Rochester Model Rails

Dedicated to Quality Model Railroading

VOL. 5, NO.45 **ROCHESTER, N.Y.** **SEPTEMBER 2006**

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by Jack Matsik

How to Install Decoders in *Older Locomotives* – Part III

by Dave Mitchell

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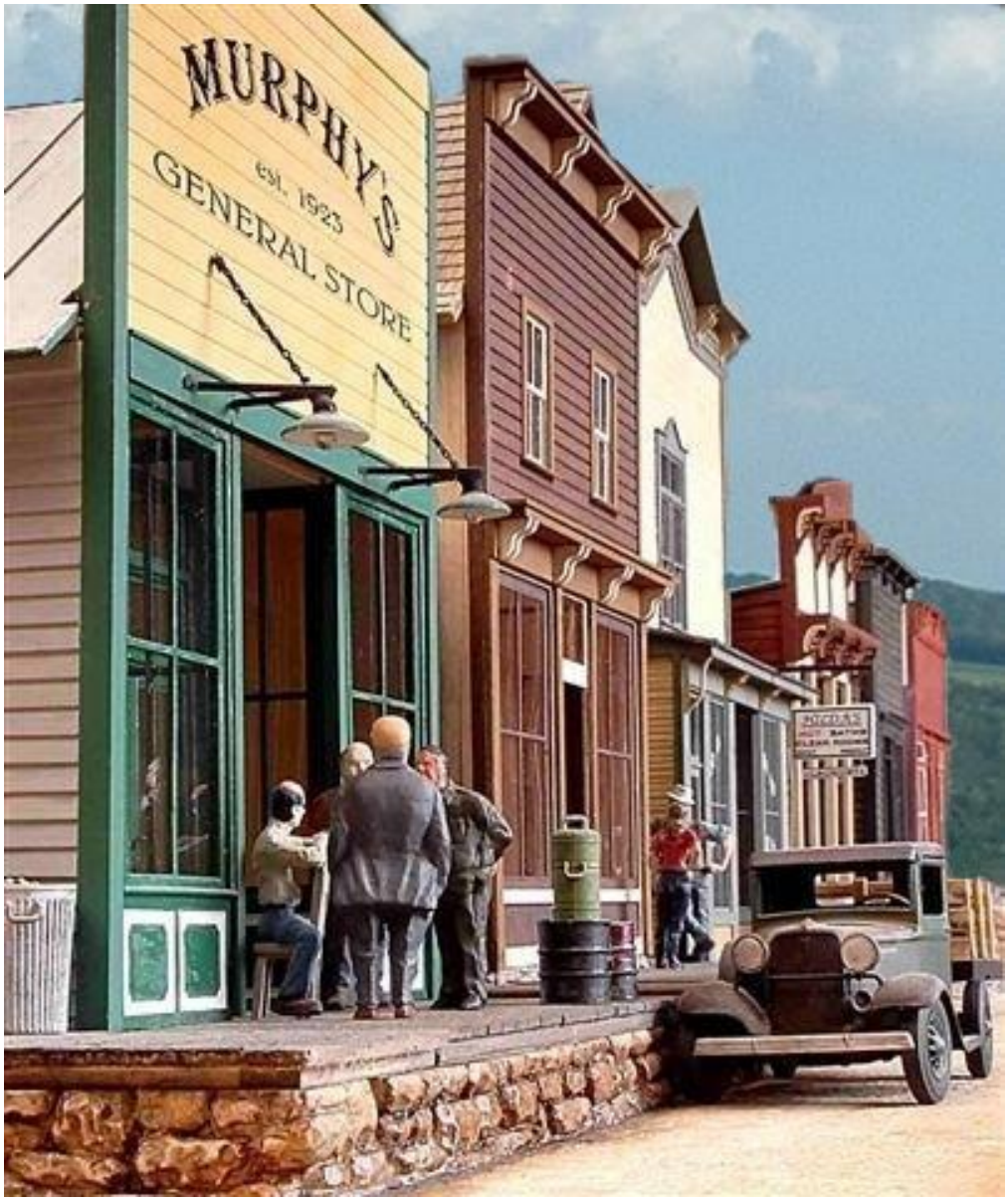


Some of the locals gather for a midmorning chat on Dave Thompson's On3 D & RGW layout. Digital image by Dave Thompson. Digital "sky" added by Fred Cupp.

MODELING FREIGHT CAR LOADS – Conclusion

by Jack Matsik

The last thing to add to your load are signs: advertising to depict the manufacturer's name/logo, type of equipment, and/or the destination location and/or the purchasing company name, Don't forget signs specifying special railroad handling of the load, such as FRAGILE, DO NOT HUMP, DIMENSION WIDE/HIGH…etc. Signs can be fixed to the equipment/boxed merchandise, as they would be fastened directly to it in some manner. Sometimes the manufacturer's advertising info was done as a stand-alone sign placed on a wooden frame and fixed to the floor of the car next to the equipment being shipped (on wooden floor cars only). I generate my signs (colored or B/W) with a Word document on my PC and printed on white paper.

Experiment with creating different types of loads. Experience is a great teacher creating loads, along with many good prototype pictures as examples, and the rewards are truly gratifying. Try to match the model load weight to the railroad car's capacity for a more authentic prototype representation. Remember that empty cars very seldom have a pristine look (unless new out of the shop). Most empty cars have a variety of junk left over from a previous loads delivered (empty pallets, empty barrels, opened wooden boxes, left-over blocking and tie-down materials, loose coal/sand…etc. material).

A modeled load can be permanently cemented to the railroad car, however, I have successfully used rubber cement to hold loads in place along with the blocking, just in case you might want to remove the load in the future without damaging the car. Sometimes machinery/equipment needs to be crated to stack items or cradled for odd shaped equipment to ship (done by the manufacturer/supplier) Open or closed wooden crates, or equipment wooden/steel cradles need to be scratch-built in a convincing manner. I have found chart tape makes an excellent steel strapping material. Black chart tape can be found in artists supply stores and comes in several widths (scale 1" and 2" for HO and larger tape sizes for larger model scales).

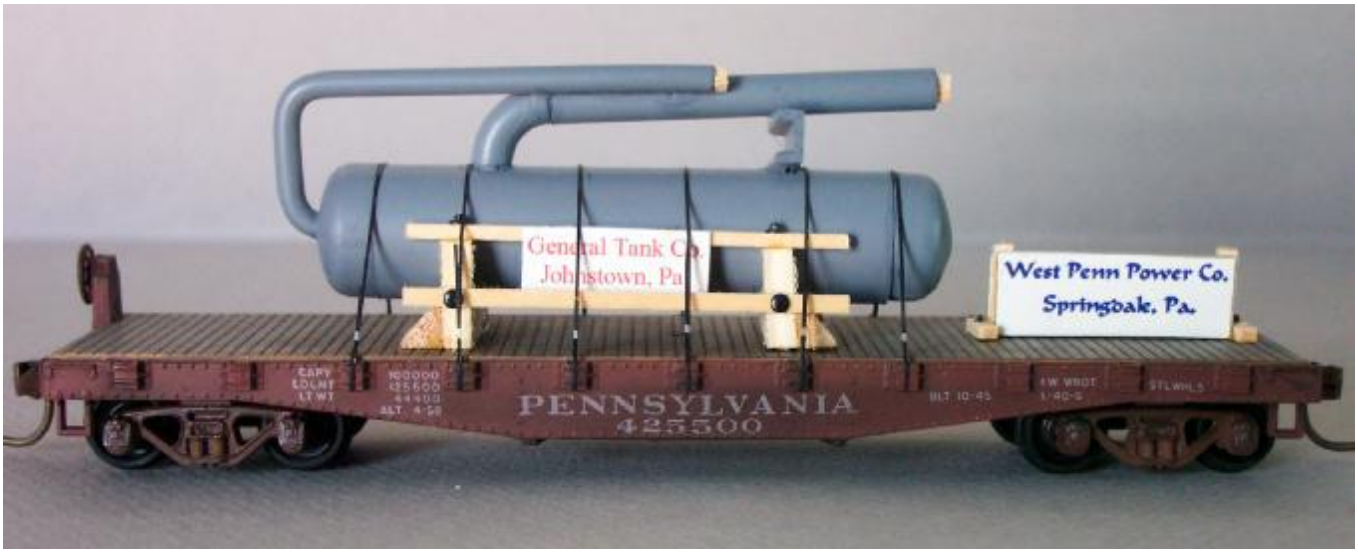
The chart tape comes in a roll with one sticky side. I usually place several steel straps over the load, looped through the RR car's side pockets and stick it to itself. I have found that this sticky joint can come undone with time, so I add a drop of ACC glue to the joint. I then brush a thin band of silver paint to the joint to represent the prototype metal clamp applied to hold the strap joint together. It looks quite convincing.

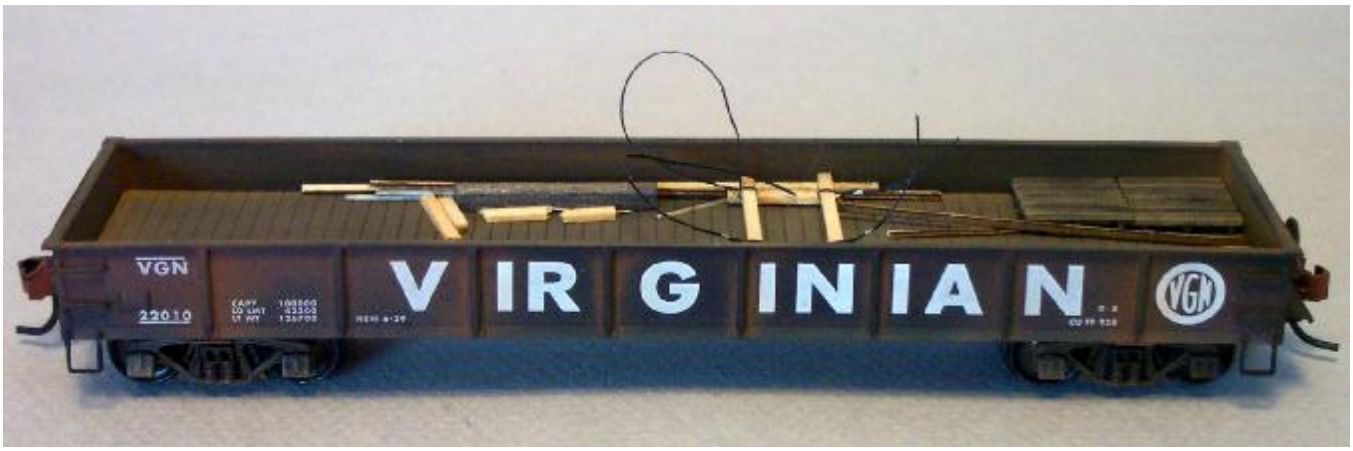
I do open hoppers/gondolas loose material loads by cutting a piece of 1/8' balsa wood to create a false bottom in the car positioned about 1/8'' below the top of the car. I then brush a layer of full strength white glue on the balsa wood and fill the car with loose material (coal, coke, sand, rocks or iron ore) generating a full loaded appearance. I then use an eyedropper to cover the loaded material with a diluted mixture of white glue and water (1:3) with a few drops of liquid dishwater soap added to this mixture. The saturated loose load will dry looking like true loose load material.

Many railroads used regular coal hoppers to haul iron ore. I found that 1 ounce of Woodland Scenics model iron ore is equivalent to a fully loaded 70-ton model iron ore car; therefore, I use this amount to put into a regular 70 ton coal hopper car (placing about half in each end of the car). Iron ore is much heavier than coal, so the coal hopper car will look a lot less full than when loaded with coal. If you are using a 50 ton or 100 ton coal hopper, adjust the one-ounce iron ore load accordingly (slightly less for the 50 ton hopper and slightly more for a 100 ton hopper). In reality, you may not be able to notice the difference, so why adjust it. Finish by gluing the iron ore load in the coal hopper using the same diluted white glue mixture as described before.

See Images of some of Jack's railcars on the next two pages.

Digital images by Jack Matsik.





Digital images by Jack Matsik.

Installing Decoders in *Old Locos*

Part III

Clinic Given at the NMRA NFR LSD Meet in the Fall of 2005

by Dave Mitchell

Example 3

Penn Line PRR H-9 Consolidation

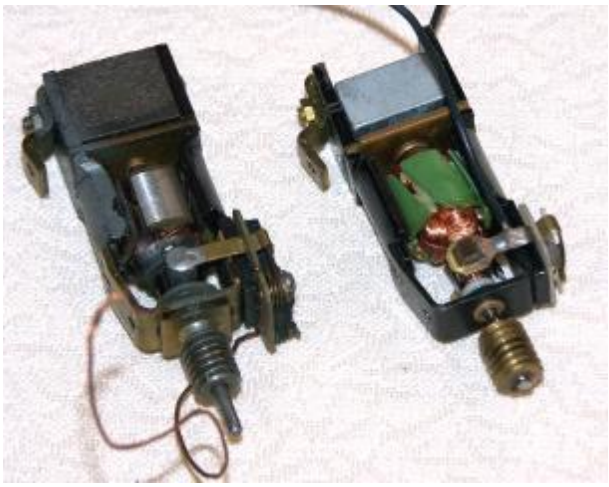
This locomotive was my first mainline power that I received from my parents as a Christmas present in 1953. The locomotive served me well for about 15 years, until the magnet became weak and the motor overheated. I set it aside vowing to "fix it later". As I began planning for the layout that I am presently building, I came across a picture of a NYC Class G-5 Consolidation used on the Adirondack Division. This is nearly identical to the PRR H-9 except for the Belpare firebox of the PRR engine.

I was lucky in that *Helix Humper* (now A-Line) made a direct replacement assembly consisting of a can motor, worm, idler gear, and bracket that directly replaced the *Pitman* motor in the *Penn Line* engine. I had my choice of either cutting off the rear motor shaft or drilling out the firebox door in the backhead. I did the latter. After I complete the alteration of the boiler to NYC lines, I will use an NYC style tender, and mount the decoder and sound unit in it.

Example 4

Bowser PRR Decapod

This is a model I am converting to DCC for Tim Maslyn. Tim purchased the kit at a flea market and asked me to build it for him. When *Pitman Motors* announced that they would no longer make motors for model railroad applications, *Bowser Manufacturing* purchased the design and manufacturing rights for several of the motors that they used in their kits. The motor, although open frame, has been redesigned to be compatible with DCC operation, using isolated motor brushes and lower current windings.



To bring any *Bowser* locomotive up to DCC applications, you only need to remove the old motor and send it back to *Bowser* with $15 and they will send you a direct replacement, complete with proper gear. All you need do is re-install the new motor, and hook it up to the decoder.

Example 5

PFM Sierra 2- 6- 6- 2

This model, owned by Bob Kaufman, was converted to DCC to operate on DCC equipped layouts. It is set up for DC/DCC operation so Bob can run it at home. We started by removing the original open frame motor. The flexible drive coupling was replaced using a piece of neoprene tubing (model airplane gas line). While trial fitting the *Micro-Mark* motor, we found that the rear driver shorted out on the motor housing. The point was marked, and, using *a Dremel* tool with a cut-off disc, the sides of the motor were carefully ground away to provide clearance. I covered the rest of the motor with masking tape to prevent the grinding dust from being magnetically sucked into the motor.

The *Micro-Mark* motor was installed by mounting it in a bed of RTV silicone and allowing the RTV to set up for one week. The decoder was mounted in the tender, and holes drilled to allow the multiple wires to connect to the motor. The wireless drawbar was not used to carry power. Grinding a small part of the can and the magnet underneath did not affect the operation of the motor in any way.

Example 6

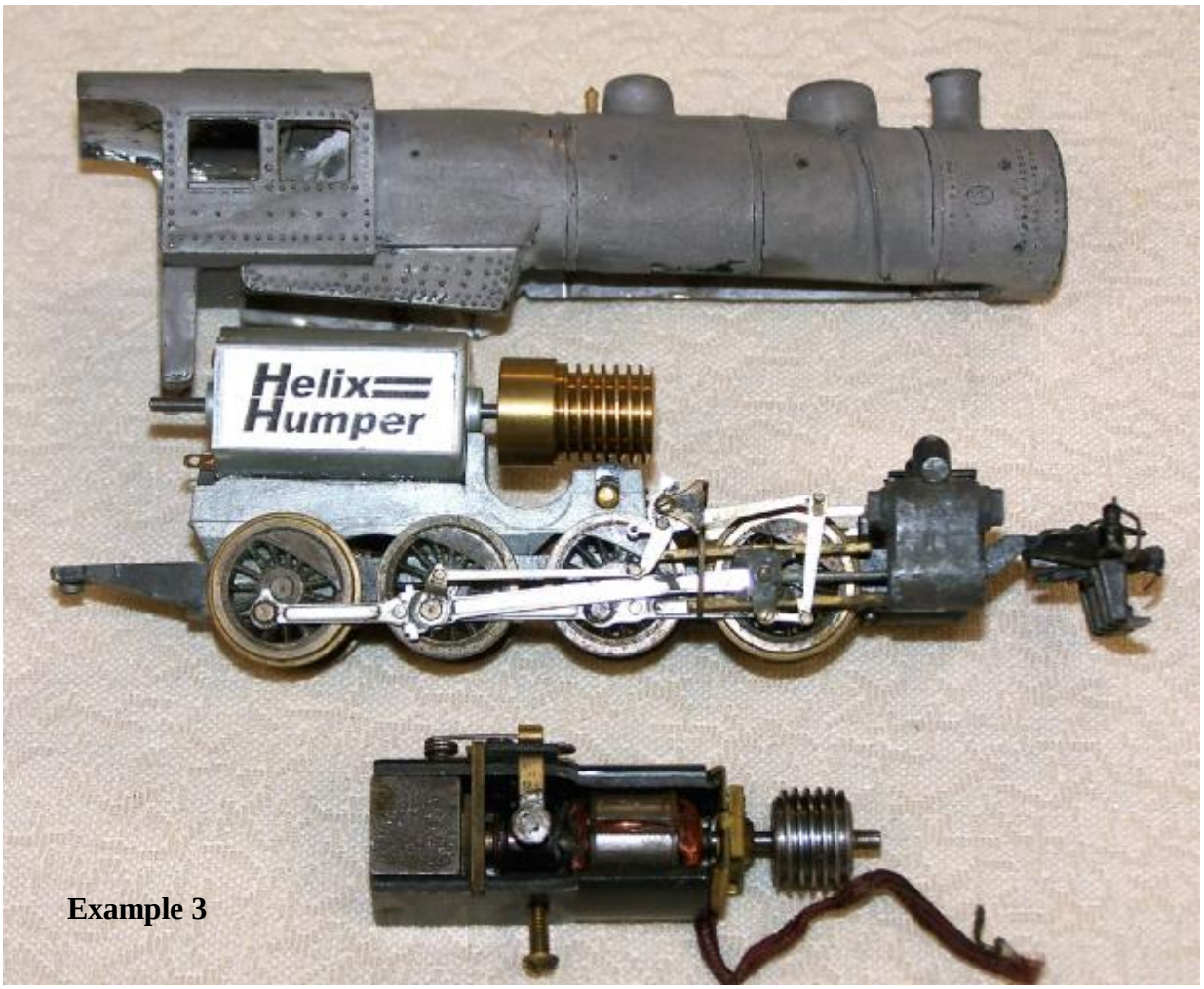
PFM 2 Truck Heisler

This is another favorite of mine, originally purchased in the early 1960's. It is a smooth runner, and is used for both switching and log hauling. I had originally thought that I would have to replace the motor. After testing it, I found that the current draw for the 1960's Pitman open frame motor was less than 1 amp! There was just enough room behind the motor to install an N scale *NCE* decoder in the tank.

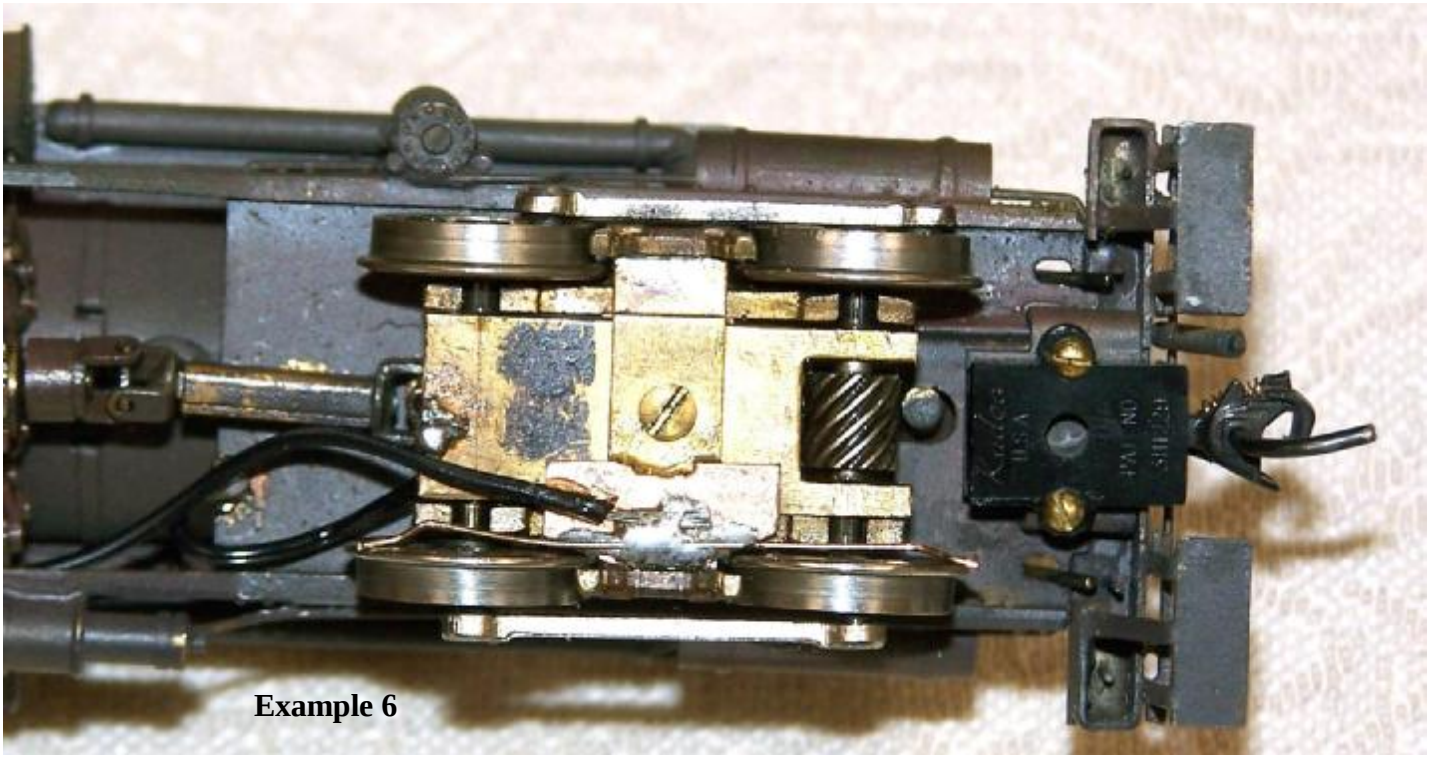
Since this model only picked up power from 2 wheels on each side, I added pick-ups on the insulated wheels using printed circuit board stock from *Radio Shack*, and soldering the spring brass 0.010 wire to it, The PC board was then glued to the cross-bar holding the side frames, and micro wire leads were run to the decoder. This provided all wheel pick-up

See more photos on the next page.

Digital images by Dave Mitchell.



Example 3



Example 6

Next Month – Part 4

Ask Doctor Dick (The Scenery Doctor)

OCRR@frontiernet.net

Bob writes:
I am thinking about building a log pond and sawmill on my HO scale model railroad and wonder what are some things that I should consider. Can you help?

Doc:
Sure. Here are some thoughts to ponder.

Eastern Vs. Western Logging

Eastern logging had smaller trees and the west (California, Oregon and Washington had larger trees. Eastern mills had Barnhart and American Log Loaders; Western mills had yarders, loaders, steam donkeys, flumes, inclines, spars, and many large trestles. Both had rod engines to start; then geared engines such as the Shay, Heisler and Climax after 1880. Interesting to note that the Climax and Heisler originated in western PA (Corry & Erie) and the Shay in MI.

Source of Trees

Trees can be imagined in an area off the layout and delivered by flume (in cant form), bulls, horses, log cars, etc. Or have a log dump on the layout. Or maybe just stumps – trees already cut. You could have medium sized trees, not the large 7-10 footers, but 4 - 5 footers. The largest circular saw was 108". With a top saw of the same size, the maximum tree would have been about eight feet.

After about 1885 or so, band saws came into use. If a band saw was used, then much larger trees could have been cut, like the big redwoods. So ….. are you modeling older logging using circular saws and smaller trees or post 1885 using band saws which allow cutting of larger trees?

Saw Dust and Slabwood

Sometimes the sawdust was burned behind a firewall. Other industries did not use the sawdust in the late 1800s per se, as they do today. Some sawdust was used for icehouses and grape packing, but most burned. Burning was popular in the late 1800s but illegal in the late 1900s as it is today. The slab wood, saw dust, etc., can be transported from the mills on a conveyor to an area over the firewall. Some slab wood was saved for use as fuel for the boilers and the engines.

Mill Pond

How much to be dedicated to the millpond is an issue. In real life these were relatively large as compared to the size of the mill. But this takes up a lot of real estate. You must decide.

Real water vs. *Envirotex* - a dilemma. *Envirotex* is very solid and one can tell it is not real water. But - real water is 87 times too large and is wet. Real water may leak on the floor, be smelly and make your scenery damp. Floating logs in real water though might be a nice touch.

When placing your logs in the epoxy/resin or real water, make sure they "float" properly. Look at prototype photos and observe how much of each log is below and above the water line. Many log ponds also were covered with a lot of debris, bark, etc. See *Bibliography* for log pond photos.

Log or Cant Flume

Western logging had many flumes, some as short as 600 feet and some as long as 59 miles. One could potentially be incorporated into a layout. It could originate from a higher area on the layout and terminate in a lower area at a planing mill.

Cants: In the sawmill, as logs go through the headsaw where they are being flat-sawed, they are cut into slabs (slabwood), waste (sawdust), or cants for further cutting. The cants proceed to a gang saw where the edges are sawed square and the cants cut to width resulting in rough-cut boards and timbers. Many times it is these cants, not logs, that traveled miles in the flumes on to a planing mill. Source: *Sawmill Modeling* by Morgan Griffiths.

In most of the flume pictures that I have seen, cants or rough-cut lumber traveled down the down the flume, not logs. A flume with real water would be the nuts but very hard to implement on a model railroad. And the construction of a flume of reasonable size would require a large number of bents and total space.

For further reading, see the attached *Bibliography*.

Logging and Sawmills - Books and Articles

Bibliography

Green = Eastern Logging **Red = Western Logging**

Allen, Richard S., Grove, William, Maloney, Keith F., Palmer, Richard F., *Rails in the North Woods*. North Country Books, Sylvan Beach, NY, 1978

Andrews, Dick, *Whiting Logging Railroad*. Narrow Gauge and Short Line Gazette, pages 34 – 38, November/December 1978

Armitage, Al, *A One Man Sawmill, Part I: General Layout & Carriage.* Narrow Gauge and Short Line Gazette, pages 48 – 53, March/April 1982

Armitage, Al, *A One Man Sawmill, Part II - Detail Drawings and Photos.* Narrow Gauge and Short Line Gazette, page 79, May/June 1982

Armitage, Al, *A Pile Drive for Your Logging Railroad.* Narrow Gauge and Short Line Gazette, pages 48 - 53, July/August 1981

Armitage, Al, *Camp Cars for Your Logging Show – Part I .* Narrow Gauge and Short Line Gazette, pages 74 – 75, March/April 1986

Armitage, Al, Camp Cars for Your Logging Show –Part II. Narrow Gauge and Short Line Gazette, pages 72 – 73, May/June 1986

Armitage, Al, *Diamond & Caldor 3-Foot Gauge Camp Car and Skid Mounted Cabin Car.* Narrow Gauge and Short Line Gazette, pages 72 - 75, January/February 1987

Burgess, Jack, Building Yosemite Sugar Pine Lumber Company Camp 17. Narrow gauge and Short Line Gazette, pages 42 – 47, January/February 1986

Logging and Sawmills - Books and Articles

Bibliography

Burgess, Jack, Building Yosemite Sugar Pine Lumber Company saw Filer's Shack. Narrow gauge and Short Line Gazette, pages 61 – 62, January/February 1985

Casler, Walter C., *Allegheny Valley Logging Railroads - Book # 11 in the series Logging Railroads Era of Lumbering In Pennsylvania*. Lycoming Printing Company, Inc., Williamsport, Pennsylvania, 1977

Elwood, John, *A Western Sawmill*. Narrow Gauge and Short Line Gazette, pages 47 – 50, May/June 1979

Ely, Duane, Pomeroy, Tom, *The Broughton Lumber Company Flume and Railroad*. Narrow Gauge and Short Line Gazette, pages 18 – 24, November/December 1988

Fasnacht, Mike, *On3 logging in Pennsylvania*. Narrow Gauge and Short Gazette, pages 58 – 62, January/February 1987

Frick Co., *Saw Mills and Engines*, Catalogue No. 75. Frick Co., Waynesboro, Pennsylvania, 1930

Frick Co., *Price List of Repairs for "Frick" Saw Mills, Effective June 1, 1930*, Frick Company, Inc., Waynesboro, Pennsylvania, 1930

Griffiths, Morgan, *Sawmill Modeling – Sawmilling from 1850 to 1960 in the Truckee River* Basin *of Northern California.* Paradise Publishers, Corte Madera, California, 1998

Johnson, Hank, *The Whistles Blow No More – Railroad Logging in the Sierra Nevada 1874 – 1942*. Stauffer Publishing, Fish Camp, CA, 1997

Johnson, Merv, *In Search of Steam Donkeys – Logging Equipment in Oregon.* Timber Times, Hillsboro, Oregon, 1996

Logging and Sawmills - Books and Articles

Bibliography

Kline, Benjamin F. G. Jr., *"Steamwinders" in the Laurel Highlands - Book # 13 in the series Logging Railroads Era of Lumbering In Pennsylvania*. Lycoming Printing Company, Inc., Williamsport, Pennsylvania, 1973

Labbe, John T., Goe, Vernon, *Railroads in the Woods. Howell-North, Berkeley, California, 1961*

Lewis, Bob J., *The Algoma Lumber Company and Its Incline.* Narrow Gauge and Short Line Gazette, pages 58 – 60, January/February 1977

Nelson, Eric, Part I: The Early Days. Narrow Gauge and Short Line Gazette, pages 66 – 71, January/February 1987

Polkinghorn, R. S., *Pino Grande – Logging Railroads of the Michigan-California Lumber Company*. Howell-North Books, Berkeley, California, 1966

Reinberg, Russ, *Finescale Railroader – The Logging, Mining & Industrial Annual*, Westlake Publishing Company, 2005, 2006

Schmauch, Gary, *The Saint Clair Lumber Company Woods Mill.* Narrow Gauge and Short Line Gazette, pages 63 – 65, January/February 1987

Shaffer, Reg, *The Sawmill Chronicles.* Narrow Gauge and Short Line Gazette, 1984 – 1986

Part No.	Title	Gazette Issue
1	The Single Blade Circular Husk and second Blade Option	July/August 1984
2	The Carriage and Sawdust Blower	September/October 1984
3	The Base and Underframe	November/December 1984
4	The Live Rolls	January/February 1985
5	The Cutoff Saw and Dead Rolls	March/April 1985
6	The Edger	May/June 1985
7	The Log Deck Hardware	July/August 1985
8	The Log Haul	September/October 1985
9	The Mill Engine	November/December 1985
10	The Boiler	January/February 1986
11	Arranging and Driving the Machinery	March/April 1986
12	The Log Turner	May/June 1986

Logging and Sawmills - Books and Articles

Bibliography

Smucker, David E., *Pennsylvania Logging Museum.* Narrow Gauge and Short Line Gazette, pages 18 - 21, November/December 1976

Stephens, Robert A. M., *The F. H. Stoltze Land and Lumber Company*. Narrow Gauge and Short Line Gazette, pages 36 – 41, January/February 1984

Stephens, Robert A. M., Putting Mr. Muscle to Work – Building the Yorke Surry Parker Log Loader. Narrow Gauge and Short Line Gazette, pages 64, March/April 1983

Stephens, Robert A. M., *Wildhorse & Stillwater Western Log Loader & Disconnect Truck.* Narrow Gauge and Short Line Gazette, pages 56 – 57, May/June 1981

Taber, Thomas T. III, *Sawmills Among the Derricks - - Book # 7 in the series Logging Railroads Era of Lumbering In Pennsylvania*. Lycoming Printing Company, Inc., Williamsport, Pennsylvania, 1975

Taber, Thomas T. III, *Tanbark, Alcohol and Lumber - Book # 10 in the series Logging Railroads Era of Lumbering In Pennsylvania*. Lycoming Printing Company, Inc., Williamsport, Pennsylvania, 1974

Wendel, C. H., *The Circular Sawmill*. Stemgas Publishing Co., Lancaster, Pennsylvania, 1996

White, Gerald, The *Brazeau Lake Lumber Company Sawmill.* Narrow Gauge and Short Line Gazette, pages 63 – 65, January/February 1985

Wurm, Ted, *My Favorite Logging Narrow Gauge*. Narrow Gauge and Short Line Gazette, pages 62 – 66, March/April 1982

Future Articles

Resin Casting

Modeling Keuka Lake - Hammondsport

Siegel Street Revisited

The Trials and Tribulations of a Large Model Railroad Club

Tortoise Installation Made Easy

The Santa Fe CF - 7

Building a Large Sawmill

NEXT MONTH

Russ Reinberg's On30 Shay

Building a Hot Wire Cutter

Ball Signal Animation

Decoder Installation in *Older Locomotives* – Part 4

Train Events Calendar

Rochester Model Rails

E MAGAZINE

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Editor and Publisher
Richard A. Senges

Web Master
Ted Larson

Columnists
Leo Adamski
Gerald Brimacombe
Bill Carr
Fred Cupp
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Betty James
Ray Howard
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Gary Patterson
Richard Roth
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Ned Spiller, MMR
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Otto Vondrak
Norm Wright

Authors: Articles, digital images, and plans are welcome.

Mailing Address
1231 Wellington Drive
Victor, NY 14564

Web Site:
www.trainweb.org/rmr

www.railroadmuseum.net

Old Issues of *RMR*

Coming Train Events for 2006/2007

Updated 7- 31 - 2006

August 2- 6 **Pontiac, MI –** S Scale National Convention,

August 9 – 12 **Denver, CO -** N Scale National Convention, Info: www.nscalecollector.com/Denver_NSC.htm

August 12 – 13 **Gananoque, Canada** - Thousand Islands Model Railroad Show, Thousand Islands Model Railroaders, Gananoque Recreation Center, 600 King St. E.
Contact: Bill 613-382-7575 or Rick 613-382-3244

August 21 – 26 **Durango, CO** - 26th National Narrow Gauge Convention

September 9 **Niagara Falls, NY** - The Sept. meet of the International Division of the NMRA will be held at the Niagara-Orleans Model Railroad Engineers club at Summit Park Mall, Williams RD. Niagara Falls N.Y. at 9:30 A.M. Clinics, and a Switching Contest will be held, and the clubs layouts will be open.

September 10 **Buffalo, NY** – Buffalo Central Terminal First Train Show.
Info: www.buffalocentralterminal.org

October 21, 2006 Lakeshores Division NMRA Fall Meet, Cayuga Valley Railroad Modelers
Knights of Columbus Hall , Auburn, NY
Clinics, Model Contest, Election of Officers, Layout Tours
Info: Dave Mitchell, LSD Superintendent dbmitch@rochester.rr.com

Sept. 30 – Oct. 1 **Brampton, Canada** - Brampton Model Railroad Show, Orangeville Shortline Model

October 14 – 15 **Bowmanville, Ontario, Canada –** 20th Annual Train Show, Bowmanville High School**,** 49 Liberty Street North. Sat – 10:00 am - 4:30pm, Sun. 10 am - 4:00pm. Adults $5, Senior $4, Family $10. Presented by the Soper Valley Model Railroad Association. Contact: Ron Radcliffe 905-987-3099

October 20 – 22 **Parsippany, NY –** NMRA NER 2006 Fall Convention

November 4- 5 **Syracuse NY** – 32nd edition of the Central New York Train Fair. One of the largest train shows In the Northeast covering 150,000 square feet in two large buildings at the New York State Fairground. More that 100 vendors; more than 50 operating layouts; all scales. Sat. 10:00am – 6:00pm. Sunday 10:00am – 5:00pm. Sponsored By Central New York NRHS.
www.rrhistorical-2.com/cnynrhs Info: cnynrhs@aol.com

November 12 **Batavia, NY** - The Great Batavia Train Show, Batavia Downs Gaming, 9:30am – 3:30pm. Donation $5.00

December 9-10 **Rochester, NY –** The *New and Expanded* Two Day RIT Train Show and Sale,
Location – RIT Field House, many layouts displayed, largest train show in western NY.

2007

February 16-18 **Denver, CO -** 22nd Annual Sn3 Symposium. Contact: Doug Junda 303-275-8926

April 27- 29 **Rochester, NY –** NMRA NFR convention. The “Flower City Flyer” event will include the usual – model railroad clinics, model contests, and layout tours. Info:
Harvey McIntyre: hmcintyre4@cogeco.ca