



The Crossbuck

THE OSWEGO VALLEY RAILROAD ASSOCIATION

Newsletter, April 2025, Volume 3, #2, Kent Dristle editor

PO. Box 205, New Haven, New York 13121-0205

Update on Grange Renovations

After a wait of over four months, we can finally report that ***we have heat in the Grange building!*** It is a mini-split heat pump system that consists of two outdoor compressor units and three interior wall “cassette” units, two in the large upstairs room and one in the downstairs dining room, that are connected by refrigerant lines and electrical cables. They are operated with remotes. They have the capability of providing heat in the winter and cooling in the summer. In addition to the original compressor and two wall units that were purchased last fall, Bob Thorpe and Bill Dexter recently purchased an additional compressor and wall unit to supplement the originals. Bob has also completed the re-wiring of the Grange building including smoke detector circuits and new light switches in the basement dining room and kitchen area. He has re-routed wiring from the existing panels into a more logical configuration, which facilitates future expansion. He received much assistance from OVRRA member Bill Dexter in this endeavor as well.

On March 8, Charlie, Steve, and Kent did an inspection of the attic, looking for evidence of hornets and bats. None were observed. There was no visible evidence of a hornets’ nest there in the attic. They concluded that the nest must be located somewhere within the soffit. The problem will be addressed from the outside when the weather permits.

OVRRA board members and Grange president Pam Mossotti are putting the final touches on the written occupancy agreement between the two parties. We hope to have the agreement signed by the time you are reading this, or soon thereafter.

OVRRA would like to put up a small shed in which we can store tables and sign boards we use in connection with our train shows. After some discussion, it was agreed that the best location would be at the northwestern end of the parking lot.

Before we can actually move into the Grange building, the floors will need to have the top coat of finish applied. Cold weather and lack of heat has prevented this from being done earlier. Work on the wheelchair ramp out front will resume soon. In the meantime, our possessions are secure in storage units and in the homes of various club members. Even after we are able to move in, work on the building will continue. There are moldings that need to be stained, finished, and installed. Insulation for the attic floor will need to be purchased and installed.

Pam wants to restart the waffle breakfasts later this year to help raise needed funds for the Grange. OVRRA members have volunteered to help. No firm dates have been set yet, but we are hopeful that the first breakfast will occur either in late May or June. OVRRA also wants to hold an open house for our train club in which we can show off our train layouts to the general public and have a chance to explain club activities. It’s too soon to know when this will happen, but we will have to be completely moved in and established inside the building in order to be ready. If you’d like to help us in any of these matters, please contact Kent Dristle, Steve Rogers, Charlie Hewlett, or Secil Brown. (Contact info on page 2). Thank you in advance.

OVRRA Train Show Schedule for 2025

May 3-4.....Spring Time Express Train Show...Volney
Sept.6-7....Thousand Islands Train show... .Clayton
Nov. 1-2Great NYS Model Train Fair... Syracuse
Nov 8-9... Holiday Express Train Show.....Volney
Dec 6-7..... Christmas in Mexico.....Mexico

Contributors to this issue:

Kent Dristle

Steve Rogers

Bud Dowie



New Paint and Lettering Scheme for OVRRA Rolling Stock

At our February business meeting, OVRRA member got the chance to review plans for a new paint and lettering scheme for OVRRA rolling stock. After considering several alternatives, the green and gray scheme was most preferred. Two boxcars are currently in the process of getting this new design applied to them. Eventually we'd also like to paint and letter some engines as well. The illustration above shows what these repainted boxcars will look like when finished. According to OVRRA founding member Bud Dowie, the only other freight cars that are already lettered for OVRRA are the two track cleaning cars. Bud also noted that there were once plans to paint up and letter a set of Overton passenger cars with the OVRRA name. He was unsure if that project had every been completed. Once we are moved into the Grange and have a chance to carefully unpack and inventory our club's possessions, we'll all have a better idea if those cars still exist. ■

OVRRA Officers for 2025

President.....Kent Distle
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Vice-President.....Steve Rogers
vp@ovrra.org

Secretary.....Charles Hewlett
secretary@ovrra.org

Treasurer.....Secil Brown
treasurer@ovrra.org

Serving on the Board of Directors as
 Members-at-large are

Tina Rogers and Todd Spencer

OVRRA also has a facebook page
www.facebook.com/OVRRainc

OVRRA has a new website:

ovrra.org

Concurrent with the release of our new website, we now have the ability to accept electronic donations!

**Help keep the
trains running!**

**Make a donation
to OVRRA.**

**Scan the QR code
to the right.**



What are Your Standards?

by Steven Rogers

If you have ever looked at the NMRA Standards section on their website you will have noticed that there are standards for all scales of model railroading. In HO scale many of these standards have made it possible for us to use products from different manufacturers' right out of the box without the need for modifications due to incompatibility issues. In the 1950's and 1960's many of the standards that the NMRA working groups were dealing with dealt with couplers, wheel sets, and car weighting. One of the main reasons that I have been a member of the NMRA since I returned to the hobby in 1997 is the need for standards. I cannot imagine the problems that we would face if the standards for DCC were not developed.

Probably the most famous or infamous outcome was the X2F "horn-hook" coupler that became the defacto "standard" coupler of train sets from Life-Like, Tyco, AHM, Athearn and other manufacturers in the 1970's and on into the late 1990's. Unless you obtain items from the 1940's and 1950's, it is hard to understand the very wide variety of couplers that were in use in the hobby. Mantua had metal hook and loop style, Labelle and many other kit makers used cast metal scale fixed knuckle couplers. There were some early metal knuckle couplers, Kadee # 1-4 styles and probably many others that I have not encountered or do not recall. It was common in the 1990's and 2000's to buy a Funaro & Camerlengo or other higher end kit that came "less trucks and couplers", so that the modeler could use their choice of those items, during construction and also allowed for the kits to be cheaper or perhaps keep the makers profit margin up!

Trucks and especially wheel sets are another item where the NMRA standards have been of great help to the model train operator. We probably all have encountered the Rivarossi/AHM/IHC "pizza cutter" wheels and wheel sets on locomotives and rolling stock. These have flanges that are so deep that they hit the tie plate and spike detail on even code 100 track, thus leading to derailments. Changing out the wheel sets was one option, if you could find ones with the correct axel length, or you could change the trucks and often have to body mount couplers as well. I can remember articles in *Model Railroader* and *Railroad Model Craftsman* that described the process of using a lathe like a Unimat to turn down the deep flanges. Not very difficult with plastic wheel sets (which I have done) but very difficult with the metal wheels in a locomotive drive train (which I have not attempted)!

Car weighting is another issue that is very important in operations if you are just running trains and especially if you are going to do switching. Cars that are too light will derail much more easily going around tight radius curves in either direction, but it becomes very evident when backing up as the couplers are compressed. Cars that are too heavy cause a drag on the locomotive and greatly limit train length and incline grades that can be climbed.

What are the standards of the OVRRA? I know that we have talked about what works best when we are together at train shows, but as long as you are consistent in your standards your trains will run as a unit fairly well with only an occasional oops, but as we get ready to move into the Grange and try to do some operations based model railroading, we should consider what we will possible need to do to allow equipment from different members and guests to function well in an operating session. Some food for thought for those of us that want to try some operations, maybe there are OVRRA standards somewhere, but I do not recall seeing them. If they do exist we should get them out and dust them off and consider if they are fine or do they need updating. If standards do not exist, we probably need to consider some common sense ones to start the process. ■

Weathering Effects for Model Railroading

by Kent Dristle

Perhaps the first question you have is "Why bother?" I think I can best answer that question by telling you about the reaction I've often received from folks who come to see my model railroad. First it's "Wow!" followed by "It's looks so real!" Yes, the careful attention I've given to detail is one reason they say that, but I have no doubt the *main* reason is that I've made the effort to weather the majority of the items featured on the layout. I'm sure that the time and energy you invest in weathering your models is the single most effective thing you can do to heighten realism on your layout. The best part about it is that it's not all that hard to do.

The four most common weathering techniques involve paint, washes, powders, and abrasion. Let's start with **paint**. If you look carefully at the world around you, you'll quickly see that practically no objects are uniformly one color. One side may be faded from the sun. There will be accumulations of grime and dirt in the cracks and crevices. Moss or mildew may have grown on some surfaces. Metal objects are often streaked with rust stains. Even heavily rusted objects are not one color. Fresh, active rust can be bright orange. Old rust can be dark brown. Sunlight may reflect off from high points and fresh scars on objects. If you haven't already done so, you should acquire a collection of grays, browns, off-whites and nearly black paints. Yes, you can mix colors to obtain even greater variations, but try not to mix paints of different brands. When you want to show **streaks of discoloration** on objects, use a **dry-brushing** technique. Find an old paint brush that has stiff bristles. Dip it in the paint you wish

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to use (perhaps rusty brown color) and then wipe most of the paint off on a paper towel. You can now drag the nearly dry brush down across your model to show the streaks and stains left behind by rainwater. This is quite effective under windows, along seams in metal, and anywhere the surface has been scarred by rust or abrasion. Another paint technique you can employ is **spatter-painting**. I used spatter-painting to simulate the rust spots on the steel girders of the bridge over the waterfront on my layout. It's best to do this *before* you mount the model on the layout. If not, then you will be masking off all of the surrounding area. And, there is also **pounce-painting**. This is where you take a very stiff brush, dip it in paint, wipe most of it off, and then, holding the brush vertically pounce or dap it on the model. I've used this technique to simulate the exposed aggregate in concrete. You can buy special pounce brushes in artist supply outlets. Another way to achieve this effect is to very lightly mist the model with spray paint.



Craftsman structure kit weathered with paint, washes, and powders.

Rather than using full-bodied paints, you can dilute the paint down to make a **wash**. Washes are very effective at penetrating into every little nook and cranny. I've used a black wash to bring out the detail in board by board constructed wooden decks and platforms. I've also used a light gray wash to simulate mortar joints in brick and stone work. In order for this to be effective, the surface has to have some texture or "tooth" to it. It will not work on non-porous surfaces such as bare styrene plastic. You should paint your styrene "brick" models first with a flat paint before doing the mortar wash. I've created dark washes that are particularly effective on wood by using black India Ink (a little goes a long way) mixed with isopropyl alcohol. You can achieve some astounding weathering effects with washes and powders on the real wood components you find in craftsman style building kits. You can get good effects with styrene models as well but it requires a whole lot more effort. When you create a wash, dilute your paint with that paint's solvent. Water for acrylics, paint thinner for enamels. Try to avoid using lacquer thinner as it will attack plastic and remove paint layers under it, unless that's the effect you are going for.

Powders are very useful when you want to show gradations in colors. You can grind up pastel chalks and use the resulting powder to show such things as tire and oil stains on highways, dirt that has splashed up along the foundation wall of a building or its bottom rows of siding, or even stains of roofing shingles. There are commercially available powders for model railroaders that can accurately show the grime that accumulates along the bottom edges of freight cars and the stains that appear on locomotives that have seen heavy use. There are also many books and articles published on the proper way to weather rolling

stock. I don't want to attempt to go into all of that here, but even if you make a minimal effort to weather your engines and rolling stock, they will look much more realistic. I apply powders in several different ways depending upon the size of the area I want to cover and the nature of the surface. Another advantage of using commercially available weathering powders is that many of them have an additive that will make the powder stick to the model. Moderately stiff brushes, like those you might use for dry-brushing work well for small concentrated areas. For larger areas, there are pads and applicators that come from women's make up kits that work quite well. I've also used a dry paper towel folded into a pad to help blend areas out such as on a highway. Powders are particularly useful for models that are built with paper and cardstock that might warp or delaminate when washes or paints are applied.



Rust effects achieved with paint and powders

The final weathering technique I'll speak of is **abrasion**. Many modelers will take some fine sandpaper and drag it across a styrene model that's supposed to represent a wooden structure. This accomplishes several things. It helps kill the styrene shine. It adds texture or "tooth" to the surface so it will hold paint or washes better and it just looks a whole lot more like weathered wood. Micro Mark makes a set of wire brush tools that I've found very effective for creating weathering effects on models. It has been said that if you were not being careful and used a wash that was too dark on your model, about the only way to recover is to strip off the paint and start over. This may be true for styrene you are trying to make look like wood, but I've found a way to recover from a too dark stain or wash on a wooden craftsman model by using the Micro Mark wire brush on the surface. It will remove small amounts of the stain and paint, exposing the bare wood, particularly on the high spots, much like the way that nature does it on real buildings. This effectively lightens up the overall appearance.

You shouldn't have to weather everything to the same degree. In the natural world you'll find some objects are relatively new while others exhibit various stages of wear and tear. You can start out light and add more weathering later if you want to increase the effect. At any rate, jump in and see how you like it. You'll learn best by doing and you need not worry about making mistakes. There's so much variety in the real world that most anything you do will look acceptable. ■

A Matter of Choice: Modeling an Actual Prototype Railroad vs. Creating Your Own (Going Freelance)

The way that quite a few model railroaders get started is with a train set which most often contains one or two engines and set of either freight cars or passenger cars belonging to a particular prototype railroad. In my own case, my first train set consisted of Canadian National F7A and B units along with assorted freight cars and, of course, a Canadian National caboose. The whole idea of a train set is that with very little effort, you can have a realistic looking train up and running in no time. For modelers just getting started, it's a great advantage to be able to buy equipment that is already decorated in eye-catching lettering, patterns, and colors, all ready to go. It's not at all hard to add additional pieces of decorated rolling stock to a train set you already own as anyone who has attended a train show can testify. Manufacturers like Walthers, Athearn, Bachmann, Atlas, Rapido, Bowser, and many others have you covered. And if you grew up in a railroad town, you may have a special affinity for that particular railroad and have a desire to model it. No problem: In most cases you can find models that come already painted and lettered for that railroad. For some, historical accuracy is important and having a layout that showcases the past glory of railroad operations in the place where you grew up can be very satisfying. Having authentic looking models goes a long way toward meeting that goal.

On the other hand, other modelers may not have the time or inclination to do the kind of research that's needed to construct a historically accurate model or diorama of an actual railroad scene. There may be other things that are more important for you such as having a large passenger station or an eye catching bridge or even a four track mainline. Maybe a modeler just wants to have the freedom to do whatever they want with the space they have available. Perhaps a railroad didn't actually run through your hometown but you wish it did. Your model railroad can then provide an answer to the question, "What if..?" Maybe you imagine that you're the president of your very own railroad? What would it look like? What features might it have? What industries would it serve? If this describes what your dreams look like, then maybe you should create and construct your own fictional railroad line. In model railroading, we call that freelancing.

Within OVRRA, we have at least three modelers whose home layouts are of the freelance type. Bud Dowie has his Lake Ontario Southern Terminal (LOST) line. Bud tells us that the name came from a remark his wife had made about how much time he spent in the basement with his model railroad. "I thought you got *lost* down there!" Before a devastating plumbing leak destroyed a good portion of it, Bud's line occupied a large portion of his home's basement where he held twice monthly operating sessions. It featured cities named after friends and family members such as Sharon and Marion as well as connections to actual railroads such as the O&W. Bud was able to incorporate quite a few industries as rail customers for his freight operations as well as stations for his passenger runs.

Bud is now in the process of rebuilding his layout, but on a smaller footprint. This has given him the opportunity to do some needed upgrades to trackwork and equipment.

Vann and Kent Dristle created the fictional Middle Atlantic and Northern (MA&N) back in the 1960s when they were both living in Baldwinsville with their parents. After moving into their own respective homes, both Vann and Kent continued to develop the Middle Atlantic, showcasing different parts of the pike. Vann chose to model operations in the Cicero area where he lives. Kent chose to create a fictional city on the shore of Lake Ontario he calls Wontego. Eventually, Kent created a map showing the mainline and branch lines of the MA&N and where it has connections with other prototypical railroads. Kent even wrote up a short history of the railroad explaining how it weathered many of the same economic upturns and downturns that other actual northeastern railroads had to deal with. Recently, Kent was a bit disappointed to discover that there is now in existence an actual railroad with the reporting marks MA&N. It's the Mohawk, Adirondack and Northern. Both Vann and Kent have far too many pieces of lettered rolling stock to even consider changing the name of their fictional road. Perhaps in Vann and Kent's HO scale world, the Middle Atlantic and Northern is regarded as being real and the Mohawk Adirondack and Northern is fiction. (As Kent's wife would say, LOL.)



A GE U25B model on Kent's home layout painted and lettered in the MA&N's blue, red, and gold color scheme

We've already mentioned some of the pros and cons of each type of model railroad. Probably the biggest advantage of choosing a prototype to model is the abundance of commercially available models that come lettered and painted. The corresponding disadvantage with going freelance is that you must come up with your own paint and lettering scheme and then execute it. Vann, Kent, and Bud have all learned how to paint and decal models. It's a skill that you develop with practice, but the results can be very satisfying. The biggest advantage of going freelance is the freedom it gives you to incorporate whatever you want into your layout that will fit in the space you have available. It's also freedom from absolute historical accuracy. The corresponding disadvantage of modeling an actual railroad is that you will always feel some degree of obligation to "get things right" historically speaking. Of course, no modeler has the space in their own home to accurately show to scale the railroad operations in

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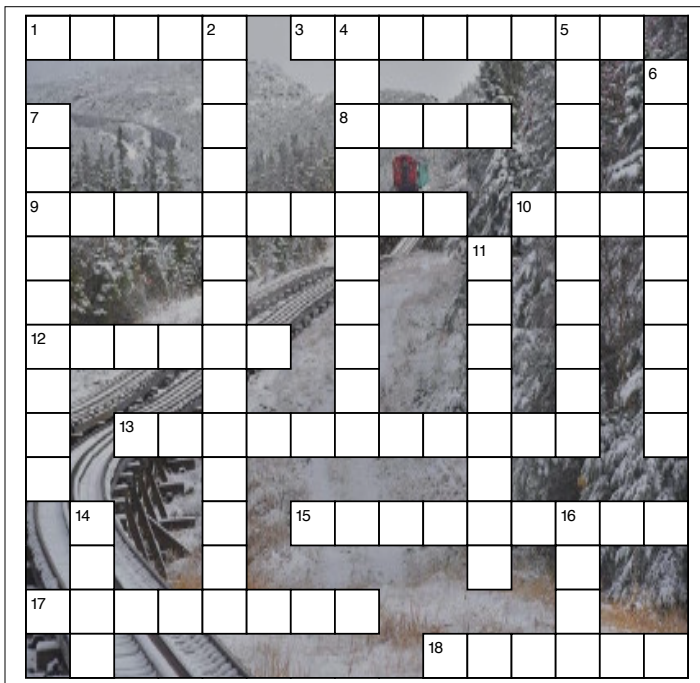
a town, so selectivity becomes your friend, from employing selective compression to outright omission of some features in order to make things fit. It's just a question of how much of this can you live with. Bud says that even a freelancer such as he can't get away from the necessity of shortening up structures and facilities to make them fit in the available space. Kent and Bud both agree that selective compression is so much easier to justify in your own fictional world.

During its four decades of existence, OVRRA has constructed a number of club layouts, making use of both the prototype (historic) and the freelance (fictional) types. OVRRA's first large traveling layout showcased the operations of the New York Ontario & Western and the New York Central in the Oswego, Fulton, and Syracuse area. It featured Oswego's distinctive O&W passenger station, Ames Iron Works, the tunnel under the courthouse as well as coal trestles, the Nestlé plant (Fulton), the Hall Road yard, and engine servicing facilities. At first, only O&W and NYC train operations were allowed on the layout. As a concession to some club members who wished for more freedom of operations, the rule was changed so that during Sundays at the train shows, equipment from

railroads other than O&W and NYC would be allowed to operate. In later years, a new freelance traveling layout was constructed on which club members could operate virtually any kind of railroad equipment they wanted. The freelance layout showcases generic engine servicing facilities, a fictional city, coal mine, logging operations, as well as rural areas including a wheat field and grain elevator, although one very popular prototypical item has been incorporated into the freelance layout: The Onondaga Lake Parkway bridge.

No matter which kind of layout a modeler may wish to construct, some compromises and adjustments will have to be made. There is an advantage for the modeler in joining a model railroad club such as OVRRA in that club layouts can in most cases be larger and provide for more variety in opportunities of operating experiences. It also gives a person the chance to share their modeling experiences and expertise with others and to learn new skills from them. In the end, you, the modeler will want to do whatever gives you the most enjoyment and satisfaction. The choice is yours. ■

OVRRA Crossword Puzzle #1



Across

1. A former Conrail locomotive or employee
3. Name given to railroad crossties in the UK
8. A cabless switcher
9. The original voice of "Mr. Conductor" on the "Thomas the Tank Engine" television series
10. Reporting marks for Bud Dowie's freelance model railroad
12. Nickname of branch line of the New York Central that passed through Oswego
13. Largest and longest viaduct on the DL&W mainline
15. Over 60 miles of Lackawanna mainline and yard tracks were destroyed by this natural disaster in August of 1955
17. Village within which the chocolate train wreck occurred
18. Produce commodity shipped out of Oswego on the O&W

Down

2. Had trackage rights on the O&W between Fulton and Oswego
4. Ended passenger service to Oswego on February 13, 1949
5. Location where the first meeting of OVRRA was held
6. What pre-existing route did the New York Central use for its elevated passenger line through Syracuse?
7. Steam engine in the Polar Express
11. First president of OVRRA
14. Lackawanna railroad moved a million tons of this commodity through the Oswego port in 1943 and again in 1956
16. Manufacturer of S2 switcher used by the New York Central in Oswego

The Great Blockade of 1875 Central & Northern New York Railroad History

You think we had a tough winter this past year? Consider what happened from February 10th through the 18th in our very own area during the winter of 1875. Railroads serving Oswego, Fulton, Pulaski, and communities in southern Jefferson county were snowed in or “blockaded” during most if not all of that time period by snow, wind, and incredibly high snow drifts. According to the Oswego *Palladium*,

About dark last night [February 8, 1875] snow and wind storm set in which completely eclipsed all preceding storms of this exceptionally severe winter. The air seemed to be possessed with frenzy; the wind wrestled with you; the snow flew at you; and the frost attacked you till the result became too bitter to endure. It was a terrible night. Railroad men who were out, and who have had many years of experience, declare that it was the worst night they ever saw.

As it turns out, the actual amount of new snowfall was quite small. Perhaps no more than 6 or 7 inches. The real culprit was the wind which created ground blizzards whipping the snow into tall drifts. By the 10th of the month, the wind direction had changed causing new drifts in paths that had been spared earlier. Train movements became increasingly difficult. Forty carloads of cattle became frostbitten while traveling on the New York Central from Syracuse to Rochester in a slow moving train. By the evening of February 11-12, sustained winds measured 36 mph in Oswego with higher gusts, especially near the lake shore. By this time, all four railroads out of Oswego were blockaded with several trains either being abandoned or derailed. Lake effect snow now added to the misery. Oswego was not the only area suffering. In southern Jefferson county, snow drifts of 10 to 20 feet in height were to be found on both the Rome Watertown & Ogdensburg and the Utica & Black River railroads.

On the DL&W, a shovel crew worked their way from Baldwinsville north into Oswego county where they encountered a train that had become stranded in Granby. The shovel crew then met up with another crew that had been dispatched south from Fulton. The northern crew had just managed to get a derailed plow back on the track. Both shovel crews united, now a formidable unit consisting of 100 men, six engines, and a plow. Their next task was to dig their way toward Oswego. As they did so, they reportedly encountered snow drifts as high as the telegraph poles. By February 13th the DL&W was open again to Oswego. There was notable progress being made to the north on the RW&O as well with the track being cleared to Sandy Creek. Meanwhile another crew working south from Watertown had made it as far as Adams. Then came a setback.

From the evening of February 16th and on into the 17th another storm lashed the area. Just as it was with the first storm, this storm's main punch was not so much the amount of snow, but was the fierce and unrelenting winds, which again caused drifting. [It should be noted that accurate measurements of snowfall are extremely difficult

in windy conditions.] On the 17th, Fulton reported a snowfall mixed with a strange yellow powder. Later when the snow melted it was discovered to be a very fine sand. The source was unknown. Throughout that week, shovelers had been working their way eastward from Oswego, making it just past Mexico until such time as the bitter conditions stopped their progress. Sadly, a man was struck by a train and killed on the U&BR railroad east of Watertown and another was seriously injured requiring the amputation of his right leg below the knee.

By February 18th, a gang of about 300 shovelers working south from Adams Center met a gang working north from Sandy Creek. The RW&O was finally open between Oswego and Watertown! The event was celebrated in the *Watertown Daily Times*:

The greatest fight with and victory over snow that was ever know, at least in New York State, was substantially ended last evening. [Feb. 18th, 1875] The blockade on the RW&O was much the worst it has ever experienced. W.C. Pierrepont of the Manor, who is a close observer and has kept a weather record year to year, says there has been no such snow-fall and blow before in fifty years. The work accomplished by Supt. Monk, Asst. Supt. Moore and their assistants has been herculean. No one can understand the difficulties encountered unless he has been through the snow canal now dug, and was on the spot while the work was in progress. Probably there are fifteen or twenty miles between here and Rome where the snow would average ten feet deep on the track, and it was so hard all the way down it had to be shoveled to the rails. In some places the men stood in three tiers, one above the other, in getting the snow up, and all along it is piled high on either side in blocks and chunks. A gentleman said that in riding through the canal it looked like a vast white marble quarry. ■

References:

Bassette, Kellen, *A History of Severe Weather to the Lee of Lake Erie and Lake Ontario in Western, Central, and North-Central New York 1798-2022*, pages 228-230, copyright ©2023 Kellen Bassette.

Bassette's sources included newspapers such as the *Oswego Palladium* and *Watertown Daily Times* as well as weather records and accounts found in private diaries collected and stored at the Half-Shire Historical Society, Richland, NY

Photo: State Historical Society of North Dakota



Although this photo was *not* taken in Central New York, it does give us an impression of what it might have looked like here in February of 1875. The photo's original caption read, "I think there's a train under here somewhere."

Solution to Switching Puzzle #7

(Puzzle 7 appeared in the January '25 issue of
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The strategy will be to try to move all the cars that are not needed in the train to siding D, then assemble the train piece by piece on siding B. The first move will be for the switcher to back into siding B and couple on to the yellow car. The dark blue car is uncoupled from the orange car. Then, the switcher pulls forward with the yellow and dark blue car onto the headshunt track until the dark blue car clears the switch. The switch is thrown and the switcher backs the two cars on to siding D as far as they will go. The yellow car is uncoupled from the dark blue car and the switcher pulls forward on to the headshunt track with the yellow car, leaving the dark blue car on siding D. Then, the switcher backs into siding B coupling the yellow car to the orange car. The light blue car is uncoupled from the red car. The switcher pulls forward with the yellow, orange, and light blue cars onto the headshunt track until the light blue car clears the switch. The switch is thrown. Next, the engine backs the three cars toward siding D, until the light blue car couples on to the dark blue car. The switcher uncouples from the yellow car. The switcher pulls forward by itself, leaving behind the light blue and orange cars on siding D (along with the dark blue car that was already there on siding D.) The yellow car temporarily fouls the entrance to siding C but it won't be there for long. The switcher moves back on to the headshunt track. The switch is thrown and the engine backs into siding B where it picks up the only

remaining car, which is the red one. It now pulls forward with the red car until it clears the switch. The switch is thrown and the engine backs the red car into the siding until it couples with the yellow car. Now the yellow car is uncoupled from the orange car. The switcher pulls forward with the red and yellow cars on to the headshunt track. The switch is thrown and the engine backs the red and yellow cars onto siding B. The engine uncouples from the red car. The engine moves on to the headshunt track. The switch is thrown again and the engine backs into siding C where it couples onto the purple car. The purple car is uncoupled from the light green car. The engine pulls forward with the purple car on to the headshunt track. The switch is thrown and it backs the purple car into the growing consist on siding B. The switcher will now move back to siding D where it left the orange car earlier. It couples onto the orange car. The orange car is freed from the light blue car. The engine pulls the orange car forward on to the headshunt track. The switch is thrown and the engine backs the orange car into siding B, coupling the orange car to the purple car. The switcher now moves back to siding C where it couples on to the light green car. The light green car is uncoupled from the dark green car. The switcher moves forward with the light green car until the light green car clears the switch to siding C. Now the switcher backs the light green car into siding D (where the orange car had been) and leaves it there. The switcher now moves back to siding C to retrieve the dark green car, which it moves forward onto the headshunt track. The switch is thrown and the engine backs the dark green car on to siding B, where it will couple on to the orange car. The consist is now complete! ■