



THOUSAND LAKES REGION

NATIONAL MODEL RAILROAD ASSOCIATION

The FUSEE



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Fall 2019

The Grand Canyon Railroad– A Wintertime Adventure!



The authors train was powered by a pair of F-40's, one of which needed replacement en-route during the blizzard. The railroad has three F-40PH's that are ex-Amtrak.

Jay Manning

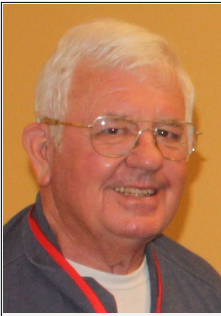
Photos by Author

Our Grand Canyon wintertime experience became a 2 part story this year. In February 2009, enroute to a family reunion in Phoenix, Arizona, Marion and I were running a full day ahead of our driving schedule. We stopped at the Welcome To Arizona rest stop on Interstate 40 and inquired as to things to do and see in Northern Arizona. The attendant immediately recommended a visit to the Grand Canyon National Park. Neither of us had ever been there so we said yes. The attendant secured a reservation for us at the Bright Angel Lodge and Cabins. The information on the facility lists it as a "Rustic Character Facility" dating back to about 1935. We had a reservation in a rustic cabin, which was truly rustic, but comfortable. The next morning we began our tour of the park, noticing that in

February the great majority of visitors were retirees, and there were no traffic jams so you can drive between site seeing stops and no crowds that the overlooks.

The weather was absolutely clear with bright sunshine so you could easily see and take pictures of the canyon. We spent the majority of the day going from site to site and enjoying the wildlife (lots of deer wondering on the grounds) and the grandeur of the canyon. About midafternoon, a train whistle blew, and for the first time we realized we had missed a great opportunity to ride the Grand Canyon Railroad. We saw the train depart the station headed back to Williams, AZ. The highway leading into the National Park is not close to the railroad so there is no opportunity to "chase a train." We stopped briefly

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View from the Cab

President Jay Manning

As we come out of summer, it is time to look for opportunities to display the model railroading hobby- if we want to grow the hobby. From experience, I can tell you that organizers are not looking for you; you have to look for opportunities. The DSED grew from doing one show a year, Trains at Christmas, to doing 9 shows in 2019. The more times you appear in public with a quality product and individuals who enjoy discussing the hobby, the greater the number of invitations you receive. The DSED recently participated in the Granite Iowa Threshing Bee. One of the trains on the layout was in all John Deere equipment. The owner of a tractor museum in the middle of South Dakota requested we do a display at his annual tractor event. None of the members present even knew there was a tractor museum in South Dakota. He was advised to get a request the DSED early in his planning cycle since the organization runs out of available weekends.

The DSED started with a simple 12 X 12 foot modular layout, and members that liked running trains and talking about the hobby. As the public interest grew in what they were doing, so did the quality of the exhibit. Yes, it takes members who are interested in talking about the hobby, and running trains. As enthusiasm grew, so did the interest within the group on increasing the quality of the display, which fed the desire to grow. The DSED grew from about 10 interested members in 2009 to 38 members in 2019. The layout now has the potential of going 36 X36 feet with a yard in the center and the ability to have a "P" shaped layout.

In addition to show layout, the DSED added 2 switching layouts to its show presentation, one HO scale and one N scale. Children are invited to learn how to run trains on these layouts with mom and dad watching. Individuals who successfully complete the switching layout exercise are given a DSED Drivers License. The drivers license is a ticket to run a train on the show layout. Not only do the children get a chance to participate in the hobby, parents have the chance to talk with club members about

the hobby and how to get involved as a family activity.

You have to build on a reputation. In order to gain the "foot in the door" that creates the opportunity to participate, you have to seek out opportunities. In order to approach an organizer, you need an activity that will attract attention. The DSED started building its reputation by doing shows at local libraries, first in one Sioux Falls library. The second was at the same library a year later. The two events demonstrated that there was considerable untapped interest in Sioux Falls in the hobby. We had a small show layout, had a clinic where children were invited to build a mountain (parents watching), a display of the different scales of model railroading equipment, and a display of models constructed by members. As word spread within the library community, The DSED received invitations from the other 3 libraries in Sioux Falls and one of a small town library within a reasonable driving distance from home. Librarians are great promoters of community activities. The participation in the DSED efforts grew each time it put on a show. One of the libraries declared a Saturday "Train Day" with all kinds of kid's activities, including a story hour where books were read about trains.

During the summer there are community celebrations in nearly every small town. You need to seek out those celebrations and offer to provide a layout as part of their activities. Recently the DSED participated in Jesse James Day in Garretson, SD. A display was offered to the organizing community, which was promptly accepted—something new to add to their roster. As the holiday season approaches, you will find bazaars everywhere. You don't have to have things to sell at a bazaar; you have the potential of keeping family members occupied while mom and dad shop. Hobby shops often offer clinics for their customers to learn more about their particular hobby. Make an offer to do a demonstration. For example one of the hobby shops in Sioux Falls accepted an offer to a clinic on weathering model railroad equipment with Pan Pastels. While participation was not large, the shop stocked the Pan Pastels weathering supplies, and the items are selling.

To grow the hobby, and membership, you have to get before the public, let's move forward, NOW.

Publishing Deadlines

<u>Publishing Date</u>	<u>Submission Deadline</u>
March 1 Edition	February 1
July 1 Edition	June 1
September 1 Edition	August 1
December 1 Edition	November 1

at the Grand Canyon Railroad store in Williams and took some pictures of the displays there before we proceeded on to Phoenix. We did learn that it is possible to ride the train to the canyon in the morning from Williams, spend the day sightseeing and return that evening, or stay overnight and return the next after-



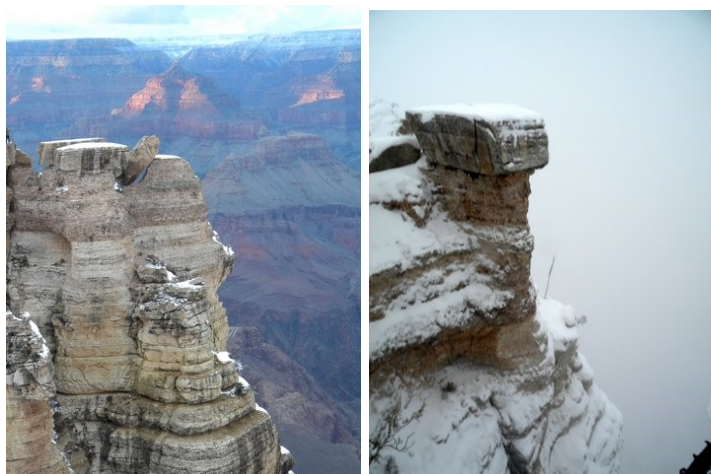
Ex-Lake Erie and Ishpeming 2-8-0 Consolidation runs on Steam Saturdays only.

noon. To say the least, the train ride went onto our bucket list.

The annual family reunion was on the list of things to accomplish in 2019. In early December of 2018 I went onto the internet to explore current opportunities to ride the Grand Canyon Railroad. I contacted the Grand Canyon Railroad offices to discuss schedules and costs for the train ride following February. Unbeknownst to me, the Grand Canyon Railroad runs the only "Railroad Resort" in the United States. The individual who answered the phone was very knowledgeable and accommodating in answering my questions and made several very good suggestions. We ended up with a package deal that included 2 nights stay at the Grand Canyon Railroad Hotel, 2 breakfasts, lunch at the Grand Canyon, two dinners, dome car seating for the trip up and back from the Canyon, and spending vouchers for the souvenir shops for a little over \$300. I was also asked if I had a National Park Eagle Pass—we do so we were not charged the admission fee. Reservations were made for the Wednesday, Thursday time period after Presidents Day.

We attended the annual family reunion on Presidents Day. That evening the local news and weather stories dealt with a massive blizzard predicted for Northern Arizona at the time when we had reservations to ride the train. It appeared to us that the drive up to Williams Arizona would be fine, the blizzard would come in the night of our arrival. We discussed canceling the trip, but decided to go anyway. Being from the Northern Plains, we also understand blizzard warnings. Early Wednesday morning before

we left Phoenix, I called the 800 number for the Grand Canyon Railroad and asked if I could extend our stay at the hotel for a third night, and the reservation was made—at the same cost per night as the tour package. I had also talked with the hotel in Phoenix where we were staying about remaining for an additional night and was told NLO, Spring baseball training starts the week after Presidents day, room rates go up and the hotels are sold out, as are rental properties. We left Phoenix Wednesday morning on a bright clear day. The drive from Phoenix is uphill all the way to Flagstaff with many site seeing vistas. We turned on Interstate 40 at Flagstaff headed West for 55 miles to Williams, AZ. As we proceeded West we notice several truck service plazas that had trucks already parked in them, but did not think much about it.



Same spot but 10 years apart, along with a weather change.

The news Wednesday night from Flagstaff predicted a major blizzard, with snow depths to 3 feet. Williams, AZ is about 500 feet lower in elevation than Flagstaff so we did not worry much about the blizzard. We woke up around 4 AM and looked out the window and saw that it was snowing very hard, there was about 6 inches on a vehicle near our window. We got up, and headed to the cafeteria building where all of the meals are served. I asked if the train was still running that day, and was told yes, IT ALWAYS RUNS. The Grand Canyon Railroad owns and maintains all of its equipment and the tracks from Williams to the Canyon. Presidents weekend the railroad operated one of its 2 steam engines on the excursion. The literature from the railroad indicates that it will run its CB&Q steam engine one last time this summer before its certifications run out with planned photo opportunities. Steam runs on the weekends will operate using their second engine. Regular runs are pulled with F-40 engines. The Grand Canyon Railroad owns and operates all of its rolling stock and tracks from Williams to the Canyon.

(Continued page 4)

We boarded the train for the trip to the canyon in a blizzard. Our seats were in a restored dome car with amenities along with a family of 4. The dome itself had a lot of snow on it, which I assumed would simply fall off as we proceeded—it didn't. The car steward served coffee, juice, fruit and morning bakery products and did a running commentary as we proceeded. About an hour out, the lead engine had difficulties so the train pulled into one of the few passing sidings along the route to wait for another engine. As we were waiting for the replacement, the warmth of the car melted the snow on the dome so we had a good view of endless scenery. As we climbed in elevation, the snow got a little heavier and there was a lot more in the woods as we neared the Canyon. There is one brief moment at the train approaches the Grand Canyon railroad station where you can see the canyon from the train. As we approached the station we saw railroad employees and their high wheel pickup trucks at a grade crossing. Our steward pointed out that everyday before the train leaves Williams, the railroad runs the tracks to ensure safety of their trains. The maintenance of way crew had been cleaning the snow out of the grade crossing about a block from



The full dome is one of two Great Northern cars from the Empire Builder. The vista domes are from the CB&Q, NP and California Zephyr.

the station before we arrived.

Our trip included a lunch and bus tour at the canyon. It was still snowing when we arrived an hour and a half late. The cafeteria where lunch was served remained open, the hot meal was welcome. After lunch our bus driver and tour guide explained the difficulties being encountered that day which limited where we could go, including the fact that one of the shuttle busses had slipped off the road so one of our planned stops was not available. It was still snowing as we approached two different overlooks. I took pictures of the snow and how little you can see to compare them with the pictures from the same overlooks I had taken

during the previous trip. We learned that the park staff operating the contracted facilities all lived on the grounds so getting to the area to work was not a problem. I think we all understood the rarity of the blizzard situation at the park and enjoyed



Southwesterners aren't used to hiking through snow to eat. Jay and Marion had just left South Dakota snow so this wasn't a problem.

what was available.

We returned to the station and boarded the train for the trip back to Williams on schedule. The railroad has a historically accurate replica of the train station at the park. The trip back was still in the snow, just a little less. Champaign was served along with some finger foods to get the trip back started properly. We had two different families with us in the dome on the way back. The car steward had written a book on wildlife in the



Ex-CB&Q 2-8-2 Mikado also runs only on Steam Saturdays. Both steamers are converted to run on used vegetable oil.

(Continued page 5)

park and along the tracks. His running commentary along with puppets to illustrate the various wildlife he was talking about which kept all of interested on the trip back to Williams. As we neared the railyard in Williams it was getting dark but you could still the massive amount of equipment owned by the Grand Canyon Railroad. They have a policy of purchasing rail passenger cars whenever they become available and some motive power. The railroad has a large maintenance and refurbish facility that you pass by.

We arrived back at the station in time to freshen up and think about dinner. The hotel has a very nice lounge with a huge fireplace. We learned that dinner passes we had for that night were good at the lounge so we ate dinner there rather than trekking across the courtyard in snow to the cafeteria. With the reservation for the third night we were not worried about getting on the highway home, or having to find another hotel in the area. Interstate 40 was closed top and through Flagstaff along with numerous highways in the area. The railroad brought in its staff for the three days this blizzard was going to impact things and had them staying in the hotel so all of the facilities and activities

railroad snow handling equipment worked well to clear the mainline tracks and the walking paths around the complex.

We enjoyed a quiet day of visiting the hotel shops, the two gift shops and the area and taking pictures of exhibits on the grounds. I also had the opportunity to watch a California family that what had never seen snow like this explore, romp and play. I enquired around lunch time if there was a restaurant within walking distance and was informed that a family restaurant was about a block and half away. It was truly a family restaurant with lots of homemade items and a really great hamburger. They also served homemade pie, the huge piece of lemon meringue so good, I bought a second piece and took it back to the hotel for an evening snack. That afternoon the hotel staff was uncovering cars in the parking lot so I too participated in the



Ex-Saginaw and Manistee Lumber 3-truck Shay #5 was moved into place in 2014. It was used by a lumber company that interchanged with the Santa Fe, the original owner of the line the GCR owns.



A familiar sight in the upper Midwest but not Arizona!

were manned and operational. I happened to look out in the parking lot and saw that our car along with everybody else's was nothing but a huge mound of snow.

We got up the next morning—our layover day—and watched the news from Flagstaff. The snow had stopped, 49 inches in Flagstaff, and about 26 where we were. Interstate 40 was still closed along with highways and streets in the entire area. I plodded through the snow to witness the train for the day back into the station and took pictures when it was not snowing. The

exercise of finding, digging out and cleaning off the car. I remarked at the hotel desk that the only thing they did not have for guests was a ski slope—was told they used to have one, it was closed when the big operation in Flagstaff opened, but that they were working on getting theirs back in operation.

On Saturday morning the news was that the roads were open so we loaded up and headed home. Interstate 40 was wide open with no issues. As we approached Flagstaff the snow on the mountains was really pretty. Traffic was light for the most part on the highway. About 20 miles East of Flagstaff I looked in the rear view mirror and saw 4 mountain tops against a dark blue sky with no trees, or dirt—just pure white. Interstate 40 parallels the BNSF tracks across northern Arizona and New Mexico. We saw massive intermodal trains running West about 15

(Continued page 6)

minutes apart, including one train with 5 engines on the front, three in the middle and 2 on the rear. The railroad was obviously catching up from also having been shut down by the blizzard. We passed two very large railyards along the way that appeared to be nearly full of cars.

I remarked to Marion that we had driven over 3,000 miles, ridden a train for over 130 miles to see the Grand Canyon in a blizzard. She cut off that comment by reminding me

that we had seen the canyon on a bright sunny winter day and the purpose of this trip, riding the train had been met.

Two additional thoughts: one is I recommend visiting the Grand Canyon in the wintertime, less folks—mostly gray haired. You



The mule deer check out the tourists. They're probably wondering what snacks they have in the car.

have the ability to get around in your car rather than parking in a designated lot and taking a shuttle bus everywhere. The second thought relates to the Grand Canyon Railroad and its facilities. I started the discussion calling this operation a “railroad resort .” The operation is truly a resort even though it is not called such. They have a very large modern hotel with amenities with a massive parking lot; a huge cafeteria to serve meals for the crowds that are there on holidays and in the summer time; a train station to operate

from; and sufficient rolling stock to handle large numbers of people. Their operating plan is coordinated with and complements the National Park Service method of operations at the Canyon.

DSED Division Inaugurates New Trailer

We have our new trailer and have installed shelves and tie-downs for our module racks and accessory supplies. Scott Nesbit spearheaded the effort, so it is really nice to see it come to fruition.

The inauguration event for this trailer hauling our modules was to Granite, Iowa at the annual Thrasher’s Bee.



Pictured left to right, Jay Manning, Mike Kaufman, Kennedy Gauger, Terry Anderson, Rich Holzapfel, Richard Phillips, and Joe Scrimshaw. Not shown are Marion Manning, who took the photograph, and Rich and Liam Dahl who helped, but had to leave before the photo was taken. All are members of the DSED.

Improving your rolling stock. How I upgraded my ore car fleet with correct trucks.

Thomas Gasior, MMR
Photos by author

The Splitrock Mining Company has a sizable fleet of iron ore cars, or jennies. These are small open hoppers specifically designed to carry the dense commodity of iron ore and taconite. It is almost 100 percent of the rolling stock on the railroad. So having them run smoothly and operate reliably is a major concern.

Walthers standard ore cars are the ones on my roster. They originally came with trucks that were incorrect. The wheelbase was five feet six inches. The correct trucks should have a five foot wheelbase. Walthers corrected this issue with their latest runs of these cars and then offered the correct trucks as a stand alone item in packs of twelve. This set me on my journey to retruck my fleet.



After acquiring enough to start the process, I wanted to get them ready to install by improving their looks and operation. They are made of delrin plastic, which is very slippery and glossy. Good for rolling quality, bad for holding paint and weathering powders. A jig was created to hold the trucks so I could do a couple of the early steps. A scrap sheet of thick 0.080 styrene was used as the base. I then drilled holes to hold machine screws the size of the bolster holes. I attached these with a nut, and then used two more nuts on there long bolt to secure the trucks so they would not spin while being blasted or painted.



First portion of the process was to rough up the delrin surface so it would hold paint better. I used my Harbor Freight Air Eraser with aluminum oxide abrasive. This should be done outdoors or in a custom case specifically made for this type of procedure. I took mine outside and also wore a medical type face mask to keep the particles out of my nose and mouth. Safety glasses are a must as well.



After a good blasting the trucks will look grey. It is now time for a bath. I wash them in warm soapy water and rinse them well. I let them air dry unless I was in a hurry, then a hair dryer was used to speed up the process.

Once dry, it was time for the painting. Still held in the jig, a spray can of brown colored paint was used to apply the base coat. This was allowed to dry overnight. Use a well ventilated spray booth or paint outside.

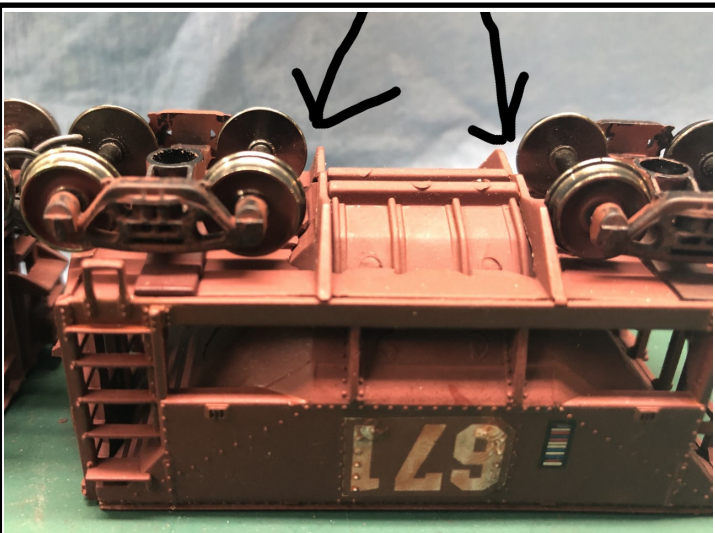


The trucks get an operational tune up by using a Micro Mark Truck Tuning tool to clean out the bearing area. It actually shaves it to the NMRA recommended 60 degree contour and cleans out burrs and debris. I like to use a small pliers with round tongs to help open the trucks to fit the Tuner. Once placed in the truck, roll the tuner a few times in both directions, then flip the Tuner over. It has a cutting surface only on one point. I do this for both axle bearings, and then mark the truck in some fashion so I will know it is done with this step. I use a bright orange paint pen on the bottom and inside of the cross-beam.





One last step before adding the new trucks to the ore cars is weathering. A simple. Dry brushing of black craft acrylic paint with a stiff bristled brush does the trick. It shows the highlights and details without giving away the reddish base color. More weathering could be added with paints and powders, but in a yard full of similar ore cars, it just doesn't stand out.



Replacing the trucks using the same screw to hold it to the ore cars, I also cleaned the dirt built up on the metal Intermountain wheel sets. The cars now swing freely and do not scrape against the bottom hopper door of the ore cars. Six scale inches may not seem like much, but when there is little to no clearance in all of the freight cars running on your layout, it helps to fix that issue.

HELP!

The South Red River Valley Division needs your help

We are seeking donations of
N SCALE Track, Accessories,
Power Packs & any other
N SCALE equipment
ANY CODE, BRASS OR NS WORKS

We are constructing an operating
N Scale layout that connects to our
T-Trak layout

EVERY LITTLE BIT HELPS!

email: mkl@janushd.com

or

Quartermaster: Don Radeck

Phone: (701) 234-9351

8th Annual Model Railroad Show & Sale

Sponsored by



Sunday, October 27, 2019

9:00 a.m. – 3:00 p.m.

Franklin County Convention Center,
Hwy 3 West, Hampton, Iowa

Admission \$5.00 (Ages 10 & under Free with Paid Adult.
For More Info Call (641)456-1998 or
Email: eastsidetains@gmail.com

Thousand Lakes Region 2020 Sioux Falls Convention

The 2020 TLR Regional Convention will be held in Sioux Falls, SD. The Dakota Southeastern Division looks forward to hosting you for the "Sioux Empire Special", May 14-17, 2020 to be held at The Best Western Plus Ramkota Hotel. Right now the plan is to make this another "all inclusive" convention which means lunch and dinner on both Friday and Saturday of the convention will be included with the full fare registration.

The tentative plans start on Thursday with early registrations, Celebration Room entries, some clinics, and possibly operating sessions and layout tours on Thursday evening.

Friday continues with registration, Celebration Room entries, and a day full of clinics (both rail and non rail), non rail activities and (hopefully) a special speaker at our Friday evening meal.

Saturday will start with clinics or an early prototype tour and then we will proceed to our featured activity a trip to Prairie Village in Madison, SD for an afternoon of fun. Featured at Prairie Village are a 2 mile train ride hopefully with steam power, a rare, beautifully restored Chapel Car, a 100 year old restored carousel, and a lot of other historic rail and non rail buildings and railroad equipment at our disposal. Saturday evening will conclude back at our hotel with the traditional banquet, awards, and Chinese auction. Sunday will bring the convention to a close with the annual general membership meeting and many layouts to tour on your way home. Watch in future Fusee's and on the TLR website for updates and when registration will be available.



Prairie Village has several locomotives, including this o-6-o hauling their varnish. These run on a closed 2 mile loop.

Join us May 14-17, 2020 for the "Sioux Empire Special"!!

Seeking Clinicians for 2020 Convention (May 14-17) in Sioux Falls:

We are looking for clinicians for our 2020 convention for a range of topics, including for general arts and crafts for the non-rail participants. Please contact Richard Dahl (clinic coordinator) at richdahl@gmail.com, if you have clinic you'd we willing to present.

Save the Date!
May 20-23, 2021

The 2021 TLR Convention will be in Bismarck, ND from May 20-23. Bismarck is the ND Capital and an easy 3 hours west of Fargo, on Interstate 94. The NP had its Yellowstone Division Headquarters in nearby Mandan, which the BNSF operates today. Mandan is also home to the North Dakota Railroad Museum. Keep an eye out for further updates. The convention hotel is the Ramada Inn—room rates will be posted soon!



I enjoy model railroading and want to share my experiences with you! You can see my build of kits, how-to's, painting information and much more on my internet blog. Check out <http://mnrailroadcab100.blogspot.com>.

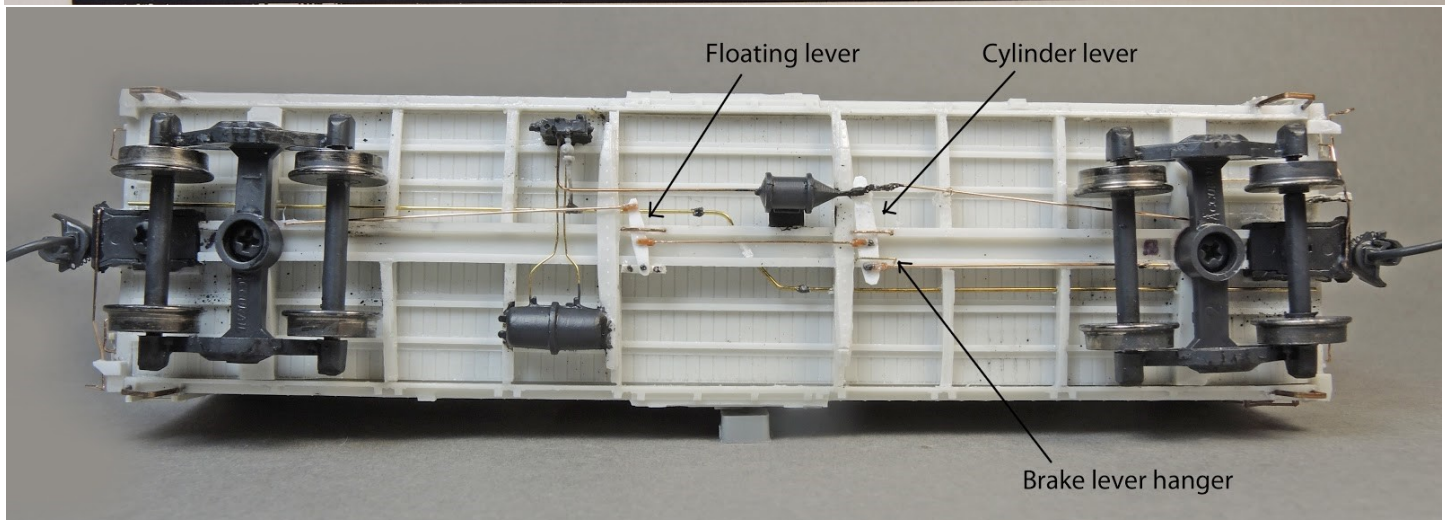
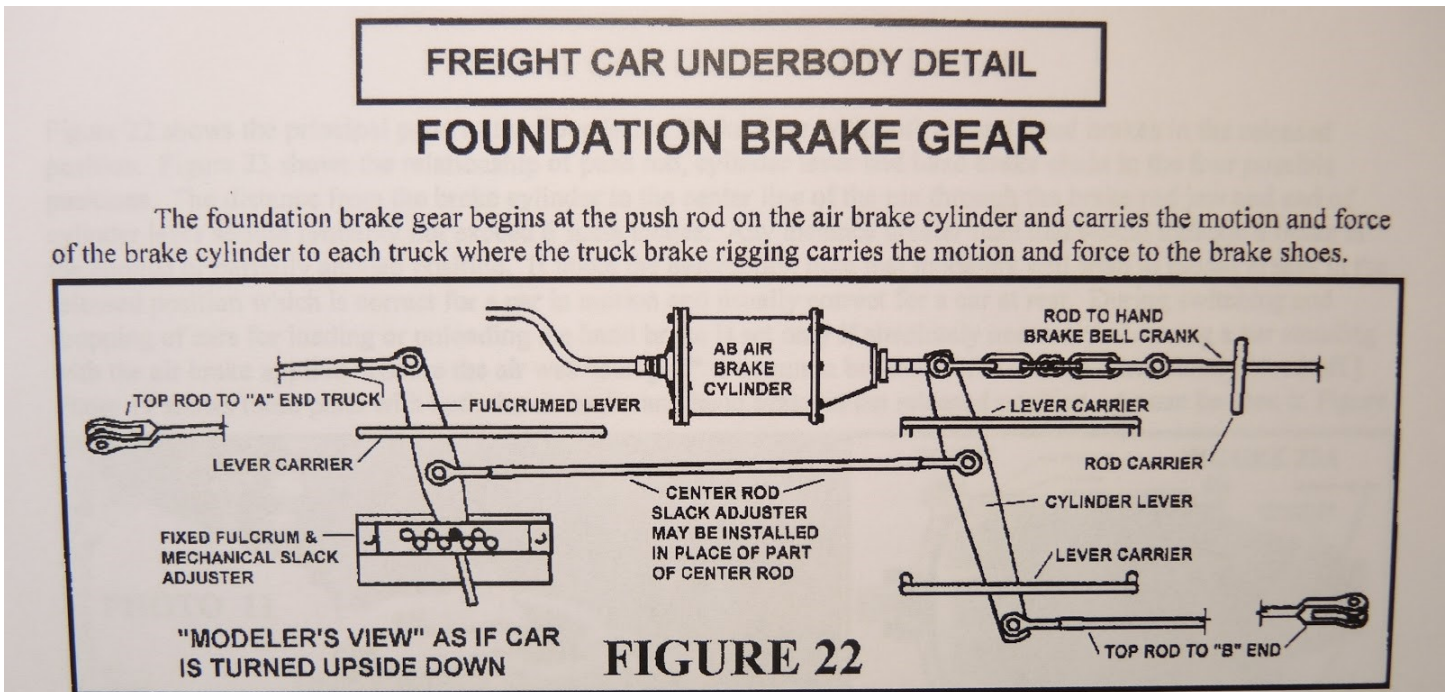
Lester Breuer, MMR

Brake Levers

Lester Breuer, MMR

Diagrams courtesy of Gene Green, *Freight Car Underbody Detail*, used by permission

When I begin freight car underbody detail work I first mount the major brake components: brake cylinder, air brake reservoir, and control valve. Prior to mounting, I drill holes in the major components to receive piping if needed. Next I mount the brake levers, defined in the 1949-1951 *Car Builders' Cyclopedia* (Simmons-Boardman Publishing Corp., 1949) as "a general term designating the levers used as part of the Foundation Brake Gear" which also includes the brake rods, etc.. A detailed description of the foundation brake gear with diagrams can be found in *Freight Car Underbody Detail* paper by Gene Green. Typically on a freight car underbody there are two brake levers: cylinder lever (live) and the floating lever (dead, fulcrum). The brake levers are supported by brake lever hangers (brackets, lever carriers or guides) attached to the underframe.



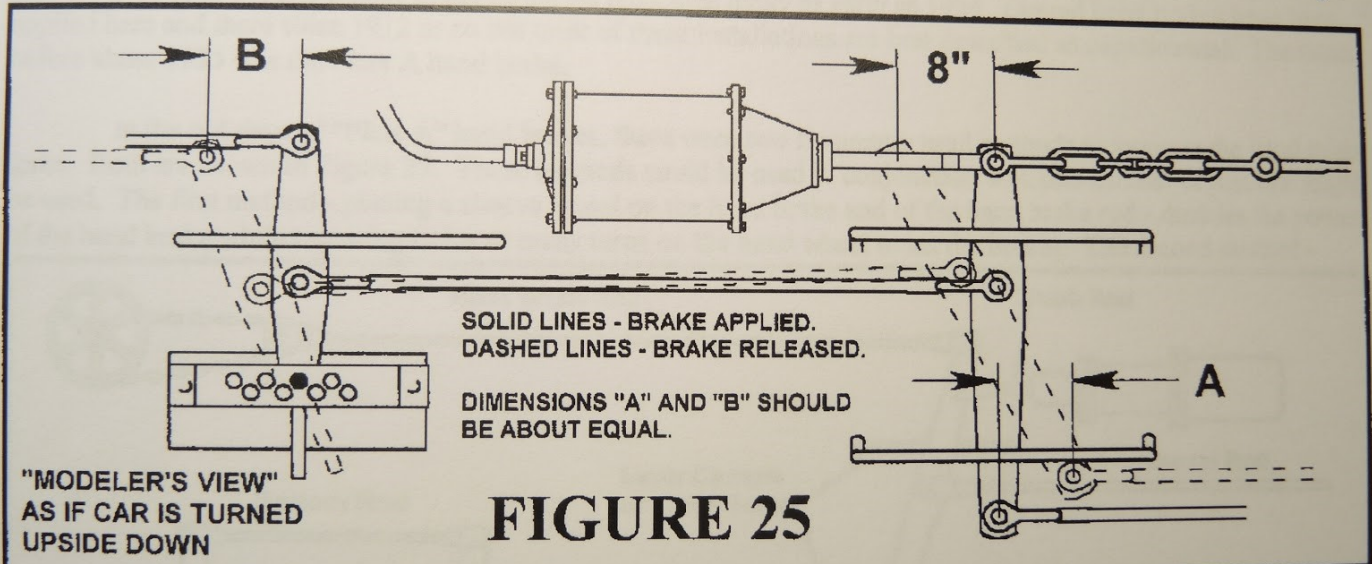
Brake levers and hangers diagram from *Freight Car Underbody Detail* by Gene Green (top photo) and applied to the model (lower photo)

When you mount the brake levers you need to decide whether to model them in the brakes released or brakes applied position. I normally mount them in the released position. For brake lever hangers I use straight grab irons, Tichy Train Group (Tichy), #3021, 18" straight type or I bend them from Tichy, #1106, .0125" diameter phosphor bronze wire (PBW) or Detail Associates, #2504 .012" diameter brass wire. Sometimes I use plastic straight grab irons for the brake lever hangers.

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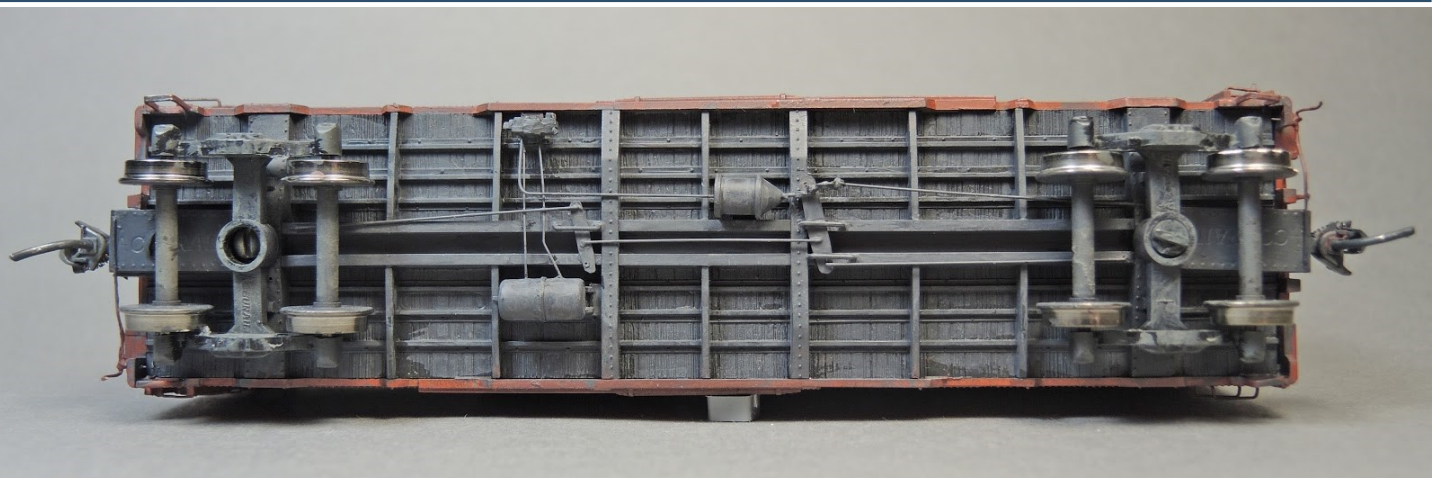
FREIGHT CAR UNDERBODY DETAIL

The width of a lever is a function of a car's light weight. Braking effort must equal 60% of the car's light weight. For most cars of 40 ton capacity the width of the two levers will be somewhere in the 4" to 6" range. Lever width vary in half inch increments. Since freight car designers have been reasonably successful in increasing freight car payloads without increasing light weight by very much, lever widths have remained within a fairly narrow range.



All pin holes in brake levers must be on the longitudinal center line. The cylinder lever must be made as long as practicable, and must be located so as to prevent a lateral (side to side) thrust on the push rod when the brake is applied. The cylinder and fulcrumed levers must be substantially at right angles to the rods under a brake application with 7" piston travel. (Some sources say 8" piston travel.) Figure 25 shows the relative positions of the foundation brake gear in the released and applied positions with hand brake but not air brake in applied position.

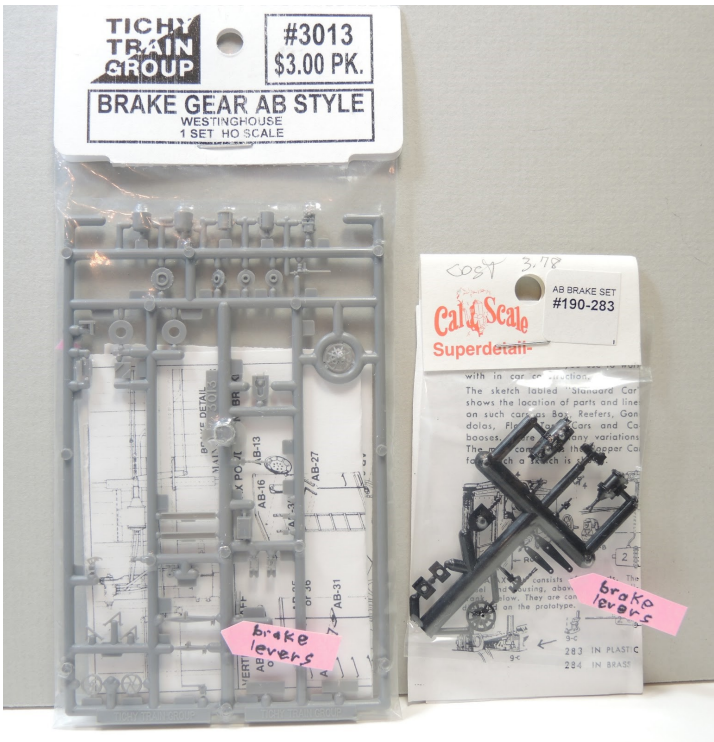
Brake levers and hangers diagram from *Freight Car Underbody Detail* by Gene Green



Brake lever hangers are plastic grab irons.

When I first began doing freight car underbody work I quickly eliminated the various plastic and resin brake levers for various reasons. Soon the brake levers I used were only from two manufactures: Tichy and Cal-Scale. The Cal-Scale levers have holes molded in them into which wire brake rods having a tiny ninety degree bend on the end are installed. Tichy brake levers have molded clevises with slots into which the brake rods are installed. My preferred choice was Cal-Scale. The Tichy and Cal-Scale levers are available in the AB sets, Tichy, #3013 and Cal-Scale, #190-283. The Cal-Scale brake levers only are available in Cal-Set, # 190-494.

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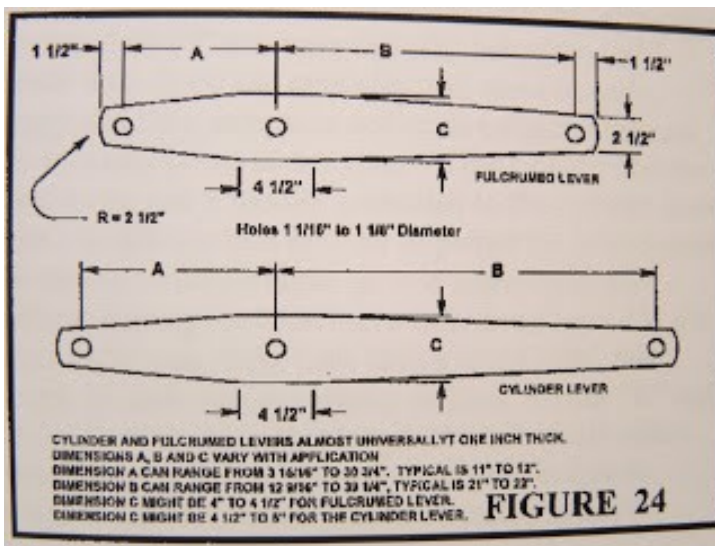


The AB style brake sets with brake levers.

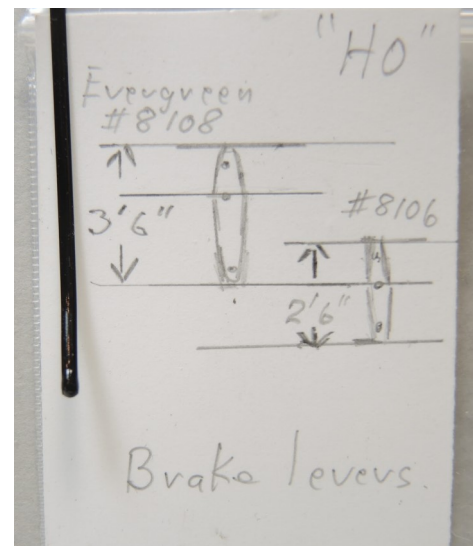


Cal-Scale brake levers.

In one of Ted Culotta's "Essential Freight Cars" series in Model Railroad Craftsman he stated he made brake levers from strip styrene, 1" x 8" for the cylinder lever and 1" x 6" for the floating lever. I decided making the brake levers from styrene was a fast and economical way to have and make brake levers I needed. To make the brake levers I decided I first had to make a pattern. I could have used actual dimensions to make the pattern; however, since I really liked the Cal-Scale brake levers I used them to



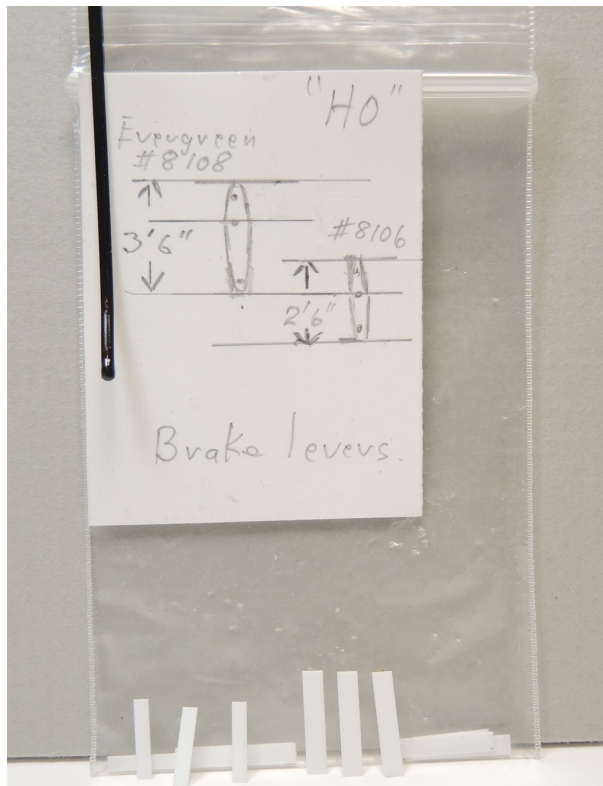
Brake levers dimensions diagram from *Freight Car Underbody Detail* by Gene Green



Brake lever pattern made using Cal-Scale brake levers

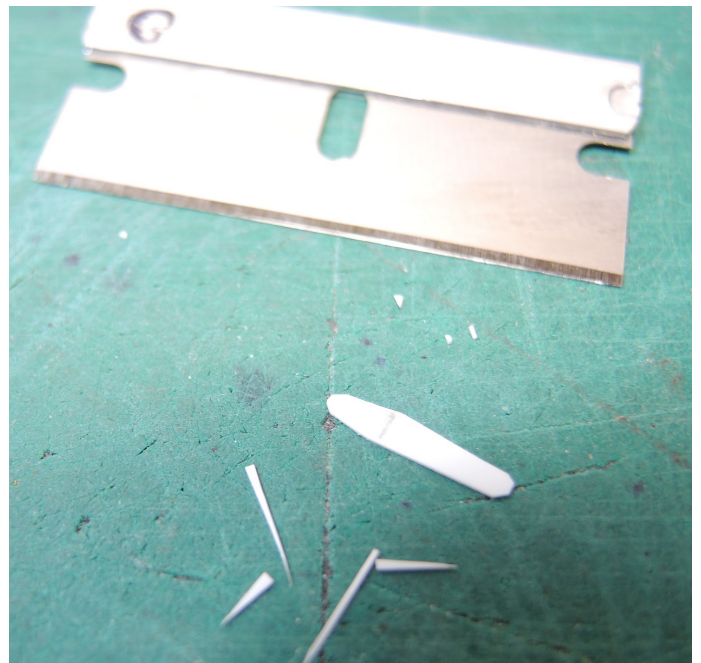
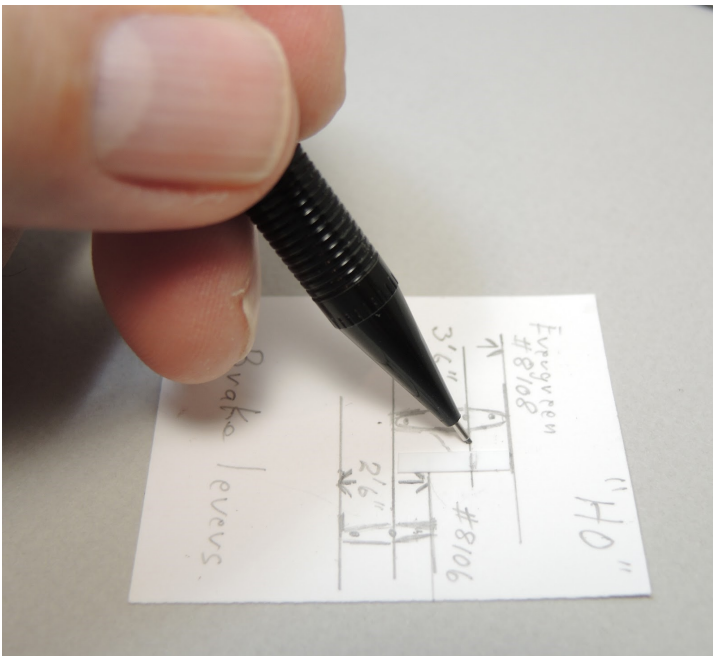
After the pattern was made, I cut blanks 3' 6" from Evergreen #8108, 1" x 8" strip styrene for the cylinder lever and 2' 6", #8106, 1" x 6" strip styrene for the floating lever using a NorthWest Short Line chopper. Each type was placed in a storage bag until needed.

(Continued page 13)



Styrene blanks for brake lever types cut and placed in package

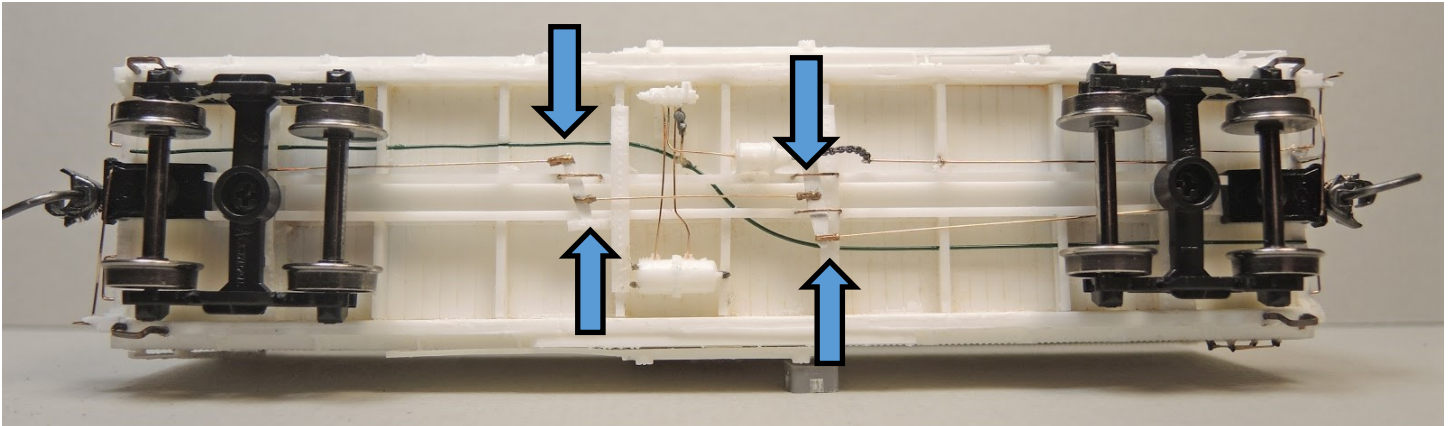
When I need a brake lever, I pull a blank of proper size cut styrene for a cylinder lever and floating lever out of the bag they are stored in. I place the blank on the brake lever pattern to draw a pencil line on the blank at the middle line location. Next I use a single edge razor blade to cut a minuscule slice off the styrene blank from the edge of blank from the pencil line to just inside the end of it creating four slightly angled sides. And, again the single-edge razor blade is used to cut off the corners on both the ends. An emery board is used to round each end after cutting off the corners to complete the brake lever.



With the blank positioned on the pattern draw the middle line on the blank with a pencil. The blank is hard to see but is below the pencil point in the left photo. Use a fresh blade to cut very small amounts off the blank to shape the brake lever. (photo right). The line drawn in the left photo is visible on the shaped blank.

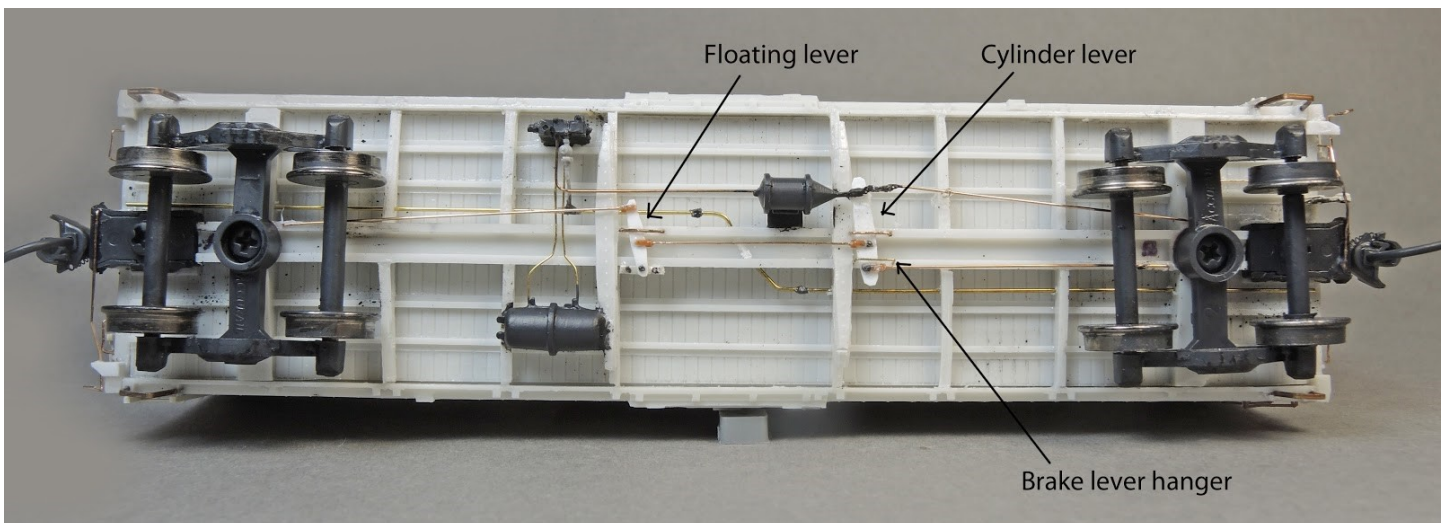
(Continued on page 14)

In Ted Culotta's Essential Freight Car series that ran in Railroad Model Craftsman, he used Tichy Turnbuckles, #8021, to represent the clevis used to attach a prototype brake rod to brake levers rather than drilling holes in brake levers to accept the ninety degree bend in a wire brake rod. He felt installing the brake rods with turnbuckles representing the clevis provided a more realistic look. After seeing the article photos showing the brake rods attached with the Tichy turnbuckles and liking the realistic look I began using this method.

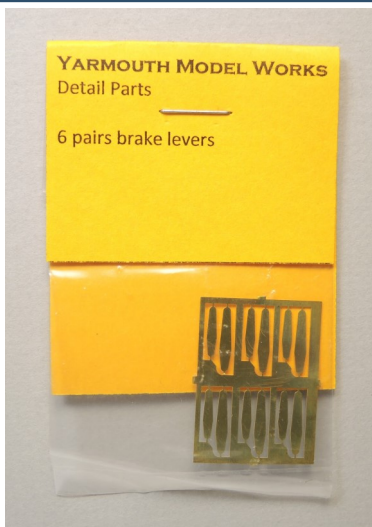


Tichy turnbuckles used to attach brake rods to brake levers (arrows).

I also went back to some freight car models with installed brake rods using the ninety degree bend at the end of a brake rod to attach it to the brake lever and created a clevis over the inserted wire using MEK Goop.

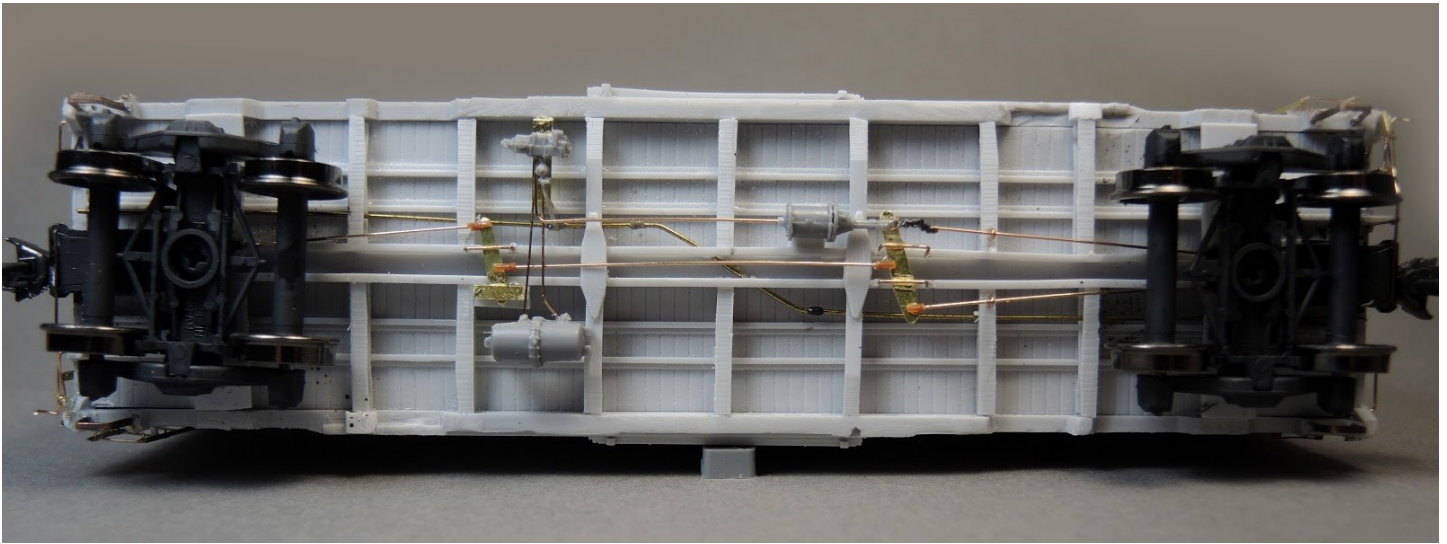


Clevis to attach brake rod to brake lever is made with MEK Goop.

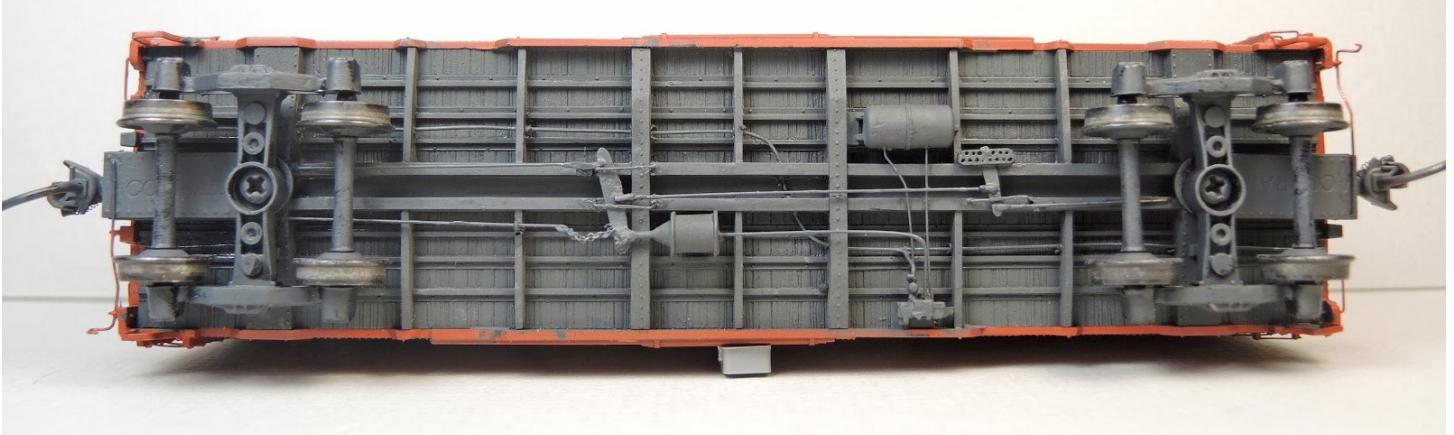


After I began making the brake levers from Evergreen strip styrene, Yarmouth Model Works (YMW) came out with photo etched brass brake levers without holes, similar in appearance to the ones I was making. It's a good looking brake lever that I now have in the parts box for freight car underbody detailing.

(Continued page 15)



Yarmouth Model Works photo etched brass brake levers installed on a resin freight car underbody.



A completed freight car underbody detailing.

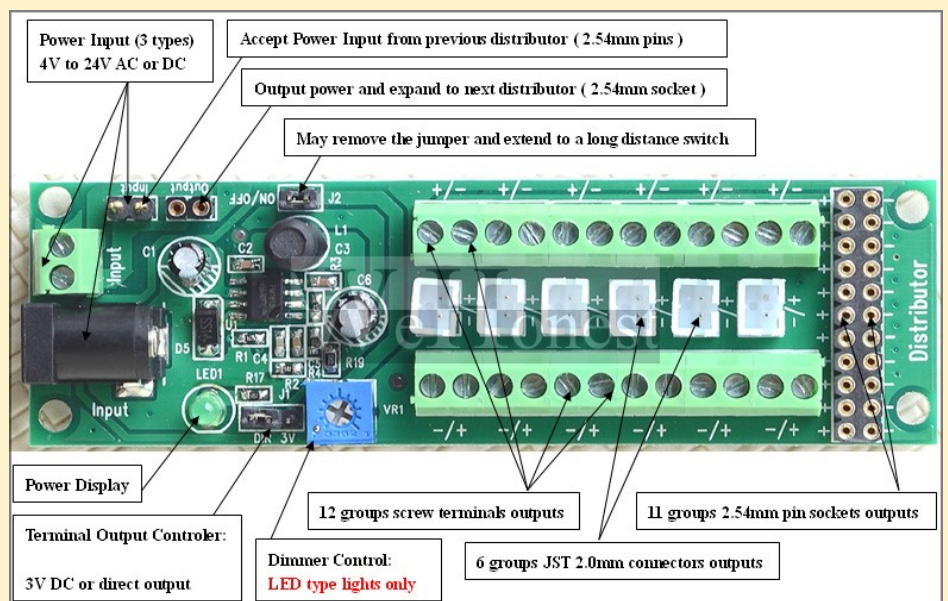
If your freight car underbody detailing includes adding brake levers I am guessing you have used one of the above described brake levers; however, you may not have tried making your own. Above, I have attempted to describe the method I use to make my own brake levers. If you have not tried to make your own brake levers I hope you will give it a try.



Power Converter Board

Kevin Dill

I found this board when looking for ways to convert my 10V accessory power to 3V for my LED street lights. This was found on E-Bay, and sold by a Chinese company called We Honest (I'm not kidding!). It will take AC or DC input power up to 24V and has outputs that are 3V, and can be dimmed. I bought several of these for about \$15 each, and have found them very easy to use. Watch your polarity on the green screw connectors, they are OPPOSITE of each other from right and left bank. Check it out!



2020 TLR Convention Contest Categories

The following categories will be available at the 2020 TLR convention held in Sioux Falls. Please plan to participate.

For models in this section submit NMRA Forms 901, 902 and supplemental information.

Steam Locomotives

Diesel and other locomotives

Traction

Passenger Cars

Freight Cars

Cabooses

Non-Revenue Cars

Structures

On-line

Off-line

Display

On-line

Off-line

(Note that scenery guidelines apply: <https://www.nmra.org/sites/default/files/education/achievement/pdf/2019-scen-eval.pdf>)

Individual Module for Merit Evaluation (treated as display)

Note: Any model in Section 1, above, earning 87½ points during the model contest judging will automatically be awarded the appropriate AP credit.

Railroad Pass Form 901, ranking by judges

Photography (Form 901, special photography guidelines apply : <https://nmra.org/national-photo-contest-judging-guidelines>)

Model B&W Print

Model Color Print

Prototype B&W Print

Prototype Color Print

Popular Vote Categories by Convention Attendees
(Form 901 required for all; does NOT include Merit Award – Judged items, #1, above)

Rail Related

Favorite Train

Locomotives (all types)

Rolling Stock (all types)

Caboose

Structures

Display

Module

Thumbs (Humorous)

Photo Match Model

A special TLR popular vote category will be added by summer's and announced separately.

Non-Rail Related (need not be prepared now for this Celebration event. Items made earlier than the 2019-2020 period remain eligible).

General

Needlework

Railroadiana

Photographs

Model Print

Color Print

There will be Best of Show selected from the following categories:

Merit Award-Evaluated entries;

Judged Photography Entries;

Popular Vote Rail Entries;

Arts and Crafts (i.e., Non-Rail) Entries;

First place winners in the categories will be awarded plaques. Second and Third Place winners in the categories will receive certificates. Novices (i.e., people who are participating the Celebration Room for the first time), will be acknowledged at the Banquet, Saturday evening.

41st Annual Spud Valley Hobby Show

Sunday, October 20, 2018

9:00 am to 3:00 pm

Admission: \$5.00
(under 12 free with paid adult)

Delta by Marriott
Crystal Ballroom
1635 42nd St. S., Fargo, ND

- ♦ Large and small operating model Railroads
- ♦ Vendors selling farm toys, plastic models, model railroad items, die cast vehicles, old toys, railroad collectibles and more
- ♦ Door prizes
- ♦ Valley RC Flyers display their planes

Call Don—701-234-9351 or email spudvalley@hotmail.com

Model Railroad-related events in and around the TLR

2019

- | | |
|-----------|---|
| Sept 14 | Twin Cities Model Railroad Club, Education Building, MN State Fairgrounds 9-3 |
| Oct 12-13 | West Wisconsin Railroad Club Annual Show, Eau Claire Indoor Sport Center
3456 Craig Road, Eau Claire , WI 54701 Sat 10-5, Sun 10-4 |
| Oct 19 | Newport Train Club Train Show, Woodbury High School, Woodbury, MN 9-2 |
| Oct 20 | 41st Annual Spud Valley Hobby Show, Delta by Marriott, Fargo, ND 9-3 |
| Oct 27 | North Central Iowa Model Railroad Club Show, Franklin County Conv. Center, Hwy 3 West, Hampton IA Sunday 9-3 |
| Nov 2-3 | Great Train Show, Canterbury Park, Shakopee, MN, Sat/Sun 10-4 |
| Nov 16 | Granite City Train Show, River's Edge Conv. Center, 10 4th Ave S, St. Cloud, MN, 9-3 |
| Nov 9-10 | TrainFest, WI State Fair Park, Milwaukee, WI. |

2020

- | | |
|-------------------|---|
| May 14-17 | TLR Convention, Sioux Falls, SD |
| July 12-18 | NMRA National Convention, St. Louis, MO. |

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Thoughts from the Pickle Barrel

Kevin Dill, Editor

Lake season is ending and the train room has collected a lot of dust over the last few months. Tom Gay just received his Achievement Certificate for Electrical, and I was a bit ashamed to admit that I have all the things completed for that certificate EXCEPT THE PAPERWORK! Needless to say, I am now documenting everything to get submitted for the achievement. How many things have you done that have ALREADY earned you an achievement award, and you simply haven't filled out the forms? It's worth checking out— you might have several just sitting in the basement waiting to be rediscovered.

Our Super asked me about a car-trading program that one of our local members was involved with years ago. After some quick emails to Les Breuer, Jay Manning and Fred Headon to get some more info on what happened, I received a disappointing series of replies. The program started out as a way for modelers to advertise their scale, and then trade a car they built/painted/decaled to another modeler for a similar car in return. Over the years, the initial quality started to diminish, models were not sent that were promised, or simply a set of decals was all that was received. Due to this, the program was discontinued as a sponsored program by the TLR. Matt Lentz wants to know if anyone wants to start such a program in an informal way. My understanding is that this continues to some degree among modelers that know each other and are trusted in some small groups. SO, my question is simply— is there enough interest to have some form of this going among the modelers in the TLR? This would not be a sponsored program by the TLR, so there would have to be a way to organize this outside the TLR. With today's internet ability and various blogs, there is likely a fairly simple way to get a group of names, scales and interests together. Feel free to send me your opinion, or contact Matt at mkl@janushd.com. I am not offering to set this up or be an organizer, only to facilitate getting like-minded people in contact with each other.

I am looking for some short articles on electronics,

book or model reviews, and tips/tricks that you know. Send me an email and I can help you work out the details. They do not need to be long. Something similar to what I wrote on page 15, about the converter board, is what I am seeking. This is how we can learn from each other!

Enjoy the upcoming modeling season and I hope to see you at a train show, flea market or op-session this year!

Happy Rails, Kevin

Region Round-up

South Red River Division

Mathew Lentz, Supt

In the South Red River Valley Division our first meeting is coming up on September 9th. We'll be preparing for the upcoming 41st Annual Spud Valley Hobby Show on October 20th at the Delta by Marriott Hotel in Fargo ND. Our division has a table at the show to generate interest in the NMRA. One of our plans for this year is to have a couple test tracks in N, HO and O scale. Our T-Trak layout has got an operational basic rectangle and could possibly make an appearance at the show. The TLR granted our division \$500 to expand the T-Trak by adding a yard and a switching district. We'll be designing a brochure and business card for the layout so we can do some recruiting. Thanks to our Deputy and Assistant Superintendent Ben Tretter, the current plan is to have the rectangular skeleton operational and then provide for the ability to connect operational sections that will allow us to conduct operating sessions in the future. The project is starting to get exciting now that the initial leg work is functional.

Tom Gay received his AP Master Electrical, and along with Kevin Dill is preparing for the next challenge which is scenery. We have approximately 10 members who have completed at least 1 of the 3 parts for the Golden Spike. We expect to move forward with getting more members qualified for Golden Spike. Doing the AP with the help of your division is well worth it. When one member succeeds, we all succeed. This is something we plan to continue.

Our past Superintendent and Consigliere, Jim Moore has a caboose on his workbench that has been marinating for a while now. He expects to complete it in time, but time can't be rushed.

Our Secretary and Adjutant, Andrew Merkel, should be fully Golden Spike certified live at the Spud Valley Hobby show on October 20th with his fantastic demonstration layout. If you come to Fargo for one of my personal favorite train shows of the year, check him out.

Last year, we officially organized our division using the continental staff system designed by Napoleon. This is a very compact way to name and record the things that are done by division members. It's also well defined for keeping track of AP volunteer time. Past Superintendent Don Radeck, who thought that retiring as Super would be less work, actually took on 3 new jobs as Trustee, Treasurer and Property Book Officer & Quartermaster. Using a formal organization system, we can easily divide and expand official duties should we suddenly grow our membership. We have on the books about 15 members who normally don't really participate in any activities. We now have well defined positions that cover just about any special interests. We're also positioned to expand in a way that has either been forgotten or not tried for a while – another thing we'll think about later.

For those that don't know, Tom Gay is the primary organizer of the 2021 convention which is in Bismarck, ND. We don't currently have members out there, but it is highly likely that a new

division is going to form, which hasn't happened in a while.

We had great convention. 3 members had multiple entries in the contest room. That's a big success. If you got to see Kevin Dill's structures and Duane Durr's auto racks then you know what I mean. One of the overlooked things about the contest room is the ability to enter by proxy. I personally entered the National contest by proxy and learned quite a few things from that experience and plan to take those lessons learned to the division. Contest experience is extremely valuable in that it gets you to step your modeling skills, if even just a little, and take them to a new level. I hope to get our members who don't go to the convention to send a model and enter by proxy.

Recently we had 2 members pass away, Ken Herman and Rodney Curtis. We will be having a final roll call for our fallen flags. At our meetings, the Sergeant at Arms, Ken Schwartz, has the duty of calling the roll of every member in the division. This may seem a tedious waste of time, but when the time comes to call the roll, our friends who have moved on deserve one last roll call. Ken Herman was a member who was very active in the car exchange program. I was under the impression that this was a long lost practice. Kevin Dill did an inquiry for me and I learned that the program technically exists, but it has left some hard feelings out there. I have in mind a plan to restructure that program. I received a number of the cars that Ken had traded his Fredonia & Northern grain cars for. They're all pretty cool. If there was a way to do this properly again, I would be all in and I think the division would be excited about that as well, but more about that later.

We'll be doing lots of modeling this year and plenty of contests. Everyone in the division is going to take their skills up a notch – that's the benefit of being in a group that shares tips, techniques and procedures.

No. 1 Northern Division

Ian Plett, Supt.

Back in June 2019 we had a No1 Northern Division / Free-mo Group get together. We had three new Division members join us and now they are all part of the Free-mo Group as of writing this report, August 2 2019. The Free-mo Group had their AGM for the year. Fred Headon did a clinic on "Ideas" gleaned from a variety of model railways seen at national and regional conventions.

This fall the Free-mo Group will be setting up their Modular Layout at Manitoba Mega Train Show with a 40'x25' layout, September 28th & 29th at the Red River Ex Grounds west end of Winnipeg, MB.

In October we are having our first Division Get Together of the new year, looks like running trains on Fred Headon's basement empire. PS- I wondering if he'll let us run a Canadian National on his Canadian Pacific RR?

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