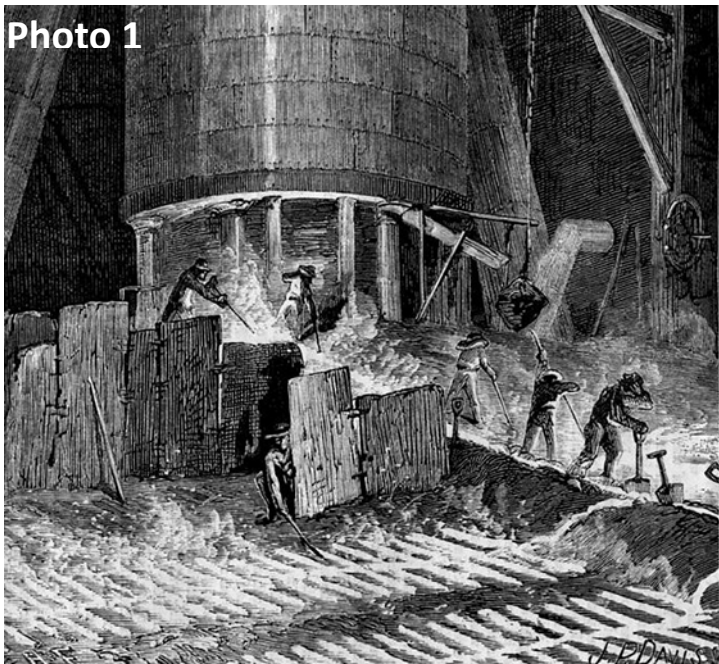


A Scrap Metal Yard for the ME Ry

By George Paxon



The Pittsburgh area near where our Mountain Electric layout is located was famous for its iron and steel industry. The industry developed there due to the initial availability of iron ore, limestone and coal; the basic ingredients needed to produce iron which was later converted to steel by careful adjustment of the carbon content in a second process. River and rail transport combined to make sure the industry stayed put and was profitable until near recent times.

Eventually, due to the mills cranking out lots of iron and steel, and the propensity of the citizenry to toss out everything that was old and/or broken, we began to accumulate a lot of scrap metal. Initially, I suspect, scrap metal was just thrown into dumps everywhere like all other waste. A few enterprising sorts worked out that such scrap metal could be recycled for a profit and the scrap metal industry was born.



Steel at first was made just from iron. The iron output of a blast furnace was poured into sand beds on the ground near the furnace and it solidified as “pigs” which were log shaped. **Photo 1** is an artist’s somewhat dramatic interpretation of the fun job of steering molten 2000-degree iron along the sand channels and into the pig molds. **Photo 2** shows why this is called pig iron. The “sow” is the runner that feeds the “pigs”. Here laborers are forming the pigs and the sow in the sand bed into which the iron will be poured. And **Photo 3** shows a large pig bed ready for a molten iron pour. The round ended tools, like flattened shovels, were used to divert the molten iron into each sow so the pigs in that row could be fully filled. When cooled the pigs were broken from the sprues, gathered, and sent on to customers or for further processing into steel. **Photo 4** shows piles of pigs at an old blast furnace ready to load into railroad cars for shipment to another mill probably for conversion into steel. And, **Photo 5** shows gons loaded with pigs at the mill in Donora, Pennsylvania. These pigs would be destined for conversion to steel in the open-hearth furnaces indicated by the long row of stack in the building behind the Pennsy and Donora Southern rail tracks in the foreground. This mill was located about 6 miles from where I grew up.



Photo 4

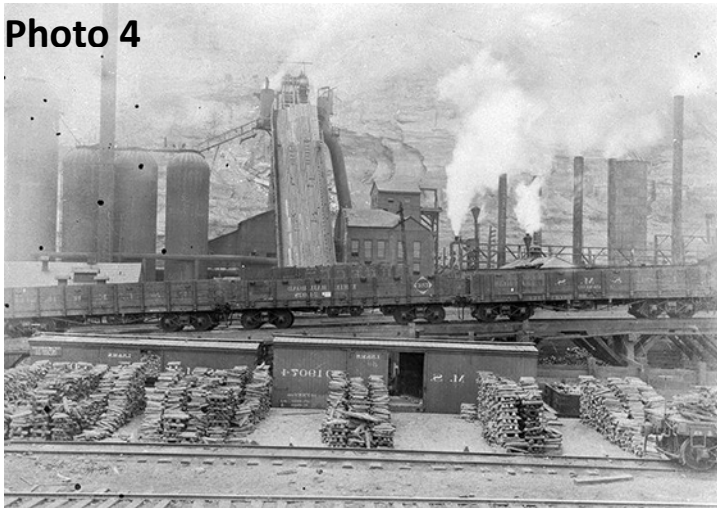
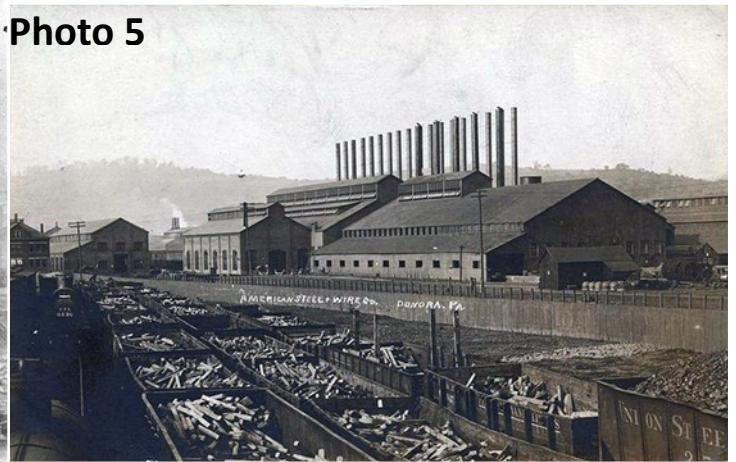


Photo 5



This process was costly and wasteful as when the pigs arrived at the follow-on mill, the iron had to be reheated to liquid form again which required almost as much fuel as did the original iron making process. Eventually iron was moved short distances between the blast furnace and the follow-on furnace, to a mill close-by. It was loaded into special bottle shaped rail cars, nicknamed torpedoes, at the blast furnace; and transported in molten form to the open hearth, or converter, where it was poured in and turned into steel. **Photo 6** shows a bottle car used to move the molten iron from the blast furnace to the steel making furnace. When the iron and steel making processes were co-located, the iron could be poured into crane buckets and transferred straight to the steel making furnace without much loss of heat. **Photo 7** shows the iron being poured from the crane bucket into a steel making converter. In **Photo 8** the piles of loose material on the floor, in front of open-hearth furnaces, were added to the molten mix as required to adjust the chemistry depending on the alloy of steel that was desired. As you can see in the good ol' days some laborers with shovels did this. Steel is even hotter than iron when molten, so that would have been another fun task.

Photo 6



In time, scrap steel was also dumped into the steel making furnace with the molten iron and remelted when making steel.

And in these modern times, there are many firms that use only scrap steel and re-melt it, mostly in electric furnaces, and turn it back into useful products such as common building steel shapes like channels, angles, concrete reinforcing rods, etc. These are relatively clean and green industries that make no serious noise and do not belch heaps of smoke and fire commonly associated with iron and steel production.

Photo 9 shows downtown Pittsburgh, apparently, from the rail car construction, well after 1900. The pollution resulting from early iron and steel production is quite visible. One early nick-name for Pittsburgh was “hell with the lid off”.

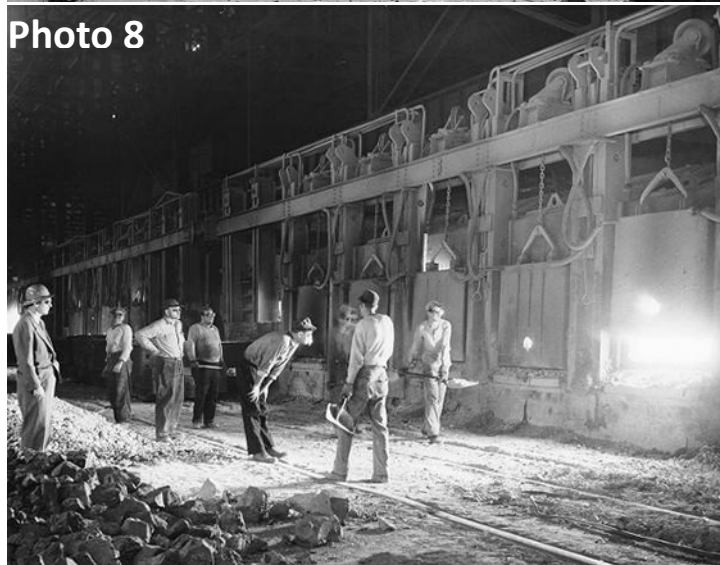


Photo 9

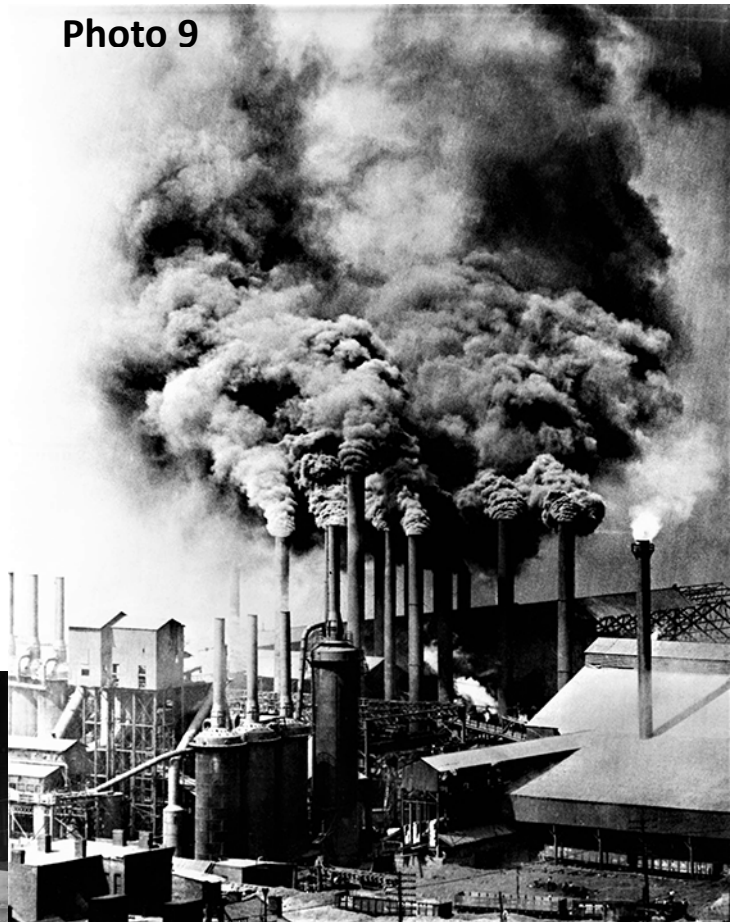


Photo 10 is of a large modern full-service re-melt facility that makes sheet, rod and bar products all from scrap steel. This is Charter Steel in Saukville, WIS. This neat, tidy, and modern looking plant could just as well have been making medicine or furniture. We have come a long way in 100 years it would appear.

All these mills, old and new, large and small, had, and still have, a very large appetite for scrap metal.

We had quite a few scrap metal businesses in the area where the Mountain Electric is based when I was growing up. There were really big operators located along the Monongahela River that could load scrap into barges and rail cars for the steel mills. **Photo 11** shows a lull in a riverside scrap operation. In this case, I think this shows where scrap is unloaded from barges into old rail gons for transport to a mill furnace. This photo is probably the scrap unloading area of the Pittsburgh-Wheeling Steel Company along the Monongahela River at Monessen. Most scrap was sent to steel mills by rail in the Pittsburgh area, I believe, but some did move via barge.

Photo 10

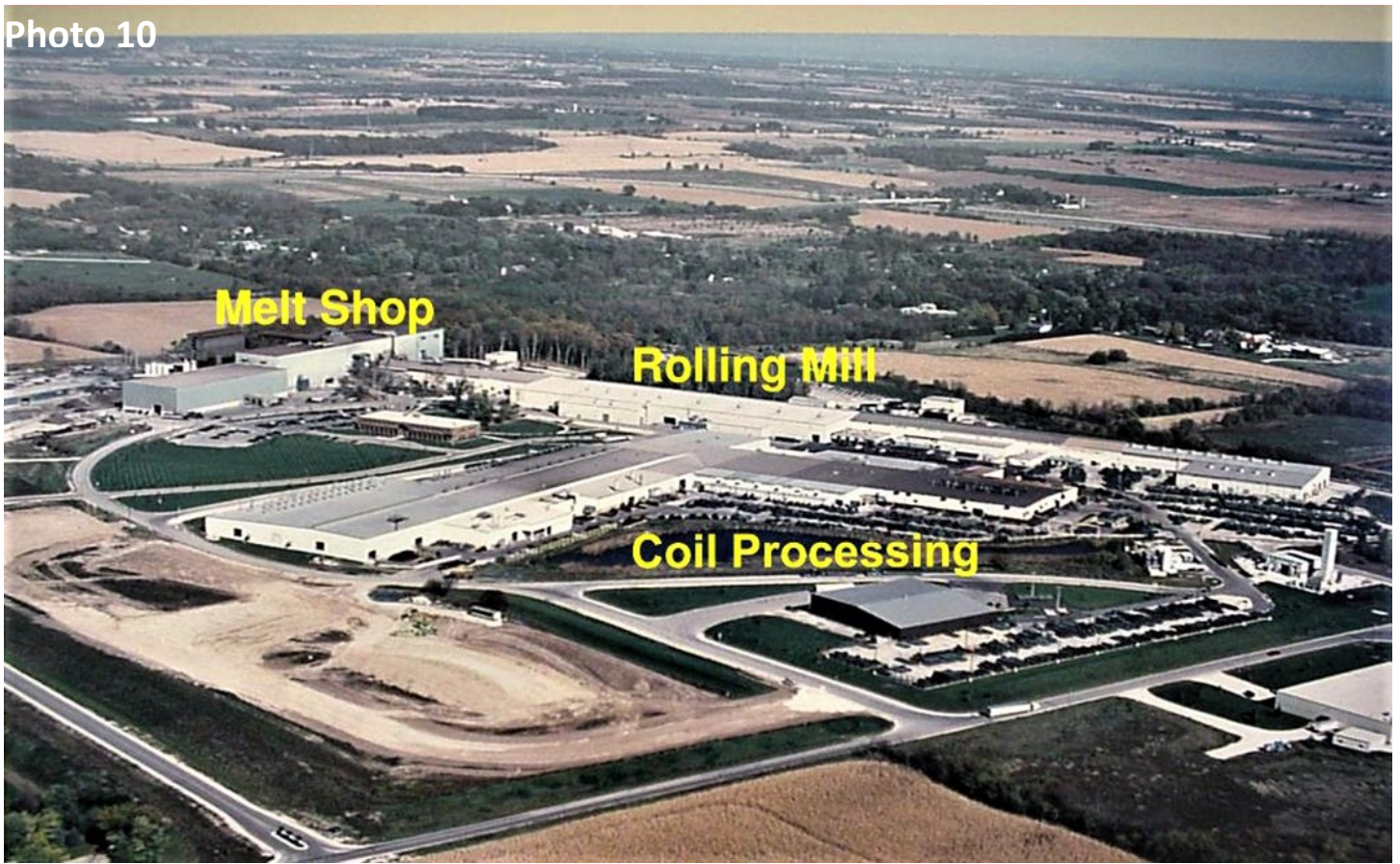


Photo 11



Many of the big firms collected scrap from many smaller scrap companies as well as making major purchases of scrap. Big firms bought old factories, coal mines, whole abandoned mining towns, abandoned railroads, rail locos and cars, bridges, decommissioned ships, etc. I remember seeing row after row of Pennsy steam engines awaiting their date with the cutting torch at one big scrap firm along the river. Almost made me cry.

One reason scrap was big business in many areas was that the scrap only needed to move a few miles to the closest steel mill to be sold. Transportation costs were near nothing for such a short haul. Major steel making centers, in addition to the Pittsburgh area, included Cleveland and much of northeastern Ohio; Chicago area; northeast Pennsylvania; Baltimore, Maryland; Pueblo, Colorado; Birmingham, Alabama; Los Angeles and Pittsburg, California; Ogden, Utah; etc. I recall an electric steel re-melt facility in Georgetown, South Carolina. It was never far to the closest steel making facility that needed a steady supply of scrap metal.

But scrap yards were also all over the country in general, and a scrap business would be at home almost anywhere. There were small firms in most towns. Some on railroads and some not. These small operators collected scrap in small quantities from domestic and business sources and dispatched it toward the furnaces. Some just specialized in collecting old automobiles, removing saleable used parts, and turning the remainder of the hulks into scrap metal. Old cars and some other scrap items were usually burned to eliminate the wood, fabric, plastic, and other undesirable non-metallic materials. This made some serious smoke and smells believe me.

Photo 12



Firms that were not rail served just loaded their scrap in trucks and hauled it to a larger dealer. See **Photo 12** where this is obviously occurring. I love this photo. Not sure what third world country this is. Well, I hope it's not the US or Australia. It would indicate that truck loading rules are not very strict where ever it is. Notice how the truck is loaded and what would not fit in the truck is just hanging from the side and back. Notice also one side has dual wheels and the other just a single. I have lived in various places in the world where this sort of thing would not be unusual.

Scrap was sorted at scrap yards into carbon steel, stainless steel, copper, lead, etc., because sorted scrap brought a premium price when sold as “clean”. The collected steel scrap was trucked to the larger scrap firms or loaded into rail cars and forwarded to steel mills. Copper, lead and other metals went elsewhere.

Sometimes the rail cars used for scrap transportation were also purchased as scrap from railroads by the larger scrap firms. Gons and hoppers were used as is. Box cars had their roof cut off so they could be loaded by crane. A few rudimentary repairs were made to such cars, just sufficient to make them marginally roadworthy and acceptable for one last, and usually short, trip. They were loaded with scrap to a reasonable capacity considering their age and condition, and the cars were sold along with the contents as scrap to steel mills.

I don't think buying whole railroad cars was attractive to some steel mills as many wanted the scrap already cut to size and ready for the furnace. Some mills in the Chicago area particularly did operate their own scrap businesses and bought major items and cut them up themselves.



Photo 13

Smaller scrap firms just ordered empty general service gons from their servicing railroad to move their scrap to the steel mills. Photo 13 shows such Pennsy gons delivering scrap to a steel mill and being unloaded for the open-hearth furnaces behind the scrap pile.



Photo 14

Many railroads purchased new gons periodically and put them into service moving high revenue freight such as manufactured goods, machinery, pipe, structural steel, etc. Eventually they might be downgraded and used for coal, gravel and other dirtier bulk loads. Near the end of their useful life, they often became gons for scrap steel loading. By then they often had holes in their sides, little paint, lots of rust showing, and often a serious sag from years of hard work. Photo 14 is of a scrap gon, I assume now used within the confines of a steel mill due to the ingot molds stacked behind it. This poor gon looks like it has been ridden hard, put away wet and already had its last rites. With the "MSW" lettering it would appear to be from the Monessen Southwestern which was a common carrier, but owned by and servicing the Pittsburgh-Wheeling Steel Company at Monessen, Pennsylvania. The gon was probably not much better when it arrived at the mill as scrap, but it was good enough to be put to work for a while before being cut up.

Photo 15



Photo 15 is interesting as well. Here an aged Frisco gon is in being loaded with railroad scrap. The two fellows with bar and sledge are a nice touch. Usually, scrap was broken up using an oxy torch. Maybe these two had done something to make the shop foreman angry and this is their punishment. Breaking up that truck bolster with sledge hammer and crow bar would not be a fun task.

Photo 16 is a gon modeled by Gabriel Martinez from a stock-standard Atlas car. Photo by Gabriel and used with his permission. This is an excellent example of a well-done scrap gon in service. Gabriel's track-in-the-weeds modelling is also very nice.

Photo 16



But, the Penny had some gons built specially for scrap service as scrap was a such a major freight commodity for them. These Penny gons were built with steel slats above their sides much like coke cars to increase capacity. **Photo 17** is of a model of such a gon, class G-24 on the Penny. I don't think they lasted long in this as-built configuration as most prototype photos of the G-24 class cars show them without the slats.

Scrap was usually loaded by cranes with a magnet or claw into rail cars. In today's modern world some scrap is pressed into bales before loading for shipment. This avoids the shipper paying for shipping air, I guess.

Photo 16

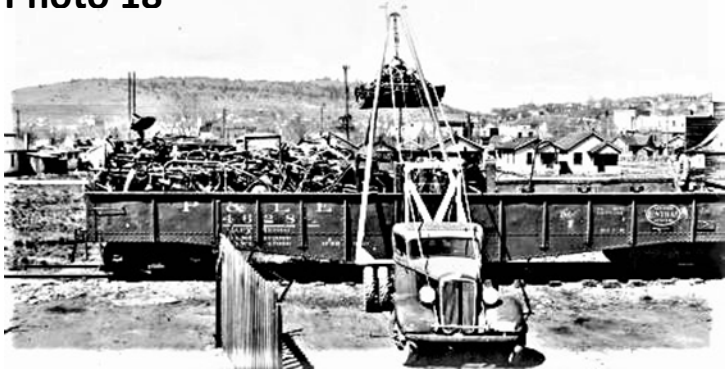


I thought such a scrap business would be good for ME Ry revenue and set out to add one to our customer base. And, of course, it is a particularly appropriate fit for my layout as it was a very common industry in the area I model.

One problem with scrap yards is that many used quite a bit of real estate. I remember large firms that extended for miles along the river when I was young. One in Monongahela had its own switch engine to shift rail cars around several miles of track within the yard. From its condition, this little four-wheel internal combustion machine may have also been a scrap purchase. But, as it was still marginally operable, it was put to work for a while instead of immediately being put to the torch. One scrap yard, at either Northwestern Steel or Midwest Steel as I recall, out near Chicago, used many steam engines in their scrap yard in the late 50s and early 60s. These had been purchased as scrap but were put to work for a while as switch engines before eventually meeting their destiny and the torch.

Some of the yards had self-propelled cranes which were capable of switching cars around, as well as, moving to and from loading positions. Small yards had cranes on tires or tracks. And some yards even had fixed pedestal cranes. The little backyard operators just tossed scrap into trucks by hand. There could have been some front loaders used as well, I guess. **Photo 18** shows a home-built truck rig loading a P&LE gon somewhere along its tracks. This photo is from the Barringer Collection.

Photo 18



At big yards, the scrap could linger in piles for considerable time. At smaller yards, due to limited real estate, the scrap tended to come and go quite quickly.

For us modelers, real estate, i.e., layout space, is a valuable commodity and must be used effectively I know. But, with a bit of care, we should be able to spare enough space for a reasonably sized scrap yard. One good thing about a scrap yard is that it can be made to fit most any odd shaped area that might not otherwise be usable for more wall-defined lineside industries. So, you might consider a scrap business for any such awkward area on your layout.

One reason some scrap yards were as large as they were was that scrap was a commodity that had a fluctuating price. When the mills were busy and steel demand was high, the mills were hungry for scrap and the price paid for it was high. When economic activity slowed, the mills were not as keen to buy and offered less for the scrap. The larger scrap firms played the market and had sufficient financial resources, and real estate, to hold back scrap until the price improved. I recall sometimes seeing mountains of scrap at the large yards located along the river. At other times, the scrap in storage was quite limited. The small backyard sort of operator had limited land for storage, limited financial backing, and probably had to sell regularly without regard to the price he could get for his scrap.

Scrap Yard Facilities

A typical small rail-served scrap yard consisted of access for arriving trucks, a siding for rail cars, an office, scales, maybe storage sheds, sorting area, and piles and piles of scrap to be sorted and re-sorted. The most prominent feature in a scrap yard was of course the many scrap piles. Modeler's license allows us to compress all this quite a bit. I reckon we only need a road and track passing through a fence gate to admit and dispatch scrap by truck and rail, a shack with a small scale in front, and scrap piles to have a convincing model of a scrap yard. A loading crane would be an added bonus.

Model Scrap Piles

Several suppliers make model scrap metal piles that are reasonably believable. See those supplied by Berkshire Valley. MTS has some scrap piles, too. Chooch and Monroe make HO scrap piles and gon loads that could be used in O in making scrap piles, too. Such ready-made scrap piles can be used although many are too small to be realistic for a scrap yard. They are more convincing as scrap piles near an engine house, behind a gas station or in a yard or field. But they can be used in combination with homemade scrap to make effective models of larger scrap piles.

Making your own scrap piles is not hard work, and it just needs a bit of creative thinking to find lots of suitable materials.

When building a scratch On3 tender many years ago I glued a 0.005-inch-thick styrene overlay onto thicker styrene. This overlay had quite a few hours of work involved adding all the pressed rivets. I used too much MEK as glue and the overlay puckered up and warped to the point of rendering the model useless as a tender. It did not get tossed though as I painted it rust and added it to a scrap pile in a scrap yard. You might have such failed projects of your own that can be re-purposed as scrap.

I had some old railroad trucks left over from a 3 to 2 rail conversion. With a coat of rust paint these made good scrap. My switch from narrow gauge to traction led me to converting some previous narrow-gauge cars to standard gauge and this made available some narrow-gauge trucks for the scrap piles. I change wheel sets in Athearn trucks to Intermountain ones to make better rolling trucks for my cars. I pull the wheels from the Athearn axles and use them as scrap metal, too. Rolled wire, small crumpled bits of aluminum foil and plastic drinking straws (looks like pipe to me) can be added to make convincing scrap. I have used HO plastic bridge parts to make light duty narrow gauge and traction bridges. Some of these came with brass rail. These were salvaged and tossed into my scrap box and have been used as scrap yard material as well.

To make such straw pipes and rails go further, you can cut them into short pieces, place two piles of the shortened rail and pipe with some space between them, and then build a scrap metal pile in the space between and over them. It looks like the rails and pipe extend all the way under the scrap metal pile then.

Over-scale plastic models such as military trucks, airplanes, tanks, ships, etc., make good scrap. If you watch the bargain bins at variety stores you might be able to pick up such kits particularly after Christmas for a song. HO castings and parts that come my way incidentally when acquiring other things end up in my scrap box and go on to become parts of scrap piles here and there. Miscellaneous household items can be turned into scrap, too. Simple things like the spools inside scotch tape; bits of old ball point pens; disassembled mechanical parts such as clocks, old gears, parts from old computer printers, etc.; trays from TV diners torn and crumpled; pieces of styrene strips and shapes and wire in your scrap box too short for making models; off cuts of scale corrugated iron siding; etc., can all contribute to a model scrap pile. Large out of scale pieces can also be cut up or broken into smaller pieces as was usually done in the real world. I use a pair of metal shears instead of the oxy torch used by the prototype! Arrange any obvious overscale pieces of such junk at the bottom of piles with scale size stuff on the top and the oversized parts are not obvious.

And the piles do not need to be all scrap pieces. You can make pile shapes from wood or card, paint the top brown and add the pieces of scrap to the top to form a bigger pile without using up too much of your precious scrap metal supply. Just add enough scrap that you cannot easily see the wood or card below.

You can also modify the shape of scrap piles to make them appear larger. If your scrap pile is viewed from one side only, the back side can be much more steeply sloped to conserve layout space. The back side of such a pile may need not be covered with scrap at all. It is possible to build scrap piles into a hillside or the layout backdrop as well. A printed scrap pile photo can be cut out and placed behind the model scrap pile to add additional depth to the scene, too.

I make my piles of scrap of material as it comes and paint the piles when completed. I use brown and rust paint to coat everything. I then go back over the piles with other colors and shades to give the pile a bit more life and depth. Most scrap was a rust color, browns and oranges, but some items retained a little of their original color. Adding a bit of color here and there helps add realism to the piles. Black is a good add here and there as well.

I do this with a brush. One thing I notice with commercial model scrap piles is that they are painted with an air brush and individual pieces of junk often don't have separate colors and look all that convincing.

I would imagine that the longer the stuff stayed in the pile the more it tended to lose its color though. I have included a few photos, **19 and 20**, for illustration. One, **19**, shows quite a bit of color on individual pieces. Note how the color is limited to just an individual piece of junk. This is one of my heartburns with some commercial model scrap piles with the color sprayed over an area of the pile. The color should be piece specific. The second photo, **20**, shows a pile with almost all scrap in brown and orange tones. Probably the junk in this second pile has been sitting there for quite a bit longer than that in the first pile.

Photo 19



Photo 20



And one nice thing is that your scrap piles can be as big and numerous as you have room for. The footprint of the pile can be adjusted to fit almost any shape, too.

Piles of old automobile tires would be in order because, if the yard was dealing in old automobiles as most do, tires were often removed and stacked for resale as salvaged rubber before old car bodies were burned. Doing this would reduce the smoke and stink somewhat that would have otherwise resulted. A cheap way to make a pile of old tires is to use "O" rings slices from a rubber garden hose, etc, rather than more expensive model parts. Stack the "O" rings one on top of another and add a few model tires just at the top of the stack. Bar Mills, I think it is, has tire stacks and I have used them with convincing results.

Office. Each yard had some sort of an office. A clerk therein would pay for scrap received after deliveries. Some office facilities were considerably larger. I think the size of the office would have been directly proportional to the size of the scrap yard. A big firm would have accounting and payroll staff, individuals quoting to buy and responding to requests for tenders, space for lunch facilities, the boss's office, maybe a repair shop for the yard's equipment, etc. For a small yard such as we are proposing to build, a simple shack will certainly do.

Scales. Most yards, if not all, would have a drive-on scale to weigh trucks when they arrived and departed to determine the weight of scrap delivered so payment could be calculated. A small yard scale would probably be no more than a wooden covered spot in front of the small shack with the scale mechanism being inside the shack. Larger facilities could have incoming and outgoing scales with a scale house between them. The scales at

a large yard would be long enough for a truck and trailer. A really big yard might have a rail car scales as well to weigh car cars before dispatch.

Storage sheds. Copper and brass have always had a high theft rate due to the value to weight ratio, and was often stored indoors in scrap yards. I recall that parked rail cars were sometimes jacked and had journal brasses removed in the dead of night. Copper communications lines and rail bonds also tended to disappear during hard times. And every now and then, a less-than-brilliant would-be thief has been known to take wire cutters to an in-service copper electric line. As a minimum this would require a thorough cleaning of his underwear, that's if he survived the experience.

When I was young, my brother and I would collect scrap metal and sell it to a small local scrap yard for pocket money. You could not sell railroad scrap such as spikes, fishplates, tie plates, etc., as they were obviously "borrowed" from along the tracks. Copper wire was another item that was difficult to sell unless you had a bill of sale to show from where it had been obtained. We always had a little of the railroad scrap that came our way though. What we often did was to fill pipes and other such items of legal scrap with the spikes and tie plates where they would not be seen. Once I remember we had run across a rather large piece of steel pipe that someone had poured full of concrete. We took turns with a sledge hammer for days banging away on the ends of the pipe to remove some of the internal concrete at each end of the pipe. We then, with considerable difficulty, hoisted the pipe into the back of the pickup, covered it with legal scrap, and sold it remaining concrete and all. Things we did when we were kids.....



Loading Facilities As addressed earlier, mobile rail mounted and/or ground mounted cranes as well as fixed cranes could be found. Rail cars were pushed into position and the crane would fill the car. The car would then be moved to the pick-up position for a passing train to collect. Few railroads would operate their locomotives on the dilapidated and poorly maintained trackage found in most scrap yards. At even the big yards I remember along the rivers, the track was hardly visible as it was covered with mud, rubbish and even scrap metal. For a small yard as I planned to build, the car would be placed, loaded and pulled all at the exact same spot and internal rail car movement would not be required. **Photo 21** shows a scrap yard with a few self-propelled magnet cranes working to fill rail gons. As you can see, this is a relatively large scrap yard.

I had a mobile crane in a small scrap yard on my last narrow-gauge layout. I was never happy with it. The crane was a tracked vehicle of relatively modern design fitted with hydraulic power and a clam shell bucket. Always struck me as a bit out of place on my 1930s layout. It was a reworked toy placed there initially as a temporary measure, but it ended up staying there for 10 years or so. For my new scrap yard, I wanted a crane of more pre-historic lineage. I ended up with a pillar crane kit produced by Crow River. The crane was built, and it now works away in our new scrap yard loading rail cars. Crow River has other nice versions of a pillar crane as well. We'll discuss the Crow River crane more later.

Fences were usually provided to keep out thieves and the curious. Since most smaller scrap yards tended to handle old automobiles, security was a big issue for them.

Many of you of age will recall that automobiles were once only built to last a few years and replacing them every two years or so was the thing done in the USA by many people with the funds for some years. After changing hands in the used car market once or twice, they gravitated to the scrap yard at a still relatively young

age. Even if the motor and other mechanical bits were still marginally functional, the bodies usually had fallen apart due to the salt on the roads. In earlier times I remember the roads being spread with ash from railroads and power plants to provide needed traction in winter. “Progress” moved us to using salt which ate the body off a car in no time.

As young ones, we were always on the lookout for car parts to keep our “pride and joy” going another week. The temptation to liberate a needed carburetor or radiator in the dark of night gave rise to the junk yard dog. A good fence was essential for most scrap yard operations. Thankfully it also kept in the dog. And, it kept out the honest but curious who, when foraging around in a scrap pile, could sustain an injury sufficient to keep a compensation lawyer in premium whiskey for a few weeks or more.

Fences were sometimes made out of what came into the yard as scrap. Sheets of old boiler plate, corrugated iron, etc., could be used as fence panels. Short lengths of railroad rail and pipe served as posts and rails. Old flattened automobiles sometimes were stacked up as a fence. More modern times occasionally see old shipping containers placed as fences. Such old containers serve double duty as they can also be used for storing some re-sellable used items such as car parts or machines, or for locking up the scrap brass and copper. Cyclone, chain link, and wire fence was common fencing with barbed wire on top in some more modern applications. Older yards had some wood fences, too. Don’t forget the no trespassing and dog warning signs on the fence, too.

Rail facilities sometimes were extensive. Sometimes they were minimal. Sometimes, as we said earlier, there were none. For my model, and in the interest of rationing real estate, there would be space to spot just one rail car inside a gate in the fence.

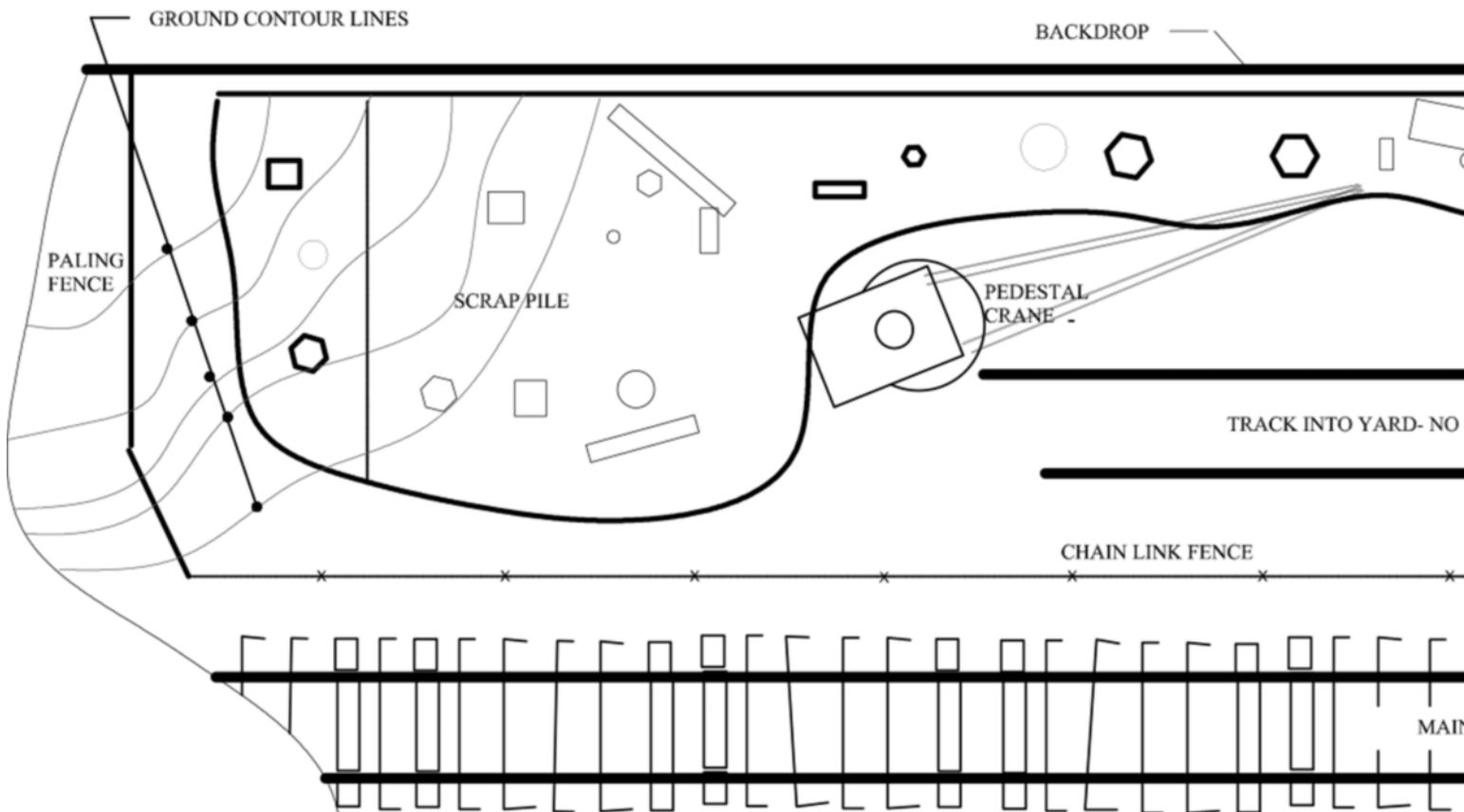
The small scrap yard on my old narrow-gauge layout is shown in **Photo 22**. I reckoned we could do a better job of modelling a scrap yard on this layout, and we set out to do so. Each layout you build should get better and be more realistic or there is a problem somewhere. I went off to build my scrap yard for the ME Ry. A



SKETCH OF SCRAP YARD AT BELLE IN

NOT TO SCALE

Figure 1



location at the end of a siding in the Belle Industrial Park was selected for my new one. The location needed to be at the end of a siding as overhead traction wires would not be compatible with the overhead cranes needed to load the scrap into gons.

We planned, plotted and roughed out the industry in the available space and it evolved as shown in **Figure 1**. As scrap piles are the dominant item in any scrap yard, we started by building one. A card former was cut and glued together during a wet, misty, dreary afternoon when we could not reasonably be expected to cut the grass. See **Photo 23** for the card former. Over this, a few layers of newspaper liberally covered in white glue and applied to make, when dry, a stiff shell onto which the scrap metal would be attached. At one time we would have used plaster for such a former. But as time goes by, we are slowly getting over the urge to work with the mess associated with plaster whenever there is an alternative. A few layers of newspaper with white glue provides a good foundation for such a model of a scrap pile without the traditional messiness of plaster.

When dry, the completed former was given a few coats of brown paint to make sure no white newspaper would show through the scrap pile. **Photo 24** shows the former after newspaper and paint was applied and ready for the next step. The former is sitting in place on the layout. The Pennsy gon is in position for loading on the siding into the scrap yard just to see how it was all going to look. We need to make another small former to the left of this one to connect the pile to the hill to the left. The hill, at the time of this photo, was just a cardboard shell as plaster work and scenic had yet to be done there. All good things take time.

HEAD WIRE & POLES

INDUSTRIAL PARK

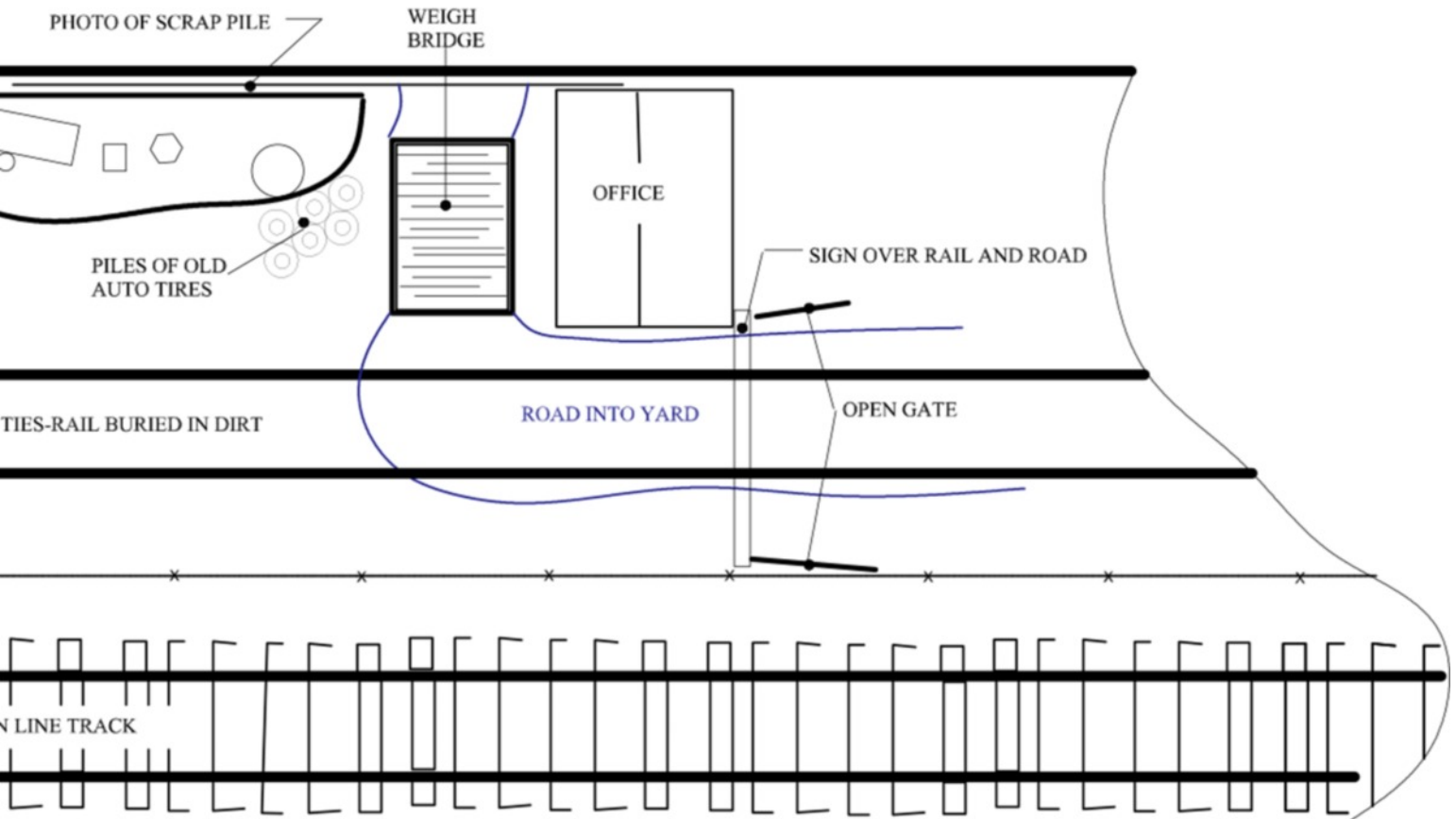


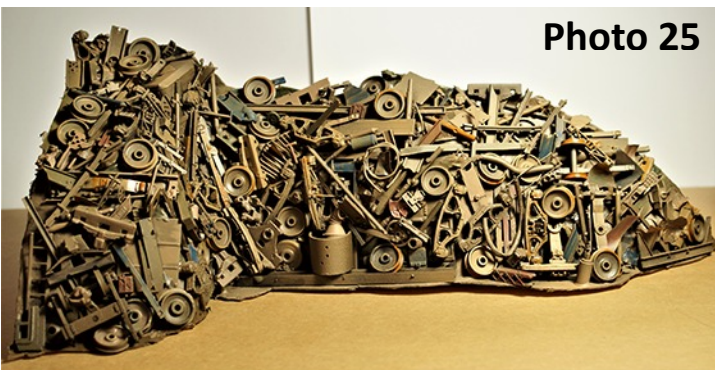
Photo 23



Photo 24



Photo 25



That next step was to add scrap metal to the painted former to make the pile. The angle of repose for scrap on a such a pile would probably be about 45 degrees. A pile steeper than this would probably result in the material sliding and rolling down the face of the pile to the ground. But, thanks to the Good Lord and two-part 5-minute epoxy glue, we can make our scrap pile with considerably steeper sides and save a bit of layout real estate. My pile was 5 to 6 inches high and only 3 inches deep for most of its length. The 3-inch depth limit was necessary to squeeze the pile between the rail car on the siding and the layout backdrop. The pile was deeper after the siding ended and the pile approached the hill as you see in the plan drawing.

Photo 26



The scrap was added piece by piece over a few nights. A small batch of the 5-minute epoxy was mixed, and the pieces were dipped and added to the pile former starting from the bottom. Then another batch of epoxy would be mixed, etc., etc... My biggest worry during this tedious and boring task was that we would get our hands confused and drink the epoxy and try to stick the scrap to the pile with our red wine. But we managed to get the scrap pile finished eventually

without ingesting too much glue. When the pile was together, it was painted brown and rust and then details were touched up with a brush, and other colors, as earlier mentioned.

The finished section of this homemade scrap pile is shown in **Photo 25**.

The plan included placing a cutout of another scrap pile on the backdrop. This was acquired by Googling "scrap metal piles", finding a suitable photo, printing it, and cutting around the edges. Actually, we used two such photos joining them by gluing one to the other. When the glue was dry, the photo was sprayed with flat

clear to seal it. We had these photos on hand when touching up the paint on the homemade scrap pile to try and blend the colors. We found using orange paint as well would get the color of a few bits of scrap looking more like fresh rust in the photos. **Photo 26** shows one of the scrap pile photos that was found and cut out for use on our backdrop. You can see the backdrop photo in the **Photo 28** view of the completed facility.

Another brainstorm occurred when searching for scrap piles. This idea was to include a crane boom, having it also glued to the backdrop and sticking up behind the glued-on scrap pile. The thinking here was this would add extra apparent depth to the scene. We found, printed and cut out the boom. It was a rather nice crane boom of lattice construction. The color of the sky behind the crane, that was showing between all the lattice members, was a nice blue grey much like we use for our sky on the layout. I thought to myself “you beauty- this will look good on the layout”. After carefully cutting it out, I took the boom down to the layout to see how it looks. My next thought was “you stupid....”. The backdrop behind the scrap pile was a painted hillside and not sky. Not all brainstorms are good ones...

Next, we needed to make up the left end of the scrap pile to tie the pile into the completed hillside. This was done with card, newspaper and white glue as was the first part of the scrap pile. It was painted and covered with scrap as well.

A chain link fence was modeled between the scrap siding and the main line. A wood paling fence extended up the hillside at the back of the scrap yard just to have some variety.

Since a crane of some sort to load the gons with scrap was a good idea, we looked around to see what we had that might work. A good modeler mate down here had given me a Crow River kit for a pedestal crane Christmas last. It would certainly suit my modelling period quite nicely so that was to be my crane. We started working on the kit. Well, some of the parts appeared to be missing: the shafts and steel cable certainly were. A visit to my scrap box and the domestic manager’s sewing drawer took care of those problems. Another issue was that the kit did not include any facility for the crane operator. We scratched that up from some styrene scribed siding for the floor, styrene angle stock for wall and roof framing and corrugated metal siding. A cast brass steam loco seat was used for our operator. For the controls, we just used a brass casting of a steam locomotive air brake valve on hand. When painted and installed inside the operator’s shack, no one but me, and possibly an eagle-eyed nitpicker, will know. The crane needed to be elevated so we made a scale 20-foot-high pedestal to mount the crane on. An appropriately sized cardboard tube, about 1-1/2 diameter, was found in our miscellaneous materials hoard and was cut to length. Some bits of styrene and some wire finished the pedestal. I made a doorway that led into the pedestal and a set of rungs for the operator to climb to the crane above. The pedestal itself was painted “aged concrete” and most metal parts for the crane were painted freight car red. The working faces of the gears were left bare white metal. Some weathering was added to make the crane look old and decrepit as it would be in a scrap yard. The freight car red was a good color choice as it is a bit drab.

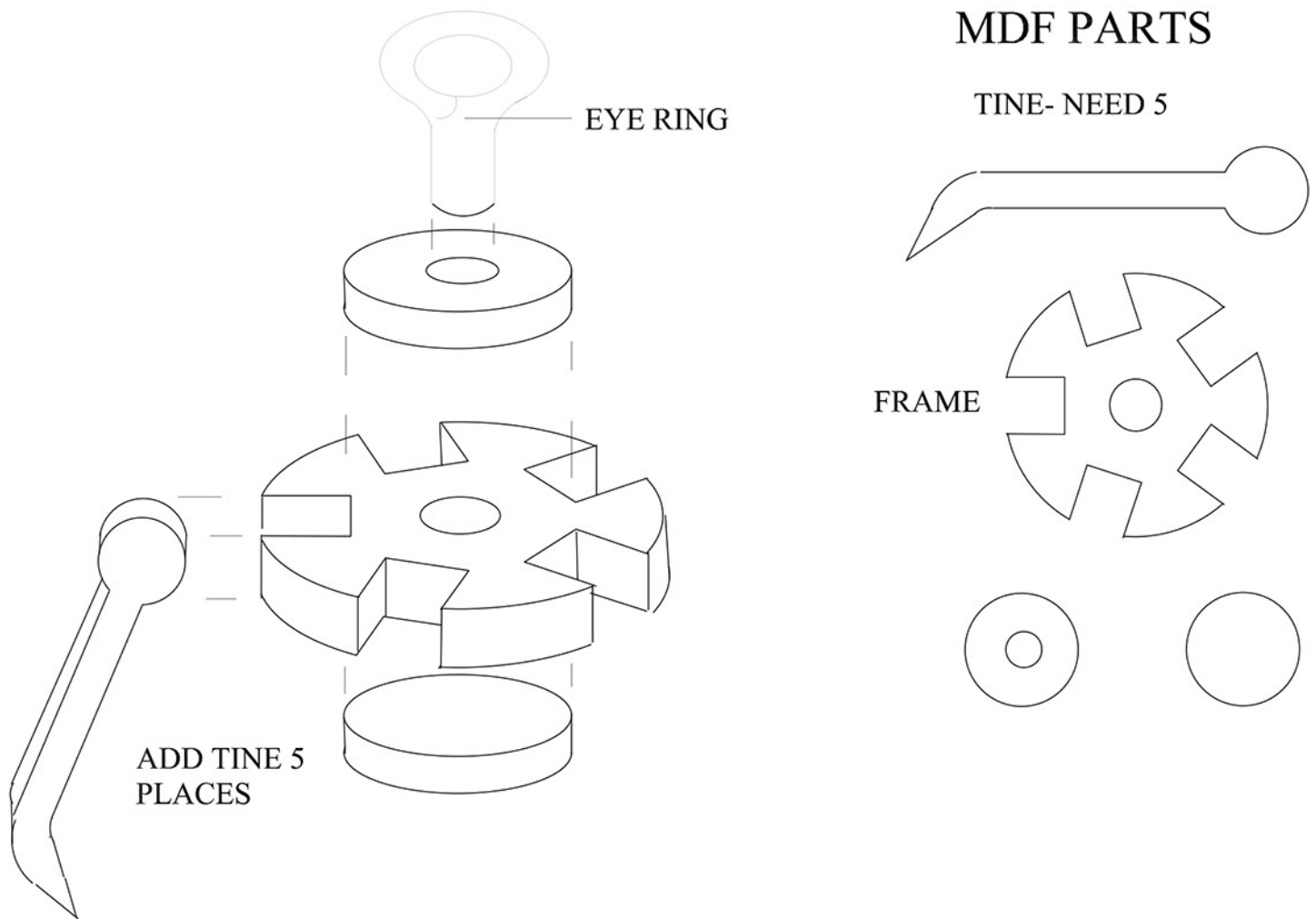
The Crow River crane kit had a hook on its business end. We needed to provide a typical scrap loading feature, so made a claw. It was a knocked together from some 1/8-inch thick MDF. See sketch at **Figure 2**. A magnet could be used instead. A center and five claws were cut and glued together. An eye was added at the top of the claw into which the crane hook would fit. The claw was painted rusty brown, but the ends of the claws were painted flat silver as they would have been scraped clean to bare metal by the scrap metal during use. An actual such claw would be opened and closed by either hydraulics in these modern times or by additional control lines in the good ol’ days. We could not see how we could add such additional control lines to our model crane, so we decided to get along without this accessory. Not all that many viewers will pick it.... hopefully. **Photo 27** is a close up of the little pedestal crane ready for work but at rest. Can’t wait for my mate to come by and see what happened to the kit he gave me. I have given him kits several times now and they remain unbuilt as yet. I can now harass him as I have built my gift kit.

My crane was mounted at the end of the siding where gons will be spotted for loading.

An office, more of a shack actually, was knocked up. A light was added to the shack wall to add a bit of life to the scene. The shack was nothing more than a box cut from some scrap 1/8-inch thick MDF covered with

Figure 2

CLAW SKETCH



stripwood and corrugated iron. A Grandt Line plastic door was added. The window was boarded up so no window casting was required there.

The sign from the scrap yard on the last layout had been salvaged and was available for use. We initially decided to recycle it to this scrap yard as well. The required size was a bit different, so we made a new sign. This advertised Saul Shekelwitz's scrap business. Signs help visiting operator identify industries and helps avoid the classical problem of stock cars being erroneously spotted at chewing gum factories. Posts on the old sign were too short to clear the overhead wire, so we would have needed to extend them anyhow. The swinging entry gates were attached to the new sign posts and fixed in the open position.

I remember the southwest Pennsylvania scrap yards rail tracks as almost invisible due to the accumulation of dirt and mud. They were also often littered with bit of scrap metal. To model this, we spiked the rails directly to the baseboard without ties. Sand and dirt were added between and along the track to bring the level near rail tops. Some strategic small bits of scrap were carefully placed along and between the tracks where they would not interfere with rail car movement. This made the ground in the scrap yard look the part.

Weeds, grass and shrubs were planted along the fences and along the less often worked edge of the scrap pile. Where the pile was routinely manipulated by the loading claw such weeds etc., would not have opportunity to grow. But otherwise, they would do well.

Photo 27



A rail gon scrap load was previously discussed in a [previous OSR article on new gons and flats and removable loads](#), so it is not necessary to go into that again. But the task isn't really much different than building the scrap piles – it just fits in a rail car. For durability due to handling, the former under the car load of scrap was a chunk of wood rather than glue impregnated newspaper.

Photo 28 is a more inclusive shot of the finished scrap yard.

In thinking ahead to other industries that will be needed as the

Mountain Electric pushes further east, there probably will be another scrap yard in Scottsdale or maybe Somerset. It is an easy industry to build, is quite appropriate for my era and locale, and will provide some needed traffic for any railway.

Photo 28

