ME Ry
Gons and Flats with Interchangeable Loads

By George Paxon

During a short recuperation break following a hip replacement, and while trying to get my layout back together after a move of house, we conducted a review of traffic opportunities and future operations on the ME Ry. During the review we worked out that more gons and flats will be needed. This was based on an assessment of car types and possible products to be hauled on the revised layout. We certainly could use cars to carry sand, sawdust, gravel, cinders, steel in different forms, pig iron billets, scrap steel, line/telephone poles, mine props, untreated ties for mine trackage, treated sleepers for use on the ME Ry and other standard gauge roads, firewood, and hay. Another obvious and excellent load would be lumber. But, I have three steam road flat cars with sawn lumber loads already so did not feel it appropriate to add more. And, I have two flats with loads of pipe, so did not need to include this in my list.

And I did not really address coal in this project because coal is the major freight item for the railroad and a project of its own.

To make cars with each of these loads would be a substantial project in several ways. First, I would need a lot of time to build them all. Then I needed a place to put them on the layout. Another issue was with the load vs empty thing. I was interested in having both loaded and empty cars so the cycle to and from an industry would make more sense and be all that much more realistic. When a box car, reefer, covered hopper or tank car moves on the layout, there is really no way to tell if it is loaded or empty other than looking at the way bill card (assuming you do that sort of thing). As a result, these cars always look the part. However, in the case of gons and flats, it is intuitively obvious if the car is loaded or empty.

But, I was not all that eager to build more than 20 new cars, and I had no idea where I was going to put that many new ones on the layout.

Space is generally always our scarcest commodity. Next to that is the limited time we all have for building cars considering all the other tasks a layout requires. After some pontificating, and probably as the result of a bad bottle of red wine, I came up with the brilliant idea of making about a fourth that many cars and using interchangeable loads. This would allow the cars to carry different loads at different times and still be available as empties when needed by the operating scenario. So we set off to develop the car designs, loads, and the operating approach to suite.

I sketched up a standard gon and flat car for the ME Ry. I decided on three gons and two flats for this new addition to the car fleet. And not all the gons would be the same with two low sided and one high sided. (So much for a Company standard.) The drawings for my gons and flats are at Figure 1**.** They are for use anywhere on the line so are built to traction trailer standards with radial couplers and rounded ends. They could just as easily had been made with flat ends and normal Kadee coupler pockets in steam road configuration.

The ME Ry is historically a rolling museum of sorts with old dilapidated cars of all sorts collected from the scrap lines of traction and steam roads all over the country. So, just for variety, these cars were built as more modern ones with steel frames.

The gons and flats were assembled over some winter nights at the desk in the den while my domestic manager watched some rubbish on the TV behind me. This desk was serving as my temporary workbench until

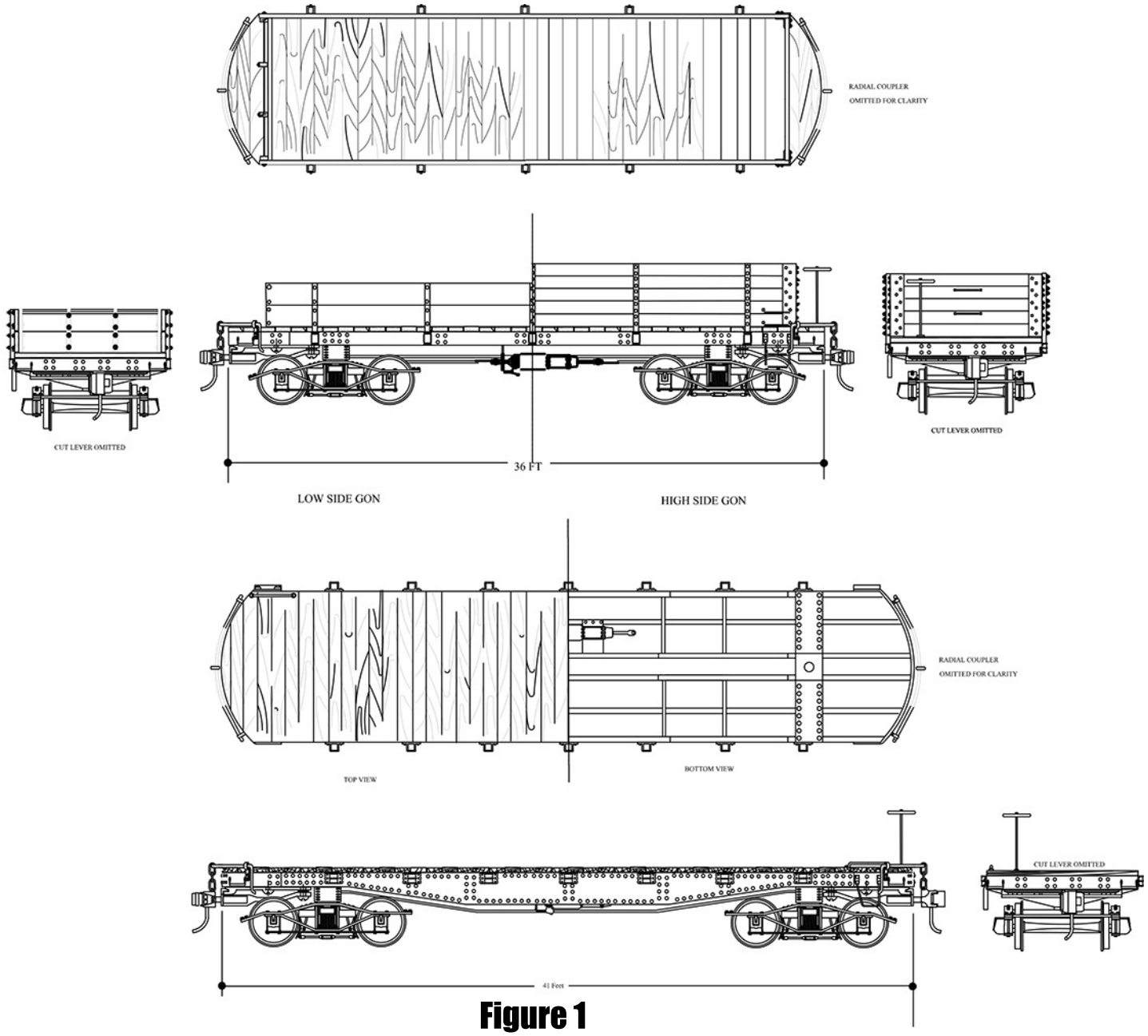


Figure 1

I got my workshop up and running. The material used for car construction was mostly strip styrene. I built all five cars over a floor laser cut from 1/8 inch thick MDF, so construction of the car bodies went quite quickly.

Adding the details to the five cars took most of the time. I used quite a few Grandt Line castings for stakes, corner brackets, and nut-bolt-washer castings. Some brass wire, and miscellaneous items found their way into the project, too. The stake pockets on the flats were some old US Hobbies ones that I found in my parts hoard. I bought the coupler lift bar brackets from Wiseman Model Service.

The styrene "wood" parts were pre-weathered by drawing my Zona saw along them to add some grain.

The floors of the gons were made of styrene strip, appropriately distressed, as I wanted to put them on early to enable me to add the stakes, sides and ends.

Micro Mark decal rivets were used as well on all the cars.

Photo 1

Photo 1 is an “in work” shot of the cars with some of the details, but not all, installed. Sorry about the mess on my desk/temporary work bench. I had not cleaned up yet after weathering the styrene “wood” with the Zona saw. My wife really loves all this messy stuff in the house. There has been talk of eviction.

In due time, the cars managed to get finished and painted. See Photos 2-6 which show some of the cars empty, some loaded and some of the loads. Painting was a bit of a chore while waiting to get my workbench completed. I definitely am not allowed to do that in the house!

All the cars were primed first where any rivets were needed. The grey primer also serves as the base color for bare wood such as car insides and floors. Rivets were added as required using decals. Then the rivet areas were again sprayed to set them well.

Photo 3

Photo 4

Photo 5

The undersides of all cars were sprayed using a dirt color. This medium to light brown paint provides a quite realistic dirty weathered look to the underframe and is far superior to black. I use this color for painting trucks, too. I now need to mix my own dirt color as I have just about run out of my hoarded Poly Scale supply and I cannot get any more of it.

The outsides and insides of the gons were painted a flat medium grey. Actually, the medium grey was sort of applied randomly over the lighter grey primer inside the cars and this helped provide some variation to the color. The outsides of the gons were then painted a freight car red. Some additional red was used to streak the side boards with a brush to yield a nice weathered wood look. The insides of the gons were weathered by dry brushing some boards with a wash made from darker grey paint. And, very dark grey and black chalk were also added. “Steel” parts were hit with some brown and rust color paint.

The sides and ends of the flats were painted black. This black had a bit of white added to really make it a very dark grey. I am not a believer in painting much of anything black-black as it sucks up all the light and makes details near impossible to see.

The decks of the flat cars were installed using stripwood after the cars were painted. Flat car deck boards were distressed with the Zona saw and pre-stained and installed after the car was painted. Brake wheels were added after painting and those touched up with a brush.

Cars were lettered and numbered for the ME Ry. I did not make decals for these cars specially so I had to pick and patch together what I needed from the decal box for all the lettering. I wanted to get the car numbers correct to fit my car numbering scheme of course. As a result, the fonts are not consistent, but then the real roads mixed and matched fonts quite often too taking advantage of whatever stencils they had on hand when needed. The dimensional data was from some very old Walthers decals and the lettering is a bit oversized compared to what we would find in newer decals. Helps me to understand how our modelling technology has

changed and how things have improved over time. When dry, the decals and gloss paint was over-sprayed with a flat finish.

With the cars done, the work moved on to building the loads.

Hay Load

Before the recent move of house I ran across a resin hay load for sale on Ebay. It appeared to be sized for a flatcar, so I bought it. It finally arrived in the middle of the move, and I put it aside while I worried about other issues associated with tearing down the old layout and the move.

When I finally got around to having a good look at my purchase, I was somewhat taken back but the immensity and mass of the bloody thing. I like my cars a bit on the heavy side, but hauling this load around would require a triple header on level track!

First I needed to reduce the size. I needed the massive chunk both shorter in length and height. To reduce the height, I passed the load through the table saw a few times and removed the bottom two rows of hay bales. Reducing the length was a little bit trickier. I worked out where a load retaining side stake would be based on the stake pocket location on the flat car. I cut the hay pile there twice. A small offcut was discarded and the hay pile glued back together. The vertical cut was to be hidden by the stake. Well that theory did not work as well in practice – may have been the wine. So, I used some squadron putty and touched up the paint to disguise the joint as much as possible.

Then, to remove some weight, I drilled holes into the bottom with a large diameter drill to remove as much material as I could. I hacked some of the material out between the holes as well. With all this work, I managed to get the weight of the load down to a ton or so.

The hay load came painted, but it was a yellow color that looked more like straw than hay. I dry brushed the pile with a bit of green and tan and it began to look a bit more like hay (at least to me). The hint of green also helped to make the color look a bit more random and realistic.

Side stakes and some retaining boards were added. Long stakes that reached just above the hay pile were inserted into the stake pockets of the car intended for the hay load. The bottoms of the stakes were whittled to loosely fit the stake pockets. The length of these stakes was a bit random. But I took care to keep the stakes reasonably vertical, but still a bit rough looking, so they would be easy to remove from the stake pockets. A few horizontal load retaining boards were added between the stakes and glued to the back of the stakes. Such boards would have been from reject timber so I cut a bit away from them here and there to help them look the part. And these were put on in a random helter-skelter sort of way as they probably would have been done for one time use with such a load in the real world.

When dry, the stakes with the load retaining boards attached were removed from the stake pockets as one piece, epoxy glue was applied to the back of the load retaining board, and the assemble was put back into the stake pockets to dry making sure it had good contact with the side of the hay pile. A few lengths of strip wood were added across the top of the hay between the side stakes to tie the two sides together. These were also glued to the hay as well.

This load retaining timber was not weathered as it probably would have been rough stuff made up from poor quality, but new timber, just for this load.

And in the interest of making the load more bullet proof and suitable for handling by ham fisted klutzes like myself, I drilled small diameter holes through the stakes and into the hay and installed pins to help keep the load all together when removed from the flat car. These pins were located at the joint between the side stakes and the retaining boards to simulate bolts at these points. Pins from my wife's sewing basket worked nicely.

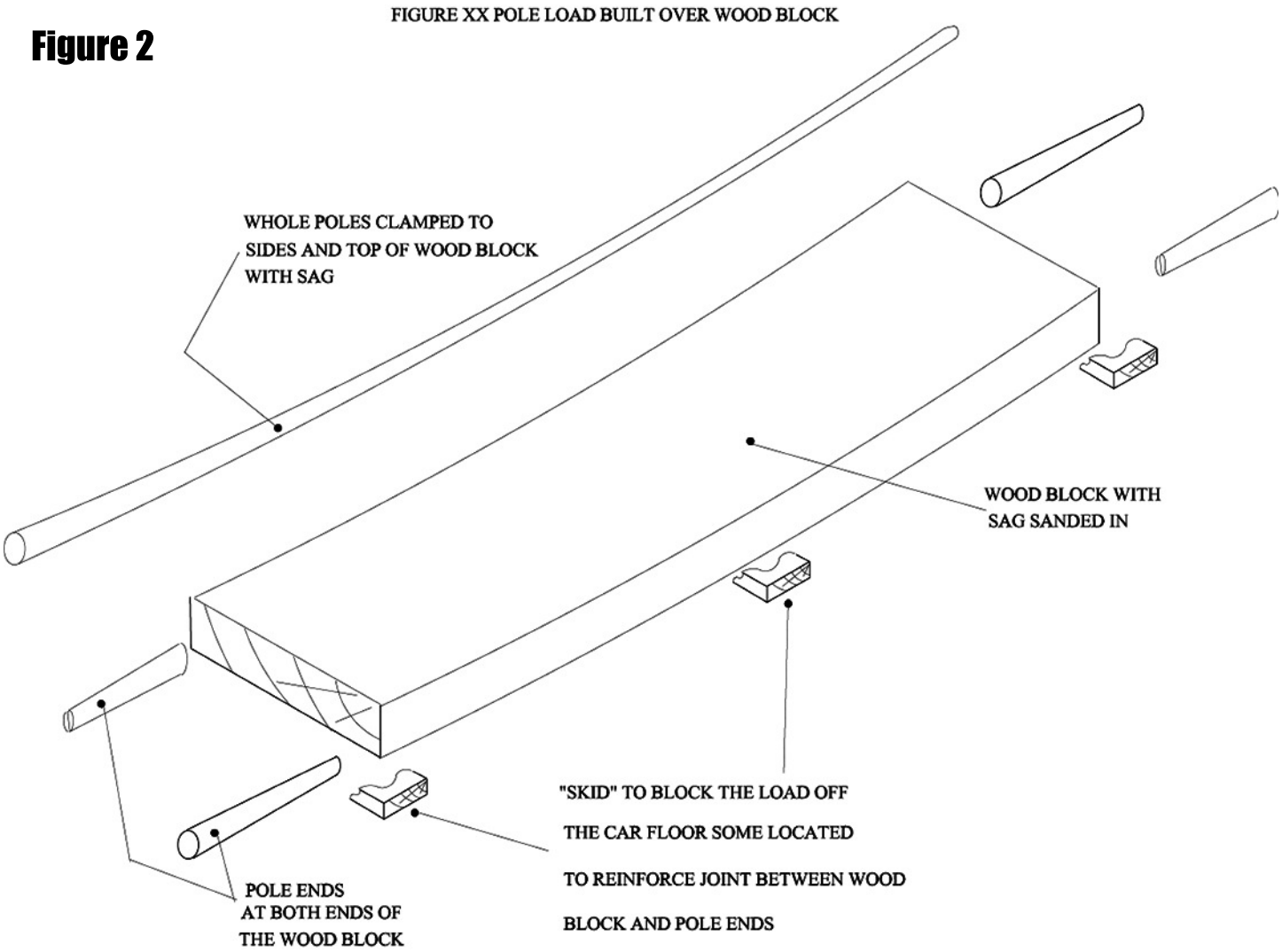
She has been looking around the house for a few days now trying to work out where all her pins went, but I don't have the guts to tell her.

You can see the finished hay load at the top of Photo 3

Line/Telephone Poles

I had previously made a large batch of line poles for use in stringing my overhead wire on the layout some time ago. Since they were on hand and available, I decided to sacrifice some of these to make the pole load. These poles were made from hardwood dowels cut to length and tapered nicely on a sanding disk. The tops had been cut at an angle as is usually done with such poles to shed rain and reduce rotting. They had been weathered with a Zona saw and stained to a medium grey. That meant they were all ready for use on this project. I built the load over a small block of wood cut to size to reduce the number of poles needed for the load. See sketch at Figure 2. Poles were glued to the sides and top of the wood block. Short bits of pole ends were made from some additional dowel and glued at the ends of the block as shown in the sketch. Note that several lengths of wood were under the load as this would have been needed on the prototype to allow a sling to pass under the poles for car loading and unloading. Two of these lengths of wood were strategically placed at the joint between the wood block and the short pole ends to help tie the entire load together.

Figure 2



Remember that these loads will be subject to handling and need to be substantially bullet proof. And, a few test fits were made during assembly to make sure the load of poles would fit between the stake pockets of the flat car.

One thing I have noticed in looking at prototype pole loads is the way they are loaded. Some poles are loaded with the larger butt ends at one end of the car while other poles in the load have their butt ends at the far end of the car. I assume this is keep the load level and avoid it succumbing to gravity during vibrations from the moving car and the load shifting toward one car end. And if strapped down, the load wound need to not have a tapered top which would result if all the poles were loaded the same.

Stakes and timbers to tie the stakes on each side of the load together were added as was done with the hay load. We did the pin thing again to strengthen the stake to load joints, too. Heads were cut off these pins this time since bolt heads were not appropriate for this load. I tried to file the cut off pins flush with the stakes to make them as inconspicuous as possible. I touched up the stakes with "aged white" paint as this was very close to the color of the natural wood stakes and this helped. The pole load can be seen at the top of Photo 4.

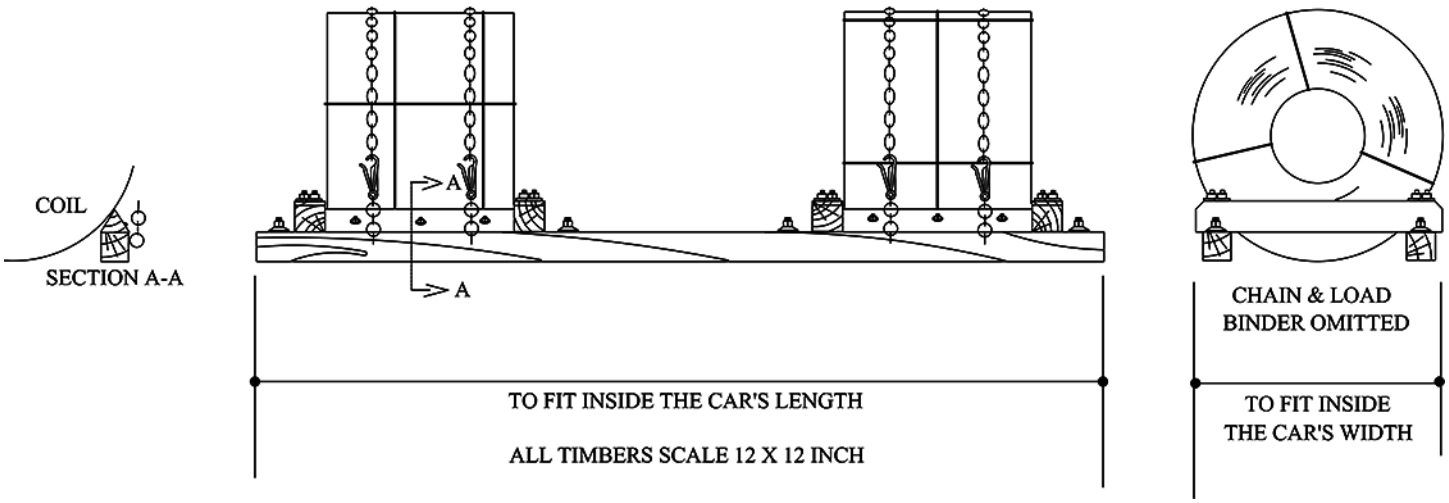
Steel Coil Load

In the real world, steel sheet is rolled into long coils when produced and moved in such coils to customers who needed a large quantity of such sheet product. These customers had un-coilers onto which the coils were loaded. The coils were then unrolled and fed into cutting, folding, punching, and stamping machines that turned the long coils of steel into their products. Coils were moved by railroads in more modern times in specially equipped gons that usually had large steel covers to keep the coils out of the weather. I assume in the dark ages–say 1930s and before, steel coils could have been shipped in the do-all box car or under tarps on flats or gons. Not really sure about this and have not had much luck researching this issue. But in any case, a whole carload of steel coils is more than my customer, American Steel Company, could use at one time. On the ME Ry, car loads of steel coils go through a break bulk step somewhere along the line and are transferred to a "standard" ME Ry gon for movement to American Steel. Two coils are all that American Steel wants at one time. Steel coils would weigh approximately 5 to 8 tons, so they were heavy freight. To secure the coils on the ME Ry, a heavy timber frame is used on the floor of the gon and the coils are chained down as was done when moving such coils by motor transport also. It was particularly important to carefully block the coils so they could not roll. I purchased from Wisemans Model Service some nicely cast load binder which are ratchet type devices that tighten the chains. These are used when transporting all sorts of heavy freight such as steel coils and machinery. Not sure when they actually came into common use, but on the ME Ry it was in the 1930s.

This load was made by first building the timber frame. Nut, bolt and washer detail was added to the stripwood assembly as were some brackets for attaching the chain. I used a variety of different nut bolt and washer types. The timber was not weathered much as it would have been renewed quite often in such service. In actual practice, such a load would have been well anchored to the car in some way I am sure. But as we wanted to make this load fully removable, we compromised by having the load secured to the timber frame only. The timber frame could have been bolted through the gon floor to the frame members I guess. Well, that's my story. See sketch at Figure 3 and the bottom left of Photo 5.

Next came the coils. I pondered how to make these for some time. I considered wrapping thin metal foil to make such coils. The problem I saw was keeping the edges of the coil roll even. I also came up with the scheme of turning them on the lathe from aluminium rod with the centre drilled out. This idea died as I can't get anywhere near my lathe at the moment. Walking through a junque shop with the wife one day, I ran across some aluminium colored tape in small rolls. Cheap and nasty stuff, but about the right size for my load. I bought two rolls and the rest is history. The tape was on a cardboard tube as usual. I spent an evening picking the cardboard out of the tape via the center hole with a knife and tweezers until very little was left. I then gave the rolls a few coats of a steel color paint, remaining cardboard and all.

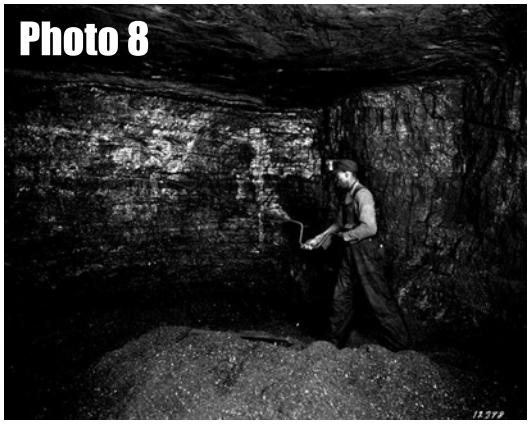
Figure 3



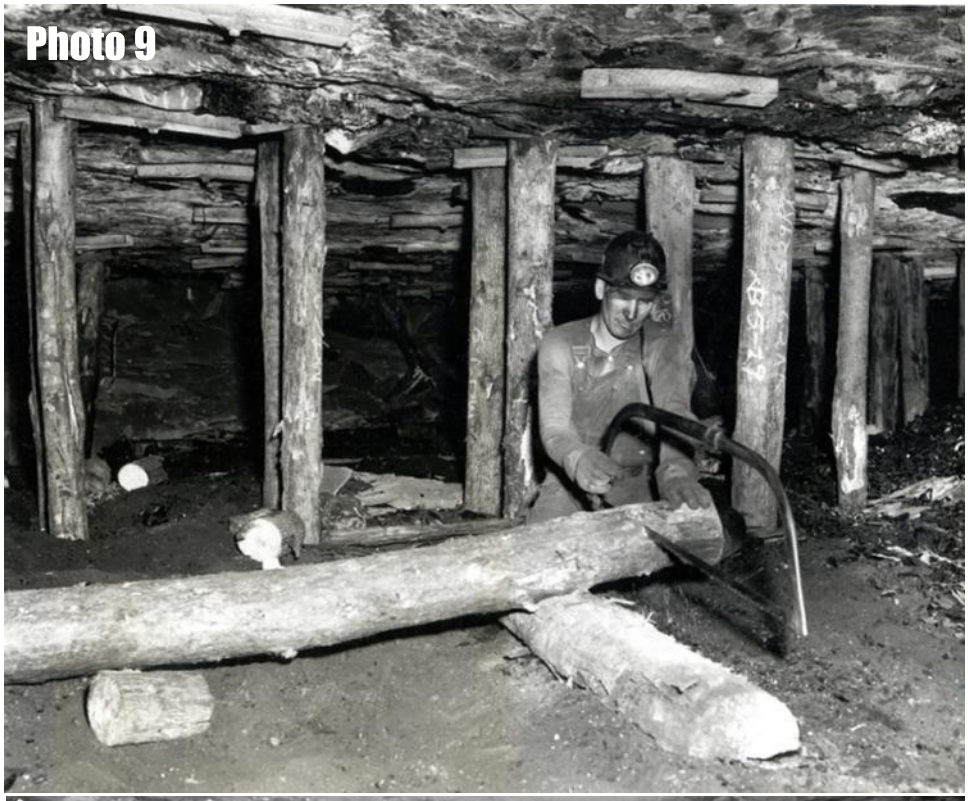
Such steel coils are tied using banding/strapping steel to keep them from unrolling in transit and storage. This became the next modelling dilemma. I was looking around for some very thin chart tape or similar product to model the steel strapping. When discussing this issue on the traction Facebook site I belong to, a friend and fellow O gauge trolley modeller in Salisbury, North Carolina, by the name of Gregg Rapp piped up and said, "why don't you just cut some thin strips from black electrical tape?" With that, the problem was solved.

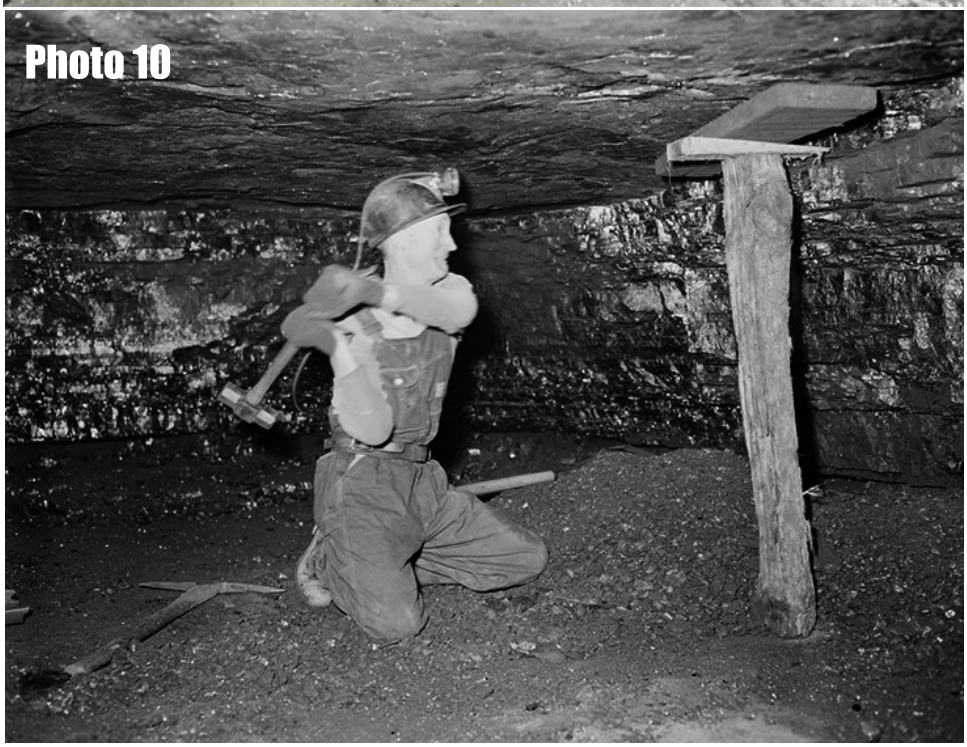
Lastly the chains and the load binders were painted rust brown and added. A bit of red was dry brushed on the load binders to indicate they had once benefited from a coat of paint. With this, the load was done and ready for movement as freight to American Steel.

Mine Props



One product we needed on the ME Ry was mine props as we have lots of coal mines along the line. I remember these in giant piles around the portals of mines when I was growing up. They were cut from small diameter hardwood trees, say 5 to 20 inches in diameter with 6 to 8 inches probably being most common. The length of the props I imagine was ordered to suit the mine customer. Some of the prop piles at mines had props of all sorts of lengths. Coal seams came in various thicknesses. Some seams lower than 36 inches were worked with miners lying on their sides, see Photo 7, sometimes in water, all day to pick at the coal or shovel it into mine cars. Some mines had coal 10 feet thick, see Photo 8 for high seam coal. Much of the coal in the southwestern Pennsylvania coke region, where the ME Ry is based, was the Pittsburgh seam and that seam ran about 6 feet thick. And the coal thickness varied considerably, sometimes in the same mine. The mine props needed to be long enough that they would reach from floor to roof of the mine with space for a roof beam and/or some blocking above. The mine props were stood up and the blocking driven in to tighten the prop. Props could be longer than needed and cut to length at the coal face to





suit the situation as shown in Photo 9. But, they were fairly useless if they were too short. I decided on 6 feet for my props. And, Photo 10 shows a prop being installed in a low seam of coal.

I wandered around our property looking for a reasonable tree or bush that I could raid for my prop material. Mine props were delivered bark and all and rarely with any preservative treatment. A main entry that would be used for a good number of years might be timbered with treated timber props, or even steel. But, at the working face, where mining would only occur for only a short time, rough untreated timber props were the norm.

With me out looking lovingly at the trees and bushes, my wife was really impressed and most pleased as she thought I had taken a sudden interest in botanical things. She finally figured it all out when she discovered me hacking branches off her trees and bushes that I needed for my props.

The harvested material was duly cut into 6 foot scale foot lengths.

The mine prop load was again built over a chunk of wood cut to size in the same fashion as the poles earlier. A piece of card about the size of the gon bottom was glued to the bottom of the wood block to help tie the prop load all together. I loaded my props parallel to the length of the car with some props placed upright along the car sides as stakes to help retain the load. When the load was dry, I trimmed away some of the card that was showing. The top of the card that remained I painted with a medium grey that matched closely the color of the car floors to keep it from being obvious. I also added a bit more white glue here and there to reinforce the joints between the upright load retaining props and the horizontal props. I had used glue sparingly when building the load in the car so as to not glue the load to the car. My load of mine props can be seen in a gon at the bottom right corner of Photo 2.

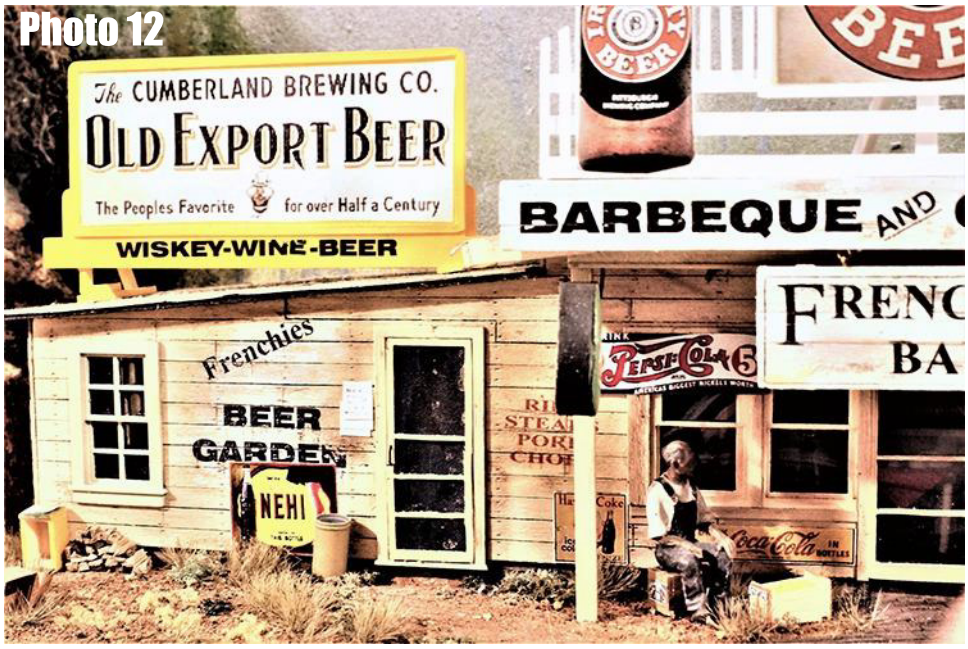
Mine Track Ties

As with mine props, material yards at coal mines included stacks of ties that would be taken into the mine for building and maintaining the trackage underground. In many mines, there were miles of tracks underground.

Such ties were usually untreated as most would only see use for a short period of time. Being an ex-narrow gauger I still have a few thousand On3 sleepers in my parts hoard. These would work fine for mine track as the mine track gauge was often 3' or 3'6". I used some of these to make a load of mine track ties in the same fashion, building the load over a block of wood, as done with the mine props. No coloring or weathering was needed as the ties would have come straight off the saw and delivered to the mine site green. Another very easy load.

Treated Standard Gauge Ties

On the ME Ry we have a sawmill just off- line that includes a creosoting facility and it ships standard gauge ties, as well as treated telephone/line poles, to the ME Ry and via the ME Ry to several other customers. These ties are delivered to the ME Ry at various team tracks along the line. Standard gauge ties also are bridge traffic and are moved via the ME Ry to other connecting roads such as Pittsburgh Railways, West Penn Railways and the Pittsburgh & West Virginia. This is another easy to make load using some ties previously dyed for use in laying track on the layout. The tie load was built over the standard chunk of wood to reduce the number needed. The chunk of wood was painted with tie stain to ensure bare wood could not be seen between some of the ties added to the top of the wood. This load was made for one of the low side gons.



Firewood Load

Even though the ME Ry is deep in coal country, there remains a market for firewood. Some of our layout citizens are offended by the smell of burning coal and prefer to heat their homes with good old - fashion wood. We have firewood dealers in several towns and they will receive goods at team tracks. To accommodate, we needed a load of firewood for one of the low side gons. The firewood load was built similar to the mine props above, and pig iron below. The firewood was made by cutting approximately scale 1-1/2 foot long slices from a round tree branch liberated from my wife's garden. Each slice was then cut into pieces of "split firewood" using a sharp wood chisel and a hammer. Sounds fiddly, but it does not take very long to produce a good quantity of such fire wood. I included some thin branches that were left un-split as they would have been in the real world. I also make stacks of split firewood and use it for details around buildings. See Photo 11 for firewood in work. Photo 12 shows some of our homemade firewood stacked in front of Frenchies ready for use in the pot belly stove there.

I made a wood block rounded roughly with a knife and a little sandpaper to shape the load, and I glued it to a piece of card cut to fit in the bottom of a low side gon. This "former" is shown at Photo 13. The card around the wood block was painted brown before adding any firewood. The firewood was glued to the former in a random fashion as I doubt such firewood would be stacked for transport, but rather just dumped or thrown into the car. I used contact cement for the first layer or so of fire wood on the brown painted card to ensure it would stick, and then white glue was used for the rest of the load.

The firewood was added initially with just the former on the workbench. After the firewood added in first session had dried, the load was placed in its intended car and then more firewood added to fill in the sides and corners. This was done carefully to insure white glue would not stick the load to the car.

The mine ties are in Photo 4, bottom left. The firewood is in photo 2, bottom left.

Pig Iron Billet Load

Since I will have a foundry or two on the layout, loads of pig iron billets would fit in quite nicely. In the dark ages – say 1880 to 1920 – pig iron was produced by pouring the molten iron from the blast furnace onto the ground where it ran through channels previously dug for it. The iron flowed into long furrows dug in the ground that had round bottoms. When the iron solidified in the furrows, it had a flat top. The result was a series of what were called pigs that looked for all the world like hot dogs split in half lengthwise. After some cooling, the pigs were broken from the channels, knows as sprues, by men with sledge hammers at one time. That must have been a fun job**.** The pigs were then collected by hand, stacked, loaded in rail cars, and shipped to market. Later, machines, known as pig breakers, and cranes were installed to reduce the manual labor required.

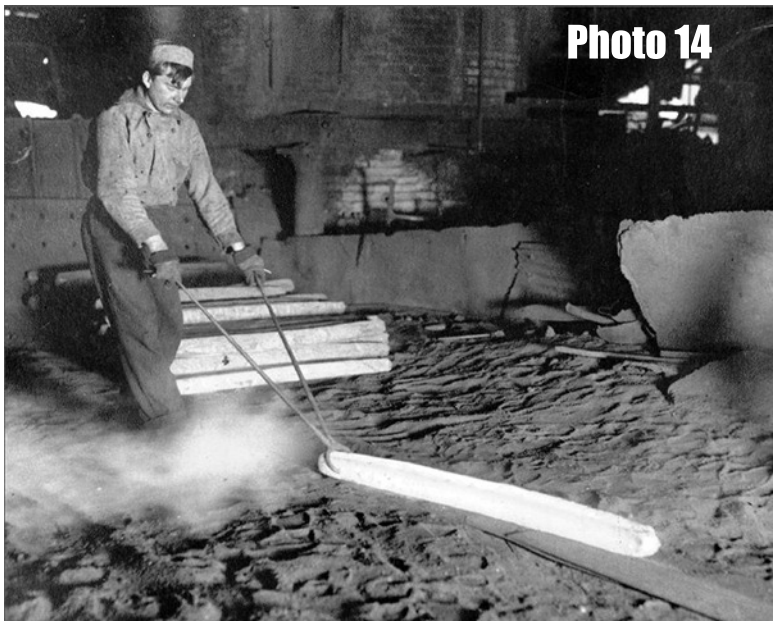


Photo 14 is a very old shot of a workman wresting with a still red hot pig.

Piles of pigs near an early foundry or mill were often mistaken for logs in poor quality photos of the day.

In later days, sand beds near the blast furnace were used in a similar manner to produce pigs. I would imagine this practice lasted till quite late as some of the older blast furnaces in the Pittsburgh region dated to well before the turn of the century. As the emphasis shifted to steel rather than iron, the liquid iron was moved in special cars from the blast furnace to the follow-up furnace for conversion to steel, and iron became less of a finished product.

But, iron remained a valuable and useful material as it was used for the manufacture of heavy machinery and still is to this day. Several very large users of iron remained active in the Pittsburgh area until very recent times and would have provided a market for pig iron. Mesta Machine Works was one such firm. They were located near an iron furnace at Homestead, just south of Pittsburgh proper. Other local firms would have included the Porter and Pittsburgh Locomotive Works that would have used iron in castings for their

locomotives. I rationalise that pigs could have been produced into the 30s; therefore, we shall have some as freight on the ME Ry.

Making a load of pigs was not much different that making the load of mine props. The big difference was that I sanded dowel flat on one side, rounded the end of a dowel slightly, cut a length of approximately 6 scale feet from the dowel, and then rounded the other end of the offcut just a little. A car load of pigs was thus created in hardly any time at all. I took a bit of care to first sand the surface of the dowel and then seal it good to get rid of as much wood grain as I could. Half lengths of pigs were made for the car ends to hide the wood block that filled most of the low side gon as was done with the mine props. Pigs varied in size. In the early days, they were probably 4 feet long and maybe 6 inches wide and deep. I am sure they increased in size in later days when machines were used in breaking and moving them.

The pig load was painted a rail brown, highlighted with rust, and then over-sprayed with a flat finish. The top of the load of pig iron billets would be low in the gon as the stuff was heavy. This was an easy load for sure and can be seen in Photo 3, bottom right.

Bridge Repair Timbers

I picked a few larger bits of stripwood out of the scrap box, stained them and arranged them in a load as a small quantity of timbers that might have been needed for a bridge repair project along the line. A few stakes were cemented to one side of the load so it could be anchored on the flat car by insertion in the stake pockets on one side. This load was made of a few 1/4 x 1/4 and 1/16 x 3/16 inch sticks. A few bridge ties were also included. This load can be moved from the offline sawmill and creosoting works to a bridge site along the line for offloading to get ready for a future repair job. Since we interchange with two other traction lines, Pittsburgh Railways and West Penn Railways, we could also route this load via the interchanges to these lines and this will provide some bridge traffic for the ME Ry.

Scrap Steel Load

Today much scrap metal is pressed into bales for shipment to steel mills for remelting, and it is shipped in gons with the load looking somewhat like large bales of hay. In the good ol' days it was loaded loose in gons by a crane equipped with magnet or claw.

For my scrap steel load, I raided my junque box. When building a model kit, I always seem to have left over parts. Might be due to my poor kit assembly process. Any such parts, plus any other scale size bits and pieces go into this junque box. I fished around for anything in the box that looked like it could make good scrap metal. A few bits of aluminium foil were crumpled up as well. Some wire from my junque box was rolled into a coil and included in the scrap.

There are pre-made cast resin scrap loads that probably could be cut to size and used as well. But, I wanted a more realistic load. All these loose bits were glued to the top of the 1/8 inch thick piece of MDF cut to fit the car. I took care to keep the epoxy from gluing the load to the car sides – or so I thought. I ended up spending a bit of time working around the load with a hobby knife trying to free the load from the car sides and make the load removable. Probably should have lined the car with some clear plastic food wrap before building the load in the car. But then I would probably have had a mess of a time trying to get the clear wrap off the load. Some projects are never easy.

When dry, the load was painted with rail brown paint. It was then dry brushed with rust and a few other colors to create a more life-like appearance. The completed load is in Photo 3, bottom left.

Sand, Sawdust, Crushed Slag, and Cinders

These loads were all built in similar fashion over a wood block but with a bit of difference. The earlier wood blocks, as shown in Photo 13, were considerably smaller than the inside space of the car to allow room to put some of the load at the sides and ends of the block. In the case of sand, sawdust, slag, and cinders, the

blocks totally filled the car space with only enough room around the block to make it easy to remove it from the car. The height of the block was such that the top edges of the block were just below the top of the car sides. And it was unnecessary to mount the wood block on a piece of card as the load would only cover the top of the wood block.

The sand load was made by first painting the top of the wood block a sand color then sprinkling on some grout of the appropriate color. When dry, more grout was poured on and fixed with matt medium and wet water. This load will also be used as "sawdust", which is needed by my ice house, so this load can do double duty.

For the crushed slag load, some light grey HO gauge ballast I had on hand was used. The top of the block was painted grey for this load of course.

The cinder load was made for the high side gon in the same fashion. I use a black sand that I get in my local hardware store for cinders when ballasting track and also used it here for this load. The top of the wood block was painted black first.

If any of these loads make the car too heavy, weight can be removed by drilling a hole or two, or three, in the bottom of the wood blocks. The cinder load is in the high side gone in Photo 5, middle left, and the sand/sawdust and the slag load, both for low side gons, are loose at the bottom right of that photo.

Steel Wire Coils

Having just finished an industrial flat for the industrial area of Jacobs Creek, I needed to ensure I had a load to deliver to it. The new industry was named "Welded Wire Products" and would need steel wire to turn into its products. In the good old days, wire was delivered from wire mills by gons in coils to such industries in need.

My industrial flat, by the way, was based on a Clever Models paper building. In setting up Jacobs Creek in the new layout room, I ended up with insufficient clearance to use several of the previously constructed

buildings intended for this location. Needing to conserve time for track laying and stringing wire, I decided to use the paper building as shown in Photo 15**.** With a bit of extra detail such as lights, downspouts, freight dock, etc., to add more of a third dimension to the model, such paper models make nice industrial flats when they are at least at arms length from the viewer. You should not overlook these buildings if you have similar needs.

To make the coils of wire, I decided to use fishing line as I needed a light load to ensure the loaded car would not be significantly heavier than the car when empty. Probably would have been much easier to use actual wire though. I bought a few rolls of 0.5 mm diameter fishing line – that's 20 thou to you guys and gals up north. I bought this fishing line on the cheap at a deep discount store. The coils were made by winding the line around the end of an appropriately sized paper tube I had in the shop. I save such paper tubes from wrapping paper, aluminium foil, etc., as I use them to store stripwood, brass shapes, and styrene strips in the workshop. Cheap storage for long sticks.

I made my coils about 7 feet in diameter. Small diameter wire usually was shipped in smaller coils, approximately 4 feet in diameter, and were packed two coils across in gons. I had seen photos of larger diameter wire in the larger diameter coils as well. I hunted all over the Internet to try and find the photos I had previously seen of these large coils. My intention was to include such a photo with this article, if possible, to silence any disbelievers among you. Unfortunately, I had no luck finding it again. One reason I opted for the larger diameter coils was that it would mean I had to make a lot less of them for a convincing load.

If you are interested in the smaller coils there are some ready-made coils for use as HO scale loads that might be workable in O scale, too. They are cast in resin. Can't recall who offers them, but I have seen them regularly in ads.

The plan was to wind the line on the tube until I had formed the coil of appropriate size – in this case about 60 turns or so; to slide the coil off the paper roll; and then to tie the rolls up in three places at 120 degrees apart with more fishing line. The first few attempts looked more like a bomb had gone off in a spaghetti factory as when not holding the coil tightly it would uncoil and spring all over the place. Finally, worked out a method of maintaining reasonable control of the bloody coil until it was tied. I used super glue to hold the ties in place as I made the coils. Super glue in not a very good adhesive for nylon; so when all the coils were done I mixed up some epoxy and touched the ties with a dab to provide a better joint.

About the time I finished fighting with the fishing line ties, it dawned on me that I could have used the fishing line for the coils and thin copper wire for the ties as this approach would have made tying the coil easier and still kept the weight of the load down. I tried this on the last few coils. It looked good and certainly was easier. And, it's faster as you don't need to glue and wait for it to dry. If I ever make this load again, which is not likely of course, I will know how better to do it.

To ensure the load would withstand handling, I made a base from some heavy card and two strips of wood. The square strips of wood were whittled to a triangular shape and glued to the edges of the card to form a cradle to which the coils were glued using epoxy cement. Each coil was also glued to the previous coil to make the load as bullet-proof as possible. The photo that I can no longer find showed such coils laying in a gon and leaning on one another in fallen domino fashion, and that is how I did mine.

The fishing line was a translucent grey and very shinny. The coils, and the mounting cradle, were painted with rail brown and dry brushed with a rust color. I also dry brushed them here and there with a steel gray color to indicate they had recently rusted from outdoor storage and transit.

This load, Photo 4 middle left, is now ready for delivery to Welded Wire Products in Jacobs Creek.

Coke Container Load

It makes sense that coke was a big commodity in the coke region, and it moved on all rail lines there. Most coke moved in hopper or gondola cars. But some smaller users ordered coke in LCL containers. I made some such containers and used them to form a removable load for a low side gon. One of these days I will do an article for **OSR** with more details about railroad coke service. You will need to wait for that additional information if Amy and Daniel see fit to publish such an article.

I mounted five of my 3D printed coke containers onto a mounting plate cut from 60 thou styrene. This left one position vacant. I had some old axles left over from installing Intermountain steel wheelsets into Athearn plastic trucks. I pulled the old plastic wheel off the Athearn axles and put them in the scrap box. Some of these wheels found their way into the scrap steel load previously described.

I needed four locating pins to mark the vacant container location. For this, I sawed the pointed needle ends of two of the axles and used them to make the four locating pins onto which the sixth container would be placed if there were a sixth. These locating pins were epoxied to the mounting plate.

The mounting plate was painted rail brown and dry brushed with rust. The containers were painted in traction orange, numbered and lettered for the ME Ry, and weathered. The five containers were then glued in place on the mounting plate to form another appropriate removable load for a low side gon. This load will be delivered to our container handling facility in Jacobs Creek where it will be transferred to trucks for delivery to our customer.

The coke container load is shown in Photo 6, bottom.

In thinking more about this interchangeable load concept while building the above mentioned loads, other potential loads for flat cars came to mind. I have continued to build on this concept and have added other loads such as cable reels, crates of machine parts and a steam boiler.

Cable Reels

I worked out I could use several different types of such cable loads: trolley wire to replace worn overhead wire, electrical transmission wire that the local electrical supplier, West Penn Power, would need to build high voltage transmission lines to support their rural electrification projects; and wire rope for use in vertical and inclined mine shafts. I also made one empty spool to use as a scenic piece while I was at it. Maybe an old Lionel cable reel could be spruced up, weathered and turned into such a load. I did not have a Lionel spool in my pocket so I made my own by cutting discs from 1/8 inch thick MDF and adding details made from thin card. I put plastic nut-bolt-washer castings on the reels as they were usually held together with steel rods accordingly.

After assembly, the MDF discs and card was weathered and some different colors were dry brushed onto the outside face of the discs to differentiate them by source.

To help each cable load better look the part and uniquely reflect it different contents, I made decals to add to each reel. Certainly not a necessary item, but something that adds a bit of interest and fits in with the detail in the car card system. I made one for John A. Roebling & Sons, Trenton N.J., the famous maker of wire rope; Kennecott Copper for trolley contact wire; and Westinghouse for transmission cables. Reels of copper wire were often covered by nailing thin boards around the circumference of the end disks. Wire was often run around the outside of the boards and nailed to them. I assume all this was do to the tendency of copper to disappear due to it's value. I modelled my copper carrying cable reels this way. The wire rope reel was modelled as open with the wire rope showing.

I made blocking to carry the coils on the deck of one of my new flat cars. This blocking was much like that used for the steel coils described above, but modified for shipment by flat car as will be described below. Two

loads were made using the cable reels as shown in Photo 2 top and Photo 5 top. A large gear that came my way when purchasing the steam boiler, to be discussed later, was added to make the load with a single reel of wire a bit more substantial.

Crates

I made a few large wood crates as loads which could contain machinery or machine parts that needed to be crated to protect them in shipment. These were made in several sizes from 1/8 inch thick MDF with 0.040 thick card overlays to simulate the wood sides and the crate framing. Such crates would have been mounted on heavy timber skids and these were modelled. You could also knock up crates from wood in your scrap box. I often build such crates using scrap stripwood over a small block of wood. This project came up as I was drawing some laser parts, so I just included the crate parts on the sheet.

The crates were sprayed with aged white as this is close to the color of new wood from which such crates would have been made. Some of the aged white was darken a little with a drop or two of black and diluted to a wash and this was used to vary the color of some of the crate boards. I added a small bit of white paper to some crates to model the shipping instructions the seller probably would have included on the outside of the crate.

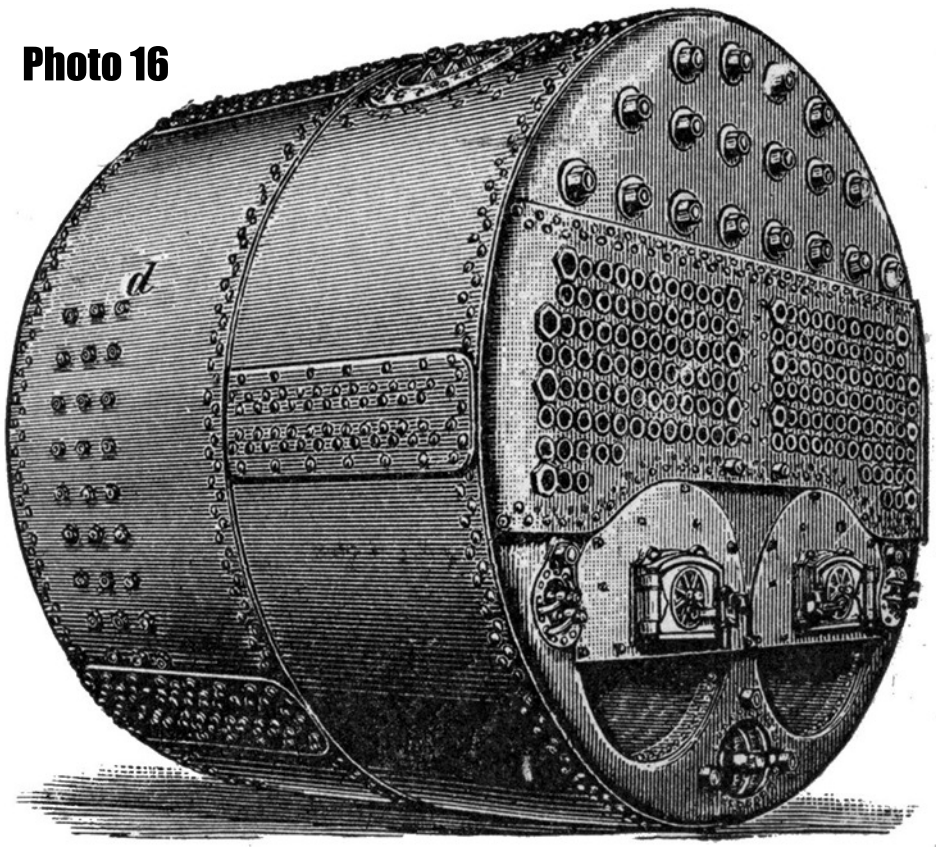
Steam Boiler

Another load was a scotch boiler. I was flipping through an old book for load ideas and ran across pictures of such a boiler.

I drew up parts to make the boiler using laser cutting technology. The idea was to make a few discs of MDF for the ends and center of the boiler barrel. Card overlays were drawn for the boiler "skin" and to overlay the discs on the ends with the firetube and staybolt details.

The design of a scotch type boiler made modelling it easier than many other complicated shaped boilers, so this boiler type was chosen due to my lazy nature. I am not sure if the firm, Combustion Engineering, ever made such a boiler, but they had a big plant in East Monongahela in my area of interest, so I also made a decal identifying the boiler as one of their products.

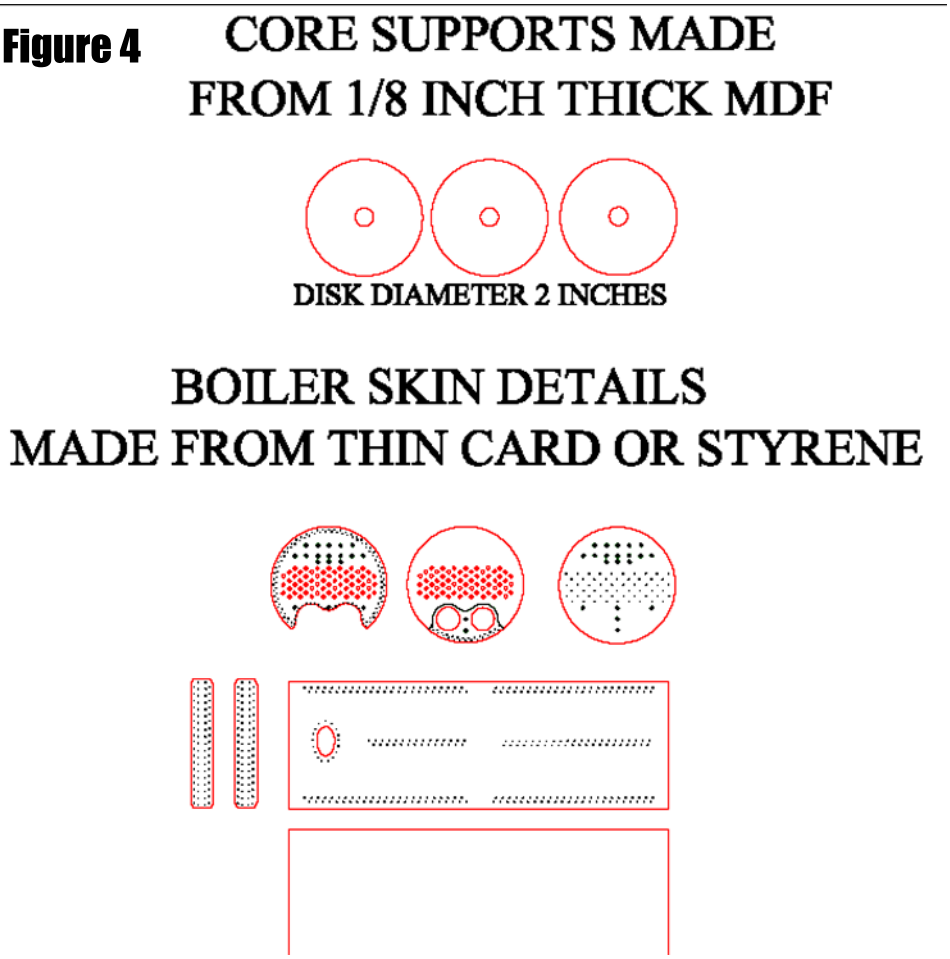
Photo 16



Such a boiler had about a zillion rivets on it. While pondering the monotonous job of adding all the rivets to the card boiler shell, I was browsing the shelves at the hobby shop and ran across a ready-made Scotch Boiler of appropriate size cast in resin. It was intended as a 40 ton HO load so would be about a 20 ton load in O scale. I bought it and did not need to continue with making one for the load at this time. Maybe later the scratch built boiler will get finished when I am in more of a rivet mode, but then, how many boilers do we need?

A crate of boiler fittings was included with the steam boiler to make a more imposing load. The steam boiler and the crate were tied

Figure 4



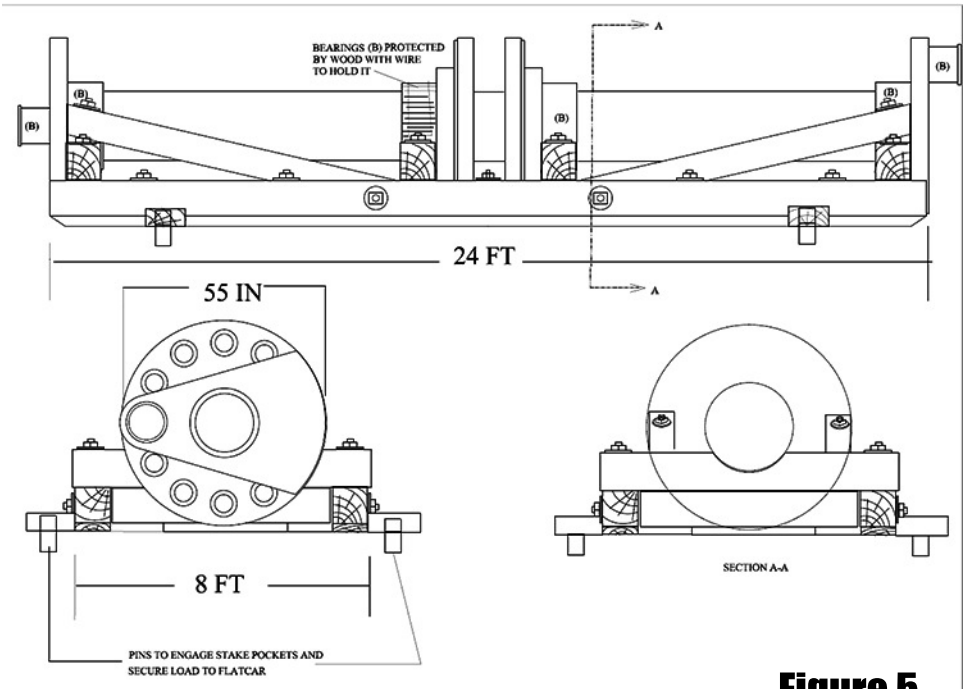


Figure 5

CRANKSHAFT LOAD

I will have a foundry that does loco repairs for local narrow gauge railroads. I am pondering mounting a loco frame and a set of drive wheels on blocking to make another two loads. I have such things in my junque box, so they only need a bit of paint and some blocking to make them ready for use.

together with the load bracing timbers so they could be removed and installed on a car as a single piece. This load is shown is in Photo 4, middle right.

Drawings of the parts for the aborted scotch boiler are shown at Figure 4. A detailed view of a scotch boiler is provided as Photo 16.

Securing the Loads to the Flat Cars

For flat car use, and to make these loads removable but still stable when travelling, I made wood framing for mounting the loads on the flat cars. I extended the wood framing out to the side stake pockets. And I added short pins made of about 1/16 inch diameter wire inserting the pins in holes drilled in the ends of the framing such that they would fit into the flat car stake pockets. This allows the loads to be removable but ensures they remain in place during transit. See Figure 5 for a sketch of this approach. Some nut, bolt & washer castings were added to the framing top to indicate the framing and loads were bolted down to the car floor.

I will keep thinking about this and look for other load possibilities for all open cars to add interest to my operations.

Steel plates and structural steel "I" beams and "H" columns are two examples that come to mind. Maybe a bridge girder could be made, too. I have seen photos of an entire fully assembled but short bridge section loaded on flat cars for transport to site. This would make a nice model.

The idea for a crankshaft load came from a construction article back in the June 1960 edition of Model Railroader magazine. This article described building a Wabash 1900-vintage four truck flat with a very large crankshaft as a heavy load. The article was based on a photo in a very old Car Builders Dictionary, I think. This article has been at the back of my "future projects" folder for many years now. I finally have gotten around to sketching up this load for use on my layout. I have lightened up the crank quite a bit to make it more suitable for a two-truck car of 40 tons capacity, and I am in the process of building this load for one of my new flats. See drawing of this load at Figure 5.

I have a few empty steam road gons in brass, plastic built kits, and scratch built. Eventually, I will continue with the interchangeability concept and work out loads that can be accommodated by these cars as well.

And, our fleet of steam road open top hoppers in both brass and plastic could get removable coal loads so that cars can arrive empty at mines and leave with loads. I am thinking that a few steel washers hidden under the coal load will allow me to use a magnet to lift the loads out of the car. This would eliminate the need to turn the car upside down, pry, shake, and otherwise coax the recalcitrant coal loads out of the hoppers. Doing this would probably shake most of the coal loose, so the magnet lift would be easier on the loads for certain.

But adapting these steam road cars to the interchangeable load concept is another major project for another time. I need to see what more I can do to provide additional interchangeable loads for my new ME Ry gons and flats before moving on to other things.

Labels to Make Life Easier

On the bottom of each load I added a label with the car number(s) they are designed to fit. Also, I included which end of the load goes toward the "B" end of the car. I felt this was necessary because, even though the cars are supposedly built to a plan, they are all probably just a little different particularly in the stake pocket spacing on the flats. The loads may not fit perfectly in other cars or even bass-ackwards in the right car. This labelling should reduce the stress when trying to match loads to the cars later during or between operating sessions. See Photo 17.

I am also pondering adding a note indicating where the loads are to be stored when not on the car. This could help a visiting operator, or maybe me if my memory gets much worse.

My plan is to store the loads as you would store cars is an off-track staging area. My loads will be placed on a purpose-built shelf under my layout and near the point where they would logically be added to the cars. They can then be easily selected and added to their cars when they are required by the bill of lading in the car card system.

For operations, the car can go from one point to another during an operating session, either loaded or empty, as required. In between sessions, the load can be removed from a loaded car, or installed in an empty car, to prepare it for a movement during the next session.

When a load is removed from a car between operating sessions it can be placed in the appropriate storage location for when it is again needed to load a car.

This will provide for quite realistic and diversified operations with a wide variety of loads while still matching the load vs empty status on the way bill. All this will be easier to do now that we have adopted the interchangeable load concept for open cars. And, it will help limit the number of new cars I need to do so.

Modeling a Petroleum Industry Flat Car Load

– by Ken Patterson
Photos by the author

Over the years, I've written articles on prototype modeling using photos. This strange looking flat car load is modeled from my memory of a prototype I saw on a siding about 14 years ago. It appeared to be a section of a distilling vessel for the petroleum industry. I didn't have my camera with me, but I did have pen, paper, and, a tape measure. I carefully studied it and noted how it was secured to a depressed center flat car. The vessel was held by two stacks of railroad ties that had been cut to shape and held by steel framework to prevent them from moving around.

Fourteen years later while shopping at a sporting goods store, I discovered a funnel-like thing in the hunting department. It looked almost exactly like the flat car load I'd seen years earlier. I purchased a few of them to get through the learning curve of recreating a unique model. Walthers manufactures a depressed center flat car similar to that which carried the prototype load, and I still had my notes and measurements. Time to get to work!

Reader Feedback (click here)

Finishing the Don Winter's Railgon Kit
or
Loads For Your Gondolas!

By Jim Kindraka

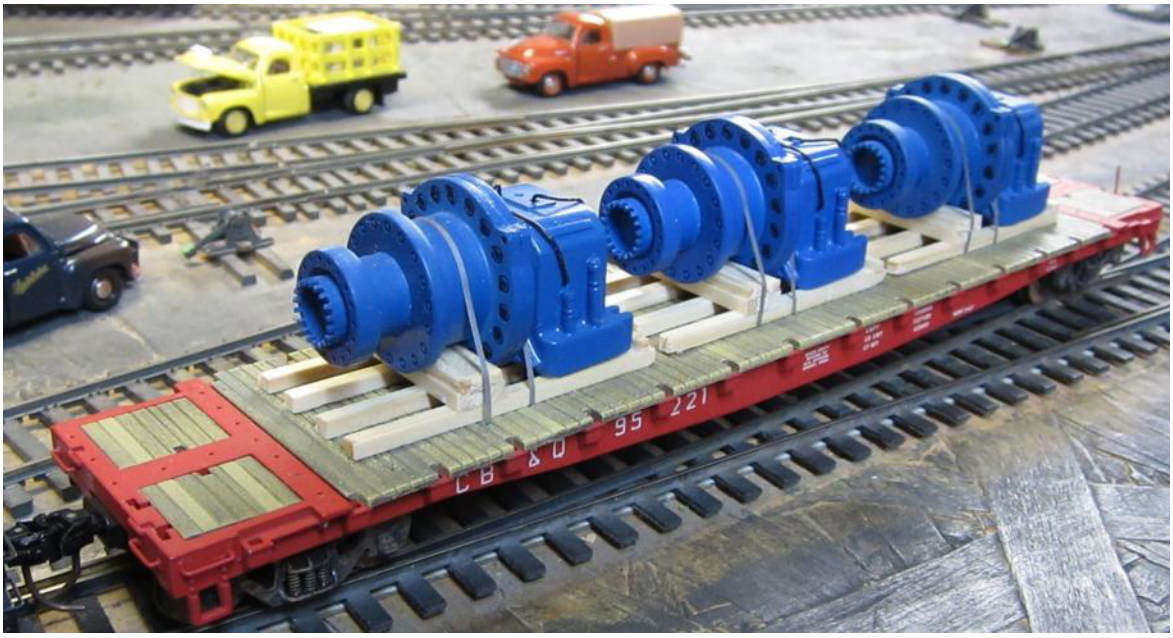
In the June/ July 2016 S Scale Resource, I wrote about building the Don Winter's "Railgon" kit. That article stopped at the point of painting the car. After boxing everything up to move to a new home, I finally dug the unpainted car back out and began work to finish it. This is a short article on how these projects can get away from you and take on a life of their own. I suppose the fact that I paid very little for the original kit spurred me to keep adding on.

This is the completed Winter Railgon kit after painting and lettering. The decals were made many years ago by G&W Models, but went on without issue. The website rrpicturearchives.net has a multitude of photos that can help with decal placement. This model was photographed on the late Jack Sudimak's layout in Medina, OH; courtesy of the Northeast Ohio S Scale group who faithfully maintain Jack's large S Scale layout.

In the June article, I talked about doing some research and adding underbody and brake rigging to the car. I was able to obtain some decals to finish the car in the GONX "Railgon" lettering scheme, so I masked and painted the model in that scheme. Despite being 20+ years old, the decals went on easily using Micro Set and Micro Sol decal setting solutions. The decals fit he gondolas sides almost perfectly. The original decals were done for the Winter's kit by G&W Models; a small S Scale business in Syracuse, New York run by the late Walter "Walt" Danylak. In the 1970's through 2005, G&W imported a single brass model and made several other limited run products, as well as detail parts and decal sets. All the decal sets I have seen or used have been of very high quality even though they are now quite old. When Walt passed away in September, 2005, the business was not continued; an unfortunate loss for the S Scale community.

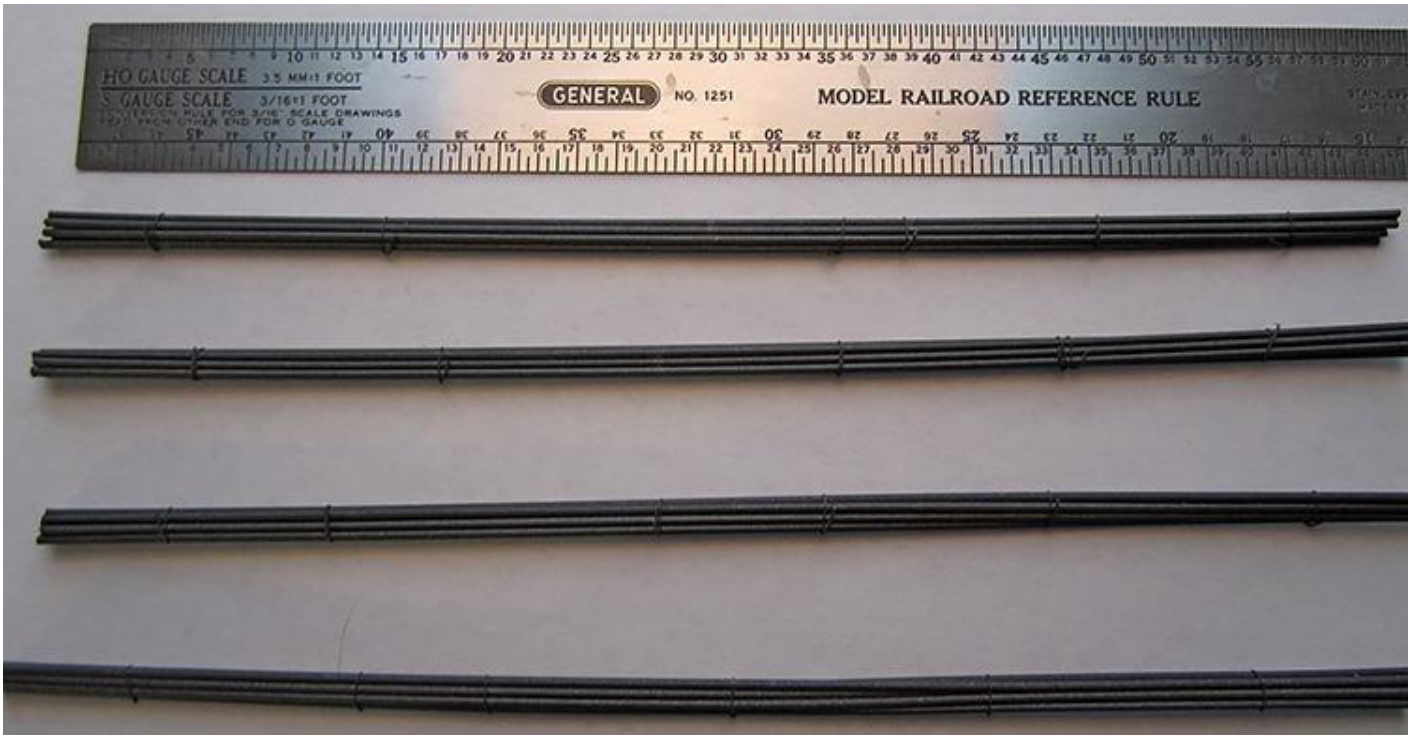
Following decal application, some touch up painting and addition of a few final brake details, the model was finished with Kadee 802 couplers and a pair of American Models 70-ton RB trucks. The trucks were modified to come as close as is possible to 100-ton trucks in S Scale receiving 36" Code 110 steel wheels.

These are photos of a couple flat car loads purchased by a friend at Train Fest in Milwaukee. They are made by a Czechoslovakian company and are available in the US through a distributor in Maine. These loads led me to do some on-line searching of the distributor for likely gondola loads.

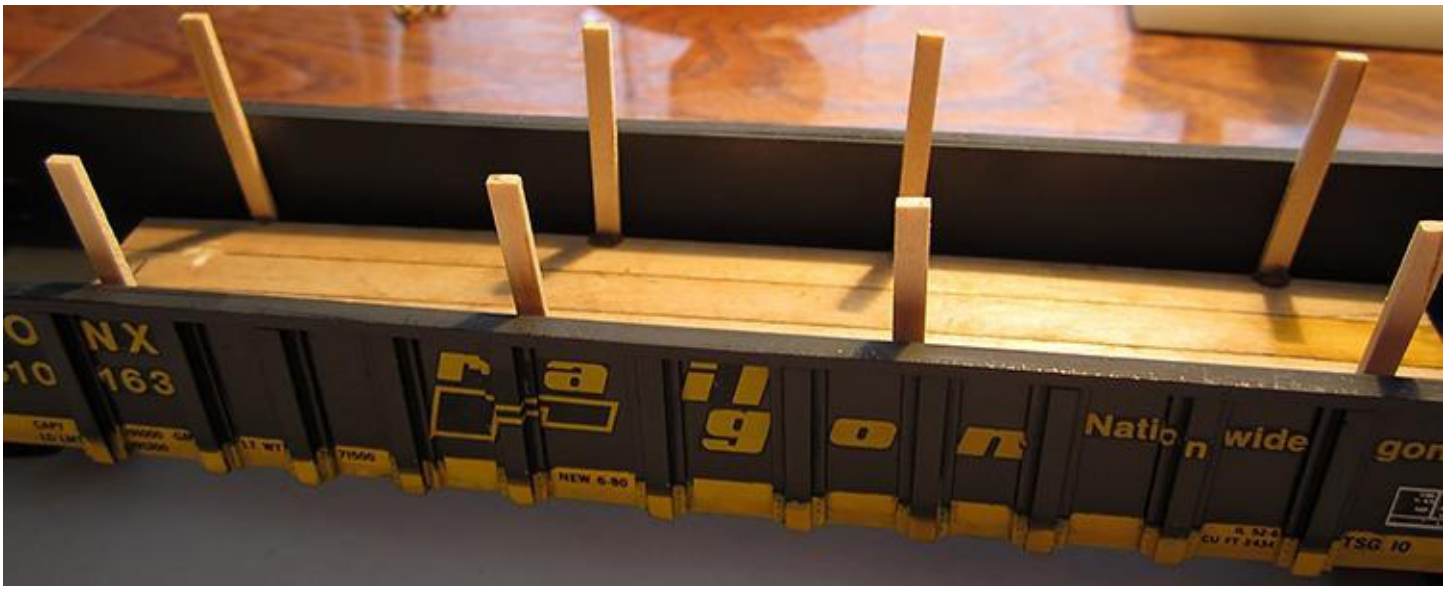


Then things took a bit of a sideways turn… At this point, other than time, I had very little invested in the model so I began to look for a suitable load. I wanted to do something different, not a simple load of scrap or gravel, but something a bit more unique.

What the heck, I hadn't spent much to date so why not do some looking and spend a few bucks! A friend showed me some HO and S Scale flat car loads he purchased at Train Fest in Milwaukee. They really looked interesting so I began looking into where they came from. The items were made by a Czechoslovakian company named Duda and sold in the U.S. through JWD Premium Products in Liberty, Maine.



The photo above shows the item I purchased, Steel Rod Bundles for a 68' HO car. The package contains 10 bundles and they work out to 45' in S Scale. The rods are black styrene and come out of the package bundled exactly as you see in the picture.



To hold things together, I built a simple cradle from ties and leftover pieces of laser cut wood. I elevated it off the gondola's floor about 3/16ths of an inch to reduce the number of bundles needed, but still giving the sense of a fully loaded car.

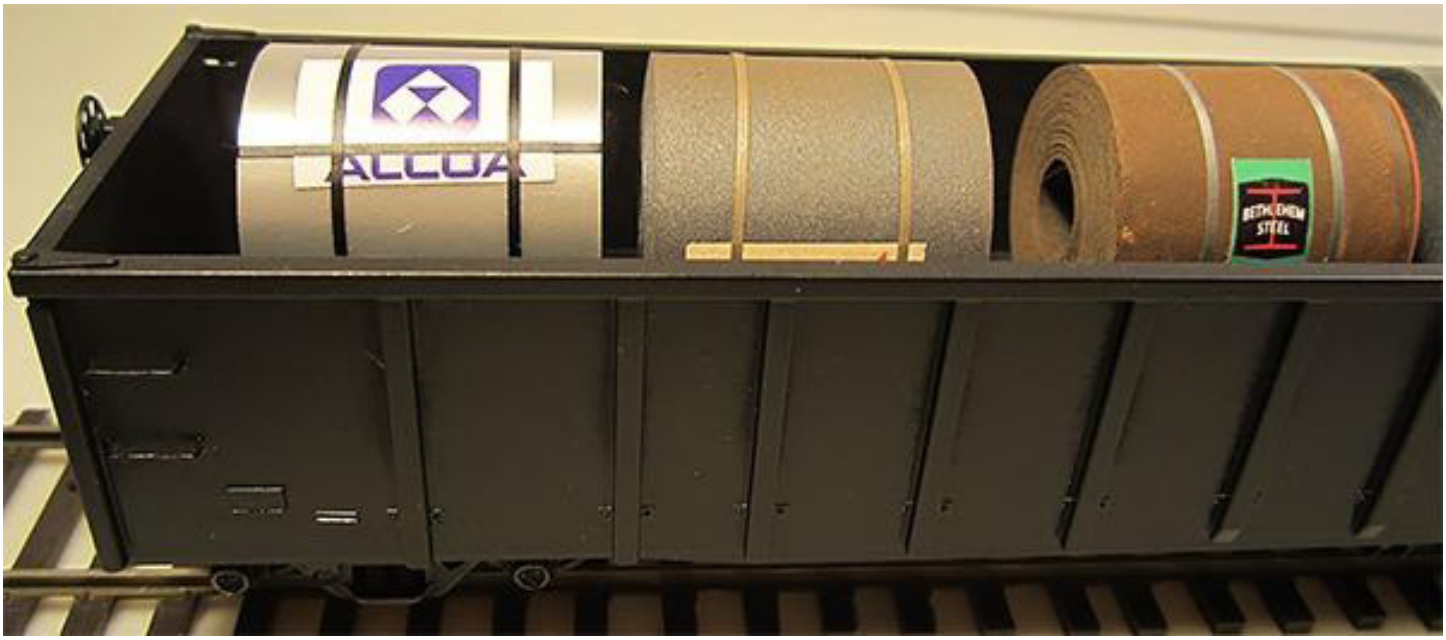
The JWD Premium Products web site listed various loads in HO, S and O scale. The majority were obviously in HO, but there were some nice S scale offerings. However, I became interested in an HO product that consisted of bundled steel rods. I've seen these before while rail fanning especially in the upper Midwest

steel producing areas. Bundled rods were available for a 68' car in HO. The actual rod bundle works out to just over 45' long in S scale which sounded promising for the 52' Railgon so off went an order.

The bundles turned out to be just the effect I was looking for. I built a cradle out of scrap scale lumber and went to work. Of course, one package wasn't enough which led to two, and three, and … Before I was done, I had more invested in the load than the car! Like I said, sometimes things take on a life of their own. I've tried to provide some photos so you can see the effect. S Scale has several flat cars, and a recently introduced Thrall 2743 gondola kit from S Scale America made finding these loads timely. They provide the modeler with many ways to get creative and add flavor to trains and interest to model railroad operations.

Here is the finished car with several packages of steel rod bundles for a load. It is definitely a case where I ended up with more invested in the load than the gondola model! It does provide a little different, though quite credible load, for more modern freight trains. I may yet finish it by drilling a small hole in the top of the upright wood and using some black thread to simulate wire banding. Another interesting option would be to slant the wood uprights slightly, along with the rod pile, to model a load that has shifted somewhat in transit.

Another view of the finished car with several packages of steel rod bundles for a load.

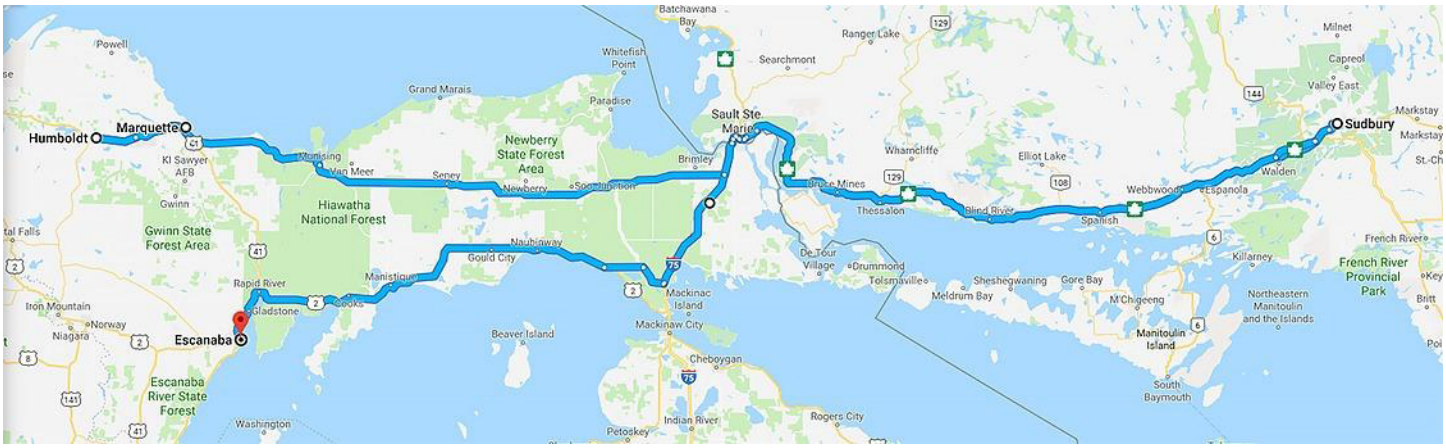


I recently completed a couple of the new SSA Thrall 2743 gondola kits. The cars are quite simple to construct, and I am once again searching for unique loads. This is a photo of one of the gondolas with three different S Scale steel coil loads made by the same Czechoslovakian company that makes the steel rod bundles. I'm still deciding whether the Railgon will be accompanied in trains by a few steel coil gondola loads.

A Dirt Cover For Your Gondolas

By Glenn Guerra

I was working in Escanaba, Michigan and noticed these cars coming by. There is a new mine northwest of Marquette, Michigan and they are mining nickel. The nickel ore is concentrated at Humbolt, Michigan and the concentrate is shipped to smelters in gondolas like this. The covers are to keep the ore from blowing away when the cars are in motion. Some of the ore goes to Sudbury, Canada through Sault St Marie.



The map above is for reference only to show the area that these cars serve in the article. The blue lines are highways and not railroads.

I suspect that the covers also keep the ore dry in case it rains or snows. The gondolas are a mix of types and generally move twelve at a time. Some of the cars are Thrall gondolas like the Des Plaines Hobbies model. I bought one of these, and to spiff up the model a bit, I thought it would be fun to try and make one of these covers.

My plan was to make the cover out of styrene. I would make some bulkheads and wrap a piece of styrene over them. It sounded simple enough, but there were some problems as you shall see. I will show my first attempt, how I built it, and what did not work. My second attempt was better, but even that has some things I would do different. I will do this as photos with detailed captions to help keep the description with the correct photo.

About our N-scale columnist

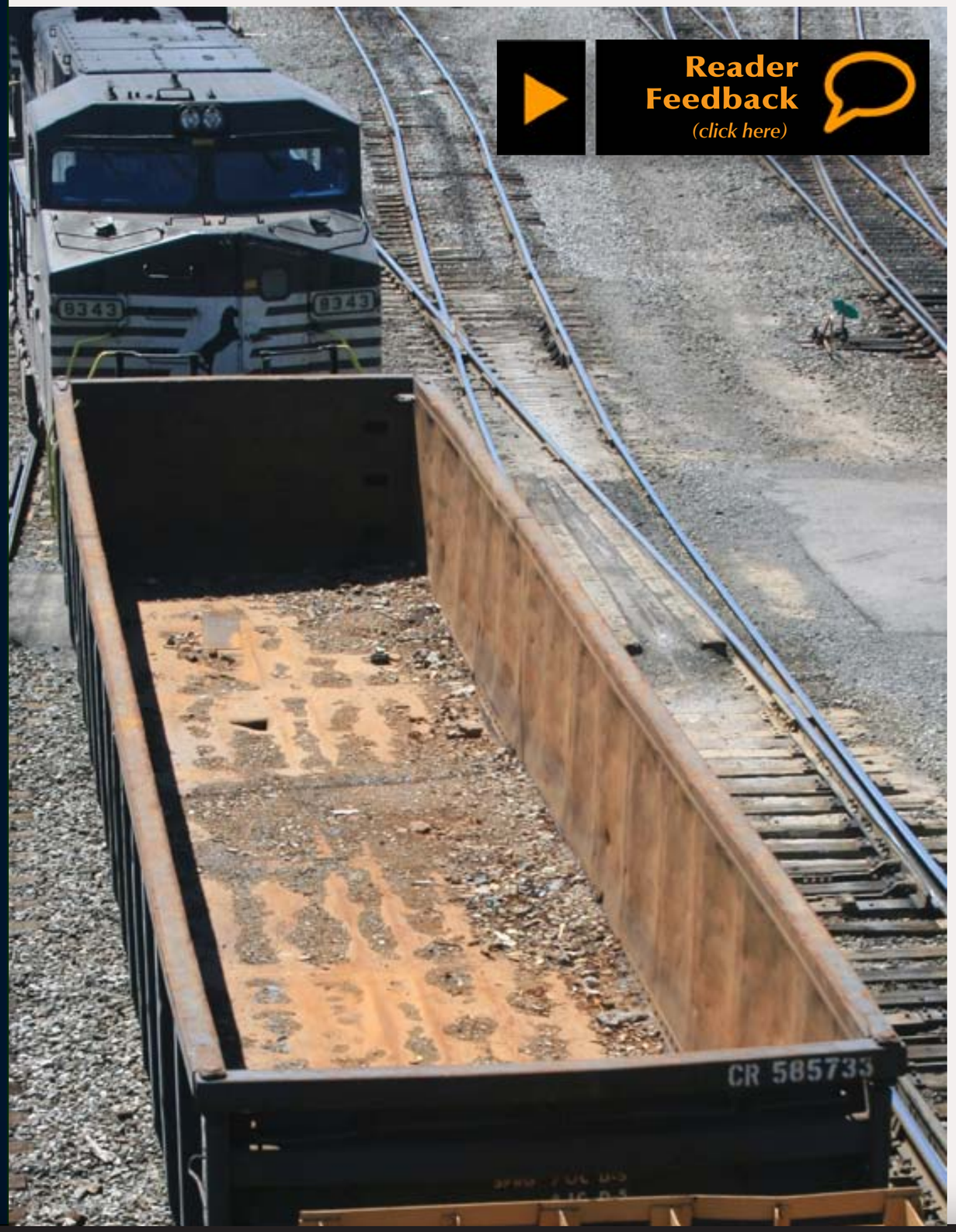
John Drye is our N scale editor and columnist.

Click here to learn more about John.

COMME-N-TARY: N Scale Layout Ideas

RuNNing on Empty - ideas for detailing open cars ...

Modeling in the hobby's most eNgaging scale



Reader Feedback *(click here)*

Modeling empty cars can be as much fun as creating cars with loads. Simple materials can represent what gets left behind in an empty car.

Open-top cars can be among the most interesting on the railroad. Flatcars and gondolas carry a variety of loads, from the mundane (steel plates and girders) to the unusual (farm implements and military equipment). Such loads are a topic to themselves. However, these cars spend much of their time without loads, and modeling their empty state can provide as many challenges and rewards as a loaded car. This column discusses ideas for modeling cars "running on empty"

The Prototype

First, let's take a look at some prototypes. These pictures are from the 21st Century, but much of this information is valid for times as far back as the late steam era.

FIGURE 1: This "empty" gondola is not empty at all. It contains the residue of previous loads.

FIGURE 2: This rotary dump hopper shows the remains of its previous load, in this case dirt and gravel.

Figure 1 (previous page) shows that an "empty" gondola is actually not completely empty at all. Remnants of previous loads (dirt, gravel) or relics of lading (wood blocks, steel bands, etc.) are usually left behind. Sometimes the dirt and gunk is left in the corners and especially in earlier eras, vertical wood blocking is left standing. The lack of a load also reveals the rust, scrapes and dents that gondolas suffer over their hard lives.

Even coal hoppers that are emptied by rotary dumpers or through hatches seldom discharge their entire load. Along with rust, a few stray lumps of coal usually decorate the interior.

Other loads also leave evidence of their travels. Items carried by standard wood-deck flatcars need to be firmly attached per FRA regulations.

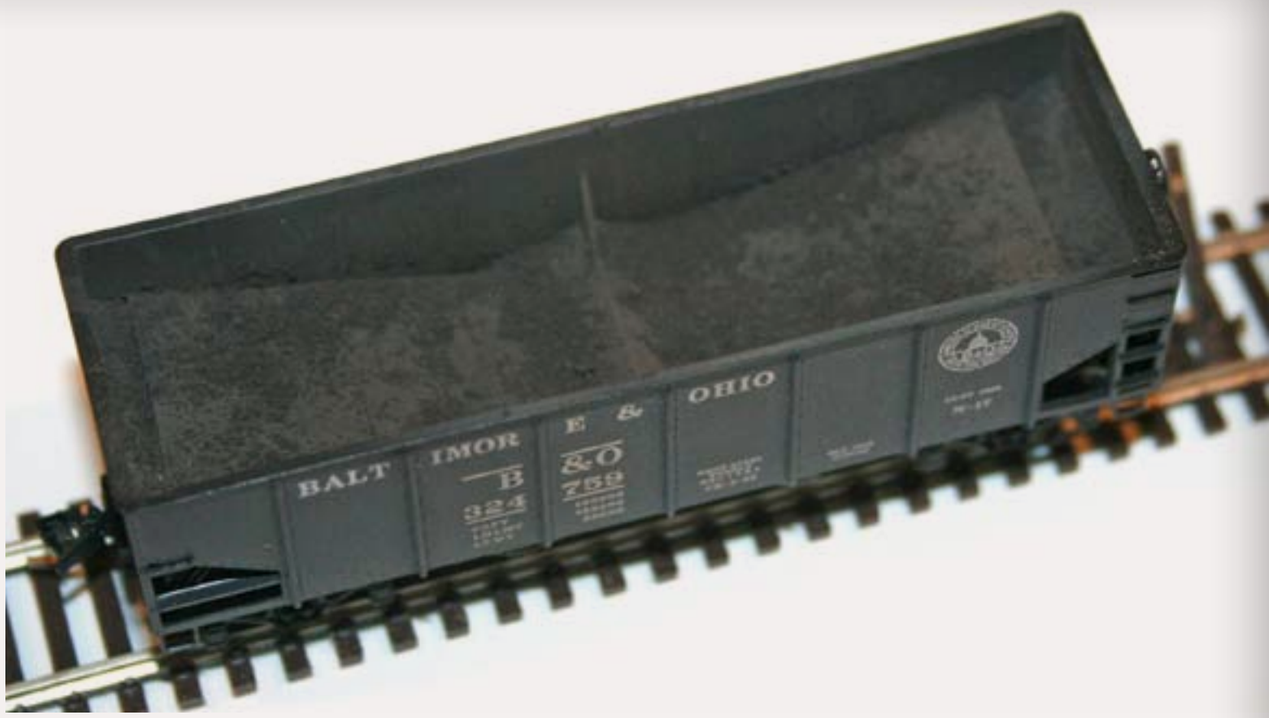


FIGURE 3: The remnants of a coal load in this B&O two-bay hopper help disguise the lead weight added on the slope sheets.

Such blocking and strapping often remains until removed in preparation for the next load.

Flatcars that carry pulpwood or steel coils also retain evidence of their usual loads. Pulpwood leaves a residue of bark and wood chips and steel coils often are loaded along with junk and flotsam from the mill.

There are lots of ways to turn that simple empty car into an

FIGURE 4: These PRR four-bay hoppers have added weight, detailing, weathering, and a little leftover coal.

interesting part of a model consist. Let's look at some examples.

B&O Coal Hopper

Hoppers without internal bracing can benefit from a little detailing of the insides. This B&O two-bay hopper (figure 3) has lead weight cut to the shape of the slope sheets followed by weathering. As with the PRR hoppers, coal was sprinkled inside. Black weathering chalk was applied after other work was complete. The chalk does a good job of representing coal dust and ties the weathering and coal load together.

PRR Four-bay Hoppers

As we have seen, coal hoppers don't actually travel "empty". These PRR four-bay hoppers (figure 4) have been detailed with internal cross-braces and weathered with paint and chalk. Some additional weight was added to these cars using slope-sheet weights from Bowser two-bay hoppers. Since half of the two-bays travel loaded, these nice weights were borrowed from the cars where weight is covered by a load. After their weathering was completed, a little scale coal was sprinkled in the bottom of the bays and along the slope sheets, secured with diluted white glue. The empty-car detailing has the advantage of making the weights barely noticeable from normal viewing angles.

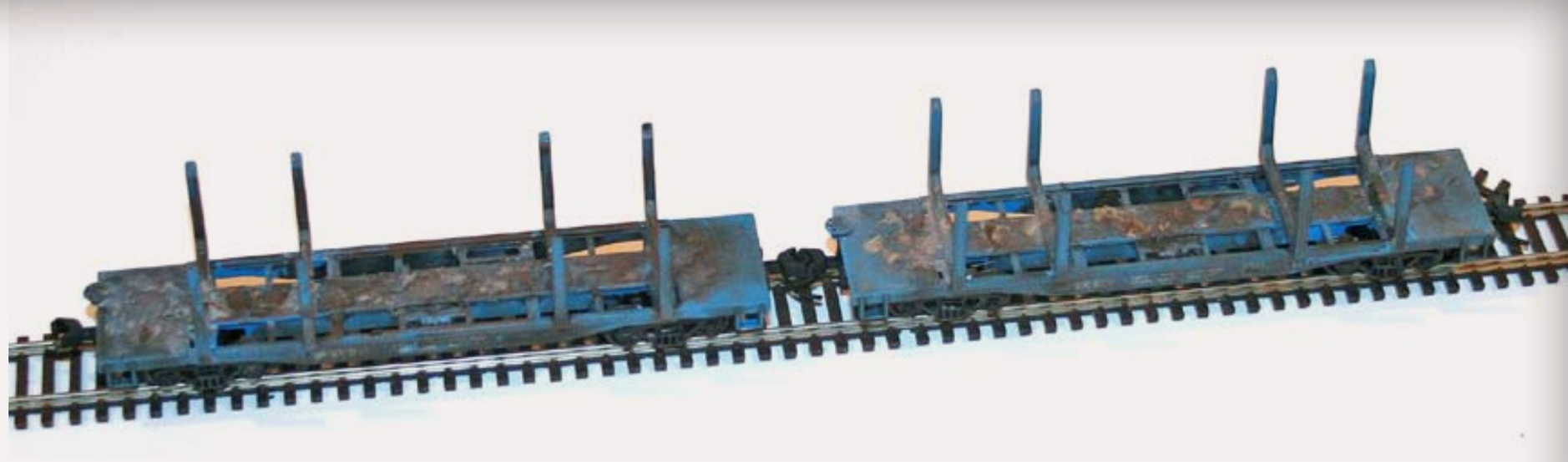


FIGURE 5: These log flats are returning to the lumberyard with the remnants of a pulpwood load, represented by sawdust.

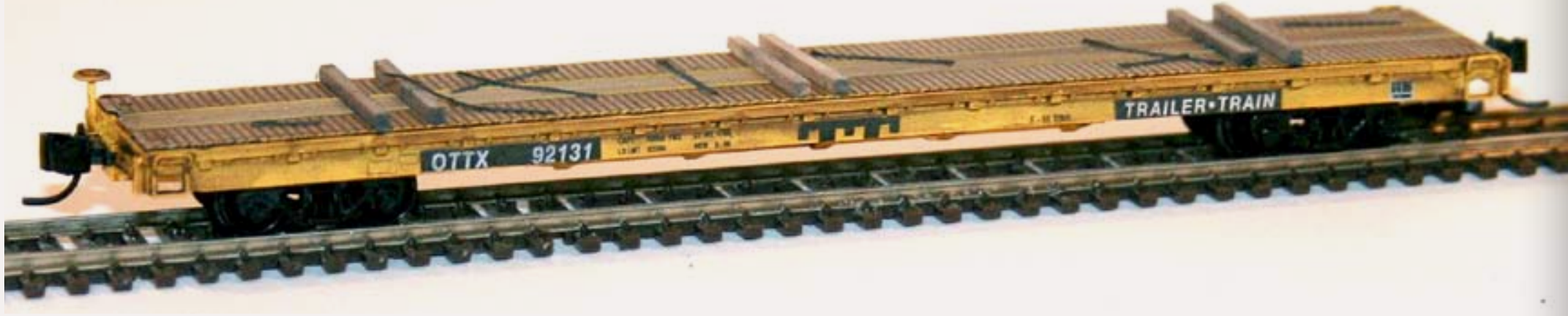


FIGURE 6: This TTX flatcar shows the remnants of a prior load using stripwood for blocking and chart tape to represent steel banding.

Log Flats

The remnants of loads are probably most apparent on flatcars. These two log flats (figure 5) usually carry pulpwood in our model world. The empties were weathered with a brown wash and the decks were "rusted" by stippling with red, brown and silver paint. The scraps of wood and bark left behind were represented with sawdust. Sawdust used to be a scenery standard, but it just looked like, well, painted sawdust. But in N scale, sawdust has just the right texture to represent the remains of a pulpwood load. The sawdust is applied with a little diluted white glue. More of the brown wash is applied after the glue has dried.

TTX Flat

Flatcar loads are secured with lumber blocking, chains and steel banding. Chains are valuable and are usually, but not always, removed when the cargo is

unloaded. The rest of the tie-down materials are often left on the car until the next cargo is loaded. These are represented on this TTX flat (figure 6) by stripwood and chart tape. I weathered six 8”x 8” scale wood blocks with an alcohol wash. Next, a dozen short strips were cut from a roll of chart tape I found at an arts and craft stores. Chart tape is also useful for modeling tie-downs when loads are present. I attached the stripwood blocks in pairs using thin white glue. I also scattered the tape tie-downs randomly across the deck. The tape has a sticky side which holds the material in place nicely.

Conrail Gondola

Gondolas provide a great canvas for the freight car modeler. They see hard service and are almost always well-rusted and battered. It is hard to over-weather these cars, and the almost-empty interiors of the empties are usually a mess. This CR gondola (figure 7) has been weathered and rusted with washes and chalks. Weathering chalk is a great material for representing the dried, rusty interior of gondolas and other open-top cars. I applied several red and brown chalk colors to this car with a little bit of scale “dirt” sprinkled in the interior. The car also has a pair of vertical braces (at the right side of the photo) I made from stripwood, painted, and glued vertically on the end of the car.

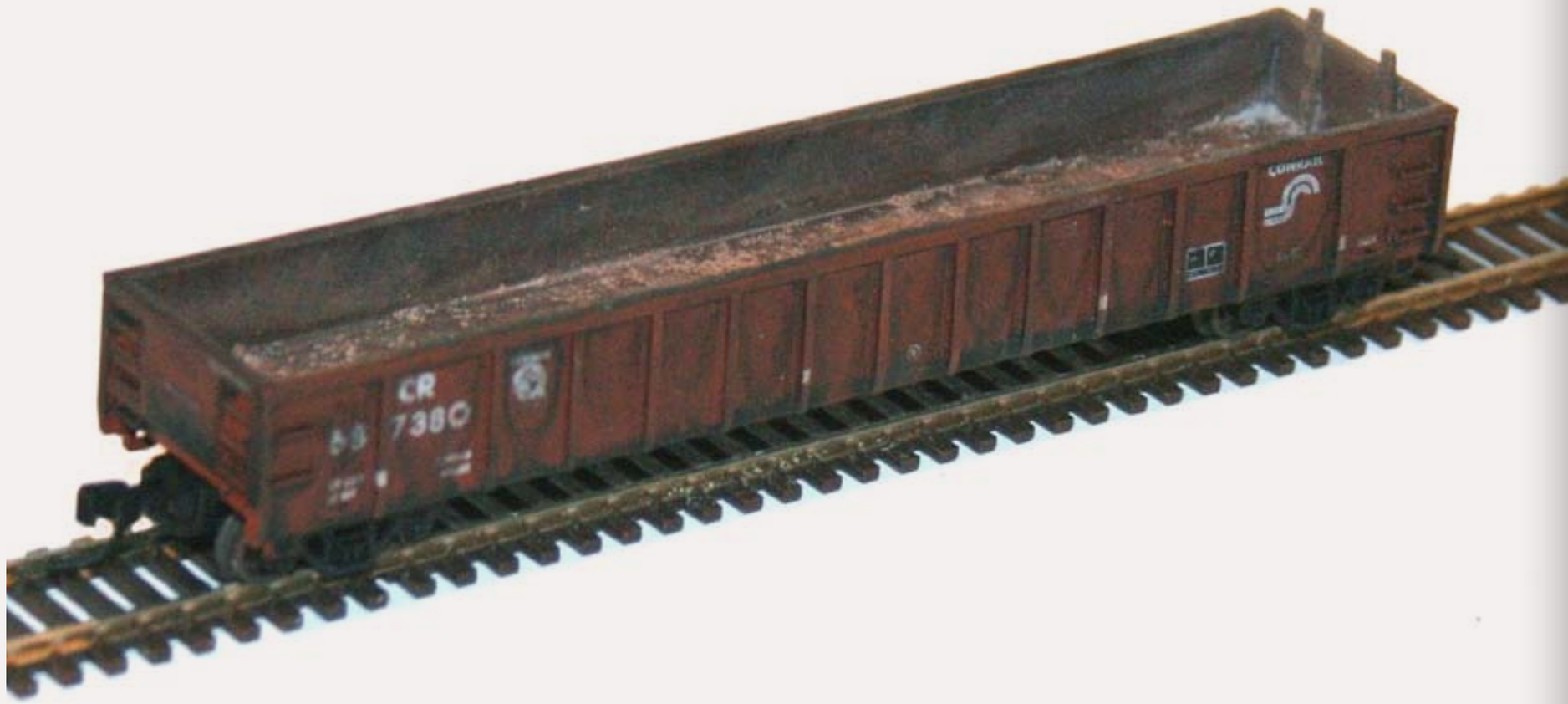


FIGURE 7: CR Gondola—Hard service has taken its toll on this CR gon. A pair of vertical braces at the far end suggests the attachment of a previous tall load.

FIGURE 8: NS Gondola—This gon still carries the remains of the lading for a heavy (probably steel) load. The load surely contributed to the rusted and worn condition of the car.

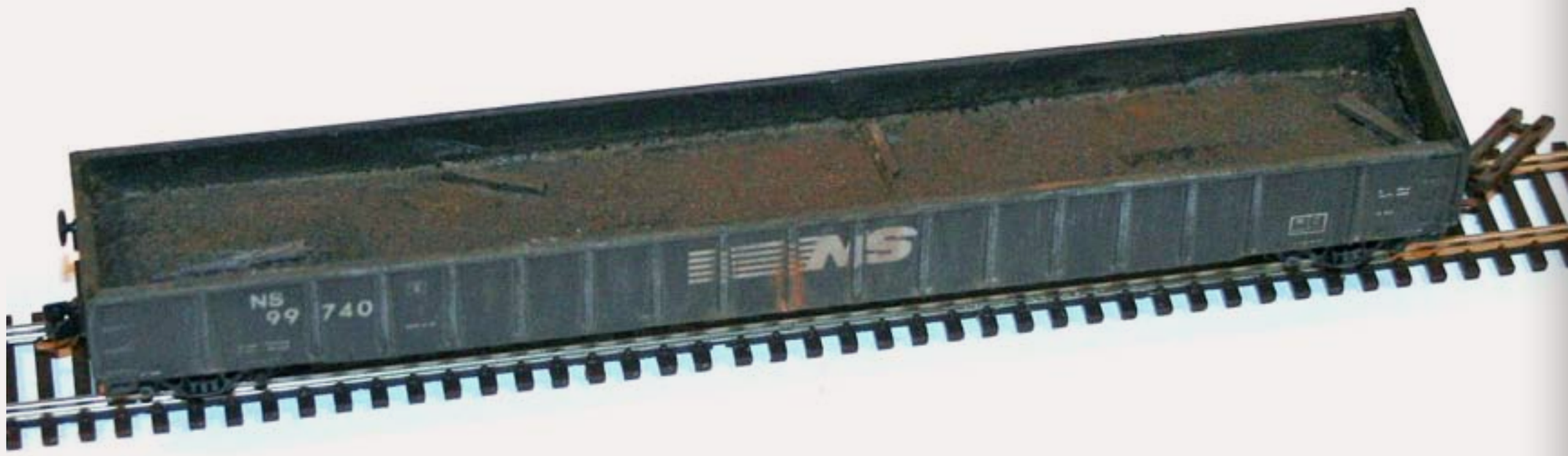


FIGURE 9: This CSX gondola carries the remnants of a series of toxic loads, represent by a variety of scenic materials.

NS Gondola

I gave the NS gondola (figure 8) the standard wash and chalk treatment plus a little dry-brushing on the side ribs. In addition to the dirt left in the car, several lengths of stripwood were broken into short segments, glued in the car and weathered along with the rest of the interior. Breaking, rather than cutting the stripwood, provides a varied and interesting texture suggesting that something heavy was dropped into the car (exactly what gondolas are for!).

CSX Gondola

In the 21st Century, gondolas carry some truly foul loads; trash, old fill dirt, scrap metal and worse. Not surprisingly, these cars are often not completely emptied. I weathered, "tagged", and rusted this CSX gondola (figure 9). I represented the remnants of a series of these loads by sprinkling a liberal amount of "scenery leftovers" in the gondola. This material is found at the bottom of my scenery storage box – it consists of a variety of spilled scenic dirt, foam, twigs, ballast and gravel. This "toxic" mixture does a pretty good job of representing the remnants of nasty prototype loads. Other stuff could be added: old tires, junk brick and block, or scrap wire and wood.

Empty Headed Thinking

On most railroads, hoppers travel empty half the time, providing plenty of opportunities to detail the visible interiors. Gondolas and flats also spend a considerable amount of the time without loads.

These cars provide a plethora of opportunities to create interesting cars that are RuNNing on empty. ☑

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