



THE SIGNAL BRIDGE

NEWSLETTER OF THE MOUNTAIN EMPIRE MODEL RAILROADERS CLUB

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LOCATION

ETSU Campus
George L. Carter
Railroad Museum

HOURS

Business Meetings are held the 3rd Tuesday of each month. Meetings start at 6:30 PM in:

Brown Hall
Room 312
ETSU Campus,
Johnson City, TN.

Open House for viewing every Saturday from 10:00 am until 3:00 pm.

Work Nights are held each Thursday from 4:00 pm until ??

SPECIAL FOCUS THIS ISSUE

THE IRON HORSE BATTLE AGAINST SNOW



White Pass and Yukon Rotary Snow Plow No.1



A rotary snowplow from the Oregon Short Line on display at the Mid Continent Railway Museum in North Freedom, WI.

SNOW JOB

HOW THE PROTOTYPE HANDLES WINTER SNOW CONDITIONS

With the seasonal change from autumn to winter Railroads face the inevitable battle with cold, snow and ice conditions. These represent added challenges to an industry with everyday challenges faced by men and equipment.

Locomotives prime movers can breakdown if idled long enough for coolant to freeze or snow meld finds its way into sensitive electrical gear. Air hoses can leak at best or crack and break unexpectedly. Break rigging can malfunction and flanges can crack and fail. With the presence of ice wheel to rail adhesion is compromised. These problems effect rolling stock, but there is also the impact on track and signal systems.

Rail can contract enough to shatter welded joints and bolted joints. Small defects in the railhead can become major flaws. Turnout can freeze and signal equipment can stop working. Rails can “frost heave,” loose alignment, or fall out of gauge.

In order to win the battle with the elements, railroads have developed specialize equipment to fight the cold, snow and ice of winter.

THE FIRST LINE OF DEFENSE: THE PILOT PLOW



Norfolk Southern 8439 with a pilot plow passing through Jonesborough TN

Railroads plying snow prone routes traditionally equip their locomotives with pilot plows. These can handle most situations when there is light snow and limited drifting. The plow blades clear tracks only the width of the locomotive and

largely ineffective in heavy, drifting snow or in heavy icing conditions.



A pilot plow on a Cubes & Toltec Scenic Railroad Mudhen

WEDGE OR BUCKER PLOW

From Wikipedia the Online Encyclopedia



An example of a railroad wedge plow

The **wedge plow** or **Bucker plow** was first developed by railroad companies to clear snow in the American West. The wedge plow forces snow to the sides of the tracks and therefore requires a large amount of force due to the compression of snow. The wedge plow is still in use today in combination with the high-maintenance, rotary snowplow.

Three features are required for optimum performance:

- 1st: The plow has a smooth surface so snow will slide over the plow face rather than accumulating to be pushed along as an increasing mass. Wooden plows were carefully constructed of individually fitted boards and painted frequently to maintain a smooth surface. Steel plows can be sprayed with water in sub-freezing temperatures to form a smooth layer of ice on the plow surface.

- 2nd: The plow has a horizontal wedge to lift snow above the level of snow accumulation beside the track. A cutting edge low above the rails usually employed a cast iron or steel leading edge for durability against ice and for weight to discourage the tendency of the wedge to climb over hard-packed snow causing derailment by lifting the wheels off the rails. Under most conditions, the tendency to climb was reduced by weight of snow on the upper side of the wedge, and by downward reaction force accompanying upward acceleration of lifted snow. However, this downward snow loading may be absent when a plow first strikes a snow drift or packed snow face where the plow train has previously stalled. Before making a running start against such conditions, prudent crews would dig into the lower edge of the drift or snow face creating a notch to receive and guide the leading edge of the horizontal wedge.
- 3rd: The plow has a vertical wedge to push the snow horizontally away from the track. The vertical wedge may be less acute than the horizontal wedge, but often included a cast or sheet metal cutting edge on wooden plows. Pushing snow horizontally off the track may create an unbalanced horizontal force where asymmetrical snow accumulation is encountered. (such as snow drifting into one side of a cut) This unbalanced force may derail the plow. The leading edge of the horizontal wedge is typically forward of the vertical wedge so stabilizing downward snow loading precedes horizontal loads.



Four locomotives plow deep snow in February, 1869.

Well-designed wedge plows work best at speeds which accelerate the snow first upward and transitioning to a horizontal acceleration casting the snow far enough from the track to avoid creating high, vertical snowbanks which would leave the cleared track a sheltered deposition site for wind-blown snow.

History

Early roads were often rolled rather than plowed to compact accumulated snow into a surface suitable for sleighs drawn by draft animals. Rail transportation brought the requirement for snow removal by plows. In the 1840s railway companies began using bucker plows to remove snow from railways. The first incarnation of the wedge plow was the Bucker Plow which were made of wood. Because of the amount of capital invested in railroads, the railways were required to be functional year-round. Because of this, snow needed to be cleared from the railways in an efficient manner. The Wedge Plow was patented by Charles Lowbaert to keep railways functional during the winter.

The wedge plow typically required several locomotives to propel the plow with enough force to push through the snow. High speeds of up to 50 mph (80 km/h) were required to achieve an adequate propulsion for the removal of snow. Sometimes, as many as 14 locomotives were used in the process. In the case where snow was tightly packed or frozen, manual labor might still be used to clear the tracks. The process of 'ramming' through snow was accounted by historically as follows.

"The pushing and backing of the engines made a din unequalled since the blacksmithy of the Cyclops. By some hocus pocus the seven engines were made to pull together. After three hours of toil-there was a tremendous jerk, a forward movement of a few moments and we were abreast of the station."

ROTARY SNOW PLOW

From Wikipedia the Online Encyclopedia

A **rotary snowplow** is a piece of railroad snowfighting equipment with a large circular set of blades on its front end that rotate to cut through the snow on the track ahead of it. The precursor to the rotary snowplow was the wedge snowplow.

History

The rotary was invented by Toronto, Ontario, Canada dentist J.W. Elliot in 1869. He never built a working model or prototype, although he wanted to. Orange Jull of Orangeville, Ontario, expanded on Elliot's design, building working models he tested with sand. During the winter of 1883-1884, Jull contracted with the Leslie Brothers of Toronto to build a full-size prototype that proved successful. Jull later sold his design rights to Leslie Brothers, who formed the Rotary Steam Shovel Manufacturing Company in Paterson, New Jersey. Leslie Brothers contracted with Cooke Locomotive & Machine Works in Paterson to do the actual construction.



' A rotary snowplow at work in New Ulm, Minnesota.

Another inventor is said to be Col. Lewis P. Campbell. He is listed in US patent 1848554.

Operation

Wedge snowplows were the traditional mechanized method of clearing snow from railroad tracks. These pushed snow off the tracks, deflecting it to the side. Deeper drifts cannot easily be cleared by this method; there is simply too much snow to be moved. For this purpose, the rotary snowplow was devised.



Operational rotary snowplow Xrotd 9213 of Rhaetian Railway

When snow is too deep, the railroads call on their rotary. The plow is not self-propelled, so one or more locomotives are coupled behind it to push the plow along the line. An engine

within the plow's carbody rotates the large circular assembly at the front of the plow. The blades on this wheel cut through the snow and force it through a channel just behind the disk to an output chute above the blade assembly.

The chute can be adjusted to throw the snow to either the left or the right side of the tracks. An operator sits in a cab just above and behind the blade assembly to control the speed of the blades and the direction of output from the chute. With the increasing prevalence of diesel locomotives, multiple-unit train controls have been added to the cabs, so that the pushing locomotives can be controlled from the plow.

In areas of particularly deep snowfall, such as California's Donner Pass, railroads sometimes created a train consisting of a rotary snowplow at each end, with the blade ends pointing away from each other, and two or three locomotives coupled between them. With a plow on each end, the train was able to return to its starting location even if the snow covered the tracks it had just passed over. Such a train would also be able to clear multiple track mainlines efficiently as it could make a pass in one direction on one track, then reverse direction and clear the next track. This practice became standard for the Southern Pacific Railroad on Donner Pass following the January 1952 stranding of the *City of San Francisco* train; during attempts to clear the avalanches that had trapped the train, two rotary plows were themselves trapped by avalanches, and the crew of a third was killed when their plow was hit by an avalanche.

Rotary snowplows are expensive due to their high maintenance costs, which the railroad incurs regardless of whether they are needed in a given year. As a result, most railroads have eliminated their rotaries, preferring to use a variety of types of fixed-blade plows that have significantly lower maintenance costs, in conjunction with bulldozers, which can be used year-round on maintenance-of-way projects. In addition, because rotaries leave an open-cut in the snowbank that fixed-blade plows cannot push snow past, once rotaries have been used, they must be used for all further significant snowfalls until the snowbank has melted. Since rotaries, which need some form of fuel to power the blades, also cost more to operate than fixed-blade plows, they are now generally considered to be a tool of last resort for the railroads that own them.

The few remaining rotary plows in North America are either owned by museum railroads, or are kept in reserve for areas with poor road access and routine severe snowfall conditions; the largest remaining fleet of rotaries consists of Union Pacific Railroad's six ex-Southern Pacific plows reserved for Donner Pass. Japan sees widespread use of rotary snowplows in its many mountainous passes.

Power

Early rotaries had steam engines inside their car bodies to power the blades; a few are still in working order, and in particular one on the White Pass & Yukon Route in Alaska performs annual demonstration runs through thick snow for the benefit of photographers and railway enthusiasts. Rotaries of newer construction are either diesel- or electric-powered. Many steam plows were converted to electricity. Some electric plows can take their power from a locomotive, while others are semi-permanently coupled to power units, generally old locomotives with their traction motors removed; these are colloquially called "snails." (This is derived from the fact that engineless but motored units that take their power from another locomotive are "slugs"; thus the opposite, with engine but no motors, is a "snail.")

Hall of Fame induction

In 2001, the rotary snowplow was inducted into the North America Railway Hall of Fame.^[5] The hall of fame recognizes and establishes an enduring tribute to the people and things that have made significant contribution relating to railway industry in North America. The rotary snowplow was inducted in the "Technical Innovations" category with "National" significance.

Preservation

- Southern Pacific rotary snowplow MW208 is preserved in operational condition at the Western Pacific Railroad Museum at Portola, California. This rotary was involved in the rescue of the *City of San Francisco* train in 1952.
- The Lake Superior Railroad Museum in Duluth, Minnesota and the Museum of Transportation in St. Louis, Missouri each have one on display.
- The Rotary Snowplow Park in Breckenridge, Colorado has a 1901 snowplow used originally for the White Pass and Yukon Route in Alaska.
- The Northern Pacific Rotary 10 steam snowplow built in November, 1907 is owned by the Northwest Railway Museum and is on display in Snoqualmie, Washington.
- Rhaetian Railway still have one of their rotary snowplows in operating condition. It is mainly used on show runs for photographers, but when there is heavy snow it is still used to clear the Bernina line.
- Union Pacific Railroad's UP 900860 rotary snowplow rests at Union Station in Ogden, Utah. The snowplow is not in working condition. Unit number 900081 is displayed at the Museum of Transportation in St. Louis, Missouri.
- The Henschel rotary steam snowplow ÖBB 986.101 is preserved nonoperational at the Deutsches Technikmuseum Berlin in Germany. It was built in 1943.
- Alaska Railroad rotary snowplow #4, built by Alco, is displayed at the Potter Section House State Historic Site south of Anchorage.

Henry David Thoreau also noted in his poems the "steady and cheerful valor of the men who inhabit the snow-plough for their winter quarters...and [to] behold the ploughmen covered with snow and rime, their heads peering above the mould-board."

Plowing was therefore a dangerous job with the chance of derailing the train in the process. Wedge plows are still currently used by railways as a less expensive method for clearing snow drifts from the tracks. During heavier snow conditions, rotary snowplows are used.

JORDAN SPREADER

From Wikipedia the Online Encyclopedia

A **spreader** is a type of maintenance equipment designed to spread or shape ballast profiles. The spreader spreads gravel along the railroad ties. The various ploughs, wings and blades of specific spreaders allow them to remove snow, build banks, clean and dig ditches, evenly distribute gravel, as well as trim embankments of brush along the side of the track. The operation of the wings was once performed by compressed air, and later hydraulics. Besides the MoW-operation spreaders are also used in open cast mines to clean the tracks from overburden tipped from dump cars.



Jordan Spreader

History

Oswald F. Jordan was a Canadian road master who worked in the Niagara, Ontario area on the Canada Southern Railway, a branch of the New York Central Railway. Jordan designed the Jordan spreader and supervised a crew at the St. Thomas Canada Southern shop as early as 1900. He formed his own company, O.F. Jordan Company, and continued construction of Jordan Spreaders.



In 2001, the Jordan Spread was inducted into the North America Railway Hall of Fame in the "Local:Technical Innovation" category.

RUSSELL PLOW

Railroads were always seeking more economical ways to fight snow, so it wasn't long before all three designs were combined into one car. By the early 1900's, the Russell Car and Snow Plow Company of Ridgeway, Pennsylvania, was a leading supplier of wedge-type plows. The design had been modernized with a cupola and seats for an operator, headlight for night operations and a pair of air-activated side wings to push snow up and away from the side of the tracks. Wooden bodies were still common, but within a few years, all-steel plows had proven to be more durable. Both single track (as depicted by this model) and double track (which had one side of the blade enclosed to prevent snow from being pushed on to an adjacent track) were offered. Russell continued supplying steel plows to virtually every railroad that fought snow until early 1950's.

Since they only see seasonal use, which varies according to the severity of the winter, and were built tough, many of these veteran snow-fighters are still in service. Often the only modifications have been a conversion to diesel-type headlights, installation of radios and the addition of an MU plug at the back to provide electrical power. Air for the wings and brakes is supplied by the locomotive, and some roads have equipped engines for plow service.

In operations, plows are run as extra trains, but usually have rights over all other trains on the line, because of their important mission. If things are bad enough, they may be the only trains moving at all! Weather and track condition reports are made by area trains crews, and the plows are will be ordered by the chief dispatcher when conditions warrant. The crews are well trained and include the plow operator, the division roadmaster (who knows the geography and track conditions firsthand), and the engine crew. Usually several crews are trained to provide relief if conditions persist. In the steam era, a camp car with a gang of workers and a tool car carrying shovels and repair parts,

often accompanied the plow. If the plow became stuck or the drift was too deep, the crew would shovel away the snow by hand until the plow could handle the job. Today, construction equipment will be brought in to clear the line if the plows can't handle it. (Information courtesy of Walthers)

SNOW MELTER



NS BR920058X (Snow Plow) snow melter working NS Gang Mills yard early 2003; no actual markings for NS. Smelled like jet fuel.



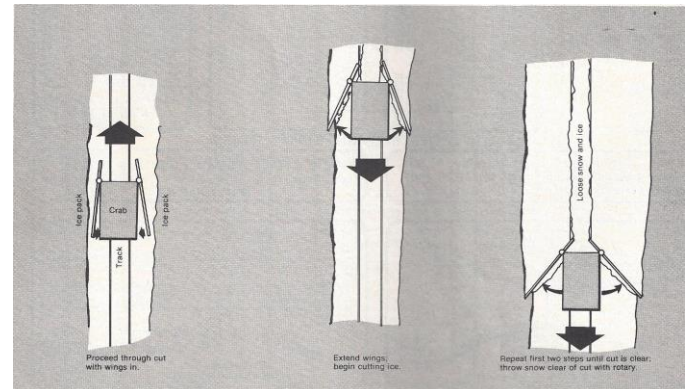
This home-made wedge plow was used on the CB&Q and was based out of Cheyenne WY. The bed of the plow would be filled with rocks and scrap to provide weight to help keep the plow on the rails while being pushed through heavy snow and drifts. When the CB&Q donated this plow to the CRRM, it was filled with 25 tons of rock!

FLANGERS

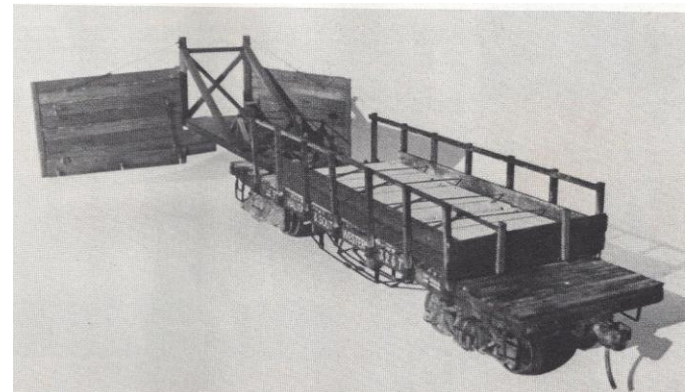
D&RGW narrow gauge flanger OC was used to clear the snow and ice that would accumulate between the rails. The engineer of the locomotive pulling the flanger would use a valve in the cab to raise and lower the flanger's blades when highway grade crossings or switches were encountered. The switch target was used to verify the position of the blades.



SNOW CRAB



Wayne Wesolowski identified a unique Maintenance-of-Way car from the late 1800's designed to aid with snow removal - a Snow Crab. Build on a truss rod flat car the piece of rolling stock featured an extension with heavy wood wings, and added weight over the opposite end of the car. The car was detailed in a construction article featured in the October 1977 issue of *RAILROAD MODEL CRAFTSMAN*.



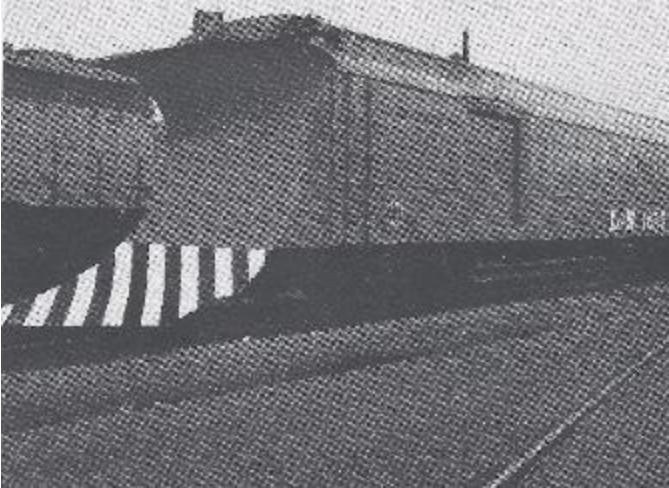
A copy of the article is available in the George L Carter Railroad Museum library for those interested in reading the full article.

BAGGAGE CAR SNOW PLOW
 From *FAMILY LINES*, May-June 1979

This L&N designed and constructed snow plow was new and untried when this photo was made some months ago. Since that time, however, it has proven its worth, having been used to clear snow from our tracks in Indiana on four different occasions.

Actually there are two cars similar to the one shown, both being L&N baggage-passenger cars formerly used by the Atomic Energy Commission to move nuclear material. Credit for the design of the snow plows goes to Warren E. Stoecker, mechanical engineer, motive power, and David J. Rush,

I was over in the Cle Elum and Easton areas in the summer of 1999, and noticed two of these units. One in Easton, and one in Cle Elum. The pictured unit is the one in Cle Elum since I could get closer to it. The units have flangers and ditchers and this one is stenciled with its apparent build date: 12-36. These two snowplows are positioned for apparent use on BNSF's secondary mainline through the Washington Cascades, Stampede (Pass) Tunnel.



engineer, motive power and work equipment. Using ideas received from a railroad encyclopedia, they made a cardboard design and blueprints that were approved by Kenneth Dotson, now general superintendent, motive

power. Following the blueprints, South Louisville boilermakers fabricated the plows and welded them to the fronts of the rail cars.

The car stationed at Danville Ill. Had not been used as of this writing. The second, based at Monon, Ind., has seen action at Hammond, Indianapolis, and twice at Michigan City, Ind.

Louisville Division Master Mechanic W. L. Ellison and Assistant Master Mechanic R.G. Jacoba have high praise for the new snow plows after seeing them pushing through snow drifts and clearing the main line for L&N trains.

SOURCES

WWW.EN.WIKIPEDIA.ORG

WWW.ALASKARAILS.ORG

WWW.WASTEAM.RAILFAN.NET/SNOWPLOWS.HTML

RAILROAD MODEL CRAFTSMAN; OCT. 1977

TRAINS . JAN. 2016

FAMILY LINES. MAY-June 1979

THE VIEW FROM THE ENGINEER'S SIDE OF THE CAB THE PRESIDENT'S COLUMN

Forty-seven merry soles helped to ring in the holidays on a cold night that was spitting the first bit of snow in the air for the year on Friday, 18 December, when members of the Mountain Empire Model Railroaders and the George L. Carter Chapter NRHS gathered at Tipton-Haynes State Historic Site to make a little history of their own. **Charlene** and **Dan McLeod** brought boxes of Christmas decorations for the room and bright tablecloths to add to the color along with recorded music. **Jim** and **Charlotte Pahrís**, **Jan** and **Roger Teinert**, and I came early to help set everything up for the crowd to follow. **Jim Pahrís** had once again taken on the responsibility for booking the room and taking care of many of the odds-and-ends that make our parties go so smoothly. By 6 p.m. the merrymakers had mostly arrived and all were laden with wonderful culinary dishes, desserts, and gifts for the "his-and-hers" tables flanking the Christmas tree. The dinner was wonderful with plenty of seconds to go around and more than the crowd could consume. It was special to see everyone in their holiday dress and the warm, friendly atmosphere that abounded in the room.

Following our social events we had a brief business meeting with the highlight being the first awarding of the **George L. Carter Railroad Museum Member of the Year Award**. During the previous month nominations were solicited from the members of both organizations for this award that is to become an annual event. With all the nominations gathered by the end of November the officers of the MEMRR and

officers and Board of Directors of the Carter Chapter NRHS voted to select a winner. All the nominees were outstanding and the task of singling out a winner was most difficult, but **Carolyn Gregg** was selected as our first winner. Her hard work in bringing our recently published *Tales of the Rails* into life, a 300+ page book of local oral histories of railroads and railroading, played an important part in the process of making our selection. Congratulations Carolyn! She was presented with a plaque to mark the occasion and the Carter RR Museum will have a plaque on the wall with our Donor's Plaques with this year's award winner and spaces for next year's awardee and for many years to come.

The special guest arrived following the conclusion of our business meeting and "Dirty Santa" held court for more than an hour of fun, laughter, and perhaps a tiny tear or two, as gifts were selected from under the tree, or taken from temporary proud "owners" before they could get them safely home to enjoy them. There is always that special gift that someone gets and that others covet, and this year was no exception. A copy of *Life along the Line*, a pictorial essay on the Norfolk & Western RR photographed by O. Winston Link became the prize to select passing through the hands of at least 5 "recipients" before coming to the end of the line where no one else could select it. For the first time we had gifts for the guys and for the gals so that a railroader's spouse could get something she might like to have instead of another railroading item that would wind up in hubby's stocking. We have tried our Holiday Parties for a couple of years in a very nice railroad-themed restaurant with the meal already prepared, but the overwhelming feeling I got was that the covered dish banquet in a room of our own with only members present gave a much more family atmosphere to the festivities and added immeasurably to the joy of this

social event. Perhaps something we need to consider as we plan our calendars for the coming 2016 year at our January business meeting.

As you are reading this I will be birding in the southern-most tip of South America, in Patagonia, a place I have wanted to visit for many years. Our Vice-President will preside in my absence at our January meeting and the program will be focused on creating our operating calendar of events for 2016. Be prepared to bring your ideas for Heritage Days, social events, public showings of our work at festivals, and all the other important things which will build a calendar that we will all share in and look forward to.

November always kicks off our drive to renew our memberships and you can do your part to make the life of the treasurer easier by renewing your 2016 membership early. It also makes my life easier in that I will not have to draft an email letter to you later this month reminding you that time is running out and you have not paid your dues. Think of all the benefits you get from your membership in the MEMRR and/or the Carter Chapter NRHS and think what you will be missing if you don't pay them. At the end of January we will change the code in the key box on the outside entrance to the Carter Railroad Museum and only paid-up members will be given the new code. I know you don't want to be on the outside looking in. The membership is most inexpensive and it has not been raised in years, so take advantage of a very good thing and renew now!! We need you in our organization and we certainly like having you as a member.

If you have not yet purchased your personal copy of the 2015 **HOn3 Annual** with its color section on our Shell Creek region of our Tweetsie Layout you really need to do so at the reduced member's price of \$15 so you can read **Geoff Stunkard's** fine article on the building of the miniature community and see his wonderful camera work that illustrates the 9 page article. What an outstanding privilege to have our Tweetsie Layout published in a national/international publication. I know we are all proud of the work that has gone into our little railroad museum and this kind of recognition is important as we continue to create turf for ourselves on a busy growing university campus. Copies are available for sale at the George L. Carter RR Museum every Saturday.

The George L. Carter Chapter NRHS has just brought the website that **Bill Beagen** has been working on to life. The site design is by ETSU graduate student Alex Holt. Check it out at glcarternrhs.com. I will have an improved web site for the G.L. Carter Railroad Museum up and running early in 2016.

The museum gets better and better and the outstanding contributions you make as "volunteers" are its heart and

soul. Your talents have created the great exhibits and your kindness towards our weekly visitors creates an atmosphere that keeps many coming back and recommending a visit to their friends. We are averaging approximately 100 guests each Saturday, and more importantly perhaps, we are averaging more than 20 of our members at the museum each Saturday. That sends an important message to everyone that this is a good place to spend part of your weekend and to share your hobby not only with our visitors, but with each other as well. The Carter Railroad Museum comes alive every Saturday as a destination for members and the public alike. Keep up the good work!

I have placed **ETSU Volunteer Forms** at several locations in the Museum in early December. Many of you have completed one and I have sent them on to ETSU's Office of Human Resources. For your protection the completed form gives you some security as an "official volunteer" of the University. I have a "completed" copy in **red font** as a template near each stack of blank forms for your guidance in case you have questions about how to fill it out. When you have completed your form you are an "official" volunteer for a calendar year. Please fill one out the next time you are at the Railroad Museum and leave it nearby, or give it to **Jim Pahr** or **Gary Emmert** and I will make sure it gets recorded in HR when I get back in town. It is important for me to have each of you working in the museum with the public registered as an ETSU Volunteer. Thank you in advance for taking the time to do this; and thank you if you have already completed your form.

2016 is here and it is a year filled with promise and potential for each of us; for the MEMRR and the Carter Chapter NRHS; and for the Carter Railroad Museum. We have had the time away from our jobs and our normal routines with the holiday break and we have ushered in another New Year. Some new train-themed gifts may have found their way into our households and have already been tested on museum trackage; or a new railroad book has been demanding much of our reading time; or we just found a few days to rest and relax. Thank you for another great year at the Carter Railroad Museum and for all you do for the MEMRR and/or the Carter Chapter NRHS. Together we continue to build strong organizations and a railroad museum that is becoming more widely known across the region. 2016 will be what we make it, so let's make the most of it together. Hear the sound of the whistle of the train in the night and dream of all the destinations yet to come. **Happy New Year! Happy 2016!!**

Fred J. Alsop III
President, Mountain Empire Model Railroaders
Director, George L. Carter Railroad Museum

MODELING A DERAILER PROTECTING THE MAINLINE FROM RUNAWAY CARS

The following modeling idea appeared in the January 2016 issue of the **FREE** on-line magazine **MODEL RAILROAD HOBBYIST**. For those who haven't discovered this excellent resource produced in Canada, you can sign up for email notices of current postings, back issues, and video clips, all free. For a small monthly subscription fee **Trainmaster Videos** and other perks are available. Their website can be found at <http://model-railroad-hobbyist.com/>.

Spur track problem...

Q. After gluing down a spur track and testing it with a freerolling car, I noticed that the car wants to roll just enough out of the spur to foul the other track. There is just the slightest slope, of course in the wrong direction. I think I will need to remove the track, and rasp down the foam to give it a little slope in the other direction. That is going to be a pain so I thought I'd ask if anybody had a better solution. When laying spur tracks be sure they are either dead flat or sloping away from the switch. I really thought the track was flat before I glued it. Should have triple-checked.

—Randy Seiler

A: Rob in Texas: Unless your house has shifted or settled or your benchwork has sagged, your first solution is likely the best. You could check to see if there is some sag. I would check the other spurs in the area and see if it is just an oversight on one track, or if there is a sag in the area. If it is not a structural issue I would fix the spur.

A: BARR CEO: You can put a derail in before the fouling point. It can be as simple as a piece of wire stuck between

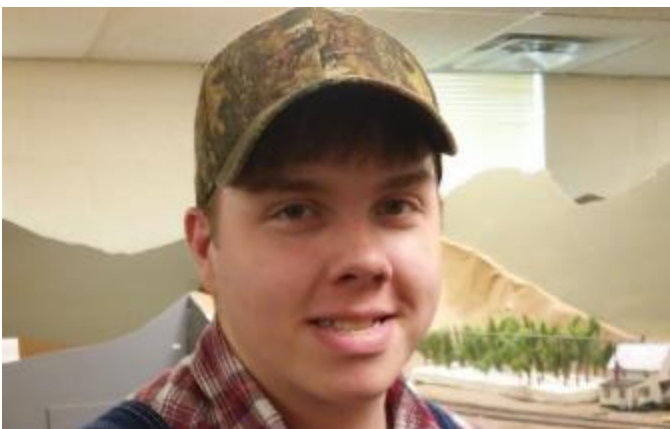
the ties, or as detailed as a scale derail put on a working switch machine of some kind to set it. Make it part of "setting the brakes" on the car.



4-5. Here is a car holder built using a Caboose Hobbies ground throw. *Ray Schofield photo*

A: Joe Atkinson: Randy, I had a similar issue at the end of a double-ended yard track, but was surprised at how little it took to correct the issue. Try prying up a very short stretch of the track near the clearance point and sliding a shim (perhaps a spare tie sanded down a bit) under the existing ties.

MEET OUR MEMBERS WILLIE VANCE



Willie has been a youth member for several years and now joins the ranks as a full member of the **Mountain Empire Model Railroaders**. He's frequently found in the Tweetsie Gallery running No. 12 for our guests and visitors during the Saturday open hours for the George L Carter Railroad Museum. He is an HO modeler with interests in both HO standard and narrow gauge models. He is interested in learning more about Layout Maintenance, Electrical aspects for DC and DCC operating systems, and scenery and layout detailing. He rates himself as an intermediate skilled model railroader. He hopes that membership in MEMRR will help him "be able to teach others about the Tweetsie Railroad and show others what a great hobby model railroading is." He believes that the club will show him the things he doesn't already know about the Digitrax DCC system and how to build realistic scenery.

Welcome aboard, Willie Vance!

**CREATING A CITYSCAPE:
BUILDING AN OLD RAILROAD AVENUE**

Part 1

By Ted Bleck-Doran

With the construction of the new diesel facilities and car shops I felt that the “Tree Street” houses needed to be replaced with a lower profile street scene. Checking the club’s donated structures, I discovered a number of city buildings from manufactures like: Design Preservation Models, AHM, and Vollmer. These would make an interesting street scene with a variety of building fronts and businesses. Several had some unique roof details for added eye candy.

To start I marked and cut a base for the street scene using a couple of pieces of scrap gator-board left over from other projects. It was marked in place on the Yard “Wye” module on the club’s HO layout.



STEP 1:

After selecting the buildings I wanted to use to line the street, I tried several arrangements to capture the best scenic effect. I sought the input from several club members who passed by to inspect my progress to improve the layout of structures. With their advice and comments in mind I tried several different arrangements for placing the buildings until I found one that as visually appealing

I discovered that with sidewalks and curbing, the street would be narrower than a usual 2 lane street. The street could represent a 1-way street in an old business district. If it is 1-way there might be some room for a short section of trolley track. By necessity the section would have to be dummy track, but it would enable to club to portray one additional form of steel wheels on steel rails.

Since the module would end abruptly at the aisle-way at the lift bridge I am considering using a mirror at the aisle end of the module to give the appearance of a continuation of the

street instead of having the street end with a “canyon overlook.”



STEP 2:

With the arrangement of the buildings in mind, I marked their respective positions on the gator-board. This would allow me to remove the buildings while the sidewalk and street paving was added to the base, and would insure that the buildings would be placed back in their desired positions.



STEP 3:

When planning the street scene I cruised the selection of styrene and molded plastic sheets available at our local *Hobbytown* location. I discovered that **Plastistruct** offers a package of vacuum molded street curbing with sidewalks. The curbs have a trough running between the curb and sidewalk that could be used to represent green space (grass, tree plantations, etc.) – or – a paving brick inlay. I felt that the paving brick inlay would be more visually appealing and represent sidewalks installed during an earlier age when labor was cheap and materials plentiful.

Strips of the molded curbing and sidewalks were cut from the sheets and fitted on the base. Once their alignment was

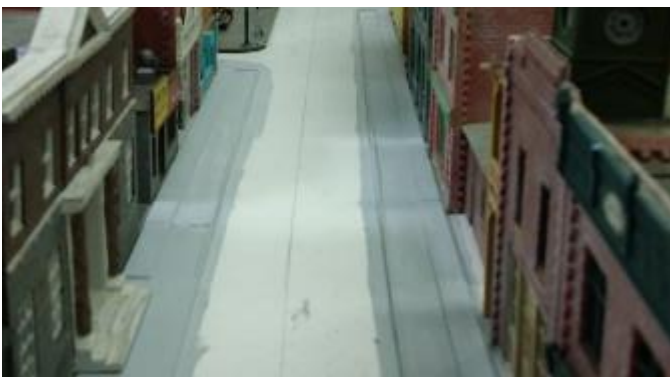
checked against the placement for the buildings they were glued in place.



STEP 4:

Plastistruct also makes vacuum molded brick sheets. I measured and cut strips from a sheet of paving bricks to fit the trough between the curbing and sidewalk. These sheets score nicely with a fresh sharps single edge cutting blade. The bricks sheets are molded in a “red brick” color. However, the color and sheen was obviously plastic.

Prior to gluing the brick strips in the troughs I applied a coat of acrylic to disguise the plastic. I used acrylic “barn red” paint as a base color. The acrylic paint dries to a flat sheen with a coarseness that nicely resembles brick. The acrylic also takes washes and dry-brushing to pop the molded brickwork for the eye. I used a wash (very dilute Burnt Umber acrylic) to fill in the grooves between the bricks.



STEP 5:

While the brick strips were drying, I applied a coat of medium grey to the curbing/sidewalk strips I had previously glued to the base. It is easier and cleaner to paint the strips of brick and curbing before gluing them together giving the stark contrast in color. These pieces will be blended together with a final wash of dark grey and some dry-brush applications.



STEP 6:

In order to bring the building entrances to the proper height with the sidewalks I cut and glued strip styrene pieces to serve as building foundations. When glued in place the strips also serve to strengthen the gator-board and increase its rigidity.



The picture above shows how the new “Depot Street” is shaping up. Next up: laying the trolley track and street paving.

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