingle material was not long enough to cover in one piece. The seam can be seen over the office window. To keep the exterior roof pieces properly aligned, I attached styrene triangular braces on the inside. The shingle material is painted black and lightly weathered with Tamiya Light Grey drybrushing. The last addition was a chimney aligned with the piece on the inside.

To finish off the project I added an assortment of fruit crates, bags, carts and a forklift. The Martinsburg Fruit Exchange is now ready for business.



POSTSCRIPT

The future of the Fruit Exchange building looked bright in 2001, when the estate of Marlin McBee Jr gifted the structure to the Martinsburg Roundhouse Authority. The Roundhouse group planned on using it to display a model railroad of the local area, but as the years dragged on, nothing happened. In 2018 there was failed attempt to lease the building to a company at no cost, in exchange for renovating it. Unfortunately, a court decision in 2020 ruled that the estate could not prove ownership and therefore could not donate the building. The Exchange building's title reverted to the landowner, the B&O's successor, CSX. The railroad, having no use for the building, and it being in a dilapidated state, razed the building in 2021. Today the area is just an empty lot.

B&O 4417

The evolution of an Akane Q-4b

BY BRUCE ELLIOTT

(All photos by author.)



Since the Akane model has been around for the last 60 years, most of them have by now seen several owners. This one is no exception. I acquired this one as a gift from a friend after the cab, pilot and tender side sheet was severely damaged by the USPS en route to get some work done on it. I replaced the pilot with a Westside road pilot from an S-1a. Not exactly right, but it works for me. I straightened out the cab and was able to mostly straighten out the tender side sheet. While it was operable and looked pretty good, it did have its flaws.



So about six months ago Bruce Griffin and Mike Redden collaborated on the design and production of a head end brakeman's cab for the Broadway Limited USRA Q-3. That said, I have two brass Q class locomotives that need the head end brakeman's cab conversion for post 1940 models.

So how did this model end up with the number 4417? One of the locations on my layout is Fairmont. In the early '50s, 4417 was working out of Fairmont and it was carrying a Q7f tender. I've had a Precision Q-7f tender now for a while that sat on a dead line just waiting for such an excuse. Being the maverick that I am, I decided to upgrade the cab and swap out the tender.

Removing the old cab: Brass models are usually soldered together using resistance soldering. In the end, I decided to cut the old cab off. This was done with a jeweler's saw with a fine blade, and cutting between the cab sides and the floor along the seam where it was soldered. Resistance soldering is not like regular soldering and is easier to work with in this case. I had very little clean-up but two solder joints came apart.

A Q-3 cab for a BLI model retrofitted to a hand crafted Akane Q-4b:

The new cab has a tab that fits into the boiler of the Broadway Limited boiler which it was designed for. On the bright side, the Akane boiler has a slot in the same location to accept the tab. In this case, the tab and the slot had to be filed so that they would both fit together. Well, the cab fit over the boiler course but, there was a gap between the bottom of the cab and the cab floor. An .080 shim under the engineer's side and a .060 shim under the fireman's side filled the gap. Evergreen sheet styrene was used for this.



A note here; no doubt, the BLI model was built with the aid of a computer, where the Akane model was assembled by hand, so there is likely slight variances from Akane model to model. The only other real addition was the fabrication of the grab iron on the fireman's side of the cab to accommodate the head end brakeman's extension.



Aristo Craft and the B&O BY DAVID MURVIHILL

(All photos by author unless otherwise specified.)



Most folks these days know of Aristo Craft as the producer of G scale trains. However, they began working in HO and O scale. The company was founded in 1935 and went out of business in 2013. By the 1980's their focus was on G-scale equipment.

In the late 50's Aristo Craft contracted with New One Model Company in Japan to produce a line of HO steam locomotives. Unlike most steam locomotive lines that focused primarily on the steam-to-diesel transition period Aristo Craft focused on 19th and turn-of-the-20th century locomotives. The models were considered high-end at the time and came in sturdy boxes with clear plastic lids revealing red velvet-lined form-fit interiors.

The models were cast metal, with brass details and open frame motors. The piping is for the most part cast to the boiler.

One feature especially pleasing is that the boilers were held on with a separate screw, meaning it could be removed without the cylinders coming loose and the valve gear falling apart.

Aristo Craft's HO line did not survive the transition to plastic and their locomotives are now approaching 70 years old. Motor issues are common, but most of the structures seem to have aged well. The weakest structural members of Aristo Craft locomotives were the tender trucks, which are often found broken to pieces. If the parts were cast from Zamac, they took care to maintain quality control as I've only found one piece with Zamac cancer, and it is not substantial (that is to say, not so bad it affects the structure).

Most of the Aristo Craft models I have had a long and storied railroading career, and most if not all have had extensive work done to them to keep them operating. In some cases, they were also altered to satisfy the owners' whims. Bottom line, I can't say the photographed examples are factory original.

Follows are the five New One locomotives marked for the Baltimore and Ohio Railroad:



(From the 1958 Aristo Craft Catalog)

1. 0-6-0T Switcher engine. This appears in the 1962 catalog under the Pioneer series of locomotives, listed as "1872 Saddle-Tank 0-6-0 Switcher". The illustration in the Aristo Craft catalog is for the Pennsylvania Railroad, but I've seen several examples with Baltimore and Ohio, #94 and the name 'Uncle Sam' so the model must have been sold with B&O markings as well. I wonder if this is a prototypical locomotive; cow catchers aren't common on switching engines. Routing through "The Locomotives that Baldwin Built" by Fred Westing (Must remember, it is a history and not a catalog), I found what they called a "Resort Engine", a small locomotive intended to pull a couple open cars so people can get up and down the beaches at resorts that was in the same style. None of the photos in the book matched this locomotive. On my model the stickers are missing, someone tried to paint the water tank seams gold and most of the company name is worn off.



2. 0-4-0 Camelback. This appears in the 1958 catalog marked for the Reading Railroad. Reading prototypes were built in the first decade of the 20th century and appear to be the inspiration for this model. I could not find any examples of B&O camelbacks, other than the earlier Winan's Camels. The drive wheels are too far apart to match the prototype (apparently they used the Teakettle frame), cab is too long and the stack is conical instead of straight. The tender has extensive Zamac cancer crazing, as can best be seen on the diagonal photo.



3. 4-6-0 Ten-Wheeler. This appears to be modelled after an actual B&O locomotive. Drivers that scale out to ~76" would make it a B-14 or B-17 class. I was able to find a photo of a prototype numbered 1332 that looked close to this model. Unfortunately, most of the Ten Wheelers Aristo Craft produced were in a horrific shade of Bavarian Blue. The number on the original models is 1306 which falls near 1332. My runner is painted black with gold trim and a red cow catcher, pretty sure this was done by a previous owner rather than a factory paint job as the underside of the tender is still blue.



4. 4-4-2 Atlantic. I have this model in both CNW and B&O, with the same boiler in both cases. With 75" drivers, the only B&O options are A1, A3a, A8 and A10. Unfortunately the dome and bell arrangements don't match B&O locomotives and the model has an oversized steam dome. Still, matching an A-3a would only require cosmetic changes. The engine number doesn't match anything B&O.



5. 0-6-6-0 "Old Maude". Famous as the first Mallet locomotive in the United States, B&O #2400 is well documented. The model is one of two brass locomotives Aristo Craft had in their 1958 catalog. It is a terrible puller, primarily because the front drivers are unpowered, so you effectively have an overly complicated 0-6-0 switching engine. The model doesn't look particularly accurate either, the headlight is in the wrong place, the steam pipes coming down from the steam dome are missing and I suspect the boiler is too small in diameter. Still, for 1958 not a bad try. Some of the fittings appear less aged than the body of the locomotive, indicating possible post -manufacture modification.



So, in summary, Aristo Craft produced two renumbers of other railroads' equipment, one brass rarity that wasn't completely accurate and two locomotives that an inspired modeler could modify to match an historic prototype.

(I would be remiss if I did not mention the Teakettle, a locomotive produced by New One Models for Silvine importers. This 0-4-0T was manufactured by Lifelike later in plastic. I have not been able to find a prototype for this locomotive, and like the 0-6-0T it has a cow catcher on the front with no coupler. Why it was assigned #25 for the B&O is unknown.)



MY FAVORITE MODEL

Thomas Schneid Buffet-Solarium

"This is Jonathan Club, a plan 3989 8sec/buffet-solarium, rebuilt in 1956 and mostly seen on 7/8.... the Shenandoah. The car is built from an NKP CAR CO kit.

It has etched brass sides, resin roof and ends (by Tom Madden) and a lot of Branchline parts.

Thomas Schneid"



COMING:

MODELER NO. 60 and Beyond: We invite your articles.