



The Keystone Modeler

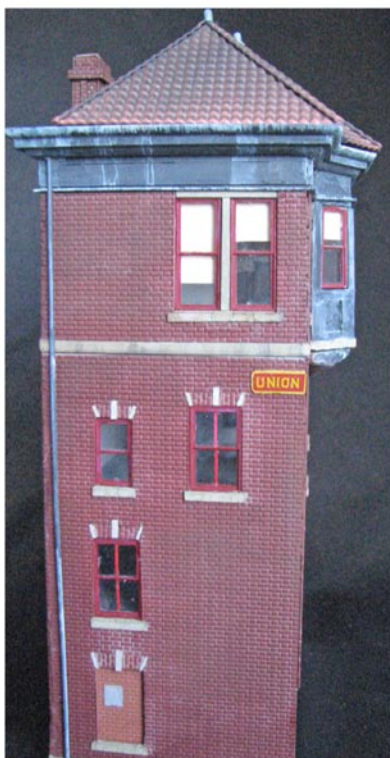
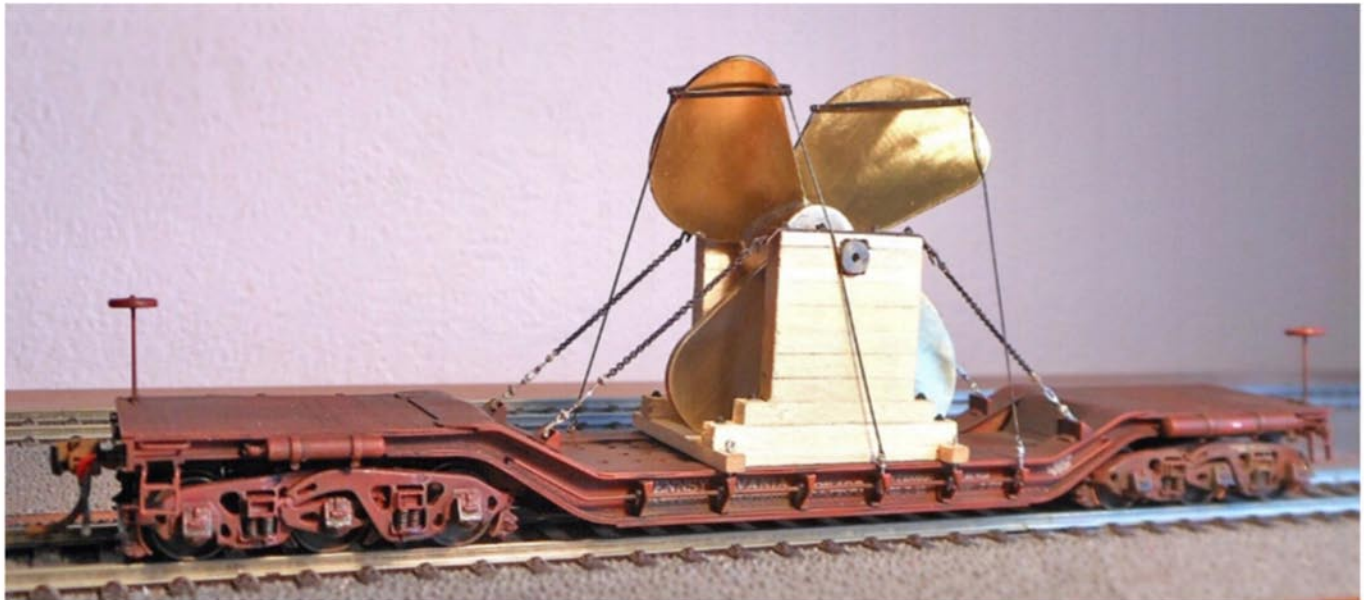
Pennsylvania Railroad Technical & Historical Society

No. 88

Spring 2014

Inside:

- Scratchbuilt "UNION" Tower
- Block Limit Signals
- Northumberland I1SA Decapods
- F29 Flat Car Load





The Keystone Modeler

Pennsylvania Railroad Technical & Historical Society

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FRONT COVER, TOP

A detailed brass F29 depressed center flat with a detailed ship's screw load in HO scale. (Photo and model by Bernhard Schröter)

FRONT COVER, LEFT

A scratchbuilt model of "UNION" Tower in HO scale. (Photo and model by Ron Hoess)

FRONT COVER, MIDDLE RIGHT

An Automatic Block Limit sign in HO scale. (Photo and model by Chuck Cover)

FRONT COVER, BOTTOM

An HO-scale Broadway Limited 11 SA 2-10-0 Decapod detailed and weathered to match #4843. (Photo and model by Steve Hoxie)

The Keystone Modeler

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The Keystone Modeler on CD-ROM

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Disc 4	August 2006 to July 2007	TKM Nos. 37 – 48
Disc 5	August 2007 to July 2008	TKM Nos. 49 – 60
Disc 6	August 2008 to Autumn 2009	TKM Nos. 61 – 71
Disc 7	Winter 2010 to Autumn 2010	TKM Nos. 72 – 75
Disc 8	Spring 2011 to Winter 2012	TKM Nos. 76 – 79

Each disc is \$15.00. There is also a disc containing all issues from 1 to 48 for \$60. If you are a resident of Pennsylvania, please include PA sales tax. Send a check or money order in US dollars payable to PRRT&HS to:

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During the last weekend of March, I attended the Railroad Prototype Modelers meet in Valley Forge, PA. There were interesting clinics about modeling industries as well as freight cars, weathering, layout building, cabooses, passenger operations, sound decoders, and prototype operation on a layout. On the last day, Sunday, there was a self-guided layout tour. It was a good meet, and I anticipate that our annual meeting this year will also have some informative clinics and excellent models. Of course, the RPM had a few PRR models among the many on display, and some of the modelers whose work was shown there are familiar to us at our meetings. I hope some of them, and some of the readers of *TKM*, will bring models to our annual get-together. Remember – the models may be shown in any stage of construction – they don't have to be completely finished. There will be a very simple contest; no prizes in each scale and category as in years past. There will only be a Best in Show, selected by popular vote, and the Bob Yagodich Award, selected by the Modeling Committee.

For the past three years or so, I have been a volunteer at the Railroad Museum of Pennsylvania in Strasburg. Many visitors are impressed with the large HO scale Pennsy layout in the lobby of the museum. I was curious about how the layout came to be there and who built it, but no one seemed to know the whole story. Finally, in the April edition of *Model Railroader*, my questions were answered (see "Chasing History on the Pennsy," by Dave Rickaby, pp 60 – 64). The layout was built by Raildreams, Inc. and came to the museum when its owner, Will Darrow, passed away. Unfortunately, the museum lobby could not accommodate the whole layout as originally built (24 by 36 feet!). The Denholm Coal Wharf section, however, has been retained. If you are contemplating going to Strasburg during or following our annual meeting, you might consider checking out this fine example of modeling the Middle Division.

In this edition of *TKM*, there is another great scratch-built tower by Ron Hoess, block limit signals modeled by Chuck Cover, and a look at the various decapods Steve Hoxie has modified. In addition, we have a contribution from a German PRR fan: Bernhard Schröter who built an interesting load for his F29.

Jim Hunter, Editor

The Pennsylvania Railroad Technical & Historical Society

The purpose of the Pennsylvania Railroad Technical & Historical Society is to bring together persons interested in the history and modeling of the Pennsylvania Railroad, its subsidiaries and its acquired companies. Our goals are to promote the preservation and recording of all information regarding the organization, operation, facilities, and equipment of the PRR.

The Society's quarterly illustrated journal, *The Keystone*, has been published continuously since 1968. Each issue of 64 or more pages contains illustrated original authoritative articles about locomotives, cars, other equipment, facilities, and operating practices of the PRR. The Society also publishes its own thoroughly researched books and other materials concerning PRR history. *The Keystone Modeler* is also a quarterly special 30-plus page online publication of the Society.

The Society meets annually, usually during a weekend in early May, providing an opportunity for its members to get together and learn more about the PRR. Local chapters around the country also provide members and guests with regular meetings that feature PRR related programs.

Information about our Society may be found on our website – www.prrths.com. To join the Society, send \$35.00 to:

PRRT&HS
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All memberships are for a calendar year, back issues of *The Keystone* for the current year are sent upon joining. Overseas membership has added postage fees.

PRRT&HS Interchange

Selected Society Merchandise of Interest to Modelers

PRR EQUIPMENT DRAWINGS ON MICROFILM

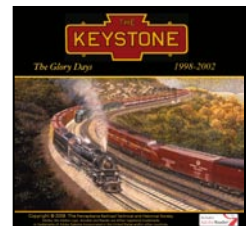
Copies of PRR equipment drawings are available from the Society's microfilm collection. To order drawings, you must know the drawing number and title. Ordering information and lists of arrangement drawings are available on the Society's website. Go to www.prrths.com, select National Society, and then The Interchange. If you require a printed copy of this information, please send your address and a check for \$2.00 made out to PRRT&HS to:

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THE KEYSTONE CD 5

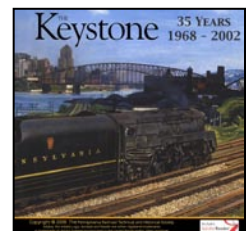
The Keystone CD No. 5, *The Glory Days*, covering 1998 to 2002, is now for sale at the price of \$75 for members. New Jersey residents add \$5.25 sales tax. Order CDs from:

Al Buchan
785 Cornwallis Drive
Mt. Laurel, NJ 08054-3209



THE KEYSTONE DVD 1

The Keystone DVD No. 1 covering 35 years of *The Keystone* from 1968 to 2002 is available. The navigation of this product is being upgraded as are some of the administrative notes and text. The improved edition will be ready for ordering soon. Those few who have already purchased the DVD will be able to trade it in for a new one when it's available. The price of this DVD is \$375. *This DVD requires a computer with a DVD drive. It is NOT a video disk that can be played on a DVD player for viewing on your TV.*



PRR Product News

AMESVILLE SHOPS

<http://www.amesvilleshops.com/>

PRR XB/XC Boxcar Kit—HO Scale



(Amesville Shops)

Amesville Shops is releasing this laser cut wood kit with metal and styrene details, it will build up into one car, either an XB or XC kit.

BROADWAY LIMITED IMPORTS

<http://www.broadway-limited.com/>

PRR H10s – HO scale



With Lines West tender from first run. (BLI)



#8014 with 90F82 Lines East Tender

Orders are being taken for a second run featuring the tender from BLI (BLI)

The first run of the BLI H10s is now scheduled for May 2014 delivery.

PRR H32 Covered Hopper—N scale and HO scale



PRR RED / WHITE CIRCLE KEYSTONE



(BLI)

BLI has announced the H32 covered hopper in both N and HO scales. The HO H32 is due in June 2014. The N scale model is scheduled for Fall of 2014. The side view and close-up of this sample come from BLI's 2014 catalog.

EASTERN SEABOARD MODELS

<http://www.esmc.com/>

PRR G32C Gondola Kit– N Scale



(ESM)

The ESM G32C kit is now expected to be available in May. The delay is due to having to re-machine the brass weight.

GHQ MODELS

<http://www.ghqmodels.com/>

PRR R50B Express Refrigerator Kit—N scale



(GHQ)

This much needed car has made into a production run of 100 kits, but they sold out within 14 hours. The molds are being refurbished, and a second run will be produced.

JERRY GLOW DECALS

<http://home.comcast.net/~jerryglow/decals.html>

PRR Decals—All Scales

Thanks to the magic of the digital age, Jerry Glow Decals are available in all scales N to G including TT.

MOUNT VERNON SHOPS

<http://www.mountvernonshops.com/>

X42 Box Car Decal Set – HO Scale

GP/GPA MOW Ballast and Cinder Hopper Car Decal Set—HO Scale

John Frantz has added two sets to his excellent line of decals. The X42 set has data for doing one car in either the circle key-stone scheme or the gold leaf passenger scheme. The GP/GPA set does three cars. It includes the appropriate number prefixes and allows for creating additional numbers.

MTH ELECTRIC TRAINS

<http://www.mthtrains.com/>

PRR H10s Consolidation—HO Scale



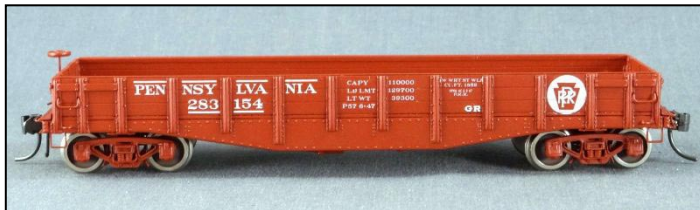
(MTH)

The MTH version of the H10s is also scheduled for May availability. Although MTH is marketing this as an H10, it does have an obvious H9s characteristic.

TRAINCAT MODELS

<http://www.traincat2.com/>

PRR GRA Gondola Kit—N scale



(Traincat Models)

Traincat has a Limited Release etched brass kit of this common gon.

Upcoming Events

April 24-26 Marion, Ohio

Central Ohio RPM Meet

<http://www.facebook.com/groups/438383252883060/>

May 1-4 Camp Hill, Pennsylvania

PRRT&HS Annual Meeting

http://www.prrths.com/conventions/PRR_Annual.html

May 30-31 Collinsville, Connecticut

New England/Northeast Prototype Modelers Meet

<http://neprototypemeet.com>

July 13-19 Cleveland, Ohio

NMRA National Convention and National Train Show

<http://www.2014cleveland.org/>

Advance Planning

August 8-9 Collinsville, Illinois (metro St. Louis, MO)

St. Louis RPM Meet

<http://icg.home.mindspring.com/rpm/stlrpm.htm>

September 12-13 Fredericksburg, Virginia

Mid-Atlantic Railroad Prototype Modelers Meet

<http://www.marpm.org/>

September 19-20 Kennesaw, Georgia

Atlanta Prototype Modelers Meet

http://www.srha.net/public/conventions/2014_Atlanta_RPM_meet.htm

October 9-11 Lisle, Illinois

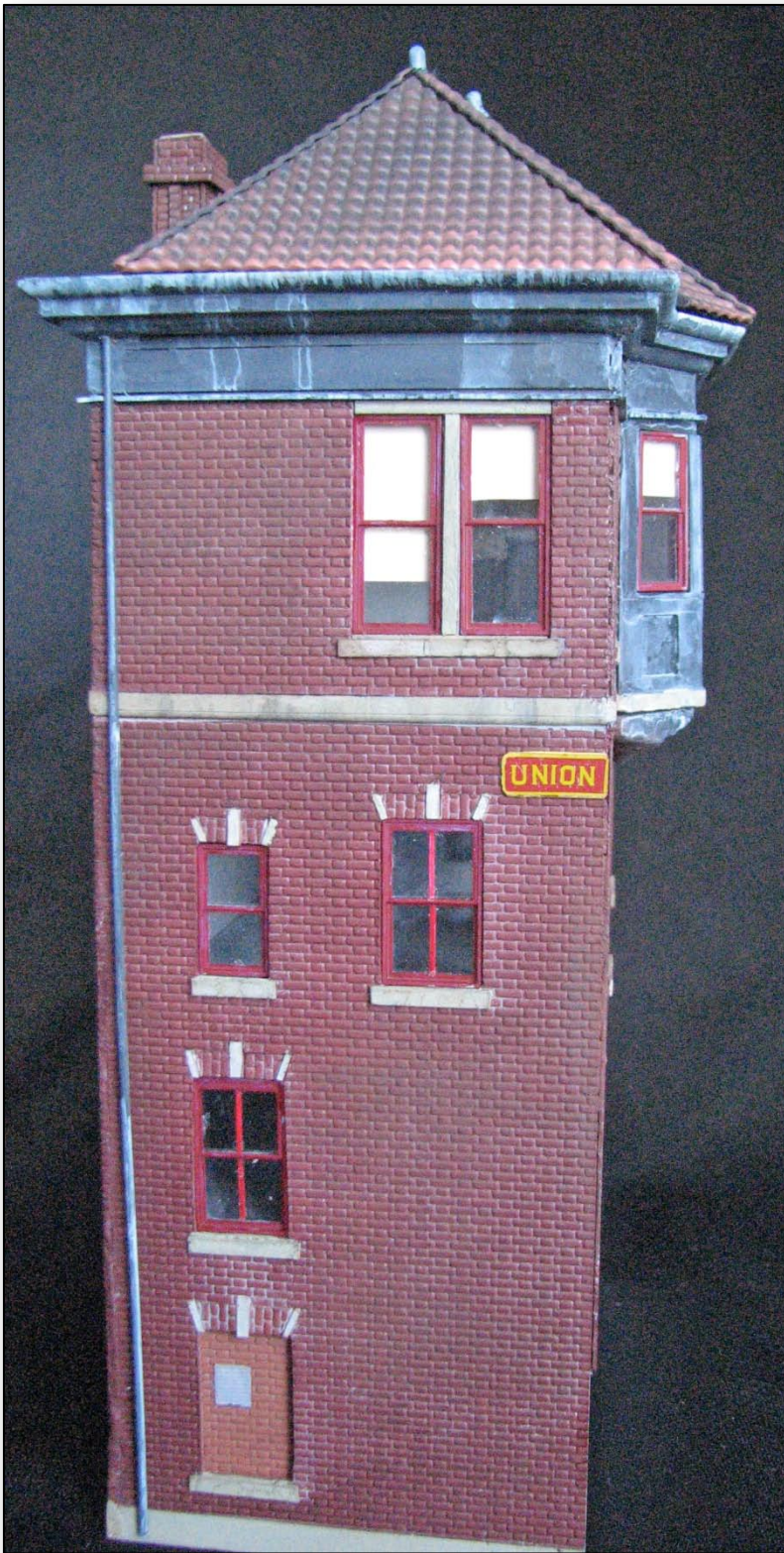
Naperville RPM Conference

http://www.railroadprototypemodelers.org/naper_meet.htm



“UNION” Tower

By Ron Hoess



The side of the “UNION” model. Note the weathering on the copper trim and the decorative brickwork over the windows.

A few years ago, at a Philadelphia Chapter Meeting of the PRRT&HS, Al Buchan showed me a report he had received from James Richter, Deputy Chief Engineer of Structures for Amtrak. It was a forty-four-page historic building report of Union Tower in Rahway, NJ prepared for Amtrak by John Bowie and Associates. The report was part of a larger survey of Amtrak towers along the Northeast Corridor and the former mainline of the PRR going westward towards Harrisburg. The overall survey can be downloaded at

www.portal.state.pa.us/portal/...pt/.../interlocking_towers_on_amtrak_pd.

The Union Tower report details the history of the 1912 vintage tower that was situated just south of Rahway Station. This was a complex interlocking not only controlling the six-track mainline but also the merging tracks from Perth Amboy. At one time, this was considered one of the highest traffic density spots on the PRR. Viewed from a passing train the tower appears to be a modest two-story structure, but this is deceptive because the track is on a high embankment and there are actually two stories of the tower below track level. In addition to a very detailed description of both the interior and exterior of the tower, the report includes excellent scale drawings. Needless to say the architectural drawings are like gold to a scratchbuilder like me.

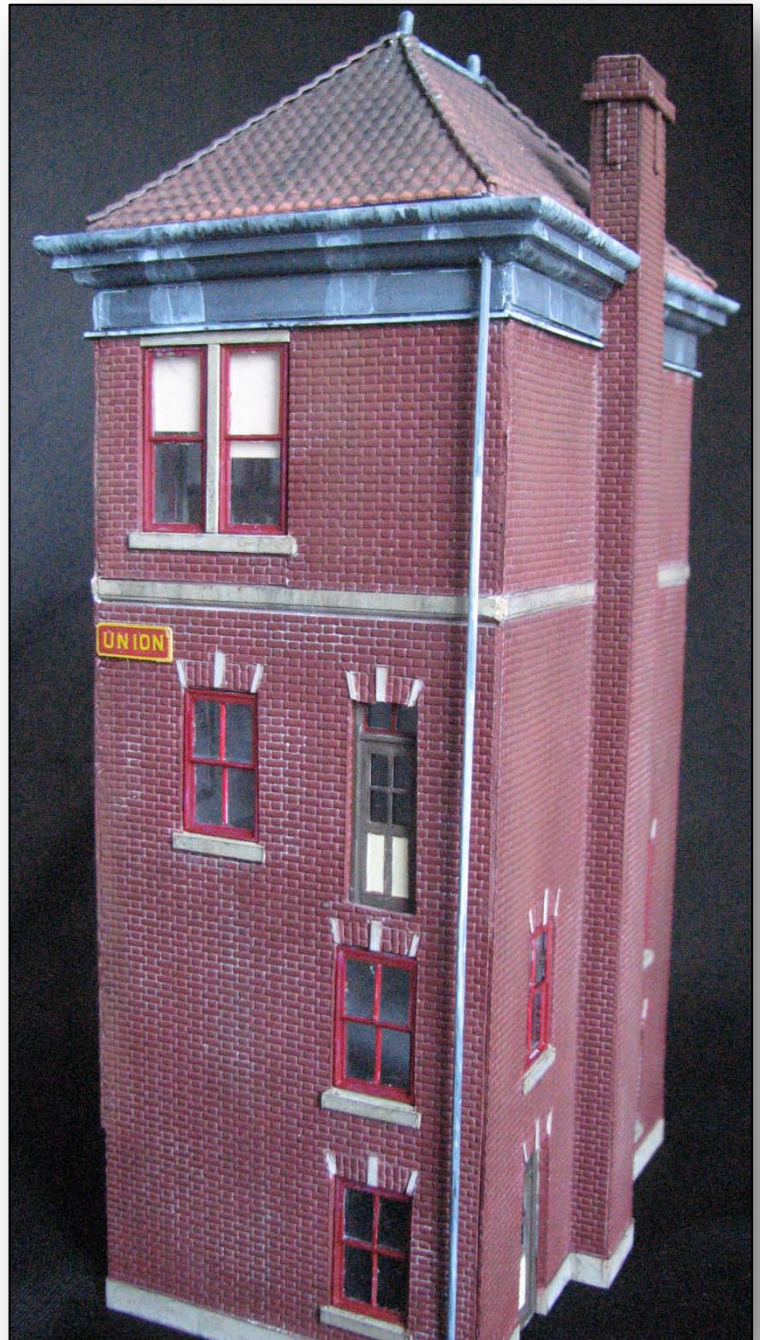
In modeling this tower I used fairly standard techniques for scratchbuilding with styrene, so rather than describing a detailed step-by-step, I will simply highlight a few of the more challenging aspects in modeling the tower. Basically the tower is constructed from 0.020" sheet styrene with brick sheet from the N-Scale Architect. I was particularly fortunate in being able to find Tichy windows that were a close match to the actual size of the windows in the architectural drawings. Some needed to be modified by removing window mullions, or replacing mullions in the proper configuration. One of the nice architectural touches is the lintels over the windows and doors that are composed of terra cotta keystones and vertical brick. To model these I was careful, when gluing the brick sheet on to the styrene base, not to put glue directly over the top of windows and doors. That allowed me to come back after the glue was set and carefully remove the brickwork over doors and windows and replace it with the decorative lintels.

At the outset, I wanted to construct this tower for my friend Andy Rubbo. Andy's layout represents the Northeast Corridor through New Jersey in the 1967 time period. To be prototypically correct there were a few features of the tower that required back-dating to that time period. This required hunting down pictures of what the tower looked like during that time. A good source was Robert Yanosey's *Pennsylvania Railroad Facilities, Volume 2, New York Division*. The most notable changes are on the top floor. On the north and south sides there were originally two windows that were equivalent in size to the windows immediately flanking the bay window. At some point the windows were removed and replaced with a single smaller window and the remaining opening filled in with brick. When looking at the tower today one can see the outlines of the former window opening by the difference in brick coloration. The other notable change has been the replacement of the window located in the bay window with smaller windows.

The tower has a beautifully shaped cornice that can be replicated by gluing together various thicknesses of both straight and quarter round strip styrene to match the cornice profile. At first I was thinking of constructing this piece by piece working my way around the building; a scary thought. Fortunately, I mentioned this to Andy who made the wonderful suggestion of just making long pieces of stock cornice and cutting pieces from that. That was a great idea, and it allowed me to accurately cut all the mitered angles using a little Micro Lux cut off saw from Micro Mark. This was not only critical for the 45° angles at the corners, but the angles for the bay window.

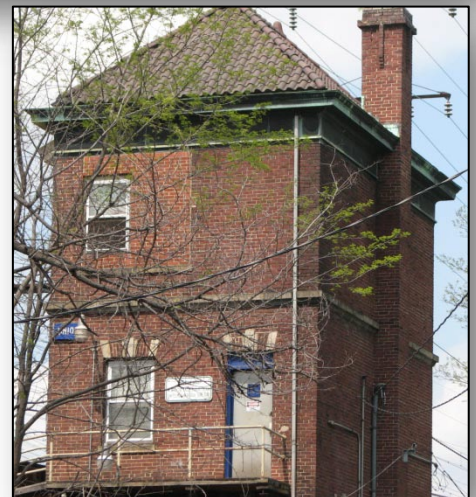
The most challenging part of construction was what is called the ogee molding (architectural definition is a reverse curve face, concave above and convex below) that forms the support at the bottom of the bay window. Much like the cornice, I constructed a stock piece using strips and quarter round pieces of Evergreen styrene. I then outlined the final shape with a marker and began carving material away using a Dremel tool.

Painting the tower was relatively straightforward. The brickwork was airbrushed with Floquil Tuscan red followed by Dullcote applied with an airbrush. I used the color photograph in *Pennsylvania Railroad Facilities Vol. 2* as a guide to painting the remaining details. The cornice, the area immediately below it, the bay window frame, and the ogee molding were all copper clad. These were all first painted Floquil Grimy Black. After allowing the paint to dry, I came back with a wash of Polly Scale Penn Central Green diluted with Reefer



▲ The other side of my "UNION" Tower model.

► An Amtrak-era photo of the same side of the prototype.



White. The same was also done for two downspouts located towards the back of the tower along each side. The hipped roof with barrel-shaped tiles was made from Plastruct Spanish tile sheets, a relatively close match. It is interesting that Spanish tile was also used on several other towers on the Northeast corridor (Grundy, Nassau and Midway) built long after Union. I tried weathering the roof more heavily, given that it would have been over 50 years old at the time only leaving streaks of the underlying orange color visible. One final touch was the addition of some raised brick near the top of the chimney that gives it a much more interesting look.

While scratchbuilding a tower to exactly match a prototype is most often more work than putting a kit together, it expresses to the viewer an unmistakable time and place when placed on a layout. Furthermore, much like our passion for replicating PRR motive power and rolling stock, it is yet another way of preserving an important part of railroad history. On that point, it is worth commending John Bowie, Lou Anne McCory and associates, as well as the project managers at Amtrak, Stephen Smith and Joe Grella for carefully documenting what was essential to running the railroad for nearly a hundred years before it totally disappears.



The track side of the finished model.



Northumberland Decapods

By Steve Hoxie



A pair of I1SA 2-10-0 Decapods leads a coal or ore train at an unknown location. (Fred Feitas collection)

Pennsylvania Railroad Decapods have long held my interest. Also, my chosen PRR modeling area is the Susquehanna Division around Northumberland and Sunbury, and my favorite time is in the autumn of 1953 – lots of operating interest and lots of Decapods.

Over the years I had gathered three HO Sunset Decapods and a PFM model. Two of the Sunsets and the PFM had been extensively reworked with upgraded and added details for my timeframe as well as new gearboxes and motors. All three were modeled following specific engines from photos found in well-known publications. The third Sunset was waiting in its box to be finished.

That was the situation until about eight years ago. Then I became involved with the small group of PRRT&HS members tasked to provide Broadway Limited Imports with accurate information about the appliances, piping, and other details on their forthcoming I1SA model. We very quickly found that as these engines advanced through their service lives there was no effort on the part of the railroad to have them all look the same. All 475 of the Baldwin-built engines, which Broadway was modeling, were the same when they left Baldwin, but by the early 50's they had many different looks. Fortunately, as

time has gone on, we have been able to find photos of many of these engines.

About three years ago on PRR-Fax, Robert Hess posted the *I1S-I1SA Locomotive Assignment by Division* files, based on the Railroad's M.P.229 forms from 1931, 1939, 1944, 1949, and 1954. The March 1, 1954, file is of great interest to me, showing which engines were assigned to the Susquehanna Division in my era. This was the largest concentration of Decs still in service at the time. Of the 52 Baldwin-built engines assigned at that time, I have managed to find at least one photo of 37 of them.

As expected, I found several different tenders:

90F82	17	210F82	1
110F82a	5	210F82a.....	13
130F82a	2	250F82	1

I counted 39 tenders, not 37. Tenders were swapped around a lot. For instance, 4483, the preserved I1SA, was photographed with a 90F82 as well as the larger 210F82.

By the early 50's wide differences in appearance were common. An obvious difference was the location of headlight and generator, as well as two styles of headlights. Another was the mechanical lubricator on the left side, just behind the cylinders, requiring the conspicuous raised running board over the steam delivery pipe. Under the left side of the cab there were two different types of stokers. On the right side, if the engine was equipped with a train control box, there was another required modified section of running board. On the top of the firebox some engines also had a blowdown muffler.

Surprisingly, I found many more engines with air brake compressors on both sides than I had expected. On more than

half of these 37 engines, the second air compressor was a major right side feature, which also meant the right side air tank had to be moved to beneath the cab and another running board modification. Of the 37 engines I have found in photos, 20 (54%) have an air pump on the right side.

As I have been able to acquire additional models, they needed to be as varied as the prototype. After selecting particular prototypes, photos of each engine were studied to determine which detail parts had to be replaced or added. Here is how the roster looks currently.



11SA 4243 remained very close to its original appearance throughout its career. If you look closely, it makes several appearances in "The Ore Train" video. My model is a Broadway Limited/Paragon2 model from the third run. It has had the claw markers removed from the pilot, and Cal-Scale bulls-eye markers added on the top of the smoke box. The air brake piping on the right side was altered to follow the prototype. The front number plate was replaced with a Cal-Scale part. On the left side the stoker and injector were replaced with Cal-Scale parts.



11SA 4324 appears in "The Ore Train" video several times. At the beginning, it is taking a spin on the Northumberland turntable. Mine is a much-modified Sunset locomotive with a Westside 210F82a tender. Since the prototype was equipped with all the available optional appliances, detail parts for the model include Cal-Scale headlight, generator, number plate, markers, train control box, power reverse, whistle shield, mechanical injector, stoker and injector. A Cary feedwater heater replaced the oversize original. A Precision Scale bell was added. On the inside it has a Precision Scale 37:1 idler gearbox, Sagami 2032, and a Soundtraxx Silent decoder.



The 4330 was one of four or five 11S locomotives equipped with a 110F82a tender, each probably taken from an M1, then modified. Over half of the Norry Decapods were equipped with a second air compressor and 4330 was one. My engine is a Broadway Limited/Paragon2 third run model with added right-side air compressor. The tender is the Broadway Limited model for the K4s. Other detail parts include Cal-Scale number plate, headlight, bulls-eye markers, stoker, and injector. The under cab tank is a Precision Scale part. It has a Soundtraxx Silent decoder.



I1SA 4543 was assigned to the Middle Division. A photo of this prototype, taken from one of the bridges across the Altoona tracks, was the first really good digital photo of an I1SA that I came across years ago, and it remains a favorite. Since there were daily trains north from Enola, I made the assumption that any Middle Division I1 probably made the trip multiple times. This a Broadway Limited/Precision Craft model from the first run. Parts added include a Cal-Scale number plate, headlight, stoker, and three man doghouse.



I1SA 4591 was fitted with a big 210F82a tender. This prototype, too, had all the options. My model is another Broadway Limited/Paragon2 model from the third run. Only a few additional parts were needed, including Cal-Scale number plate, headlight, injector, and stoker. Oddly, some third run engines do not have a mechanical lubricator installed, although the running board is raised to accommodate it. I fabricated a facsimile from styrene bits.



I1SA 4620 was later assigned to the Middle Division, but in October of 1953 it still called Northumberland home with "NEH," the symbol for Norry, painted on its pilot just as the prototype did. This is a PFM/United model with the left running board updated around the feedwater heater, bulls-eye markers from Cal-Scale, and a steel doghouse from Keystone Replicas. Also, a Precision Scale bell was installed. The drive train was updated with a Sagami motor and Precision Scale gearbox. It has a TCS TI decoder.



I1SA 4627 is another Susquehanna Division engine. This a Broadway Limited/Precision Craft model from their first run with some revised details, including Cal-Scale number plate, headlight, injector, and stoker. On the right side, appearance is improved with a PSC air reservoir.



Number 4644 is another IISA with a big 210F82a tender, but it also has a right side air compressor. The model is a heavily modified Sunset engine with a PFM tender. It has the same added detail parts and improved drive train as 4324 and 4620. It has a TCS TI decoder.



IISA 4649 is a Broadway Limited/Paragon2 product from the second run with a 90F82 tender. The only photo of the prototype I have is dated 1949 and shows the left side of the engine without the mechanical lubricator. I assumed that adding the mechanical lubricator was carried out before October, 1953, and that the train control box also had been installed at some point. In the left side photo it is clear that a steam line over the top of the boiler to power a right side air compressor is missing so we know 4649 only had one compressor. Added parts include the front number plate, headlight, right side PSC air tank, and Cal-Scale injector and stoker motor on the left side.

IISA 4250 will be modeled with a PFM model. This engine is another which kept the original headlight and generator locations, making it easy to do.

IISA 4650 is about to go into the paint shop. It is a Sunset model with two air pumps and long tender.

I hope you have enjoyed seeing “what I’ve been up to” with my Norry decapods. The differences among the engines in this one class have provided me with many interesting projects.



Modeling Block-Limit Signals

By Chuck Cover – Images from the author's collection unless noted

Trackside details give a layout a finished look. While studying photographs of Weigh Scales, I noticed that there was a Block-Limit Signal (BLS) in Weigh Scales. In researching the Shamokin Branch and Secondary, I found that there were several BLS along the 27 mile line. BLS are manually controlled signals. The October 26, 1956 Pennsylvania Railroad Book of Rules states: "at a block-limit station trains will be governed in their use of the block by instructions of the signalman in charge of the block-limit station as indicated on the time-table."

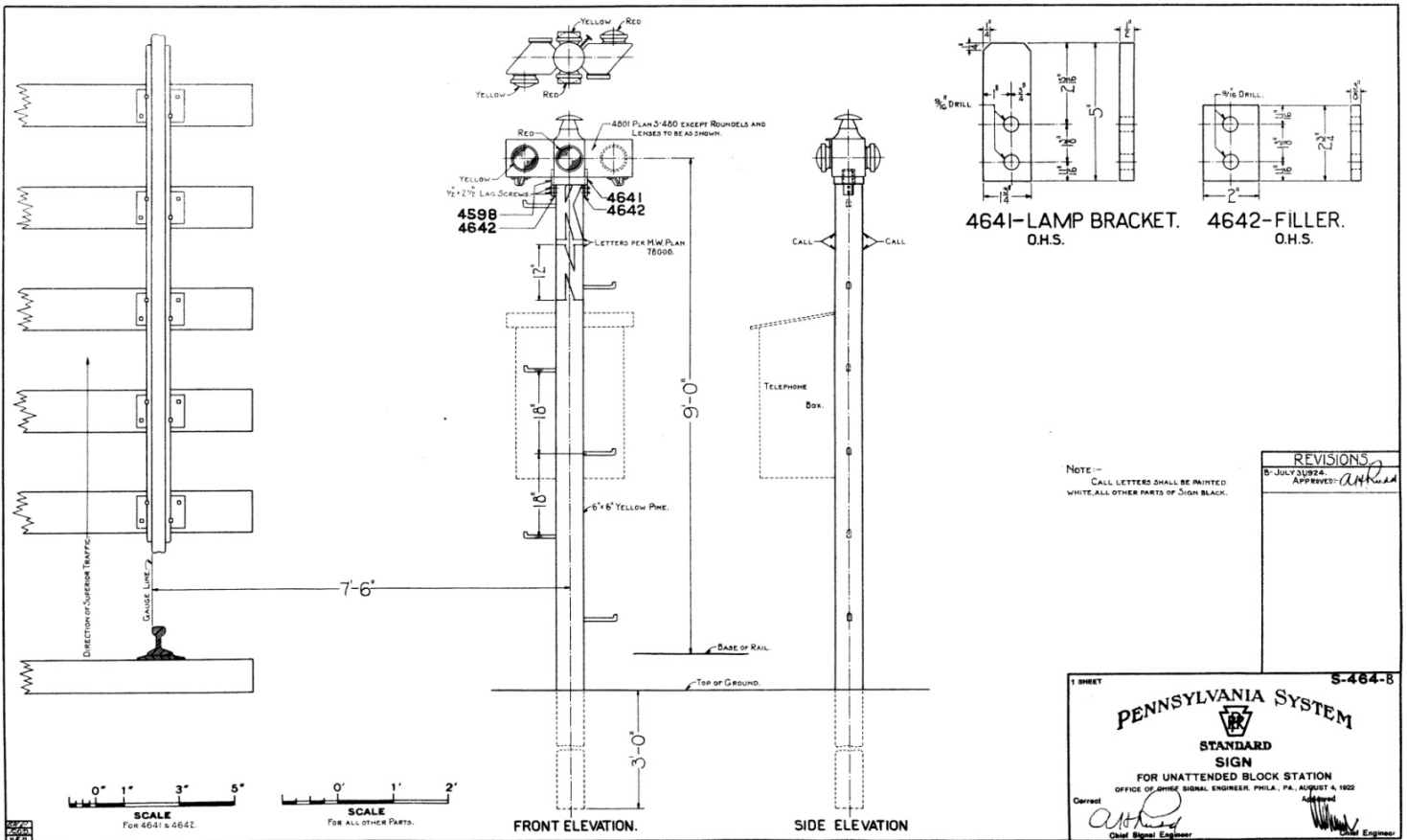
From *The Pennsylvania Railroad, Northern Region Time-Table No.1*, dated April 29, 1956 it is noted that there were BLS at "SHAM" (east of "KASE"), Crawl, Weigh Scales, Luke (east of

Shamokin) and State (west of Mt Carmel).

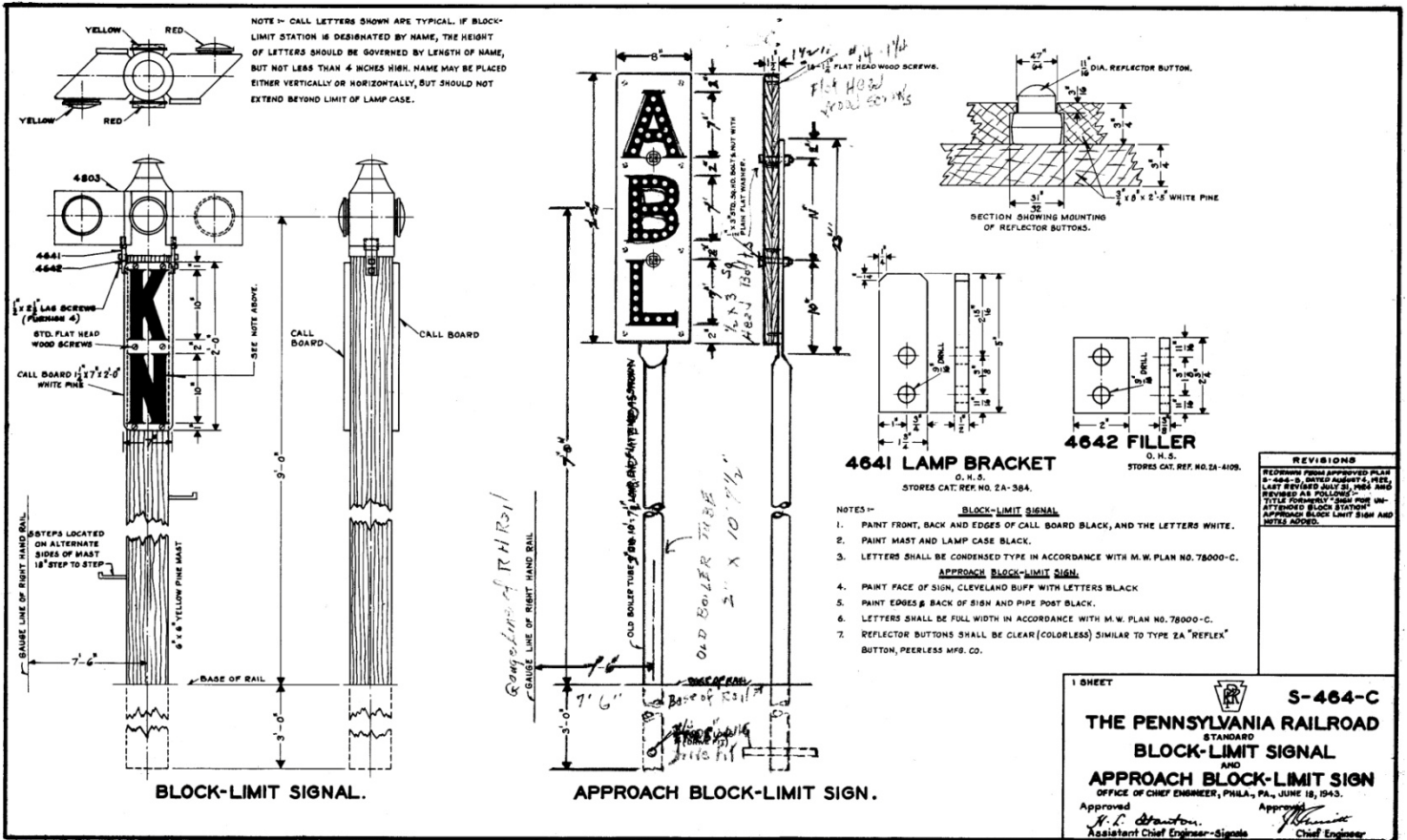
In addition to these BLS, there were Approaching Block-Limit (ABL) signs. ABL signs notified trains that they could proceed at medium speed but must be prepared to stop at the next BLS unless they had authorization to pass the BLS as though Clear-block signal were displayed.

Diagrams of BLS and ABL, signal plans S-464- B and S-464-C, are reproduced below and on the next page.

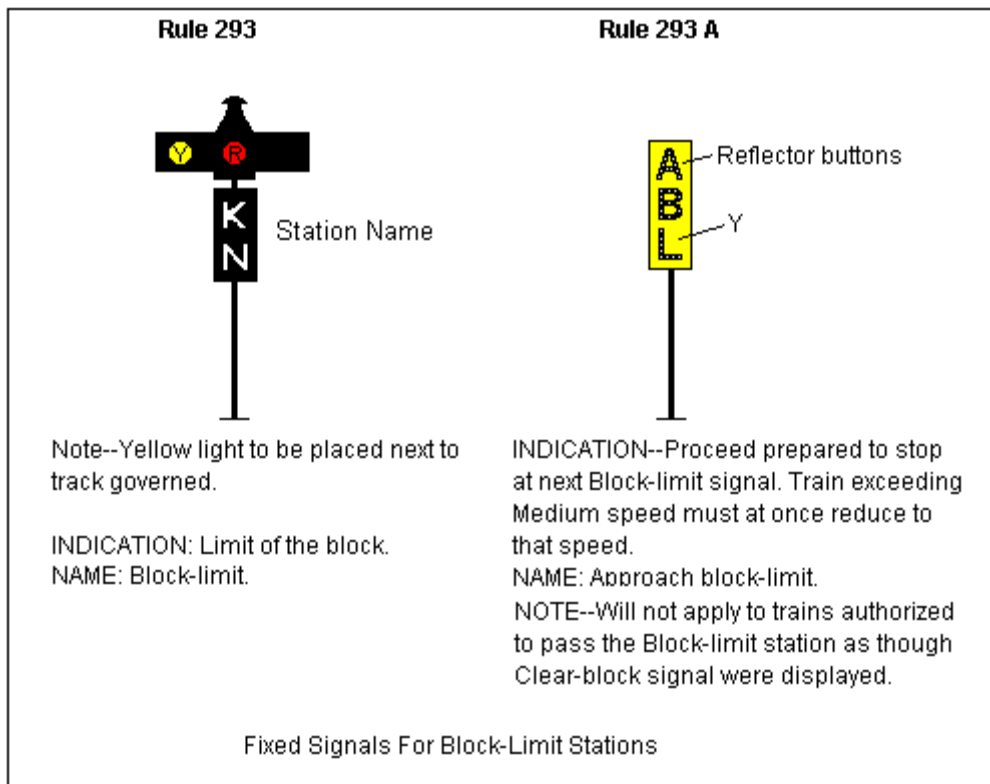
I decided to build these two trackside details. Not only would they look great, they would also help my operators know when to stop and telephone the dispatcher during operating sessions on my layout.



PRR Block Limit Signal standard drawing #S-464-B. (Collection of Rob Schoenberg, <http://prrrailfan.net>)



PRR Block Limit Signal and Approach Block Limit Sign standard drawing #S-464-C. (Collection of Pat McKinney, <http://pr.railfan.net>)





Block-Limit Signal in Weigh Scales, looking west toward Northumberland. (Don Ball photo from Walter Grosselfinger collection, used with permission of Audio-Visual Designs and Joe Suo)



◀ Block-Limit Signal in Weigh Scales, looking east toward Shamokin. (Paul Noble, Chuck Cover collection)

▼ PRR Timetable

BLOCK LIMIT SIGNAL CONSTRUCTION

Using the diagram as a reference, cut a piece of .125" x .156" strip styrene a scale 4'-3" in length. Cut the angles at both ends taking off 6 scale inches and forming a trapezoid. Drill a hole in the middle of the piece above so that the bamboo skewer will fit through. Drill two small indentations in each side of the styrene, noting the proper locations from the diagram, for the MV lenses.

Cut the .012" diameter brass wire into about 9 scale inch lengths. With needle-nose pliers, bend one end of each piece to an angle of about 60 degrees. Cut a length of bamboo skewer about 14 scale feet long. Drill holes for the brass wire to make the pole steps or PEGS. They should be spaced about 18" apart, alternating sides. Use 5 or 6 per pole. Cut pieces of the 2" x 10" strip styrene to length to accommodate the BLS location name (name boards).

Using an Excel program on your computer, make the BLS names by typing in the signal name. For my BLS, the lettering is white on a black background. For my names, I used the "Arial" font, all capital letters, and using the Excel program, I selected white as font color and black as fill color. Once you have the correct lettering, experiment with your printer to obtain the size that will fit your BLS name boards.

Insert the skewer into the bottom of the BLS; using ACC glue the name boards under the BLS. Paint the unit flat black. After printing out the location names, cut them out and attach them to the BLS name boards using Tacky Glue. Using the same glue, attach the MV lenses to the BLS being sure to have the correct colors in the proper locations

12									
SHAMOKIN BRANCH									
Interlocking	Interlocking Station	Block Station	Block-Limit Station	STATIONS	Distance From Sham	Sidings Assigned direction Car Capacity 50 ft. cars			
						East	West	Both	
		B	B	WEIGH SCALES	16.0				
				PAXINOS	13.4				
			X	SHAMROCK	12.4				
				CROWL	11.6			68	
				REED	11.4				
				DEIBLER	9.5				
				SNYDERTOWN	7.4				
				RAY	5.8				
				ADAM	1.4				
			X	EAST SUNBURY	0.8				
				SHAM					
NOTE—X indicates in service continuously. B indicates in service part-time as follows:									
Interlocking, Block and Block-Limit Stations in service part-time as follows:									
Weigh Scales					11.00 P.M. Sunday to 7.00 A.M. following Sunday				
Block-Limit stations controlled as follows:									
Block-Limit Stations					Controlled by				
Weigh Scales					Kase, Sunday 7.00 A.M. to 11.00 P.M.				
Crowl					Kase				
Sham					Kase				
The direction from Sham to Weigh Scales is eastward.									
SHAMOKIN SECONDARY TRACK									
Interlocking	Interlocking Station	Block Station	Block-Limit Station	STATIONS	Distance From Sham	Sidings Assigned direction Car Capacity 50 ft. cars			
						East	West	Both	
				MT. CARMEL	27.1				
			X	SAGON	25.8				
				STATE	24.9				
				LOCUST	24.1				
			X	SCOTT	20.9				
				LUKE	19.7			57	
				SHAMOKIN	18.2				
				PONTOON	15.8				
		B	B	WEIGH SCALES	16.0				
NOTE—X indicates in service continuously. B indicates in service part-time as follows: The direction from Weigh Scales to Mt. Carmel is eastward.									
Interlocking, Block and Block-Limit Stations in service part-time as follows:									
Weigh Scales					11.00 P.M. Sunday to 7.00 A.M. following Sunday				
Block-Limit stations controlled as follows:									
Block-Limit Stations					Controlled by				
Weigh Scales					Kase, Sunday 7.00 A.M. to 11.00 P.M.				
State					Weigh Scales, 11.00 P.M. Sunday to 7.00 A.M. following Sunday Kase, Sunday 7.00 A.M. to 11.00 P.M.				
Luke					Weigh Scales, 11.00 P.M. Sunday to 7.00 A.M. following Sunday Kase, Sunday 7.00 A.M. to 11.00 P.M.				



Block-Limit Signal

APPROACHING BLOCK LIMIT SIGN CONSTRUCTION

Cut the .03" metal rods about 11 scale feet in length. Cut the 2" x 10" strip styrene to 36 scale inches in length. Glue the styrene to the rod with ACC. Paint the unit flat black. Using the same technique with Excel described above, print out ABL vertically and obtain the correct size using your printer. These signs had black lettering on a white background. Attach the printed Excel ABL to the styrene with Tacky Glue.

MATERIALS

Bamboo skewers (approximately 1/8" diameter = ~9-10 scale inches diameter)

Evergreen Scale Models

187.....125" x .156" strip styrene

8210.....2" x 10" strip styrene

Detail Associates

2504......012" diameter brass wire

MV Lens

220......063" diameter red lens

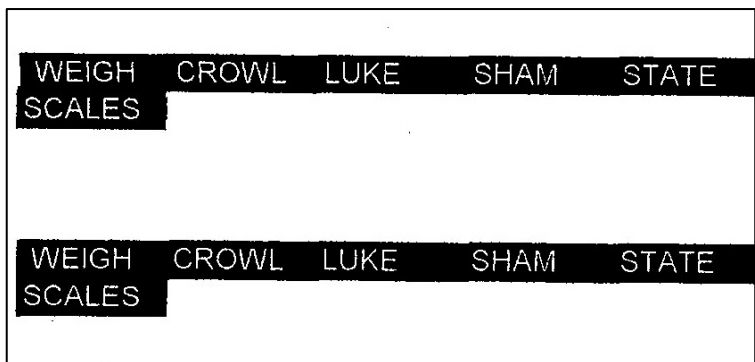
222......063" diameter amber lens

Metal rod03" diameter from scrap box

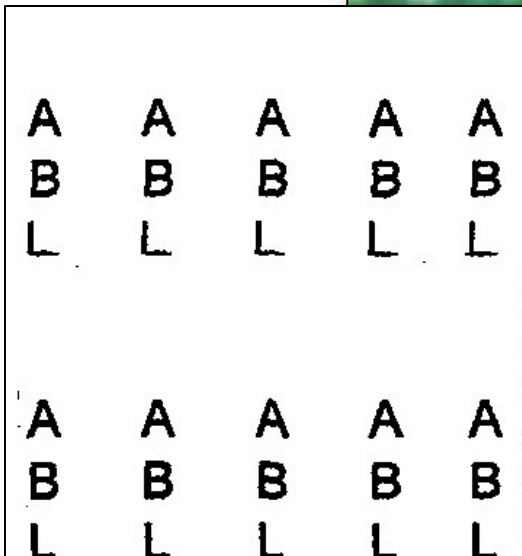
Hobby LobbyAleene's Tacky Glue



BLS and ABL prior to painting.



Excel print out of BLS location names.



Excel file for ABL sign labels.



ABLsign on layout, east end of Weigh Scales



BLS on layout in Weigh Scales looking west.



BLS on layout in Weigh Scales looking east



ABL on layout, west end of Weigh scales.



Weigh Scales BLS with Semaphore on layout.



PRR F29 Depressed Center Flatcar with Ship Propeller Load

Bernhard Schröter (Schroeter), Dresden, Germany



HO F29 with a ship propeller load and anchoring hardware.

I'm an enthusiastic U.S.-prototype model railroader living in Germany. My favorite modelling period is around 1900, with a secondary interest in the 1930 (and a bit later) era. My special interest is to build cars from scratch, to modify and super-detail models and to add loads.

I built the load described here for a PRR F29 depressed-center flat car based on an unusual prototype shipment. You can see a photo of the prototype load on my website: <http://us-modelsof1900.de/?p=943#depressed-center-flat>, and

more of my work at <http://us-modelsof1900.de/?p=1232> (unfortunately in German only).

THE FLAT CAR

I began with an HO Railworks brass F29 model with the Buckeye-style trucks which I modified to improve its appearance and operation prior to painting and lettering. I reworked the trucks by drilling out the journal holes in the sideframes and adding Tichy nylon axle bearing inserts (#3059). I also added brake parts and rigging to the trucks.

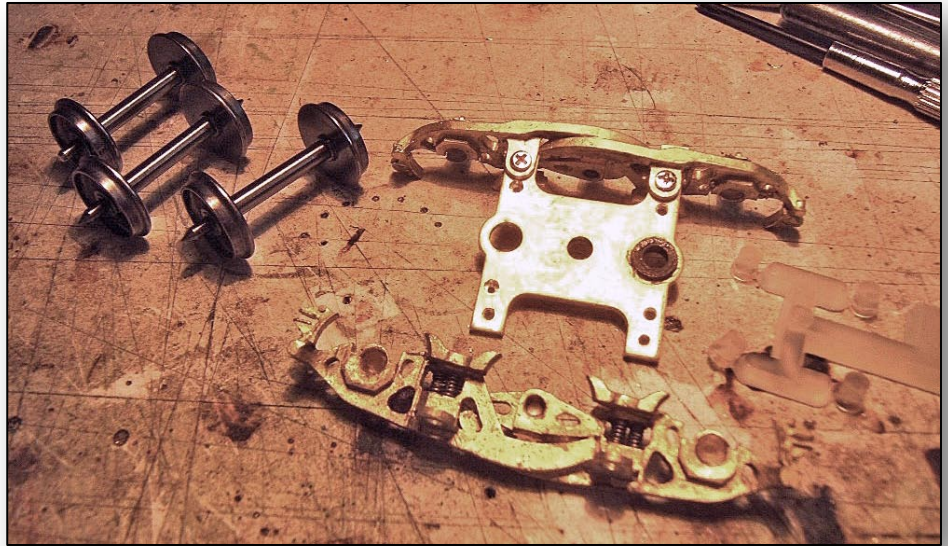
1. View of the out-of-the-box Railworks F29.



2. Detail of the Buckeye truck illustrates slots behind the brake shoes into which brake beams should be located, had they been included in the model.



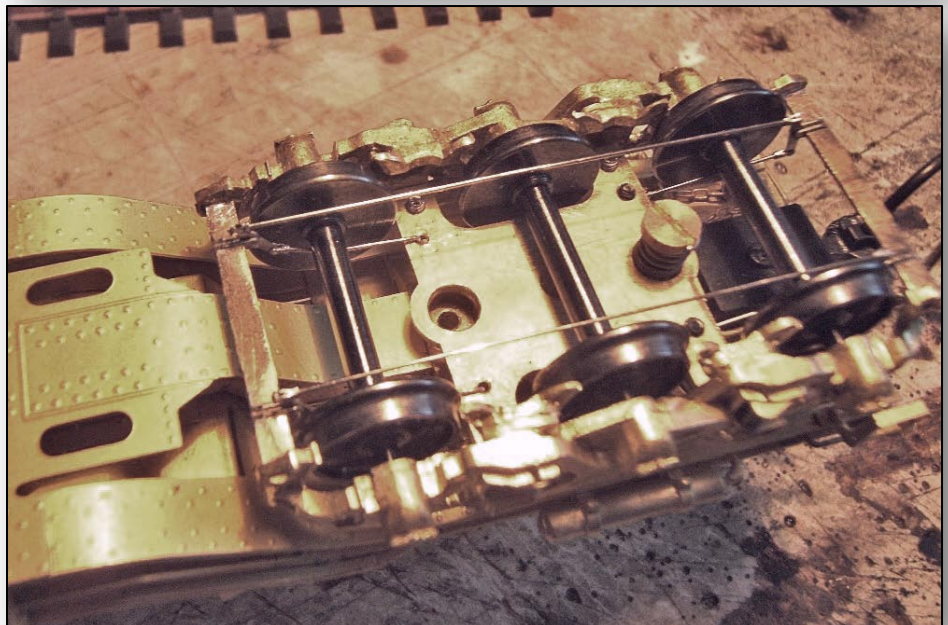
3. View of the brass trucks disassembled and ready for rework. Note the pointed axle ends mount directly into cone-shaped holes in the sideframes. The Tichy bearing inserts are shown still attached to their "tree". These nylon bearings help to reduce friction and eliminate potential shorting problems which are always present on brass models, especially those with six-wheel trucks closely fit under a low clearance carbody.



4. Top view of one truck shows the brake beams, rods, clevises, pivots and levers that were added; scratch-built from appropriate brass stock. Holes were drilled and tapped and small screws mounted to the top of the outer end of the bolster under which the upper rods were anchored. The rest of the parts were soldered together and the joints carefully cleaned up of excess solder.



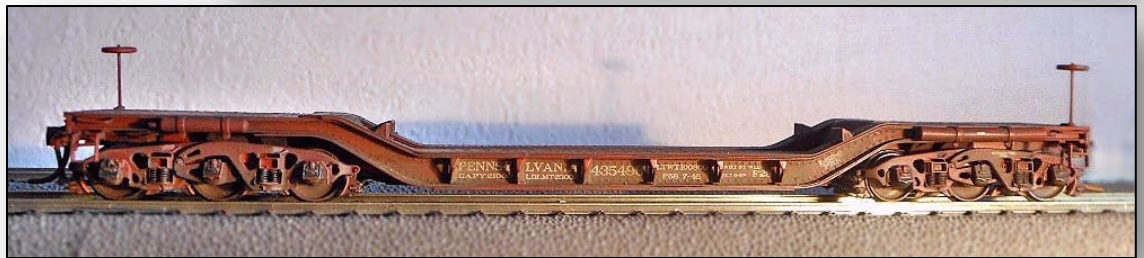
5. Bottom view of a truck shows the brake rods connect between the pairs of levers on the brake beams at the opposing ends of the trucks. The inner upper rods are hooked through holes in the bolster and the brake beams are trapped in the slots behind the brake shoes so the entire brake beam/rod/lever assembly can be removed from the truck by removing the screws when disassembly of the truck is required.



6. View of a modified truck remounted on the car. The brake beams, levers and rods are visible at the end of the car.



7. The completed car was finished with custom decals I had made for this class, and the model has been given a light weathering using chalks.



THE PROPELLER LOAD

I was fascinated by this very unusual load and also by the means of securing the blades of the propeller. Note that I used a depressed-center flat car, while the original car is a well car, so I built that what I thought would have been needed to secure the load to this type of car: eye bolts, shackles, turnbuckles and chains with hooks. The hooks and chains are commercially available detail parts from Precision Scale Company and Weinert, a German model manufacturer:

http://us-modellbahn.de/advanced_search_result.php?keywords=kette.

I found several large-scale ship model brass propellers in my local hobby shop and selected a 63 mm diameter one as closest in appearance to the load in the photograph and one that would also meet the clearances on the layouts where I planned to run this car. All the other parts are homemade from nickel-silver wire and medical canulas (syringe needle or dispense tip tubing). Here is a short description how I make my turnbuckles with illustrations:

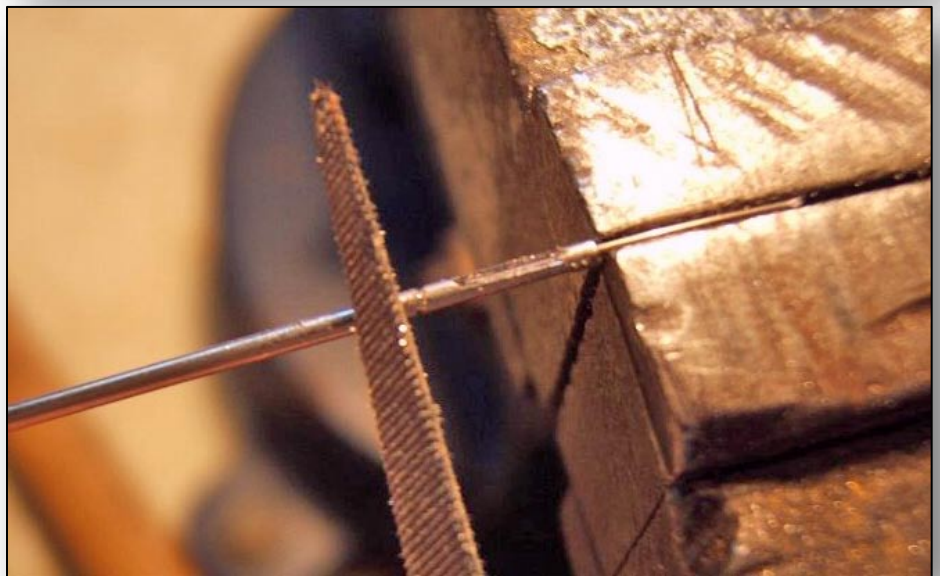
8. Start by slipping a piece of steel wire close to the inside diameter of the tube, into a canula of the desired diameter. First file an opening for the turnbuckle eye into one side, down until reaching the inserted wire. Turn the canula 180 degrees and repeat this step.



9. After filing the openings, I cleared the holes with a triangular scraper.



10. File a groove around the canula and break it off to the desired length.



11. File down the ends of the turnbuckle to the desired length.



12. Widen the eye opening by driving in screw drivers, beginning with small ones and increasing them in size to reach the desired opening width.



13. A finished turnbuckle without rods.



14. Preparing the nickel-silver rods to be attached to the turnbuckle by peening small heads onto one end of each rod.



15. Insert the two rods into the turnbuckle from the center outward by slightly bending the ends of the turnbuckle.



16. Once the rods are inserted, the ends of the turnbuckle must be straightened.



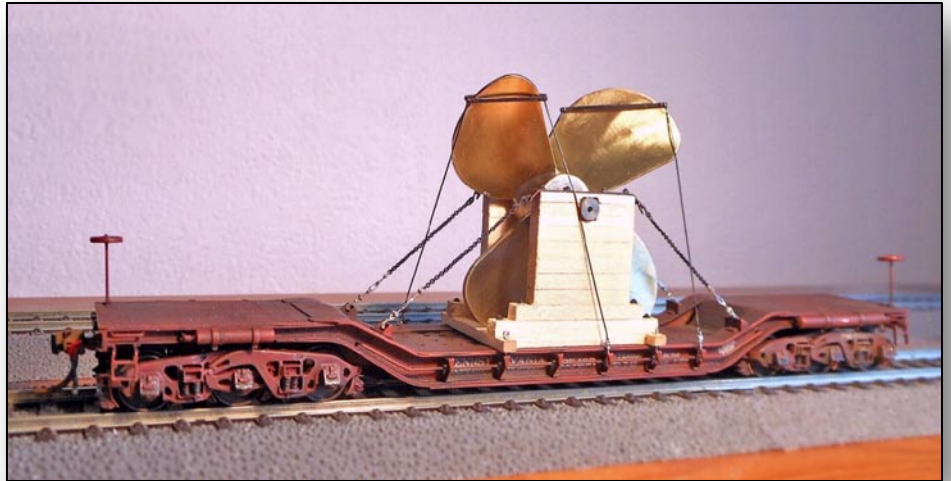
17. For anchoring the ship propeller I used smaller and thinner materials for turnbuckles than that shown above and I bent the ends of the rods into small eyes.



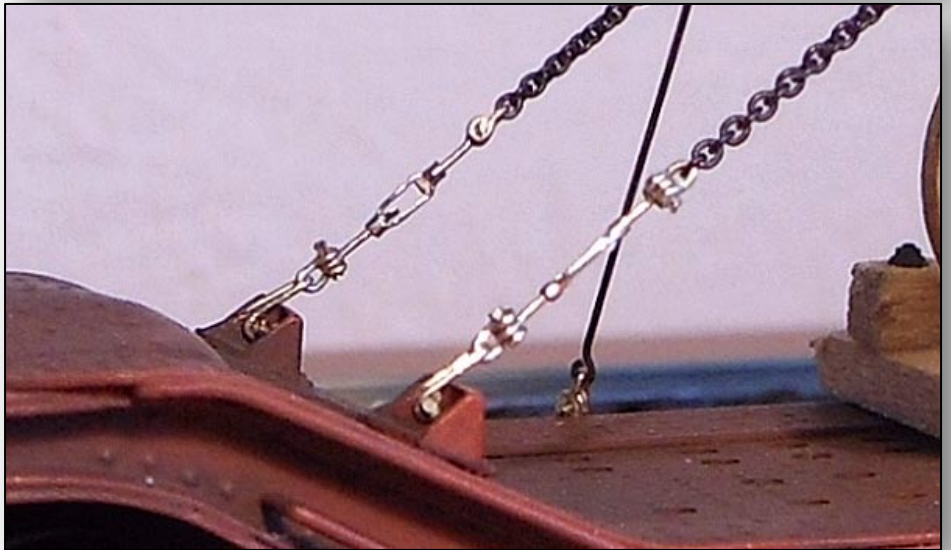
18. The finished turnbuckles and other anchoring hardware are shown ready for installation.



19. Together with eyebolts and shackles I fixed the load and the load rack made of strip wood onto the depressed center flatcar. I think that I have built an interesting load and you can see a bit of similarity to the original car.



20. Here you can see how I combined the parts for fixing the load rack on a more flat bottom; different than that what you would need on a well car.



21. Photo of my model, which unfortunately is on a siding. However the railroad fans have already discovered this car with its unusual load.



For more information on all of my models please check out my website www.us-modelsof1900.de – in

German. And for a personal discussion you can use my contact information on this site. Thanks, mit besten Grüßen!

[ed. Note: special thanks to Jack Consoli for his careful editing of Bernhard's article.]

