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FINESCALE RAILROADER

JUNE 2004

VOLUME 8, NUMBER 2

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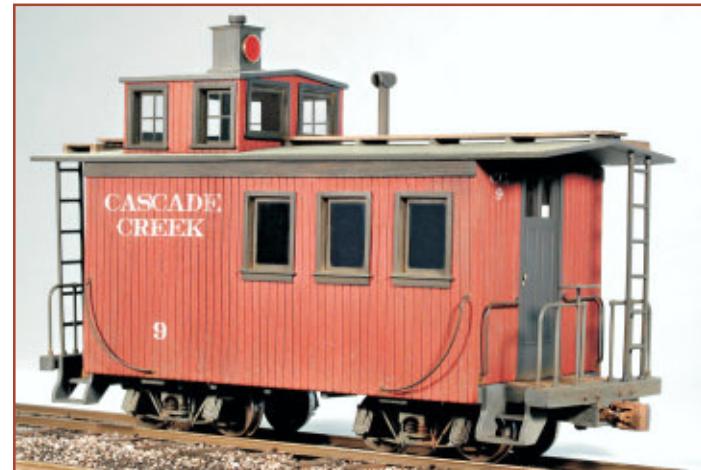
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ON THE COVER

ON30 HAS BECOME very popular and, with it, locomotive kitbashing and detailing has become more lively. Bachmann's new Davenport gas mechanical switcher is as likely a candidate for modification as we have seen. So, beginning on page 28, we feature not only the stock model in a layout setting but also several variations along with articles about building other "critters". Russ Reinberg photographed the 1:48 scale Bachmann Davenport on our cover.

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CORRECTIONS:

For some inexplicable reason, we attributed the AH&D catalog pages in the March 2004 **LOGGING, MINING & INDUSTRIAL ANNUAL** to the wrong person. The correct contributor is **Jerry Barnes** from Plano, Texas. He graciously loaned us the vintage catalog to share with our readers. I apologize for the oversight.—
Russ Reinberg

In our December issue, we erroneously stated that Brian Nolan builds pilot models for Sierra West. That is incorrect. The company's owner, Brett Gallant, builds them himself.

THE MARCH 2004 ISSUE

I'm not usually one to write to magazines, even ones I subscribe to for an extremely long time, but your 2004 **LOGGING, MINING & INDUSTRIAL ANNUAL** is totally unbelievable. It is the

FINESCALE RAILROADER



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LETTERS

best railroad publication I have seen in my many years of railroad magazine reading. Mallory Hope Ferrell's Coronado Railroad piece is outstanding. The article itself is the greatest but, with the pictures, it is just tremendous. The pair of water cars is another great piece. I had to write to let you know that the issue is the best ever. Keep up the great work.

Larry Freeman
Berlin, PA

I find myself surprised to be writing again but I just received my copy of the **LOGGING, MINING, & INDUSTRIAL ANNUAL** and have to tell you the content, photographic quality, and composition are just fantastic—unsurpassed in the hobby. If I could persuade you to publish an additional two model layout or diorama annuals I could see no reason to purchase any other magazine. Keep up the outstanding work.

Scott Baroody
Via the Internet

Fantastic issue!! I still don't know where all those old, great photos come from. Mal Ferrell just keeps pouring them out. I liked the plans, too. That article on Shay drive shafts was really informative and the American Hoist & Derrick catalog pages were a real treat. I just can't say enough good things about this issue as all the articles were superb, unlike those of some other publications. Keep 'em coming.

Dave Powell
Algona, IA

Just over a year ago I sent an e-mail with my accolades on the first **LOGGING, MINING, & INDUSTRIAL ANNUAL** and challenged you to meet or beat that effort on the next one. Well, it is time to eat my words. You have done it again! The current annual is as good as the last. You once again really have

captured the feel of industrial railroading. From Mallory Hope Ferrell's detailed history of a snippet of 20 inch gauge mining railroading to the outstanding modeling and terrific On30 layout of Gordon North to Dave Revelia's waterfront diorama, the reader is enveloped in nothing but the best possible photographs and descriptive text. The March 2004 ANNUAL belongs on the coffee table right next to last year's. Keep up the great work.

Frank Bernard
Deer Park, NY

FINESCALE RAILROADER is simply the best magazine I've ever subscribed to. On any subject.

Ron Bart
Alpine, CA

The Coronado Railroad article turned out exceptionally well. But as seems inevitable after something appears in print, I found some errors in my drawings.

On the rear view of Number 8, that vertical centerline through the coupler is a reference line I forgot to erase.

Regarding Number 5, I always had thought, because of the photo on the top of page 18, the bell had moved to the headlight bracket. The engine rebuilders used the same photo and did put a bell there. But I had never seen the photo on the bottom of the page. It clearly shows the bell off to one side!

My biggest error was on Number 4. I thought the photo at the top of page 21 showed the back of c/n 651 and the front of c/n 814 so I copied the cab of the front engine for my drawing of c/n 815. Then I saw the crystal clear reproduction of the photo in the ANNUAL and realized the engines were reversed! I can read *Morenci* on the tank and can barely make out the number on the plate. Dang!

I also found some errors in the text. Mal Ferrell refers to the Detroit Copper Mining Company as the Detroit Mining Company—a small distinction.

The photo at the top of page 7 shows the ore bins just below the Coronado mine shaft rather than the base of the incline. Compare the view

with that at the top of page 14, left center, just below the head frame.

The bottom photo on page 8 is not Number 1. It is either ACCo. Number 4 or DCMCo. Number 2; I think the former. The engineer is not Dan Arbuckle (and Arbuckle's name was Henry), it's another man whose name I have at somewhere in my archives. The sand dome top is there; it is just the flat version as on c/n 814 and 815.

The top image on page 14 actually shows Coronado Number 2 rather than Number 1. I have seen a very large print of the photo and it is clearly Number 2. Number 1 never operated atop the incline and was in fact scrapped by 1893 though the picture is more likely 1909.

On the bottom of page 20 is Detroit Number 2, not Number 1. At the top of the next page, Number 2, *La Nena*, never had a rear truck or fuel bunker as she was built as an 0-4-0T.

The Longfellow incline is at the bottom of page 30, with the Shannon Arizona Railway trestle crossing just over the tunnel. Compare with the three photos on page 29 and especially the bottom right photo on page 19 and note the shape of the tunnel mouth.

Picky, picky, picky! I know.

Incidentally, Detroit Copper Number 2 now has an extended saddle tank (from where?) and the cab of Detroit Copper Number 3 as well as some other modifications. Here is a current picture:

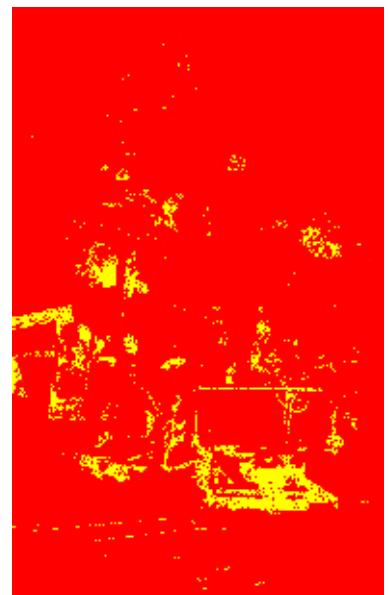


I love the ANNUAL; it's really awesome. I hope we see people build a lot of little mining Porters because of it. I know I'm going to get back to work on some.

Lawrence Hargis
Hereford, AZ



The Coronado Railroad article perpetuates an error I hope I can correct. The taller photo above, from the Jerome State Park visitors center, has the incorrect caption, "Longfellow Incline, near Clifton, Arizona". The photo always has been suspect because it resembles no other image of that Clifton-Morenci district incline. The real Longfellow Incline appears in the shorter photo below.



Several years ago, Stan Schwedler copied the improperly captioned photo and the misinformation began to circulate. In 1993, David Myrick discovered the actual site of the incline in the taller photo: It was in the Quitoja mining district between Tucson and Ajo. I hope my letter once and for all corrects the error.

Garrie L. Tufford
Warsaw, MN

*Editor's note: I must come to Mal's defense. I forgot to send him a copy of the text and captions to check prior to publication. He is aware of the above errors; he telephoned to reprimand me!—
Russ Reinberg*

Mallory Hope Ferrell's article on the Coronado Railroad includes a remark about breathing conditions in the tunnel where the *Wallis* ran. Some time ago, I researched the issue and found a "water blast" ventilated the tunnel.

It turns out the water blast is a method, dating from pre-Roman times, of providing a high volume of air either for ventilation or for a blast furnace or forge. When falling water breaks into drops, it carries with it a large volume of air. The farther the distance it falls, the higher the air pressure. So, in the case of the *Wallis* and its tunnel, engineers drilled a vertical shaft from the top of the hillside into the mine, then diverted a stream into the shaft. At the bottom of the shaft, a drain carried water out of the mine. The resulting large volume of air blew out of the tunnel carrying the smoke with it.

Jack Smith
Pleasanton, CA

THE DECEMBER 2003 ISSUE

Tony "Mr. 1:20" Ferraro's evocative little photo essay on his Deer Park Railway has left me nearly speechless. Fortunately a quick whiff of bracing, moonlit, North East Kingdom air resuscitated me enough to peck out this missive. I *really* like the layout's presentation. The better half thought I was fooling her when I said they were

models. "They look just like old train pictures" says she.

Wasn't it architect Mies van der Rohe who said something about less being more? I think the latest **FINESCALE RAILROADER** proves his point. The visual feast in your publication continues its upward spiral. 'Tis a good thing you chose heavy quality paper for your offerings; it tends to minimize some of the wear and tear to which I subject each issue. We humbly appreciate and thank you for your efforts.

"Chuck in the NEK" Tenney
East Burke, Vermont

In the December 2003 issue, you state the D&RGW C-21 locomotives operated between Gunnison and Montrose because the grades were lighter. In reality it was because the bridges and rail were too light for heavier locos. The largest engine I have seen in photos over that part of the line is a K-27.

Tom Cruse
Amelia, OH

In reference to *From the Editor* in the December 2003 issue, I want to add an historic group important in the development of On30: The Thirty Inch Gage Guild. Its members were David Gast, Dick Andrews, Sheldon and Stan Schwedler, and Donn Barber. The November 1962 issue of *Railroad Model Craftsman* included an article about the small On30 layout they constructed for a regional NMRA convention in Phoenix, Arizona. I hope my letter provides some hobbyists with a deeper perspective of the history of narrow gauge model railroading.

George Wagoner
LIGHT RAIL ASSOCIATES
Denver, CO

After reading the *Detail Your Large Scale Diesels* article in the December 2003 issue, I feel it necessary to correct some misinformation.

Beginning with the section on "CABLES", the part being replaced is not a cable but an air hose. The

author's technique is fine for making more realistic hoses but his definition is wrong. The air hose end is actually a gladhand or air fitting. The instruction for putting the gladhands on the hose is fine but there is no mention of its attachment to the pilot.

The "hanging red cable" across the front pilot does indeed represent an M.U. cable as the author states but it is too long. It only needs to connect two locomotives. The open connector lid should be at about a 45-degree angle to the M.U. housing. The can attached to the stanchion is a holder for the unused connector, primarily a Union Pacific detail to protect the cable.

Speedometer cables: No direct drive locomotive speedometer has been in use for about half a century. The box the article mentions is an axle alternator. It can be on any axle, generally on the number two or three axle. The cable consists of two wires feeding to a terminal board in the locomotive cab. As the driver spins, it creates an electric current that drives the speedometer and many other cab electronics. There is no correlation between the speedometer and the axle generator location. Also, some locomotives have cables on all axles for a wheel slip system to equalize wheel rotation.

Next, "TRUCK LIMIT CHAINS". Such a device does not exist. The author probably means to refer to the handbrake chain and spring. The chain attaches to the handbrake ratchet or brakewheel and, through a series of pulleys, ultimately connects to a brake cylinder piston. Most locomotives have a handbrake on the left side of the short nose. On such an application, the chain would attach to the brake cylinder piston of the lead truck's trailing axle. I have seen the chain on both the left and right side so you should check a particular prototype for accuracy.

The SD45 the brakewheel is on the right rear portion of the long hood so the chain would attach to the trailing truck's leading axle brake cylinder. The spring supports the chain so it droops very little. The model photos show the chain attached to the lifting pad. That pad is for lifting the locomotive off the trucks and should never have

anything attached.

Coupler lift links are another nonexistent part. The coupler lift bar normally would slope downward above the coupler with a four to five inch gap between the top of the coupler and the bottom of the bar. A loop is part of the coupler lift pin and the bar feeds through the loop. When the bar lifts, the pin rises and allows the knuckle to open. The pin drops when the coupler closes. The position of the lift bar in the photo of CB&Q 2099 is in the open position.

I hope your readers will interpret my comments as constructive rather than as the ranting of a "rivet counter". I intend them to teach other hobbyists how to model diesels as accurately as they do steam locomotives. I should add the windshield wipers on Santa Fe GP30 3233 look so good, I would like to learn how to make them. I also would welcome any replies.

Mike Roberts
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REMOTORING

The article by Gregory Posta in the December 2002 issue has a minor error. The voltage refers to the maximum the motor can handle without burning out. Most d.c. motors, unless otherwise noted, will run from 0 volts to the maximum listing. The second motor in the article may have two different connections including one through a resistor to permit the use of 24 instead of 12 volts but, without seeing the motor, it is impossible to say for sure. The first motor certainly can run from 0 to 24 volts. (That is not the current draw or it would be noted in amps.) I hope that helps those modifying their K-27 models.

Boyd Butler
Kennewick, WA

CUSTOMER SERVICE

What is the value of a model?

Smooth running on rough tracks? Hauling a lot of cars? Finescale construction and accuracy? Super detailing and a beautiful finish? Yes, all those things. But there is one more item and it is equally important: Acceptable customer service if the locomotive malfunctions or is damaged.

Every one of my models is like a baby for me and I love it! How would you feel if your baby were near death? Wouldn't you be sad? And if a doctor delayed treating your baby for a couple of years, how would you feel? In my case, two manufacturers kept me waiting as long as three years before sending the parts to repair my locomotives.

I think we should never forget the value of customer service. We should send a loud and clear message to every manufacturer that the availability of spare parts is absolutely necessary and is as valuable as finescale accuracy, smooth running, and super detailing. It is every bit as important as the model itself!

Heinz Daepen
Switzerland

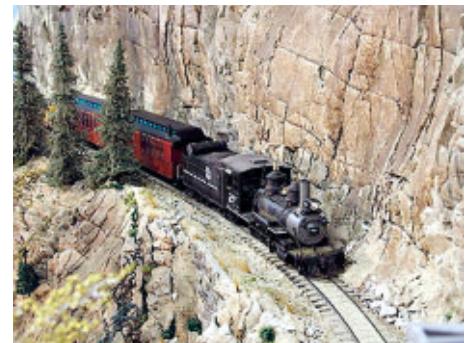
THE PHOTOS SECTION

Here is my latest construction project. The prototype is a 5 $\frac{1}{2}$ ton Plymouth clone by a Japanese company; the company that bought the 30 inch gauge engine used it for a sand reclamation project. The model is a brass and white metal kit available either in On2 or On30 from Orange Company (of Japan). The little model sitting on my mill's table is 2 $\frac{1}{2}$ inches wide.

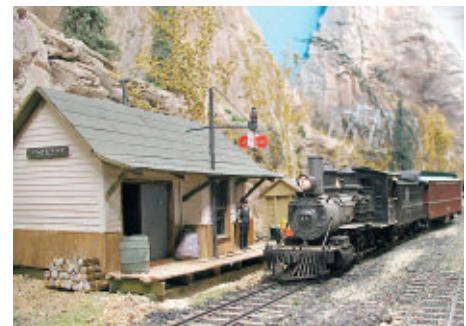


Rich Garich
Via the Internet

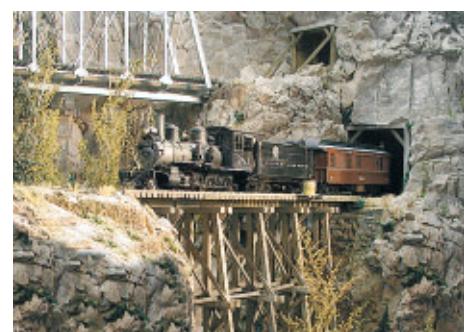
Recently I put two new Broadway Limited C-16 Consolidations to work



on my On30 layout. I added extra air lines to the tender tank, a more accurate generator casting, a pull cord for the bell, a load of real coal, and Kadee® 803 On3 couplers at the correct height. Since my locomotives were unlettered, I also applied decals to the cab and tender and weathered the models.



I will add additional air lines, air hoses and gladhands to the brake lines, and more interior cab detail. The models run and track very well after you program them for the right start-up voltage. The sound is very good. It's good to be in On30 now! I hope Broadway Limited will produce more Colorado narrow gauge locomotives.



Dave Rouse
Via the Internet



Here are photos of a 1:20.3 scale Accucraft live steam, three cylinder, Mich-Cal Number 5 Shay running light across Myrtle Trestle *enroute* to Camp 2 on my backyard logging line. I scratchbuilt the trestle from home-sawn redwood. The rails are spiked to individual redwood ties.



Dwight Ennis
Milpitas, CA

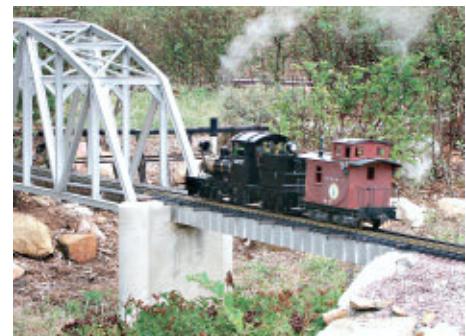
I recently built a tool and water car starting with the plastic underframe from an old Bachmann car. The rest is mostly wood with some styrene. Detail parts are from Ozark Miniatures. I seriously distressed the floor planks

with a saw, hobby knife, and file. Weathering is from Weather-It, India ink, powered rust, and a little paint. I sprayed the finished car Testors Dullcote. The curves on my railroad are tight so my rolling stock must use truck mounted couplers. The trucks are from Bachmann.



Neil Lynch
Via the Internet

Here are some shots of my live



steam Accucraft Shay on Marty Cozad's outdoor railroad. I shot them September 9, 2003 at an MLS Online meet in Nebraska City, Nebraska. I also have included a photo of my unfinished Bachmann twenty foot boxcar-to-sheep car conversion.

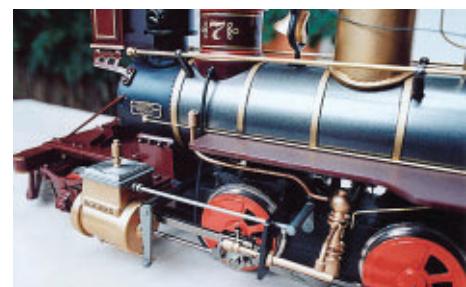


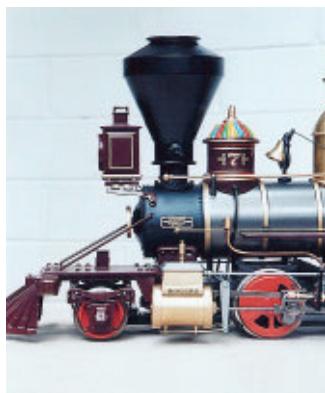
Bruce Stockbridge
Via the Internet

I hope your readers will enjoy photos of a little 1870s Rogers 2-4-4T I built for a friend in California.



The Hudson Double Ender (Rogers' version of the Forney) was originally built for Mexican railroads and appears with various specifications





in Rogers' catalogue. My model is 1:20.3 scale, an extensively modified version of Bachmann's new Porter 0-4-0T saddletank. I developed the paint scheme with help from Jim Wilke; we based it on Rogers data. I had a hard time giving this one up. It's just too cute!



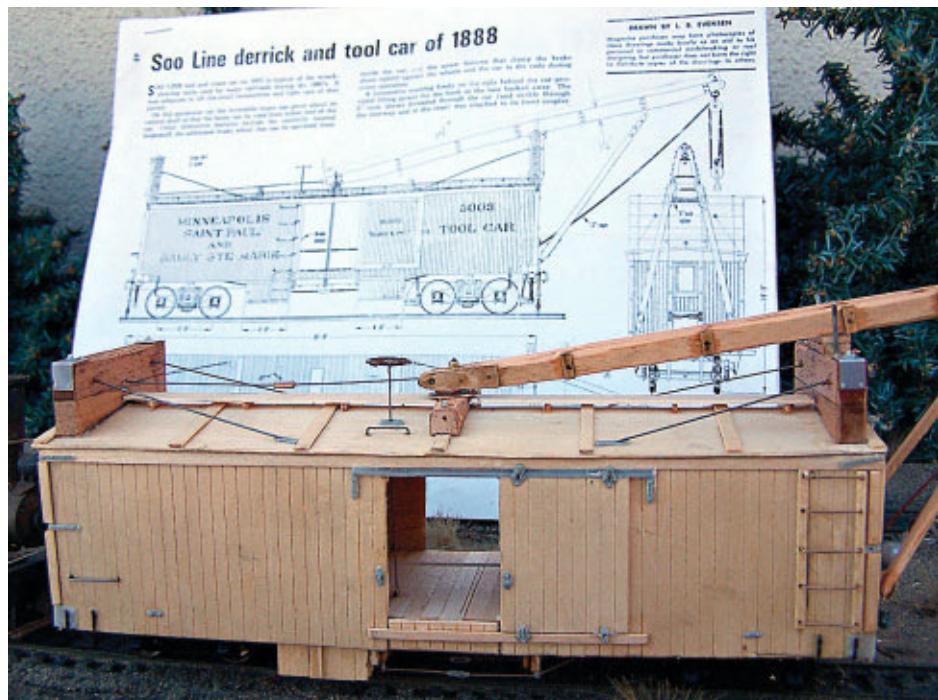
David Fletcher
Melbourne, Australia



At the end of last year, I found plans for a standard gauge SOO Line crane car and decided to scratchbuild a model similar to it in On30. The photos show the car before and after

staining, painting, lettering, and weathering. Fun.

Mac McCalla
Huntington Beach, CA





ON30 D&RGW C-16 CONSOLIDATION

Broadway Limited Imports, P.O. Box 376, Ivy, VA 22945 has created quite a stir with the introduction of an On30 (1:48 scale on HO gauge track) Rio Grande C-16 2-8-0. Hobbyists eagerly have anticipated its arrival for about a year. Jim Ellis and Allen Littlefield already are modifying C-16s for articles in **FINESCALE RAILROADER**.

Our sample presents us with a dichotomy because the quality of its manufacture and operational performance are superb but the detail and some proportions are more impressionistic than precise. Those characteristics, together with the Consolidation's excellent sound system, are reminiscent of LGB's first and extremely successful American prototype large scale locomotive, the now famous D,SP&P and C&S Moguls. But where the critical overall dimensions of the Mogul were incorrect, those of the C-16 are accurate.

A conversation with Broadway



Limited's Director of Sales, Tim Nissley, confirmed the company's intent was to produce a very high quality model to meet a specific retail price. Since the inclusion of a topnotch sound system and various operational features were paramount,

the manufacturer placed a little less emphasis on detail, consistent with their other Powerhouse Series locomotives. Future offerings, according to Tim, probably will put more emphasis on accuracy in every area.

So I will evaluate our painted, unlettered version of D&RGW Number 278 for what it is: A robust locomotive with exceptionally clean die-cast and injection molded components. The DCC equipped engine operates very smoothly and quietly right from the box even though the very clear and comprehensive operator's manual suggests first lightly lubricating the moving parts.

Broadway Limited's quality control



appears to be fastidious. The finish of our sample is perfect and every feature performs flawlessly, from its sixteen level adjustable momentum effect to the extensive adjustments you may make to its sound system. Our sample glides into motion, creeps without stalling, and smoothly and quietly accelerates to a reasonable top speed.

Each of the model's features will



operate with or without Broadway Limited's optional SideKick® sound controller but the two button box simplifies everything. For example, while the locomotive is moving, you may flip the direction switch of your power pack to activate the whistle. Resetting the switch to its original position turns off the whistle. If you have a SideKick, you merely press the red horn button.

The SideKick similarly simplifies programming each of the model's features. Among them are assorted bell and whistle sounds, volume adjustment, variation in the chuff as the engine accelerates, and a Doppler effect (where the chuff pitch changes as the locomotive passes you).

While I am familiar with the excellent reputation, accuracy, detail, and quality of Broadway Limited's HO standard gauge models, the On30 C-16 is the first sample Broadway Limited has sent us for review. It impresses me. If your goal is to own a perfectly accurate model, you should look to On3 for a C-16. But if you are one of the thousands of modelers Broadway Limited had in mind when designing its On30 C-16, the locomotive should delight you. It absolutely achieves its intent and for that reason earns our highest rating. It is superb.—*Russ Reinberg*.

1:20.3 SCALE HEISLER

Bachmann Industries, 1400 E. Erie Avenue, Philadelphia, PA 19124 has added a two truck, 36 ton Heisler geared locomotive to its superb line of narrow gauge steam replicas. The Heisler is the third of the "big three" geared engines along with the Shay and Climax. As with each new 1:20.3 scale Spectrum® model Bachmann has released, the Heisler incorporates improvements in manufacture and detail to become the line's current flagship. It represents a stock catalog model from the 1920s.

Some models have standard trucks; our sample represents a prototype with outside counterweights. (The counterweights do not simply detach from the drivers to convert to the other design.)





Features include die-cast gearboxes, eight wheel electrical pickup and drive, an enclosed "all weather" cab with complete interior, specific detailing (such as oil or coal fuel bunker) appropriate to each roadname, directional head- and backup lights, and an operating smoke unit. The doors, windows, and roof hatch function. Each model is DCC ready should you wish to add such a system.

As the hobby industry's metallurgy technology has improved, Bachmann has incorporated an increasing number of die-cast metal parts into its locomotives. The Heisler's frame, entire drive train, numerous detail castings, most truck parts, and even the front and rear pilots are metal. The bell, pop valves, whistle, and various other fittings are cast or turned brass. The tender rails are stamped metal and all piping, handrails, cut levers, even the bell and whistle cords, are brass rod. The rest of the model consists of superb quality injection molded plastic.

Some notable touches include flexible rubber sand lines, highly detailed cab backhead complete with oil can, and removable knuckle couplers for those preferring to mount aftermarket couplers in the link-and-pin drawheads on either pilot. The finish of our unlettered sample is outstanding. The level of detail and overall appearance of our sample equal or exceed those of many expensive brass models.

As has become customary, the model includes not only a detailed instruction booklet but also a DVD. Bachmann's Lee Riley produced the excellent, entertaining, and unusually

informative video.

Our sample operates smoothly at all speed ranges but something causes a hesitation at each revolution of the drive shaft. It should be easy to fix, maybe just a slightly protruding screw head (break in might cure it), but I was unable to figure it out. With that exception, our model's performance is excellent, even at the slowest speeds. The Heisler is available in four roadnames as well as painted-unlettered in two trim styles. The MSRP is \$799.95. Once again, a Bachmann geared engine earns our highest rating. It is superb.—*Russ Reinberg*

ON30 DAVENPORT 0-4-0 GAS MECHANICAL

Bachmann Industries, 1400 E. Erie Avenue, Philadelphia, PA 19124 has another excellent and charismatic addition to its line of On30 locomotives. Its 1:48 scale Spectrum® Daven-

port 0-4-0 gas mechanical represents a *circa* 1940, 30 inch gauge, catalog model with side rods. It is the first non-steam engine in Bachmann's On30 line. Beginning in the mid 1920s, gas mechanical and diesel motive power began to replace steam on logging, mining, industrial, and agricultural lines; many continue to operate today.

The DCC ready model features a die-cast chassis, side rods, and counterweights; injection molded plastic superstructure and cab; various metal detail parts including a separate bell you may install; a directional headlight; a skew wound motor; and low speed gearing.



Both our samples operate excellently. Each is able to start moving at barely a crawl and the top speed, while faster than that of an actual engine, is reasonable. They appear to be Bachmann's best performing small scale 0-4-0s, approaching the level of





some models featuring expensive Swiss micro-motors.

Kitbashers should find the Davenport an outstanding starting point for modification. The models are available in five roadnames as well as undecorated. The MSRP is \$90.00 each. Bachmann's On30 Davenport gas mechanical is an excellent product.—*Russ Reinberg*

1:20.3 SCALE PORTER

Bachmann Industries, 1400 E. Erie Avenue, Philadelphia, PA 19124 also has supplied a sample of its new H. K. Porter 0-4-0 saddletank switcher. The locomotive is a 1:20.3 scale, three foot narrow gauge reproduction of a medium size stock model from a *circa* 1920 Porter catalog.

The DCC ready model features die cast and blackened side rods, a heavy duty can motor, a metal gearbox, all wheel electrical pickup, a smoke unit, and a polarity switch for operation according to NMRA standards or with any other manufacturer's products. Other features include metal handrails and grab irons,

complete interior detail and illumination, and sliding windows. The LED headlight is directional.

As with other Spectrum® models, the fit and finish of our sample are excellent. The locomotive's operation is smooth and silent. It is capable of very slow speeds for switching and of realistic starts and stops. Bachmann's 0-4-0 Porter combines excellent operation with a good appearance. It is available in two roadnames or painted-unlettered. The MSRP is \$179.00.—*Russ Reinberg*

1:20.3 SCALE STOCK CAR AND TANK CAR

Accucraft Trains (American Model Supply), 31112 San Clemente Street, Hayward, CA 94544 has added a pair of freelance models to its superb and highly accurate line of injection molded plastic Denver & Rio Grande

Western rolling stock. The 1:20.3 scale models represent a Colorado & Southern stock car and Conoco tank car. Each has a molded plastic frame and superstructure along with dozens of individually applied plastic and metal detail parts, cast metal trucks, and turned, blackened metal wheelsets with close to scale size flanges.

The nature of the stock car is "schizophrenic" in that it combines the virtually perfect 1:20.3 scale Rio Grande model we reviewed in our June 2003 issue with a Colorado & Southern paint scheme identical and appropriate to that of a completely different prototype (such as the car on pages 18-19 of our **2004 NARROW GAUGE ANNUAL**). Some purists may balk but modelers and manufacturers have been repainting one prototype with the paint scheme from another for decades. The deliberate discrepancy aside, the stock car is truly superb and stunning in appearance. The MSRP is \$165.00.

The tank car consists of the superbly accurate AMS D&RGW 6000 series flatcar we reviewed in our December 2003 issue and a beautifully molded and detailed tank almost identical to that of the often modeled C.O.N.X. Number 5 tank car from the Colorado & Southern. Lettering is for a fictitious C.O.N.X. Number 7 and the paint scheme is correct for some C.O.N.X. cars from the mid 1930s. While the flatcar itself is technically incorrect for such a tank car, it is pretty close to that of C.O.N.X. Number 5. The overall impression the entire model conveys is of Number 5





and the model should satisfy a large majority of hobbyists. The quality is superb. The MSRP is \$145.00.—*Russ Reinberg*

BOOK REVIEW

Oso Publishing Company, P.O. Box 1349, Hamilton, MT 59840 (www.osorail.com) has sent a copy of Jack Bowden's *Railroad Logging in the Klamath Country*, a 352 page hardbound volume with a short history of the more

than thirty lumber companies in the region. The author has included a map of each line and more than 140 photographs and drawings illustrate each chapter. You also will find rosters, reproductions of advertisements, his-

FINESCALE RAILROADER reviews all products as objectively and impartially as possible. It is our policy to alert manufacturers to our criticisms before publication so they may respond as part of the review.

Railroad Logging in the **KLAMATH COUNTRY**

Jack Bowden



toric published material, and correspondence. While elegance marks neither the book's text nor photographs, its selling point is information. That, along with Oso Publishing's usual excellent binding, paper, and printing quality, is more than enough to earn an excellent rating. Virtually every logging railroad enthusiast should include *Railroad Logging in the Klamath Country* in his library.—*Russ Reinberg*

PRODUCT PORTRAITS

Bachmann Industries, 1400 E. Erie Avenue, Philadelphia, PA 19124 is shipping an upgraded version of its very popular 1:20.3 scale side dump ore car. The new model features a metal underframe and an oxide red rather than the previously green superstructure. It represents a prototype from Migor Manufacturing, a large company with factories in New Jersey and Canada, but is very similar to a ten foot long Western Wheeled Scraper Company prototype as well as some others. The quality is excellent and the MSRP is \$30.00 each.

Ozark Miniatures, 3461 S. 5225 W., Cedar City, UT 84720 (www.ozarkminiatures.com) has sent several samples for review.

The large scale cast metal signs will endure long term outdoor exposure and the old west versions feature etched wood grain. Our samples are of excellent quality and range in price from 99-cents to \$4.00.

The exterior car siding is of imported luan plywood, each piece measures 8 by 40 scale feet, and is available for 1:29, 1:24, 1:20.3, and 1:13.7 scales. All but the 7/8-inch scale sheets cost \$9.95 each; the latter is \$12.99 per sheet.



Our 1:20.3 scale cast metal caboose window samples have very little or no flash but one or two were slightly distorted. You should be able to bend and file them to near perfection in just a few minutes. The windows come in three sizes, each of typical scale proportions for use on cupola sides (1 foot 11 inches by 2 feet 4 inches), on cupola ends (2 feet 1 inch by 2 feet), and on cabin sides and ends (2 feet 11 inches by 2 feet 2 inches). The MSRP of each size is \$2.50 per pair.

PRODUCT PORTRAITS



Ozark's 1:22.5 scale D&RGW reefer ice hatches (\$18.00 per package of four) and 1:20.3 scale long gondola stakes (\$6.99 per package of four) and short gondola stakes (\$2.99 per package of four), both with pockets, are of similar quality to the windows.

So are the 1:20.3 scale caboose end ladders (\$4.00 per pair).

Finally, Ozark's new 1:20.3 scale ten stamp mill kit consists of good quality red Canadian cedar, white metal castings, and brass rod. The finished unit requires a space of 6.25 by 8.5 inches and does require some

drilling, gluing, filing, and sanding. Construction is simple enough for a beginner and the resulting model looks impressively complex. The MSRP is \$119.95.



Kadee® Quality Products Company, 673 Avenue C, White City, OR 97503-1078 (www.kadee.com) has introduced sill mount coupler pockets for both 1:20.3/1:22.5 (part number 779) and 1:32 (part number 1779) scales. The pocket mounts against a flat, vertical surface or end sill such as that on a switcher locomotive or industrial rolling stock. The difference between the two items is the size of the coupler Kadee includes with the pocket. The MSRP is \$7.95 and the quality of our samples is superb.

Crimson Models, 5 Fox Train Drive, St. Catharines, Ontario, L2S 3T7 Canada has begun limited production of 1:20.3 scale polyurethane resin figures. The company's owner, Dave Daniels, casts them from his own hand carved masters. The price each, currently payable only by U.S. money order to Dave Daniels, is \$9.00 plus \$4.00 shipping. Our samples are a very good and welcome addition to large scale.

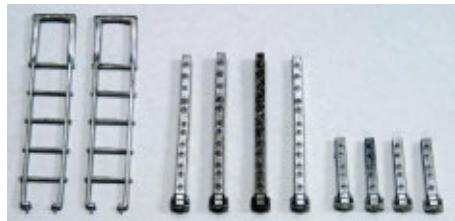


Fun & Games, P.O. Box 243, Jefferson City, MO 85102-0243 (www.scalefigures.com) has three new large scale figures from original masters by Joe Crea. The quality and overall appearance of our samples is very good and helps to round out the previously limited selection of large scale figures. The painted Seated Engineer, Standing Fireman, and Seated Workman cost \$18.00 each; a limited number of unpainted versions is available. The price is \$9.00 each.

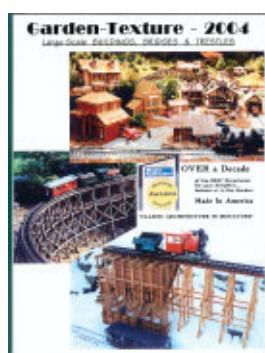
authorized reproductions of Frank Vietor's copyrighted *October Evening, Orbisonia* painting to encourage donations of \$50.00 or more. The print alone appears to be worth that price and the EBT urgently needs your support.



The Friends of the East Broad Top, c/o Henry Inman, 2016 A Park Avenue, Richmond, VA 23220 (www.febt.org) mark the third year of fundraising to restore the railroad by offering beautifully printed,



Garden-Texture, P.O. Box 690444, Charlotte, NC 28227 (www.gardentexture.com) has released a 34 page 2004 catalog of large scale buildings, bridges, trestles, and scratchbuilding supplies. It includes two dozen new items since last year's edition. The check or money order price of \$4.00 (U.S.) or \$6.00 (foreign) is refundable with your first order.



PRODUCT PORTRAITS

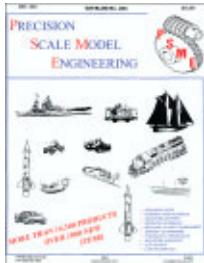


Stan Silverman, 23916 SE 25th Court, Sammamish, WA 98075 (www.StansTrains.com) has designed a computer software CD to convert common weights, measurements, grades, scale speeds, track curvature, figure size, and temperatures to their international or American counterparts. It even includes an interest calculator if you need a loan to buy an expensive model. The domestic price is \$15.00; in Canada it is \$16.50 (U.S. funds).

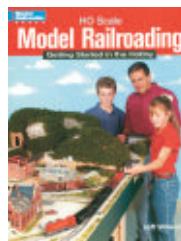


Deben LLC, P.O. Box 56, Somerville, NJ 08876-0056

(www.ModelingGuide.com) has issued a 2004 calendar featuring the best entries in their S/Sn3 Modeling Guide photo contest. The U.S. price is \$17.95 plus \$2.85 first class postage. International prices rise to \$22.95 plus \$5.50.

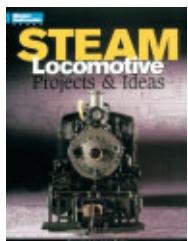
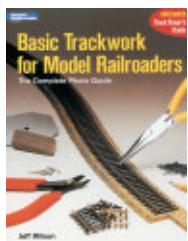
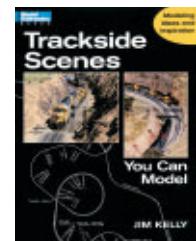


Precision Scale Model Engineering, 33 Harding Street, Milford, MA 01757 (www.psmescale.com) has sent a 2004-2005 catalog with 220 pages of modeling tools, materials, and supplies. The price is \$12.00 in the U.S., \$15.00 in Canada, and \$17.00 elsewhere (via surface mail) but \$12.00 is refundable when you place your first order. The catalog is an excellent resource and worth considering.



Kalmbach Publishing Company, 21027 Crossroads Circle, P.O. Box 1612,

*Waukesha, WI 53187-1612 has released five new 8.25 by 10.75 inch softbound books, each mostly in color and ranging from 80 to 96 pages: Tony Koester's *Realistic Model Railroad Design*; Jeff Wilson's *HO Scale Model Railroading: Getting Started in the Hobby*; Jeff Wilson's *Basic Trackwork for Model Railroaders*; John Pryke's *Steam Locomotive Projects and Ideas*; and Jim Kelly's *Trackside Scenes You Can Model*. Steam Locomotive Projects and Trackside Scenes cost \$18.95 each; the others are \$19.95.*



SMALL SCALE PRODUCTS



Kadee® Quality Products Company, 673 Avenue C, White City, OR 97503-1078 has an all new, ready-to-run, HO scale Pullman Standard two bay, 2003 cubic foot, PS-2 covered hopper. As is the case with their forty and fifty foot boxcars, the models continue to set a new standard for fidelity and overall quality. Our debut Clinchfield sample includes notched roof hatch covers, single rung stirrup steps, a Universal handbrake, and self centering A-3 Ride Control trucks. Other features include see-through Apex running boards and brake steps, complete underframe and

SMALL SCALE PRODUCTS



brake detail, extensive and complete end detail including an AB brake system, scale size couplers, and integral molded narrow draft gear box. Any detail larger than precise scale is intentional, to meet NMRA standards. Each model includes variations to match the era and specific attributes of its prototype. No model railroad product is of higher quality or more accurate. Kadee's covered hopper has an MSRP of \$38.95, comes in a limited number of each roadname, and earns our ultimate rating: It is beyond superb.



Bachmann Industries,
1400 E. Erie Avenue, Philadelphia, PA
19124 has a pair of gorgeous HO scale Spectrum® USRA steam locomotives. The first articulated their line, a 2-6-6-2, and a new heavy 4-8-2 offer detail and operational performance equal to or better than that of some brass imports. Each DCC ready model features a die-cast boiler and castings; injection molded plastic cab, tender, cylinders, and separately applied domes; exceptional detailing, fit, and finish; directional headlight; all metal valve gear, blackened or polished as per prototype; and detailed cab interior with sliding windows. Each sample operates beautifully with excellent, smooth slow speeds and

reasonable top speeds. Bachmann seems to improve upon every previous model; the current pair has almost nothing a reasonable person could criticize. The Mallet is available in three roadnames as well as painted-unlettered. Its MSRP is \$349.00. The Mountain is available in five roadnames and

painted-unlettered. Its MSRP is \$200.00. From overall appearance to specific



detail to operation, Bachmann's Spectrum® USRA Mallet and Mountain earn our highest rating. They are superb.



Life-Like Products, LLC, 1600 Union Avenue, Baltimore, MD 21211-1998 has sent samples of three outstanding HO scale products.

The ready-to-run Proto 2000 GP38-2 features the appropriate brake for the model's prototype: standard dynamic, extended range dynamic, or no dynamic. The standard Bettendorf or high adhesion truck sideframes also match those of the prototype as do early or late roof air filter boxes, radiator grills and roof fan spacing, the inclusion of drop steps, and the size of the fuel tank. Each model includes a package of eighteen such detail parts as footboards, snowplows, sunshades, wind deflectors, and m.u. boxes. The number boards illuminate and the headlights are directional. Nearly every detail is present down to sanding lines and alternator cables. As always, the paint scheme and graphics of our sample are superb and the finish includes such subtle weathering as matte finished walkways and lightly dusted air filter screens. Models are available in two road numbers each of eight road-names as well as undecorated. Our sample's operation is superb, especially at slow speeds, very smooth and quiet, and the locomotive can negotiate 18 inch radius curves. The MSRP is \$135.00 each. The Proto 2000 GP38-2 earns our highest rating; it is superb.





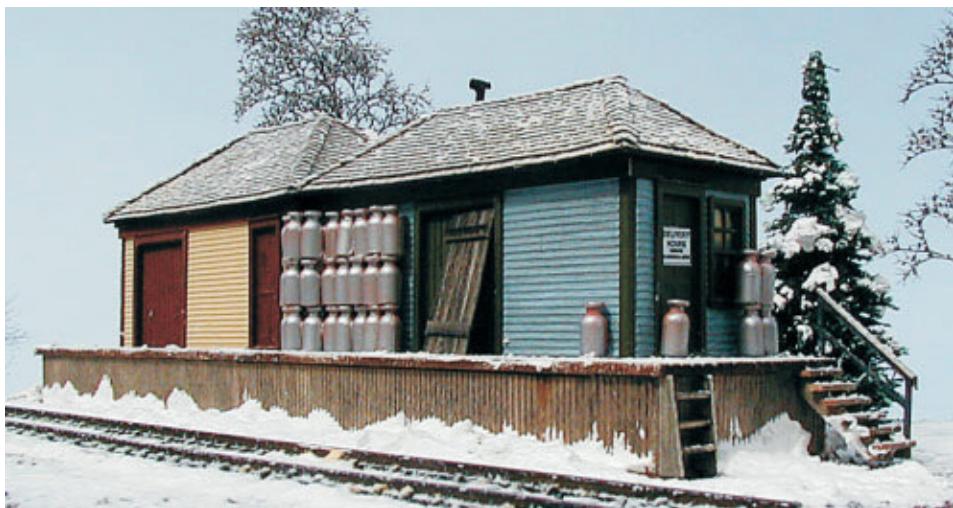
Proto 1000's new ready-to-run Alco RS11 combines dual flywheels, eight wheel electrical pickup and drive, directional lighting, and substantial pulling power with excellent accuracy, detail, and finish. The locomotives are available in two numbers each of nine roadnames as well as undecorated. The MSRP each is \$95.00. Our sample combines outstanding slow speed performance with a reasonable top speed and runs very quietly and smoothly. It is an outstanding product in every respect.



in two numbers each of six roadnames as well as undecorated. The MSRP is \$17.00 each. They are excellent models.

Bollinger Edgerly Scale Trains, 45 Gilmore Street, Quincy, MA 02170 (www.besttrains.com) has released an HO scale kit of the Lisbon, New Hampshire milk shed as it appeared in the early 1900s. It consists of laser cut wood; injection molded doors, windows, and detail parts; and retails for \$49.95 plus \$4.50 postage per order. B.E.S.T. also has an HO scale kit of New Hampshire's Portland & Ogdensburg Sawyer's River depot for \$54.95 plus \$4.50 postage per order.

Finally, Proto 2000 now offers the previously available Mather stock car as a partially assembled "one hour" kit. As did the original model, the current kit includes Andrews or AAR trucks to match those of the prototype, blackened metal wheelsets with raised lettering, and Proto 2000 magnetic knuckle couplers. The models also feature closer to scale diameter handrails and grab irons along with the lines' always superb paint and graphics. Double- or single-deck kits are available as appropriate



IN SEARCH OF THE ULTIMATE LAYOUT

PEOPLE, PICTURES, AND PUBLICATION

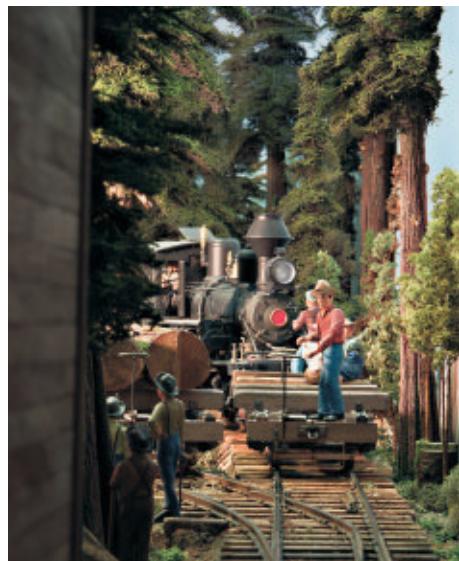
I HAVE JUST returned from shooting four layouts in Houston, my third such photo excursion in as many years. Now that **FINESCALE RAILROADER** comes out four rather than six times per year, I enjoy the luxury of visiting and photographing some of the finest narrow gauge and industrial layouts in the country.

Our first trip was to the San Francisco Bay area where I documented Dave Adams' On3 Rio Grande layout, Don McKenney's On3 logging line, and a 1:20.3 West Side Lumber Company enginehouse diorama by Bob Poli and Mike Gray. Last year we went to the Washington, D.C. region to shoot six layouts. The builders are Gordon North (On30), Larry Nyce (Sn3), Andrew Dodge (On3), Dick Patton (On3), Steve Sherrill (On30), and Bill and Mary Miller (On3 and On30). Half of those already have appeared in the **NARROW GAUGE OR LOGGING, MINING & INDUSTRIAL ANNUALS**.

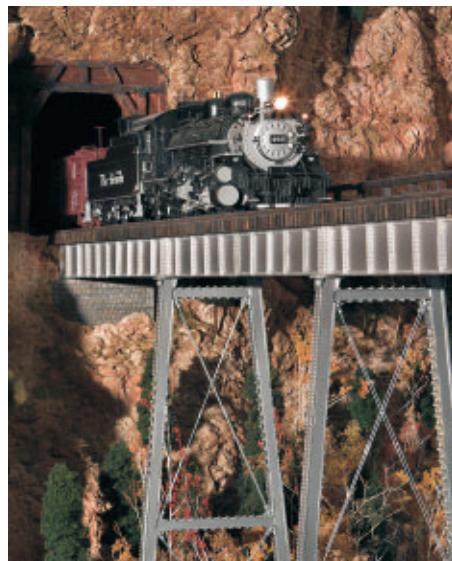
In Houston, I shot photos of Craig Raymond's Sn3 Rio Grande Southern layout, Gil Freitag's famous HO and HOn3 Stony Creek & Western, Barry Bogs' 1:22.5 scale indoor D&RGW layout, and Rich Schiffman's 1:20.3 scale indoor logging line. I also visited an excellent On3 layout by Craig Brantley still in the benchwork and roadbed stage. Each of our hosts has been gracious, generous, polite, intelligent, talented, creative, and generally fascinating.

For some reason, participants attending the National Narrow Gauge Convention voted down Houston's bid to host the 2006 convention. That is a shame because the layouts I visited, and a couple I was unable to photograph, are among the finest in the United States. And model railroading seems to be expanding in that area. New hobby shops have opened and modeling activity reportedly is brisk.

I hope the photos below will suggest a little of what you may expect to see in upcoming **FINESCALE RAILROADER ANNUALS**. Mostly because of the people I have met, it has been much more fun than work to shoot them.



Above: SCHIFFMAN

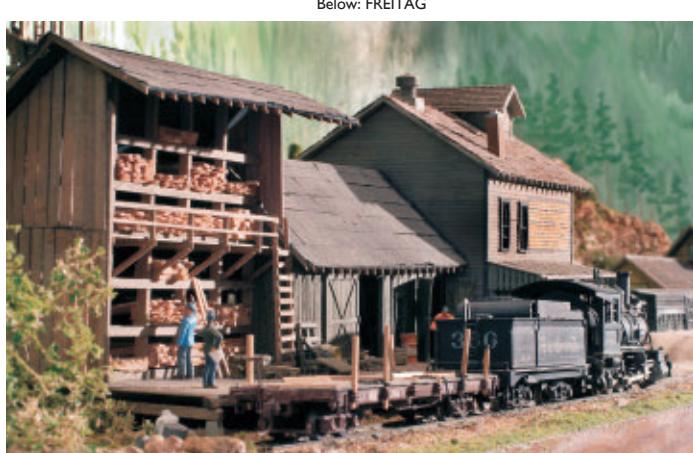


Above: BOGS

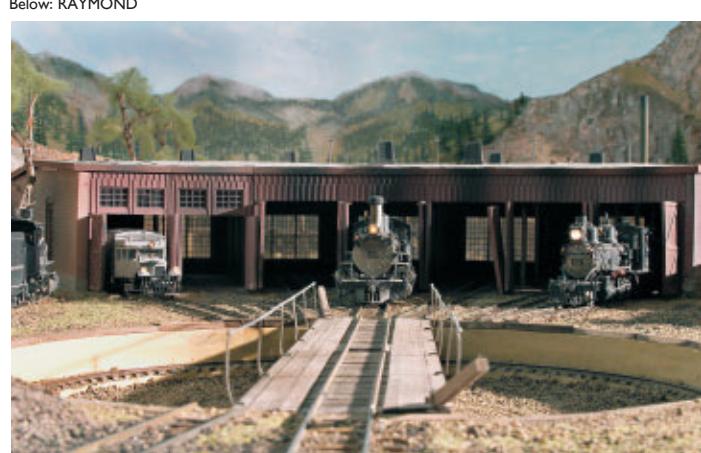
Uncle
Kris



Above: MILLER



Below: FREITAG



Below: RAYMOND

OVER THE TEN years between 1916 and 1926, the Pennsylvania Railroad constructed 238 Class B6sb steam switcher locomotives. Their wheel arrangement was 0-6-0 and you could find them in major freight and passenger yards or in branchline service. Pennsy management liked the switchers because they negotiated the tightest industrial curves and exerted over 36,000 pounds of tractive effort. Throughout both world wars, they operated nearly everywhere on the Pennsylvania Railroad system.

Between the late 1940s and early 1950s, the B6sb Class slowly disappeared from service. A single leased B6sb switcher continued steaming as late as 1959 in New Jersey. But only one B6sb survives today. It is on display at the Railroad Museum of Pennsylvania in Strasburg.

Since the B6sb is among my favorite steam switchers, I decided to scratchbuild one in 1:29 scale. Construction was mainly from styrene, brass, and wood. An HO scale model provided the dimensional information and construction design.

I began with the cab; I built it from styrene and it went together easily. Then I built up the boiler, also from styrene. It was necessary to scratch-build such details as the power reverse, air pump, pop valves, whistle, headlight, and numerous other boiler details. All rivets are Micro-Mark Mini Nails, each in its own predrilled hole. I made each of the three separate



A PENNSYLVANIA B6SB SWITCHER

LARGE SCALE SCRATCHBUILDING

BY GARY MITTNER
PHOTOS BY THE AUTHOR
1:29 SCALE

boiler courses individually, joined them together, and attached the subassembly to the cab-firebox assembly.

With the boiler nearing completion, I turned my attention to the chassis. The first job was the pilot. The pilot on the full size locomotive had a wood beam and steel hardware. My model also has a wood beam; styrene represents the steel parts. The chassis itself was the real problem. It had to be true and square for the model to work well. The initial plan was to

build a heavy styrene main frame. When the model's operation proved less than satisfactory, I asked another modeler, Larry Cooper, to machine a new chassis from solid steel bar stock and drill holes for the axles. The new metal chassis provides the additional weight and precision necessary for smooth operation. Styrene frame overlays hide the inner steel block.

Next I used styrene and brass to build up the steam chest and cylinders. I drew and cut the front and back faces, then moved on to the cylinder heads. The crossheads and guides are brass; the valve gear rods are styrene. Once they were in working order, I filed them to shape and size. It also was necessary to make the two air tanks beneath the cab, build cab steps, and to complete the rear of the frame. That finished the main chassis construction.

The B6sb drivers are from a Bachmann 4-6-0 Big Hauler. While they scale extremely close to the prototype's 56 inch diameter wheels, they are imperfect: First, they have only eleven spokes rather than the proper fourteen. I felt the work necessary to rebuild them was too





great. The oversize counterweights are the second problem. Again, because of the drivers' design, I was unable to improve their appearance.

I pressed lengths of brass tubing into the steel chassis block to serve as axle bearing sleeves. When I inserted

employ modeler's license; I installed a pair of Aristo-Craft freight car trucks.

After working part time on the B6sb for over a year, I painted the model and applied decals. While the photos appear to show a completed model, such details as the backhead



the axles, the mechanism ran very smoothly and freely.

A large can motor hiding in the firebox and a Northwest Shortline gearbox on the rear axle provide a smooth, quiet, powerful mechanism. I fashioned side and main rods from brass. The valve gear is a combination of parts from an Aristo-Craft 0-4-0 and scratchbuilt styrene pieces.

Finally, I built up the tender. Again, varying thicknesses of sheet styrene were the primary construction materials along with hundreds of individual Mini Nail "rivets". I chose to model a version of the B6sb tender with a coal bunker and wooden extension boards to give the model a little more character and detail. Proper B6sb trucks are unavailable in 1:29 scale so again it was necessary to

and tender underframe remain incomplete. Someday I will add the missing parts but, for now, I am very satisfied with my first attempt at scratch-building a 1:29 scale Pennsylvania Railroad switcher.

PARTS

Evergreen sheet styrene (0.010-, 0.020-, 0.030-, 0.060-, and 0.080-inch)

Evergreen styrene angle, half round, strips, and tubing

K&S brass angle, rod, tube, and copper sheet

#1431 Micro-Mark Mini Nails (approximately 1,700 pieces to simulate rivets)

Aristo-Craft 0-4-0 switcher for domes (modified), generator, bell (modified), valve gear, stack, and ART-29101 freight trucks (modified)

Bachmann Big Hauler 4-6-0 drivers
Kadee® 820 couplers

I also want to mention the Gallery of Trains in Miami Florida. The owner, Bill Box, offered some special PRR detail parts including rivets, hex head bolts, nut-bolt castings, PRR coupler lift brackets for the tender, and great looking PRR "claw foot" markers for both locomotive and tender. Other available parts include PRR handrail stanchions and smokebox front.

Note: Gary Mittner is a Modeling Committee advisor for the Pennsylvania Railroad Technical and Historical Society. Their website address is <http://www.prrth.com>.



PHOTOS



Gary Nichols, from Brandon, Florida extensively modified a 1:20.3 scale Bachmann outside frame 2-8-0 into a fictitious RGS "C-20, Number 355". The most noticeable changes include Accucraft Trains C&S snowplow, K-27 classification lights, smokestack, tender doghouse, and couplers. A Trackside Details headlight bracket repositions the light. Gary reversed the position of the bell and sand dome. Trackside Details also provided the sand dome lid and cab arm rests. Ozark Miniatures details include boiler steps, auto-ringer bell, tools, number board, plow brackets, drains, and gladhands. Precision Scale Company made the lagging clamps and automatic firebox door. The crew is from SLM.



Gary lowered the tender, added safety chains, and raised and shortened the coal load to accommodate the doghouse. He also lowered the backup light. Other details include Trackside Details rerail hooks, Ozark Miniatures rerail frogs and brake-wheel, and a Tomar rear classification lamp. The decals are from Larry Larsen.



Andreas Becker, from Hagen, Germany extensively modified a 1:22.5 scale LGB Colorado & Southern Mogul and rolling stock to create a credible train from the 1930s. It operates on a modular layout with handlaid rail and individual wooden ties.



Andreas replaced most of the locomotive's details with commercial metal castings from Trackside Details and Ozark Miniatures. He repainted the rolling stock and weathered each model with an airbrush and powdered pastel chalks. Andreas also shot the photographs and digitally enhanced the images.

PHOTOS



Dwight Ennis, from Milpitas, California writes, "Here is a 1:20.3 scale backwoods sanding facility I finished last August. I scratchbuilt it from scale lumber I cut myself. I based the design on a Sequoia O Scale kit. A scratchbuilt water tank will replace the plastic kit in the background and one or two small logging bunk houses on skids will complete the scene."



Bill Welsh, from La Luz, New Mexico photographed a long freight train crossing the trestle on his outdoor layout. The locomotives are from Accucraft and the freight cars from Hartford Products. Bill modified and weathered all the models.



FINESCALE RAILROADER's Mac McCalla received one of Aristo-Craft's first 1:29 scale GE Dash-9 models. Mac has added detail to the pilot and trucks along with light weathering.



PHOTOS



Ed Morris from Richmond, Virginia photographed Memaw Creek Lumber Company Climax Number 4 shunting a water car at the company's logging camp. He created the image on an indoor diorama with a 1:20.3 scale Bachmann locomotive and an LGB tank car.

Ed also enhanced a trio of 1:20.3 scale Bachmann side dump ore cars following suggestions by Gary Watkins and Dave Watters in the March 2000 **FINESCALE RAILROADER**. He distressed the sides and hand painted the models with Polly Scale railroad colors.



KITBASH

A

WATER CAR

INEXPENSIVE AND REALISTIC

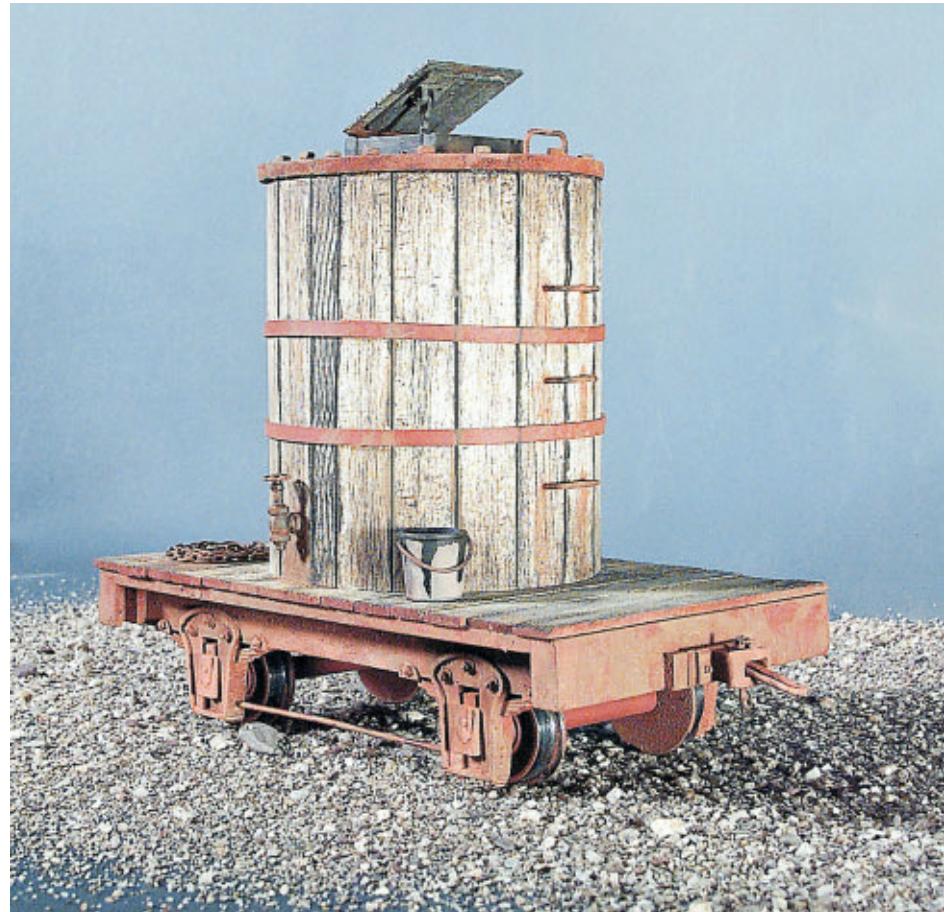
BY CHRIS ROGERSON
PHOTOS BY JOHN O'BRIEN
1:20.3 SCALE

SOMETIMES THE LEAST likely subject may result in a surprisingly good model. You just need enough imagination to realize it. For example, I found a very inexpensive Hartland Locomotive Works "Mini Series" large scale kit, with a few modifications, easily converts to a credible 1:20.3 scale industrial water car. My approach involved nothing more than trial and error and common sense. In a matter of hours, the project was ready to enter in the 23rd National Narrow Gauge Convention model contest.

THE CAR BODY

I chose the gondola as the basis for my kitbash but Hartland's flatcar might be a slightly better choice since all in the series have the same plastic underframe. I removed the molded details and cut down the coupler mounting brackets with a Dremel motor tool and #11 hobby knife. I removed any trace of flashing from each surface, assembled the car, and installed Ozark Miniatures link-and-pin couplers.

I painted the model with Oxide Red spray primer (available from Wal-Mart for less than a dollar). It dried in the Arizona sun for 45 minutes before I wet sanded the car. I applied a second coat of paint the next day.



Popsicle sticks cover the flatcar deck. I also replaced a section of the flooring with $\frac{1}{16}$ -inch thick basswood to represent a repaired section. I cut the planks to slightly different lengths to achieve a rustic effect and lightly scored each with two different razor saws and the #11 knife blade. I kept it subtle, though, to represent a recently rebuilt older flatcar, something many logging and mining companies did to save money and extend the life of their rolling stock. I used Xtream3 Bondini CA cement to fasten the planks and detail parts.

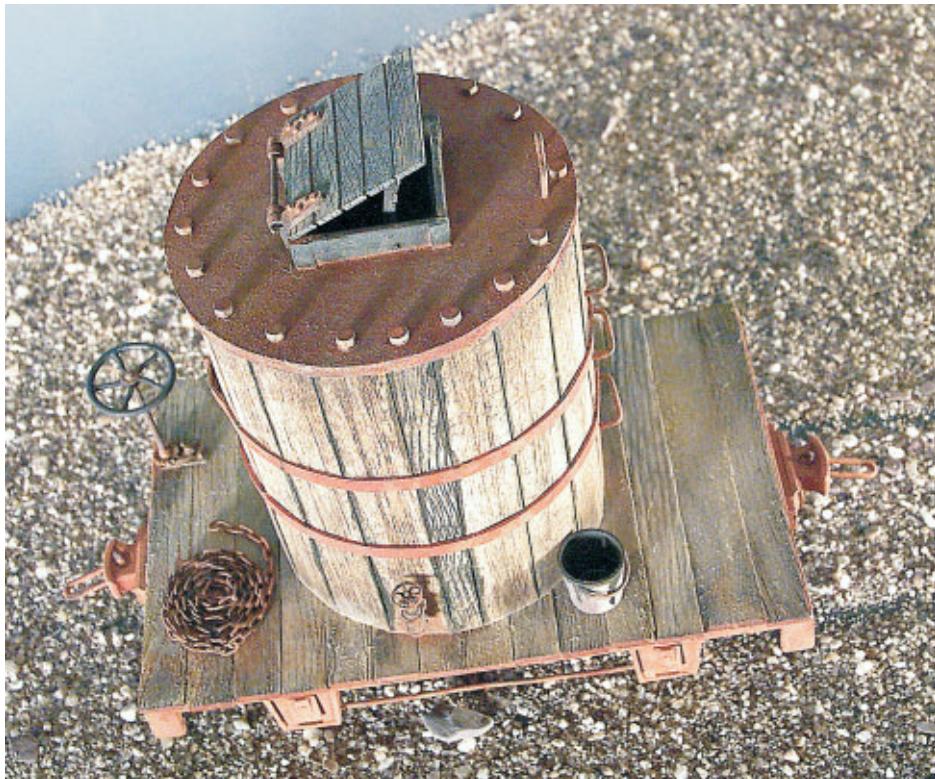
Before adding the blackened metal wheelsets, I decided the water car needed additional bracing. I found

some brass rod in my scrap box, drilled a small pilot hole through each journal box, and cut two rods to fit. Once the rods were in place, I lightly sprayed them Oxide Red. The rods seem to give the car a little more character.

THE TANK

Finding tubing of suitable diameter for the core of the tank was difficult; the flatcar is so small, it has limited space for a water tank. I tried soda, peach, and potato chip cans. Nothing worked until a trip to Home Depot turned up a PVC sprinkler system coupling sleeve. (I had walked nearly every aisle, fitting different cylinders onto the plastic car body, hoping for a





PARTS

Hartland Locomotive Works "Mini Series" 15,000 gallon gondola kit
 Popsicle sticks and $1/16$ -inch thick basswood floor planks
 Blackened metal wheelsets
 Ozark Miniatures
 OM-06EB link-and-pin couplers
 OM-119 (alternatively OM 141 or OM-141-2) tank car hatch
 OM-127 boiler check and stop valve
 OM-12 brakewheel and lock paw
 OM-79 water bucket with brass handle

good fit and aesthetically pleasing appearance.) I purchased two sleeves, glued one above the other with CA and, the following day, spray painted the cylinder Oxide Red.

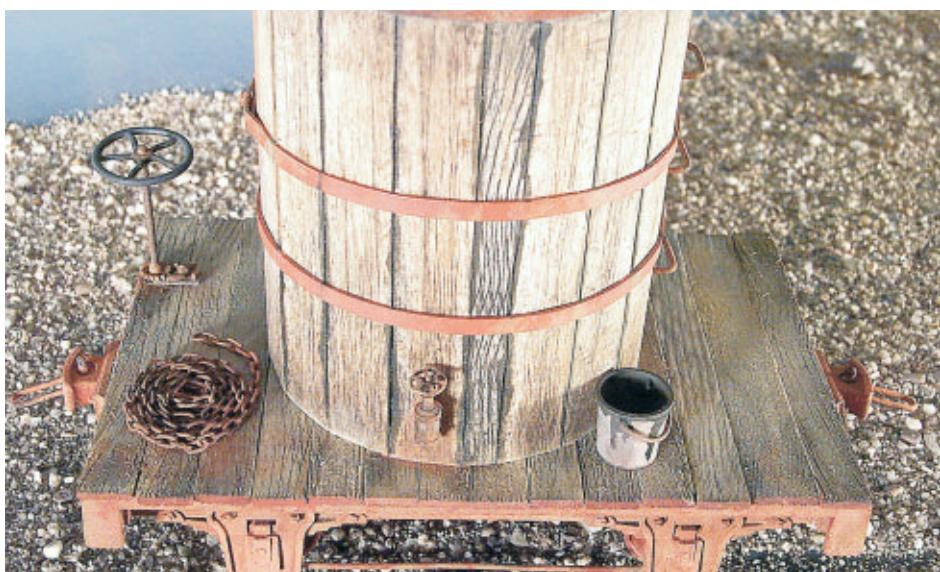
I cemented $1/16$ -inch thick basswood strips and one Popsicle stick (to represent a recent repair) around the PVC cylinder, sanded it, and applied walnut stain to the wood. I rubbed off most of the stain with fine steel wool and sandpaper, then weathered the tank with a wire brush until barely any stain was visible and some grain had appeared. Then I applied Polly Scale Oil Black between the boards to represent tar sealant.

Shaping the tank lid proved the most difficult step of construction. I ended up making the lid from some old $3/8$ -inch wide stripwood on my workbench. I cemented the planks edge to edge and filed and sanded the assembly to shape. Finally, I added Micro-Mark #1 by $3/16$ -miniature lag screws to the water tank roof by drilling pilot holes through the wood and into the plastic PVC sleeve. I applied a drop of CA and slowly and gently seated each screw.

Evergreen #136 (0.030- by 0.125-inch) styrene strip simulates the metal tank bands. I painted the bands the same color as the car body and glued them in place with CA. I installed Micro-Mark miniature lag screws so the straps would appear bolted to the tank.

The ladder is from the same brass rod I had installed for the underbody bracing. I held one end with pliers, bent the rod 90-degrees, and sighted the next bend until the steps looked good. I blackened picture wire and solder to represent industrial hose and cannibalized some brass parts from a cigarette lighter to represent nozzles and inlet plumbing.

I weathered the model with a solution of 99-percent isopropyl rubbing alcohol and powdered pastel chalks. A dilute solution of India ink and 99-percent isopropyl rubbing alcohol colors some planking and the tank. An Ozark Miniatures water bucket was the final addition to the model.





GAS MECHANICAL LOCOMOTIVES

A PLETHORA OF PORTRAITS

BY RUSS REINBERG
PHOTOS BY THE AUTHOR

1:48 SCALE

DAVENPORT LOCOMOTIVE WORKS, in Davenport, Iowa, built locomotives between 1902 and 1956. In 1950, after nearly half a century of producing its own line of steam locomotives, Davenport acquired H. K. Porter Company and added that manufacturer's designs to its catalog.

Davenport's first gas mechanical locomotive appeared in 1924 and its first diesel in 1927. In the early 1930s, the company was a pioneer manufacturer of small diesel-electric locomotives. Its line ranged from 4 ton gas mechanicals to 112 ton diesels and ultimately proved quite successful. Industries of all kinds purchased the engines.

Commercial railroads also bought Davenport locomotives. Its 44 tonners were the most popular because that was the heaviest locomotive union rules allowed one man to operate. The major railroads owning Davenport diesels included the Rock Island, Milwaukee Road, Santa Fe,

Frisco, and Missouri Pacific. Davenport also built a number of locomotives for the United States Army during and after World War Two. In 1963, a narrow gauge Davenport diesel-mechanical from the Sumpter Valley Railroad became the Rio Grande's well known 0-4-0 Durango switcher Number 50.

Our photos show Bachmann's new On30 Davenport gas mechanical. Most such locomotives lacked side rods, as does the example from the company's *circa* 1923 catalog page (courtesy of **FINESCALE RAILROADER** contributor Richard May). Brad Smith's long running *Industrial Railroading* series included two photos of derelict Davenports, one in our September 1996 and the other in our November 1996 issue. Each had lost its side rods and neither is very similar to Bachmann's later vintage model. Bachmann's Director of Product Development, Lee Riley, chose to produce a Davenport catalog model with side rods because



1923 DAVENPORT CATALOG COURTESY OF RICHARD MAY.

many hobbyists prefer that design.

The following pages will show a few modified Bachmann Davenports and a couple of freelance "critters". If you have customized a Bachmann model, please send us an image or two.

Right. Bruce Dombey from Portage, Indiana writes, "More critter mania here in the Indiana dunes." His latest locomotive modification is of a Bachmann On30 Davenport. **Below.** **FINESCALE RAILROADER**'s Mac McCalla simply weathered his model of the same engine.





CRITTERS LARGE AND SMALL

BY ALLEN K. LITTLEFIELD

PHOTOS BY THE AUTHOR

1:48 SCALE

ONLY A FEW years ago, if you modeled in On30 and wanted a small industrial locomotive, you could purchase a Grandt Line 5 ton Plymouth or modify an HO scale diesel. The choices certainly are greater today!

Dallas Mallerich, of Boulder Valley Models, has produced a line of fine cast resin kits and parts for the On30 industrial railroad crowd. His creations significantly have expanded the opportunities for freelance kitbashing. The



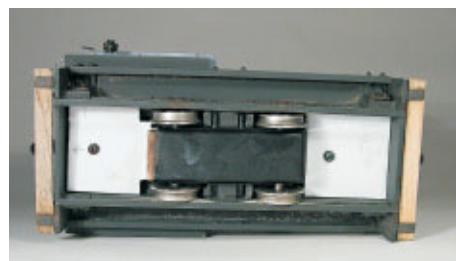
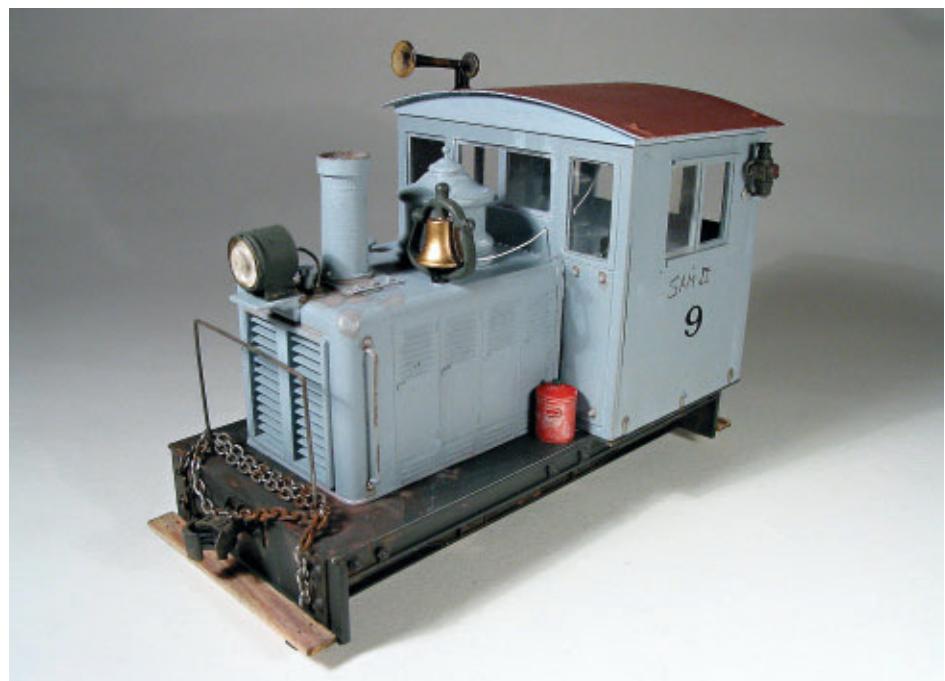
"Mighty Midget", for example, utilizes a single power truck from an HO scale Bachmann 44 ton diesel. I built the model and customized it (I cannot leave anything stock) by extending the hood and adding a sand dome and some detail parts.

When it was complete, I realized it was possible to build a slightly larger critter from the same (albeit enlarged) chassis and power truck. I found the superstructure from an HO scale Athearn "Li'l Hustler" at the West Springfield Train show last year in one of those wonderful "junk boxes" everyone seems to have under his table.

I carefully cut away the hood from the floor and cab. I fitted a large BVM cab to the hood and mounted it on the larger floor and chassis. The cab roof is removable for interior detail work. S and O scale detail parts were the final touches. The photos illustrate my modifications and anyone with basic kitbash experience should be able to see how I built the model.

Sam Barbose, from northeast Pennsylvania, also has modified a Boulder Valley kit into a wonderful model. It is what inspired me in the first place. Sam's model is on the BVM website among the Gallery photos along with work by a number of other fine modelers. I named my critter "SB-II" in Sam's honor.

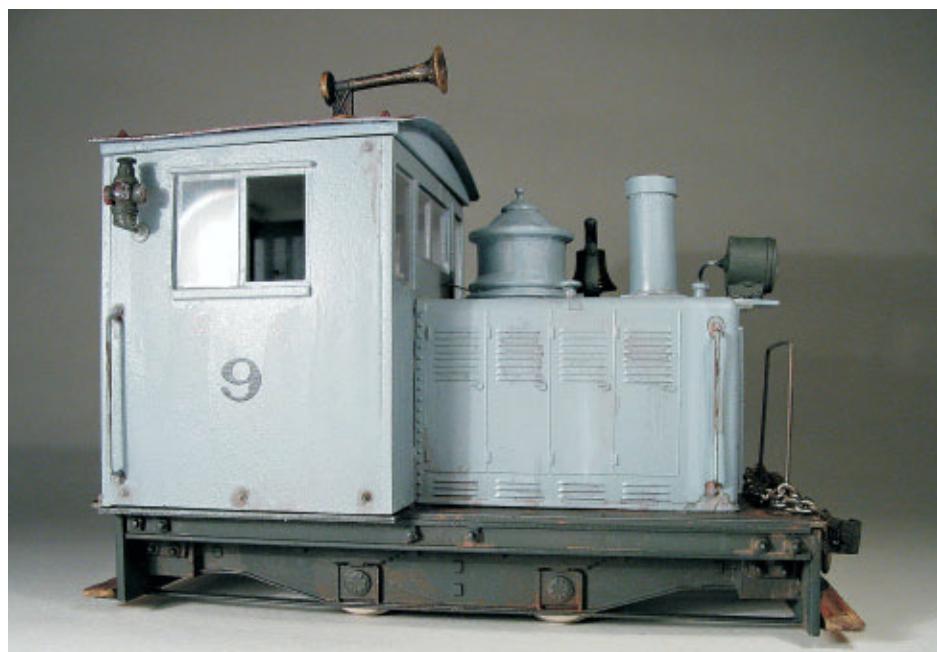
With Bachmann's new On30

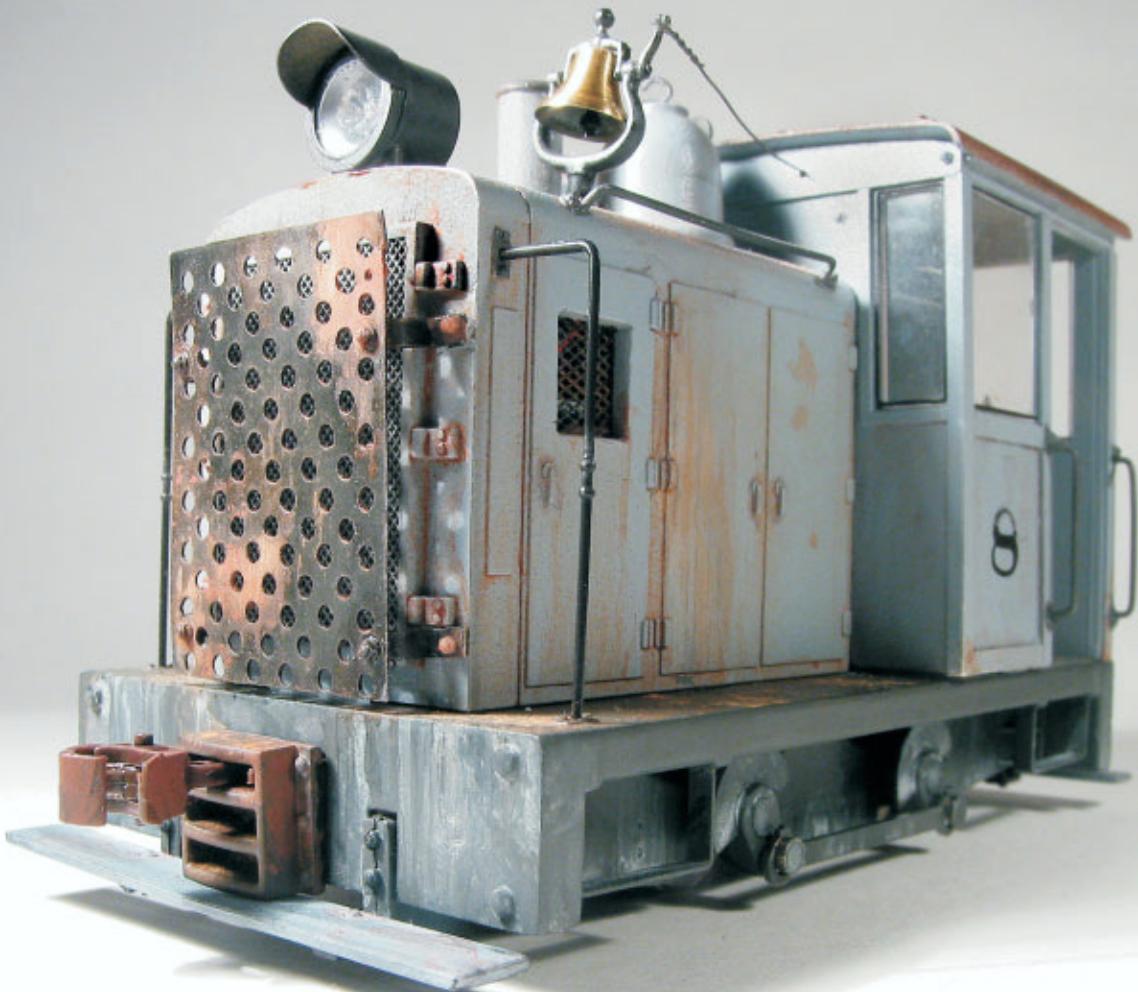


critter, the BVM options, and an HO scale Model Power switcher that easily modifies to On30, the O scale industrialist can build quite a roster.



The photos on this page show a modified HO scale "Li'l Hustler" superstructure on the same chassis as the model on the opposite page.





MODIFY THE DAVENPORT

BY ALLEN K. LITTLEFIELD
PHOTOS BY THE AUTHOR
1:48 SCALE

BACHMANN'S On30 DAVENPORT "Critter", an 0-4-0 side rod gas mechanical diesel locomotive, seems to replicate a 10 ton switcher Davenport exported to Puerto Rico for the Carmen Centrale, Vega Alta. I gleaned the information from *Critters, Volume 2* by James S. Eakin.

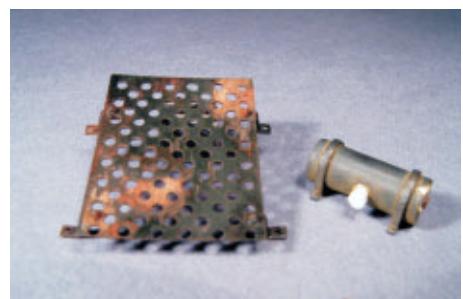
Since the undecorated example I bought has a distinctly bland appearance, I somehow had to make it my own. It certainly needed a sand dome as all my other critters have them so I added a Grandt Line 8 ton Porter dome. Any number of large HO or S scale sand domes would work as well. I also built up a perforated grill guard from thin styrene and made retaining brackets from strap brass. I weathered the assembly before installing it on the model.

Next came a small auxiliary gas tank I cobbled up from my centuries old collection of detail odds and ends. I hung

the tank from the back wall of the cab. I replaced the headlight with one from my Bachmann On30 Shay since it has the same two contact prongs as the one on the critter. Besides, I like the visor. The bell also is a Grandt Line product with a fine wire ringer rope.

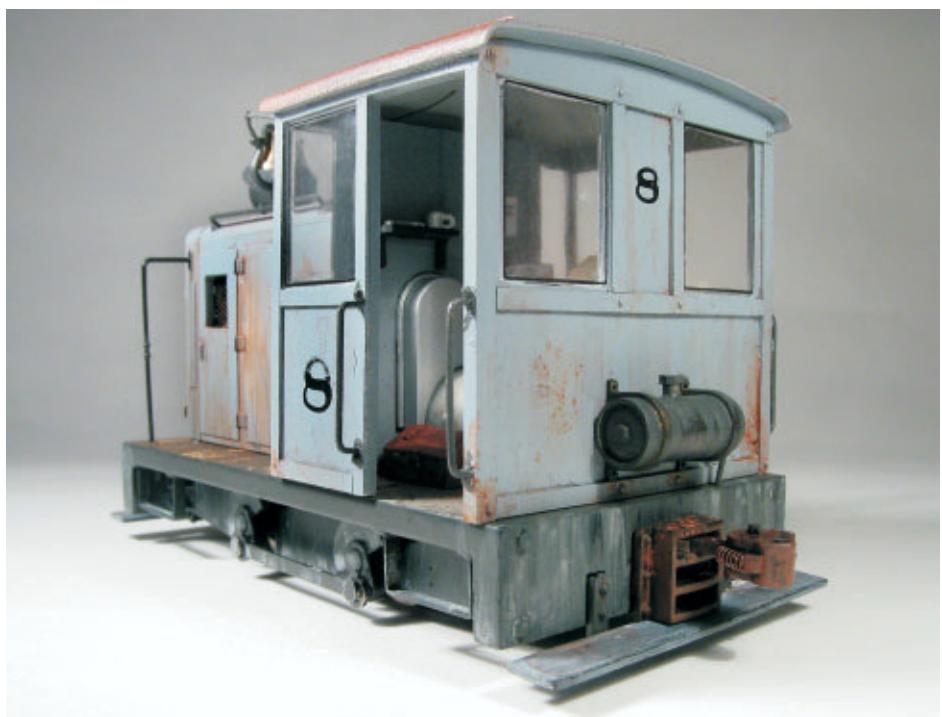
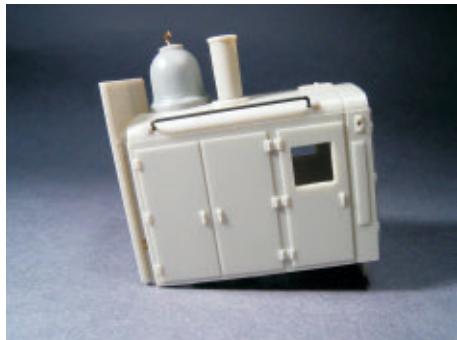
I opened two vents on the hood and added screening to the first access doors on either side. I also added handrails along the upper edge of the hood and grab irons to the cab after outlining the cab with thin styrene strips. That helped to reinforce the area around the rear cab wall so my carefully drilled holes would accept nut-bolt-washer details and 0.020-inch diameter wire.

The cab comes with wonderful details including a nice swivel chair, a panel with gauges, and a brake control pod. I added a shelf with a coffee cup, an open end wrench, a bulletin on the firewall, a toolbox on the floor, and a horn



on the roof.

I painted my model with Dove Gray primer from spray can; the roof is Boxcar Red. I placed only one toolbox on the right side running board and was conservative with the clutter we often see festooning critter models, preferring to let the weathering become the focal point. I think I the little wretch now better represents my railroad's personality and fits well with my four other critters.







INDUSTRIAL SIZE CABOOSSES

LARGE SCALE AND SMALL



A FOUR WHEEL MINING CABOOSE

BY RICHARD SCHMITT

PHOTOS BY GARY NICHOLS

1:20.3 SCALE

SEVERAL YEARS AGO, FINESCALE RAILROADER had photographs of a handsome little 1:20.3 scale tool car by Gary Watkins, the owner of Sierra Valley Enterprises. It was the prototype for a new model in his line of Munger Mining rolling stock and seemed to be just what I wanted for the caboose on my own Eureka Mining Company industrial line. I sketched out plans from the photos of Gary's model and scratchbuilt my own 1:20.3 scale version. I fabricated my model prima-



rily from distressed basswood along with some brass rod and strip, a collection of Ozark Miniatures detail parts, and Kadee® couplers I modified to fit link-and-pin drawheads.

I constructed the caboose board by board including the underframe, cabin walls, sliding side doors, and personnel door. I installed a complete handbrake system under the car. I also scratch-built such details as a padlock, handrails, crowbar, and roof vent. The figure is from SLM.

I stained the exterior boards with a



mixture of Floquil Cherrywood and Red Oak stains. The interior is Cherrywood alone. I covered the scribed wood roof

with cloth tape, painted it Floquil Engine Black, then applied washes of Roof Brown and Weathered Black. I

weathered the exterior with the same washes and with my own rust colored paint mix. The lettering is dry transfer.

LOGGING CABOOSE 02

BY JERRY SHEEHAN
PHOTOS BY THE AUTHOR
1:22.5 SCALE



THE STARTING POINT for my 1:22.5 scale logging caboose was an LGB work shed car. I suppose, if my crew were of modest height or if they were to stoop, the model could qualify as 1:20.3 scale but that might be giving it undue credit.

Construction mostly involved adding details but did require a little initial modification: I moved the closed end of the cabin forward, flush with the end of the underframe and sheathed the door on the opposite end with wooden coffee stir sticks. I removed the existing door steps along with every other rivet from the corner braces. Then I detailed the deck boards by scribing in separations, grain, and chips; similarly distressed the side and end sills; and installed a full cabin interior.

The model's scratchbuilt exterior assemblies include brake rigging and coupler cut levers. Interior scratchbuilt details consist of window seat boxes, a conductor's desk, a water barrel and rack, a coal box (with real coal), and a 55 gallon drum stove and flue.

Here is a list of the commercial detail parts on the model:

USA Trains couplers modified to mate with link-and-pin couplers
 Ozark Miniatures
 Grab irons (including straightened grabs for the door ends)
 Re-rail frogs
 Chain binder
 Door knobs
 Crescent wrench
 Trackside Details corner steps
 Precision Scale Company
 brakestaff bracket
 Russ Simpson brake staff ratchet
 Ryan Equipment Company brake beams and brakeshoes
 Dean Lowe metal wheelsets
 Model Shipways chain and hooks
 Little Railways worn broom
 Bachmann figures
 Miscellaneous dollhouse items:
 Coffee pot and cups
 Kerosene wall lamp
 Spittoon
 Marilyn Monroe calendar and pinup pictures
 Chair

I finished the model with a variety of spray paints and washes. The cabin exterior has a base coat of gray auto primer with red and black washes. The

cabin interior has a coat of light green acrylic. The deck is gray auto primer with a wash of dilute India ink. The side and end sills have a coat of gray auto primer with a wash of dilute

brown ink. I sprayed the underframe and wheelsets with Krylon® Ruddy Brown primer. The roof is tissue paper I brush painted flat black to represent tar paper.





MODIFY A BACHMANN CABOOSE

BY JIM ELLIS
PHOTOS BY THE AUTHOR
1:48 SCALE

I LIKE CABOOSSES. When I was young, my father used to take me along when he ran errands in town. The Southern Pacific

mainline was near our house and, when a passing train caused us to stop at the railroad crossing, my dad always hailed the arrival of the caboose. I grew

up thinking there must be something special about that unique last car. Later, when I obtained a driver's license, I finally realized the real reason my dad was always so happy to see the caboose pass by.

While the overall appearance of Bachmann's stock On30 caboose never really appealed to me, it did seem to have great kitbash potential. I needed at least two cabooses for my Cascade Creek mining railroad so I bought a couple of Bachmann models and decided to alter their appearance. I wanted both an "ordinary" and a "drover's" caboose, the latter to haul a few passengers and some baggage or freight. I decided to build the drover's version first.

I began by disassembling the model into four subassemblies: Roof, body, interior, and frame. The frame seemed to be the easiest to modify so that is where I started work. I used diagonal pliers to cut down the HO scale



coupler mounting blocks and the mounting bosses on the truck bolsters, then filed the areas smooth. To ensure the coupler pads and bolsters were flat and level with the frame sills, I used a Dremel flat bottom cutter to mill them on my shop drill press. I attached Kadee® 803 On3 coupler boxes and airbrushed the frame with Polly Scale Grimy Black. I used a few thin shims to install San Juan trucks to my adopted coupler height standard.

I worked on the roof next by removing the cupola and filling the resulting hole with 0.040-inch thick styrene sheet. The

cupola looked disproportionately long so I shortened it by two scale feet. Using the reworked cupola as a template, I marked the roof and cut a new hole to align with the end wall of

the body. I enlarged the cupola window openings to accept Grandt Line caboose cupola window frames. I simulated tar paper roofing by applying tissue paper to the roof surfaces

and using Grimy Black paint as the adhesive. I then installed the pre-painted windows along with a Coronado Scale Models lantern box on the cupola roof. The new roofwalks are styrene strip.

The interior was the third assembly to modify. I cut the original interior into thirds, discarded the two outer sections, and repositioned the center cupola section to align with the relocated cupola. I made a new floor from scribed styrene and new passenger bench seats from styrene strip. The original potbelly stove now sits near the new seats.

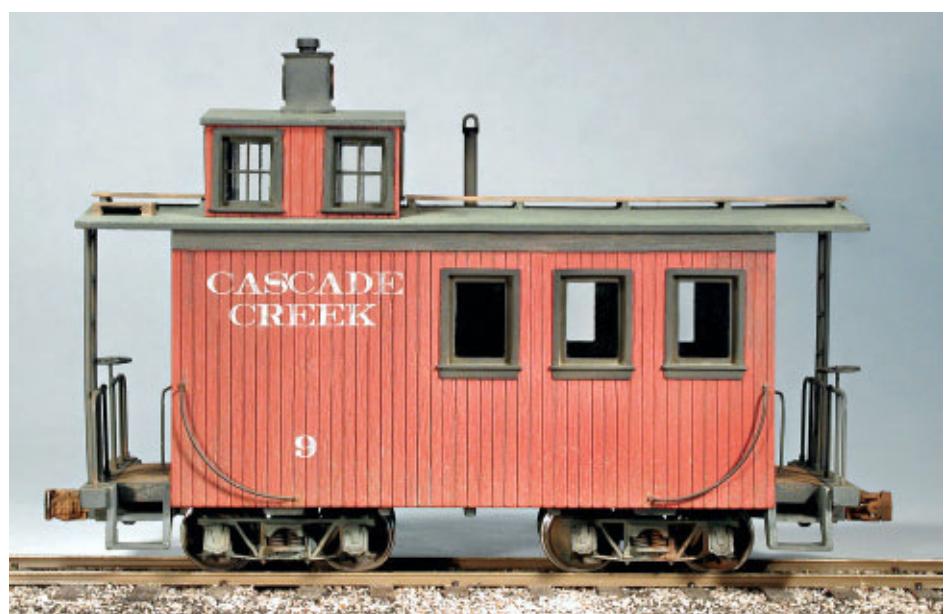
I created the drover's caboose side walls by cutting openings in the middle of each side and installing





Grandt Line baggage doors. Some of the resulting scrap material now plugs one window on each side. I enlarged the other original window opening, cut additional openings for Grandt caboose side window frames, and added two more windows to the passenger end of the car.

I scratched wood grain into all the exterior body surfaces with an X-Acto number 11 knife blade, removed the fuzz with a Scotchbrite® pad, air-brushed the body with a base coat of Polly Scale SP Lettering Gray, and allowed the model to dry thoroughly. The color coat is a mixture of two parts Polly Scale Rock Island Maroon and one part Caboose Red. As soon as the paint was dry to the touch, I lightly



scraped off some of the uncured topcoat to expose the gray underneath. I applied custom decals a few days later and sprayed the entire body with Testors Dullcote.

The final steps were to install the repainted and glazed side window frames and baggage door steps I fabricated from brass bar stock. I snapped or screwed together all subassemblies and applied weathering chalks to complete the model.

I built the “regular” caboose a few months later—identically except that a pair of side windows replaces the baggage doors. Now, as the trains run around my layout, I am the one who finally hails the arrival of the caboose!

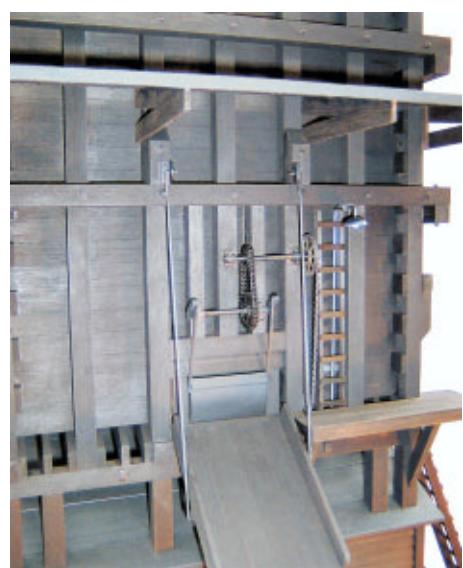
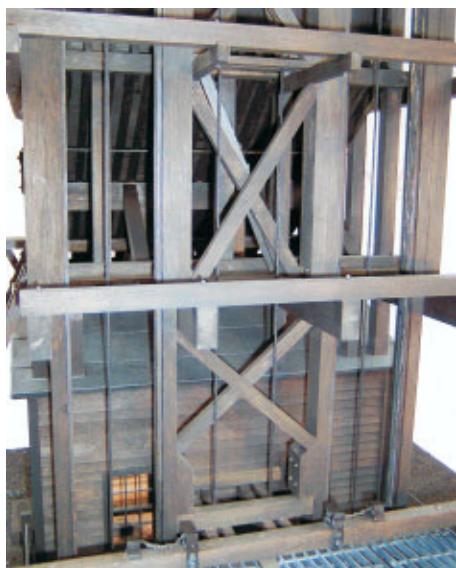
FIRST PLACE



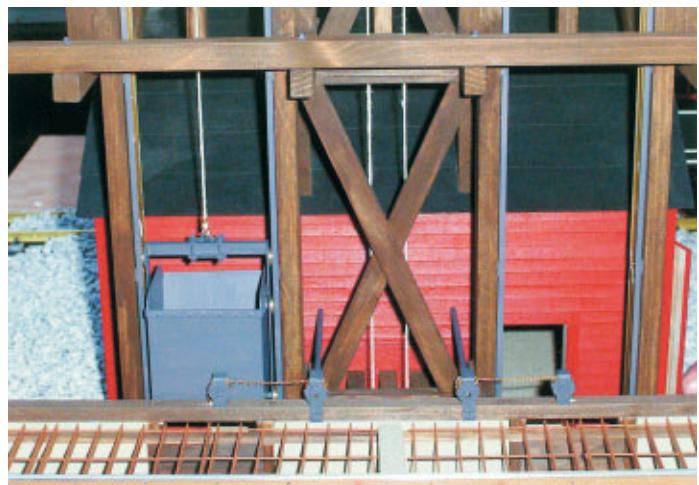
THE FINESCALE RAILROADER FUEL FACILITY CHALLENGE

A PHOTOS SPECIAL

Jim Blakeman, from Aberdeenshire, Scotland scratchbuilt a beautiful 1:20.3 scale model of the Rio Grande coaling tower at Chama, New Mexico. All major dimensions are to scale except those necessary to make the tower suitable for standard gauge. The hopper's height is two scale feet taller than the prototype; Jim also beefed up the supports in the operator's cabin. He constructed the model from scale mahogany and fabricated most details, such as the gondola drop grills, from plastic. The bucket tracks are brass, the metal castings from Ozark Miniatures. Jim stained the entire model with diluted black ink. It stands over three actual feet tall above the ground; nearly four feet from the bucket pits to the hoist house roof. Chuck Yungkurth provided copies of the original Chama engineering plans.



FIRST PLACE



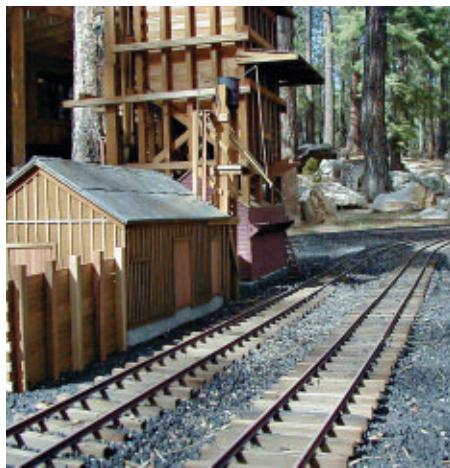
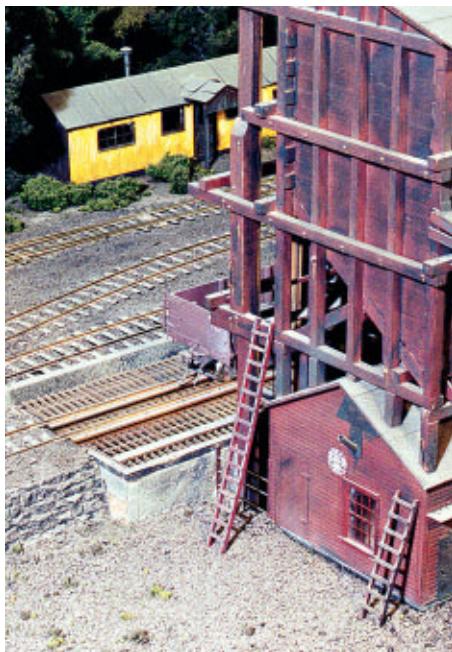
model breaks into a dozen sub-assemblies for maintenance, motor lubrication, or repair. If the barn red of the upper and lower enclosures surprises you, Bob's research indicates that was their original color; boxcar red came later. The model measures an actual two by two by four feet.



Robert Baumuller, from Woodstick, Connecticut, scratchbuilt a 1:20.3 scale board by board reproduction of Chama, New Mexico's famous 75 ton coaling tower from original 1924 Denver & Rio Grande Western plans along with photos he and a friend took. (Similar narrow gauge towers were at Durango and Gunnison.) The only commercial parts are Ozark Miniatures nut-bolt-washer and sheave castings and some chain. Bob hand cut pine and basswood boards and made the model fully operational. The fabricated brass buckets function exactly as did those on the full size tower; so do the coal gates. The coal dump pit is of scale thickness

plywood with a thin coating of Durham's Water Putty to represent concrete. Bob soldered up the I-beams from flat brass strips, turned pulleys from brass rod, and installed clips and nuts to secure the rails to the beams just as on the prototype. The mo-

FIRST PLACE



Center right. Jim Granflaten, from Bayfield, Colorado, scratchbuilt the D&RGW Chama coaling tower primarily from hand cut lumber. The scale is 1:20.3 and, as is apparent, it is one part of an entirely scratchbuilt engine service facility on his outdoor layout.

Above and far left. Bob Brannen, from Harvard, Massachusetts, models in On3; you may recall his outstanding Ophir depot and tram house diorama from our **2004 NARROW GAUGE ANNUAL**. He scratchbuilt the D&RGW coal facility at Chama, New Mexico from scale lumber and only a few commercial detail parts using plans in the *Narrow Gauge and Shortline Gazette*. The tower includes a fully detailed underground storage area (visible far left) and includes Miller Models sound effects of coal dropping into a locomotive tender.



FIRST PLACE

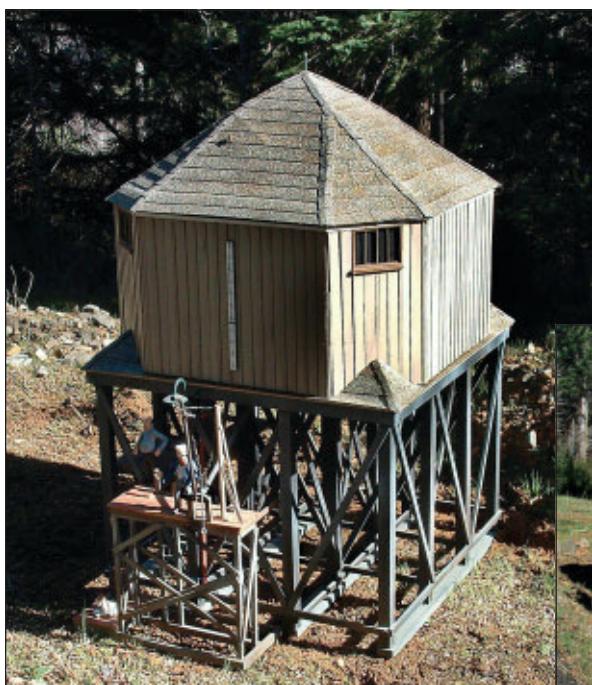


Right. **Don Action**, from Erie, Pennsylvania, built a 1:48 scale model (specifically for our Challenge) of a derelict coaling tower still standing just north of Youngstown, Ohio on the old B&O mainline. Don used absolutely no commercial parts. He represented the concrete bunker by building a shell from scrap wood, applying a coat of thick texture paint, and scoring the paint to represent poured concrete. The roof sections are Masonite. The corrugated metal siding is cardstock Don formed in a homemade press. The elevator housing also is cardstock; Don trimmed it with a paper cutter, formed it into angle stock with a homemade brake, and trimmed it to size on a jig. He assembled it on a scrap wood fixture. The platform railings are lengths of copper wire Don soldered together. The ladders are trimmed hardware cloth, the chutes are cardstock, the pulleys are wheels from a toy car, the windows are computer print outs, and the remaining details are pieces of wood, illustration board, and brazing rod. He colored and weathered the model with artist's acrylics and an airbrush.

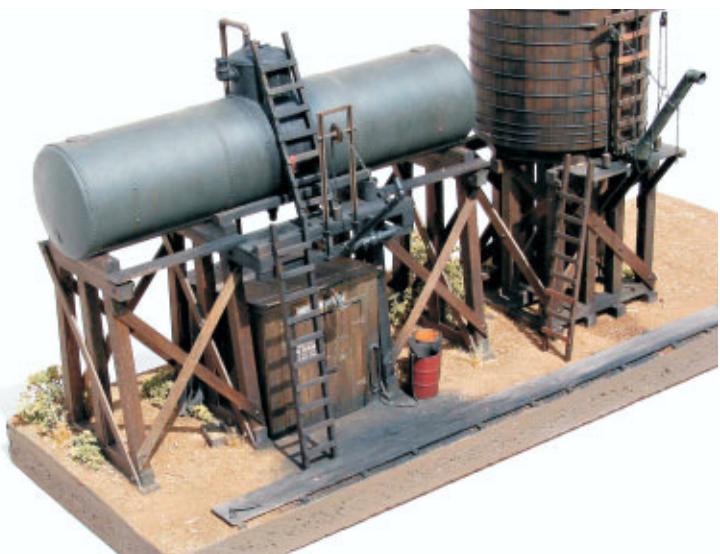
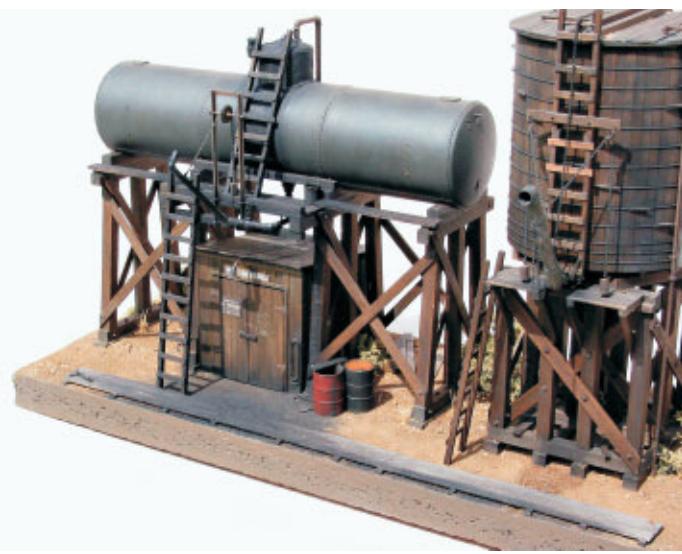


Above and previous page lower right. **Norb Lundberg**, from Des Plaines, Illinois, scratchbuilt three coal facilities primarily from stripwood but also used styrene, foil, nylon fishing line, and wire. The simplest is a covered platform. The second is a covered bucket coal loader with a steam hoist. The most complex, the famous Rio Grande coaling tower at Durango, Colorado, includes hundreds of individually inserted Grandt Line nut-bolt-washer castings. All models are N scale. Very impressive!

Below. **Richard Smith**, from Port Orford, Oregon, scratchbuilt a gorgeous 1:20.3 scale replica of the wooden Virginia & Truckee oil tank at Carson City, Nevada as it appeared between 1903-1950. Richard constructed the tank and base from cedar. With the exception of molded plastic corner windows, some miniature chain, and such commercial castings as figures and barrels, the model is entirely handmade.

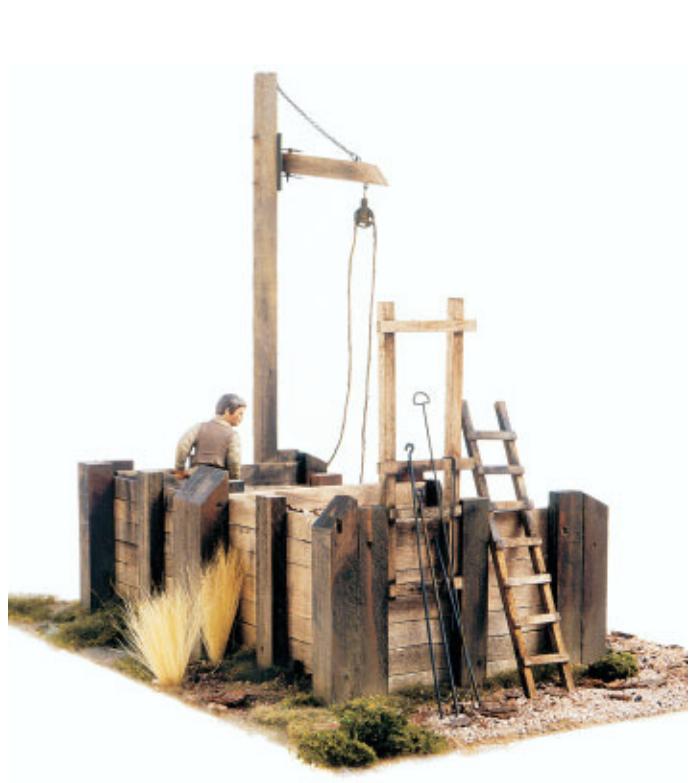


SECOND PLACE

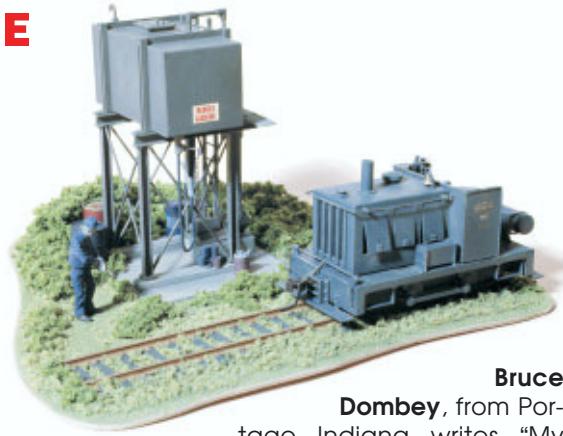
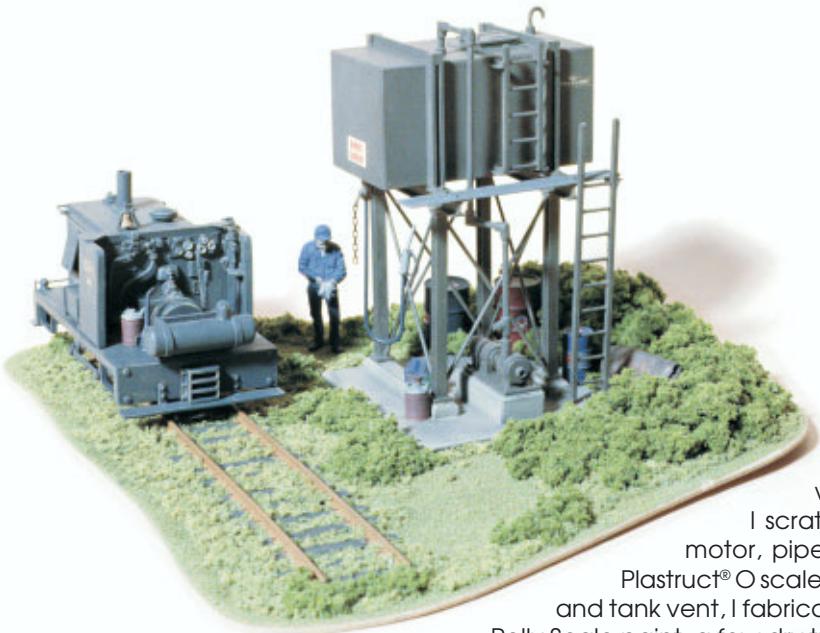


Above. **Chuck Doan**, from West Covina, California, began construction of his 1:48 scale narrow gauge fuel oil facility a few years ago. It remained unfinished until our Challenge inspired him to complete it, a water tank, and some "real estate" for them to sit on. Chuck left room for a sandhouse should inspiration remain. The model is of freelance design, reminiscent of the Southern Pacific Narrow Gauge facility at Laws, California. Chuck drew the bents on AutoCAD®, made a jig, built four identical bents from commercial stripwood, and installed the tank from a Grandt Line "Gramps" car kit. The shed includes individual boards over a cardboard core (it has no interior detail) and corrugated metal roofing from Russ Simpson. The 55 gallon drums are from Grandt Line, the pipes are brass tubing, and the cast fittings are from CHB Models. The pulley also is from CHB, the chain is a commercial product, and the spout rigging is code 70 rail. The oily ground cover is glue with a sprinkling of fine dirt and washes of Engine Black and Roof Brown.

Below. **Ed Morris**, from Richmond, Virginia, writes, "I threw my model together in a couple of days. I built it from craft sticks and scrap bridge timbers. Everything on the model is scratchbuilt except for some Hartford Products nut-bolt-washer castings, Woodland Scenics and Heki scenery details, and the figures. The project turned into a collaboration with my wife, Linda, who stained the boards, painted 'Barney', and contributed items from her sewing box for the pulley and rope reel. She also offered some helpful suggestions."



SECOND PLACE



Bruce

Dombey, from Portage, Indiana, writes, "My

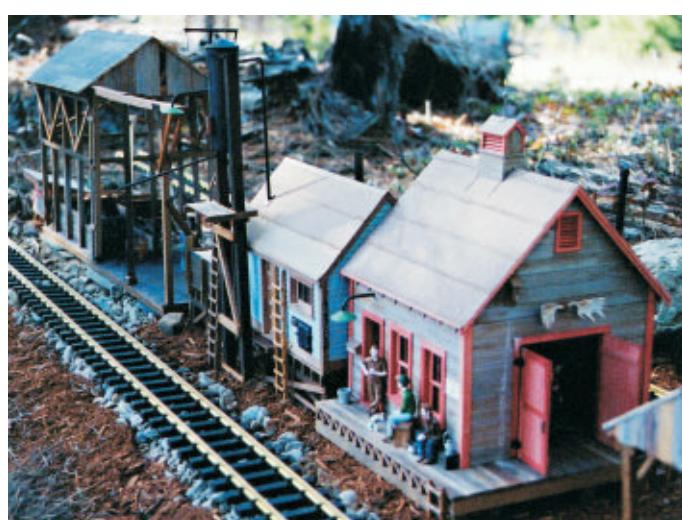
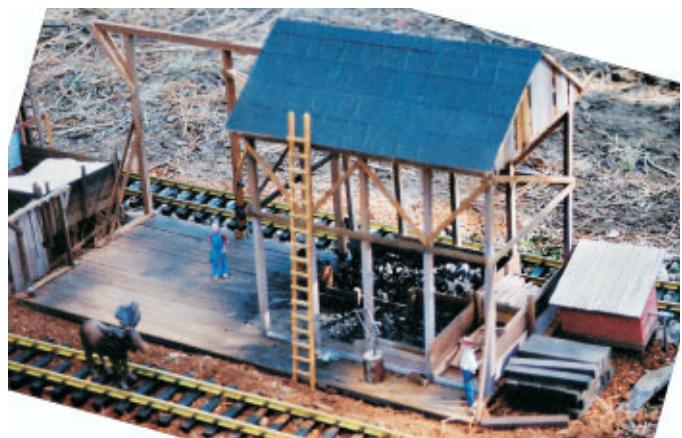
ever growing stable of On30 critters made it necessary to provide a larger capacity fuel storage facility so I cobbled up a 1,400 gallon welded steel gasoline storage tank with transfer pump.

I scratchbuilt the tank, support steel, foundations, pump, motor, pipe fittings, valves, and every other detail except the Plastruct® O scale ladder. In fact, with the exception of the chain, hose, and tank vent, I fabricated everything from styrene strip, sheet, and shapes.

Polly Scale paint, a few dry transfers, and some powdered pastel chalks finish the model. The figure is from Artista; the drums, cans, and other clutter are from Berkshire Valley. The footprint of the entire model is only 2.25 inches square; I can't imagine trying to build an HO or N scale version!"

Below. **Bob Klos**, from Green Valley, Arizona, scratchbuilt a handsome large scale covered coal dock from basswood, balsa, Grandt Line nut-bolt-washer castings, and Ozark Miniatures metal hoist details.

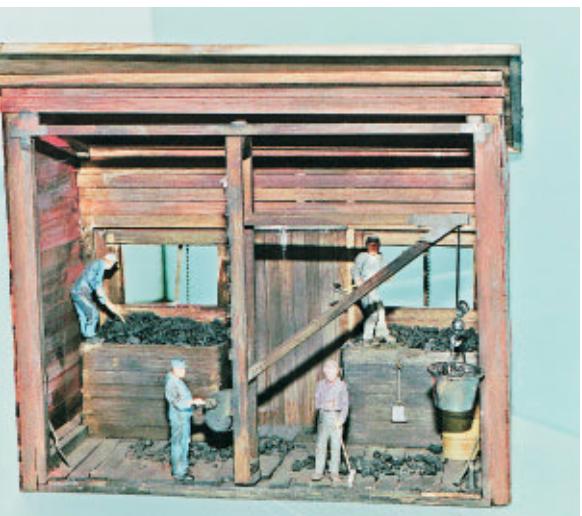
Below right. **Dan Sebulsky**, from Moyie Springs, Idaho, based his 1:24 scale structures on a photo of an HO scale Fine Scale Miniatures kit. Dan drew full scale plans and scratchbuilt nearly everything, including the double hung windows. He cut his own lumber from cedar, crushed real coal for the fuel facility and, where necessary, added commercial castings from Trackside Details and Ozark Miniatures.



HONORABLE MENTION



Above right.
Richard Marcus, from Staten Island, New York, scratchbuilt an enclosed bucket coaling station from wood. The only commercial parts are the cast metal winch hardware, tools, and figures.



two fuel facilities. **Patrick Marçet** assembled the HO scale Rio Grande Southern Vance Junction coaling pocket from a Crystal River Products kit. Guy scratchbuilt the French narrow gauge facility following a prototype at Tournon on the meter gauge Chemin de Fer du Vivarais. It, too, is HO scale.



Above. **Jim Ellis**, from Lincoln, California scratchbuilt a simple coal bin from strip styrene as a "token" entry in our Challenge. The model's scale is 1:48 and will reside on Jim's On30 layout. He painted the model with Floquil colors and weathered it with powdered pastel chalks.

Right. **Dan Markham**, from Redding, California used a Bachmann O scale plastic kit as the basis for his scratchbuilt 1:24 scale coaling tower. The primary material is plywood; the roof has individual cedar shingles. Eons ago, before the invention of the wheel, Dan was Uncle Russ' teacher in high school.



HONORABLE MENTION



Above. Jim Freeman, from Runnemede, New Jersey, scratchbuilt a 1:20.3 scale coaling tower from wood, covered the roof with corrugated styrene to represent sheet metal, and supported the chute with brass chain.



Left. John Lilly, from Lynnwood Washington, writes, "The kind comments you published about my entry in last year's freight car challenge inspired me to build and enter this 1:20.3 scale coaling tower. I based it on Don Action's article in the June 2003 issue. I cut all the stripwood myself, including the roof shingles. The loading chute and gate are scratchbuilt from styrene. Other detail parts are from Ozark Miniatures. I sculpted the figure from polymer clay."

Right. Dave Powell, from Algona, Iowa, scratchbuilt a 1:48 scale stone railcar, fuel, and water facility from Verlinden 1:35 scale cast cobblestone street sections with handmade or highly modified framing. Rail Motor Car Number 8 is a 1:43 scale 1912 Buick. Dave converted it to On30 with an HO scale Bachmann cable car mechanism.



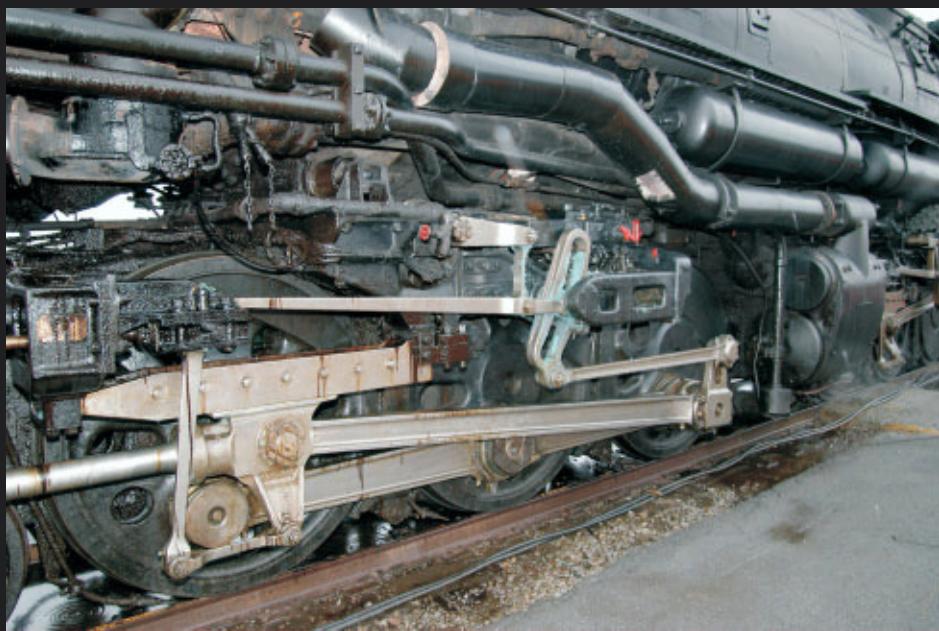
Below. Ron DeYoung, from Essex Junction, Vermont, based the coaling tower and adjacent hoist house on his large scale Cedarvale Garden Railway on HO scale plans from a 1988 issue of *Railroad Model Craftsman*. He built the models from home cut cedar.



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IN
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ROCK



4-6-6-4 CHALLENGER NUMBER 3985

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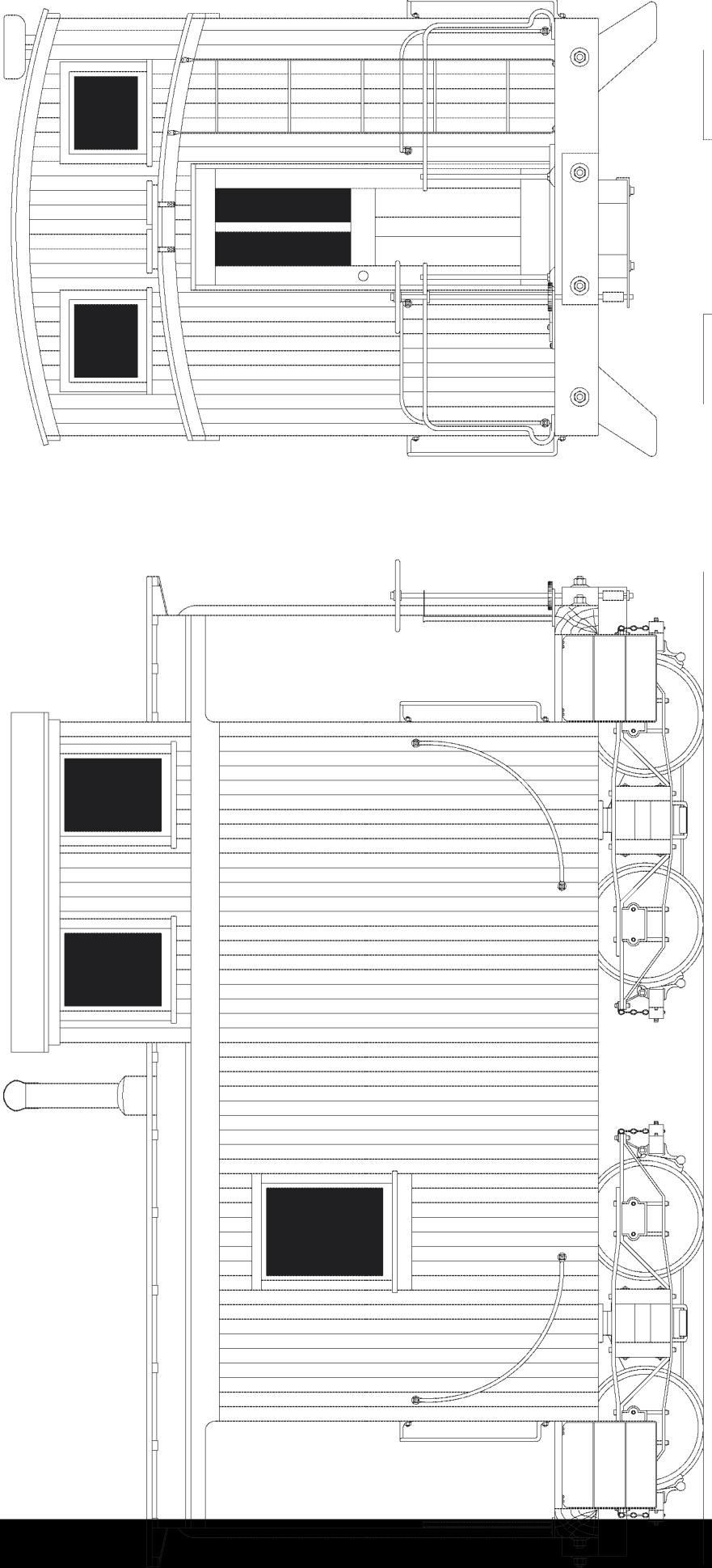
LITTLE ROCK, ARKANSAS
MARCH 2004



A FREELANCE SHORT CABOOSE

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1:32 SCALE
3/8-INCH = 1 FOOT



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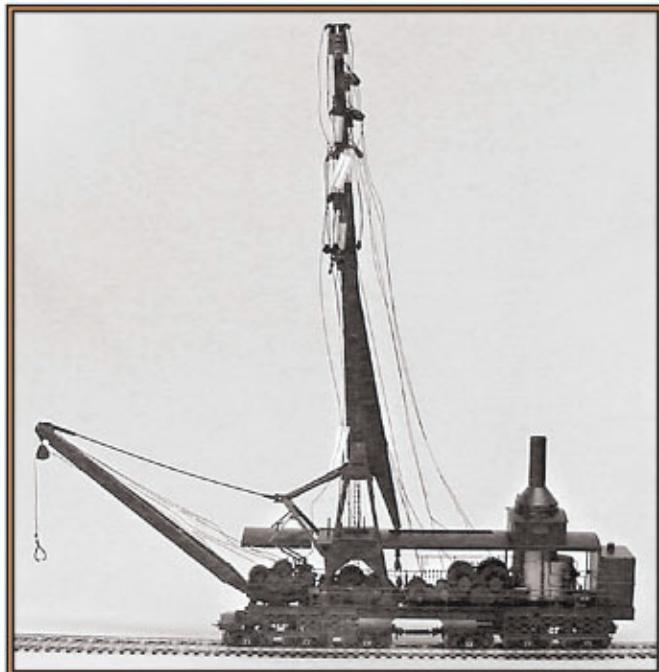
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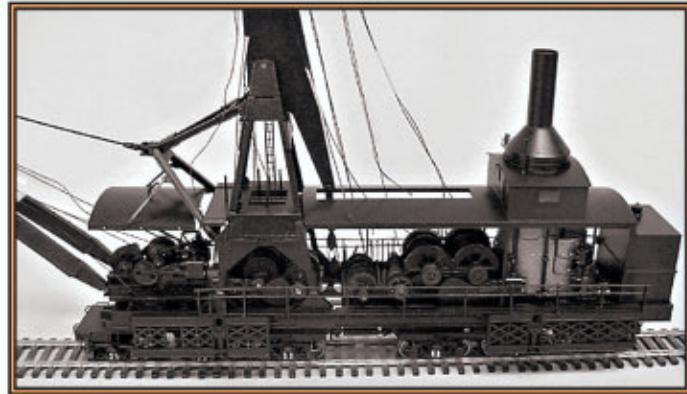
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#17626 Lidgerwood tower log skidder with 2 transport cars. No paint

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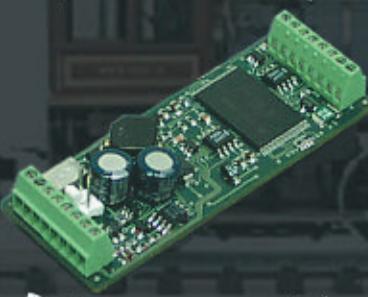
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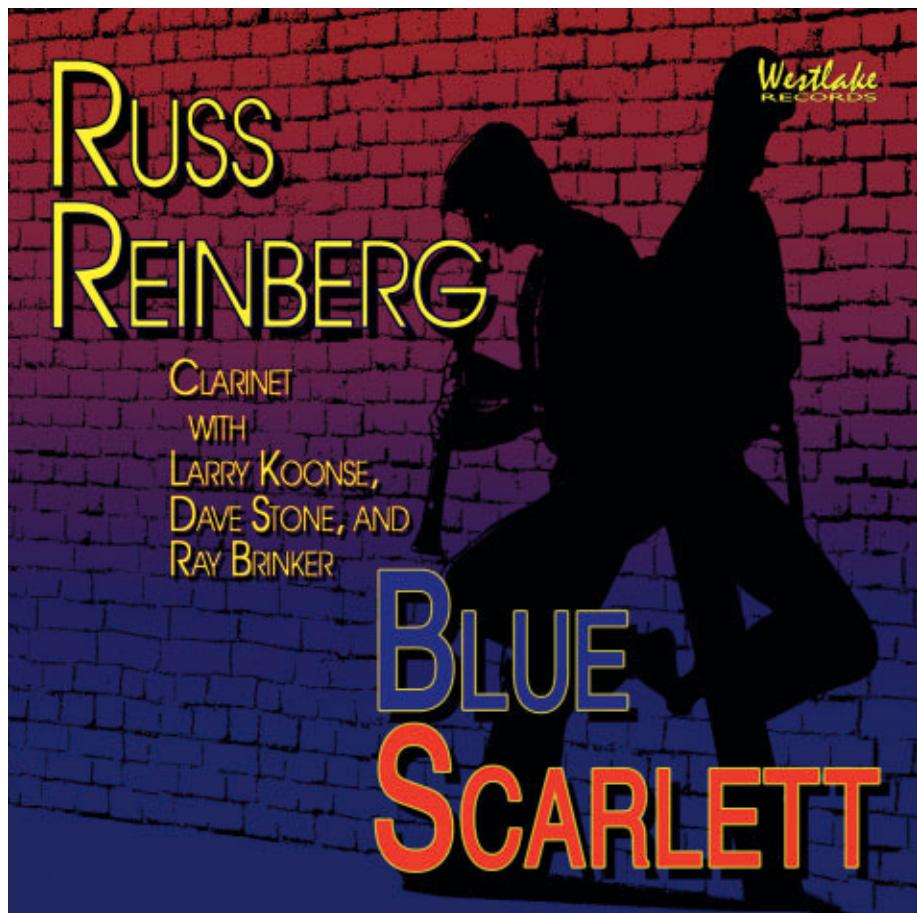
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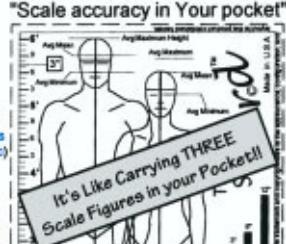
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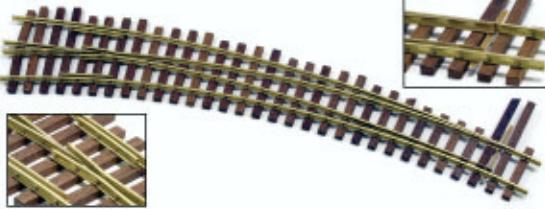
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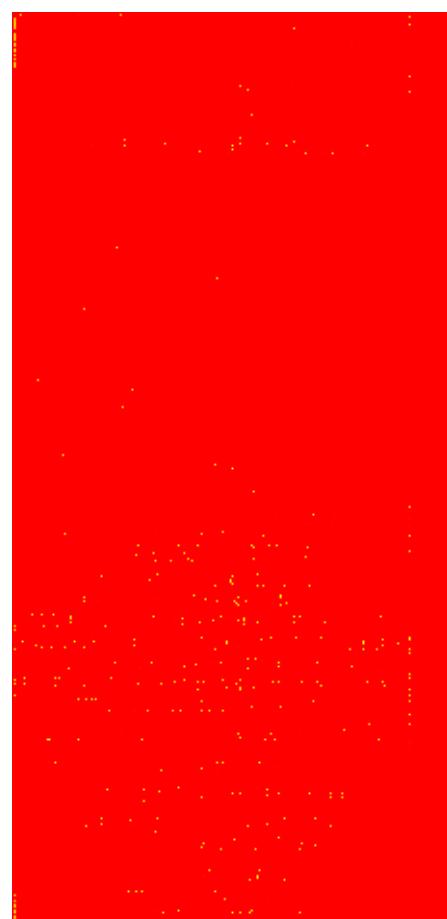


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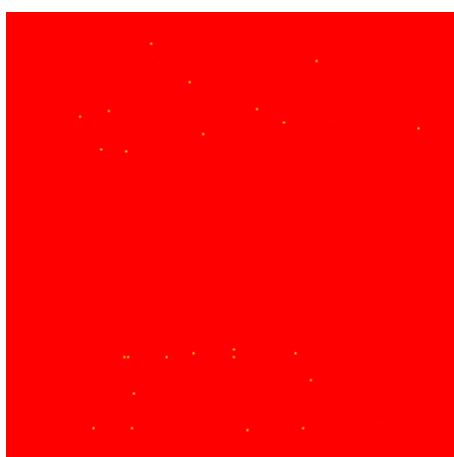


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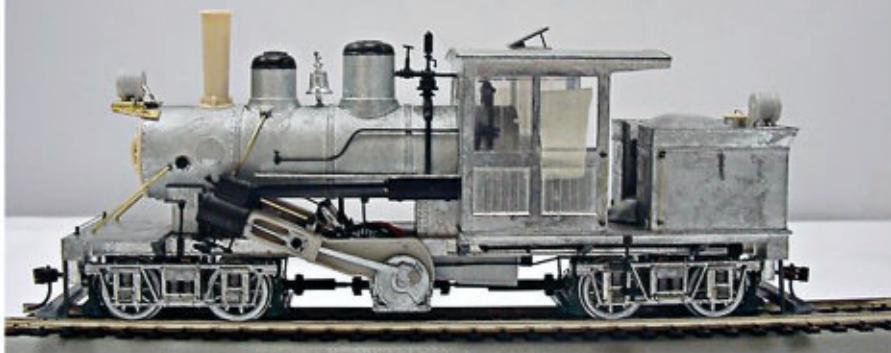
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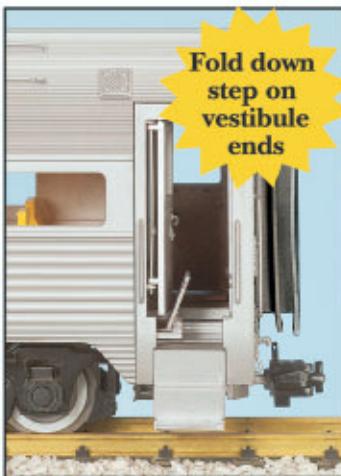
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