



# *Chicago & North Western Historical Society* **MODELER**

Volume 13, Number 4

April 2022

**Commuter Service  
B unit**



**CGW Boxcar  
87432 from  
Train Miniatures  
kit**



**Small Town  
Bottling Plant**

## Bill of Lading

April, 2022

### Masthead

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### An Invitation to join the CNW Historical Society

The CNWHS is an independent non-profit educational corporation. The Society's purpose is to foster interest, research, preservation, and the distribution of information concerning the C&NW and related roads. Its membership is spread throughout the United States and numerous foreign countries, and its scope includes all facets of the CNW. Currently the Society has close to 3000 registered members. Members regularly receive a variety of information including a quarterly publication: NWL.

North Western Lines (NWL) is dedicated to the publication of articles and news items of historical significance. Other Society publications include monographs, calendars, equipment rosters, and reprints of original CNW source material. This publication makes otherwise unobtainable data available to the membership at reasonable cost. Membership in the Society is a vote of support and makes all of the Society's work possible. It provides those interested in the CNW with a legitimate, respected voice in the railroad and historical communities. By working together, individuals interested in CNW are able to accomplish much more than by individual efforts. No matter how diverse your interests or how arcane your specialty, others share your fascination with CNW and affiliated railroads.

The Archives Committee of the C&NWHS is very active and maintains a large collection of the C&NW and related roads. For more information see the CNWHS web site.

Merchandise related to the C&NW, as well as back issues of NWL, Car kits and structure kits for modeling are offered through the CNWHS web site.

Chicago and North Western Historical Society Modeler is a publication of the CNW Historical Society (CNWHS) for the purpose of disseminating CNW modeling information.

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Apologies if I have inadvertently omitted anyone. Any person left out is entirely the fault of the editor.

# AS FULL OF SPIRIT AS THE MONTH OF MAY

by Michael Mornard

-- Shakespeare, "Henry IV part 1," Act 4, Scene 1

Though this is the April issue, I am writing this in May. And yes, I find myself full of spirit, and a merry spirit it is.

As I am writing this it's only 12 days until "Rails & Rivers," our CNWHS Annual Meet for 2022. It's been a long wait; we've all been waiting for this since 2020. With luck, and a little help from our friends, let's all hope the worst of COVID-19 is behind us and look ahead to what promises to be a great weekend.

The models at our Annual Meet are always well worth seeing, and it's a great opportunity to talk to each other and learn from each other. I'm really looking forward to this.

Furthermore, this is the April 2022 issue. The next issue is July 2022. That means I'm caught up! As it says in "Monty Python and the Holy Grail," "And there was much rejoicing."

I may do the assembly of the magazine, but I couldn't do it without all the modelers who have contributed their time and effort to describe their models. I cannot adequately express how grateful I am, and how impressed I am with the quality of the models our members create. We are fortunate to have their efforts, and I am fortunate to be able to bring this information to you.

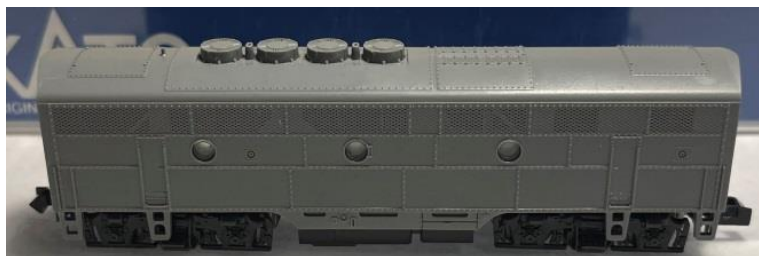
So, I hope to see many of you shortly in Mankato, and keep the articles and photos coming in!

# KIT BASHING C&NW'S ONLY SUBURBAN PASSENGER B-UNIT 106B IN N SCALE

by Dave Prawdzik

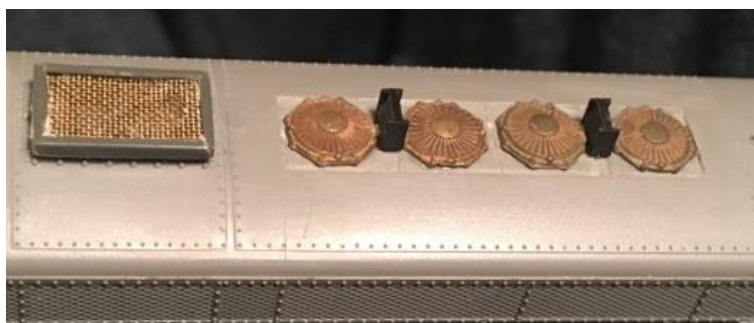


Sometime in 1968 C&NW put aside 10 ex-CGW FB units for consideration and conversion into suburban service. CGW's F3B was the only one converted, repainted in CNW colors, fitted with train lines, and the addition of a Cummins Auxiliary Diesel Generator for Bi-Level train heat, lighting and A/C. The 106B was frequently paired with CNW's F7 4100C on the Northwest line to Harvard. The 106B was put into service in 1969 but its career was short lived. It was removed from commuter service by the end of 1970 or early 1971 when C&NW purchased, overhauled ex-Kansas City Southern E8 units. This is how I preceded to kit bash the C&NW's 106B unit.

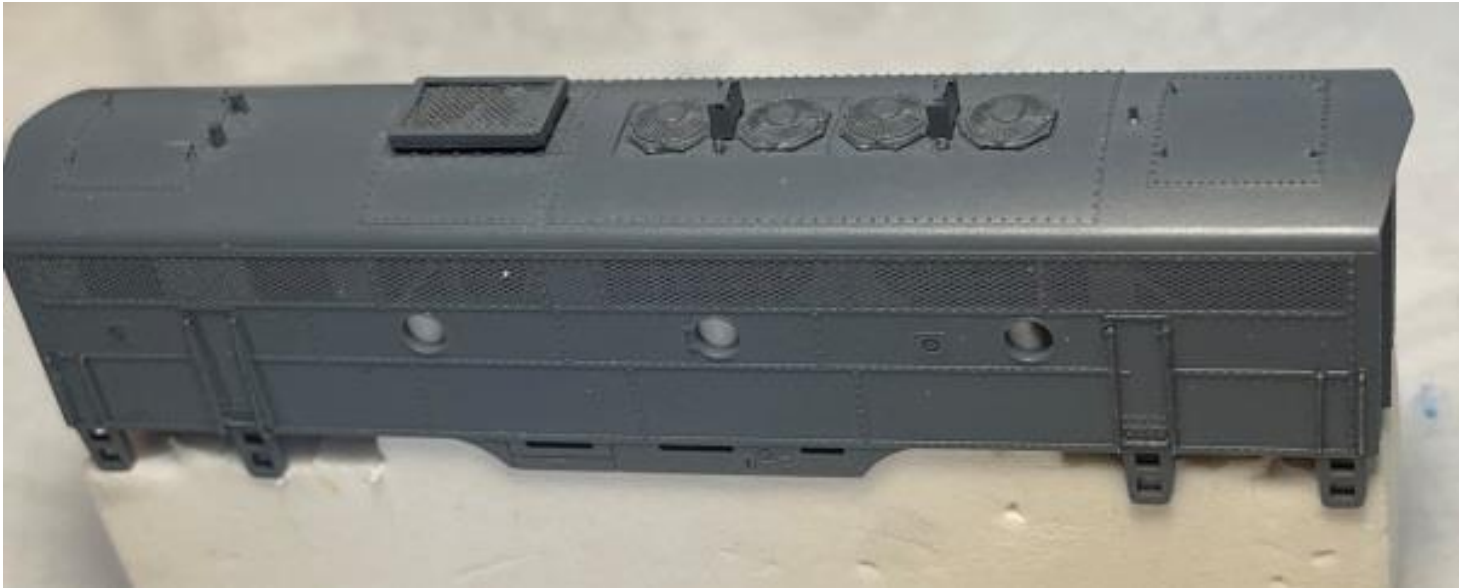


Starting model is a Kato F3B Unit.

The high shroud fans were removed and replaced with Miniatures by Eric 36 inch fans. I added Loco-Motives Spark Arrestors and a homemade intake screen.





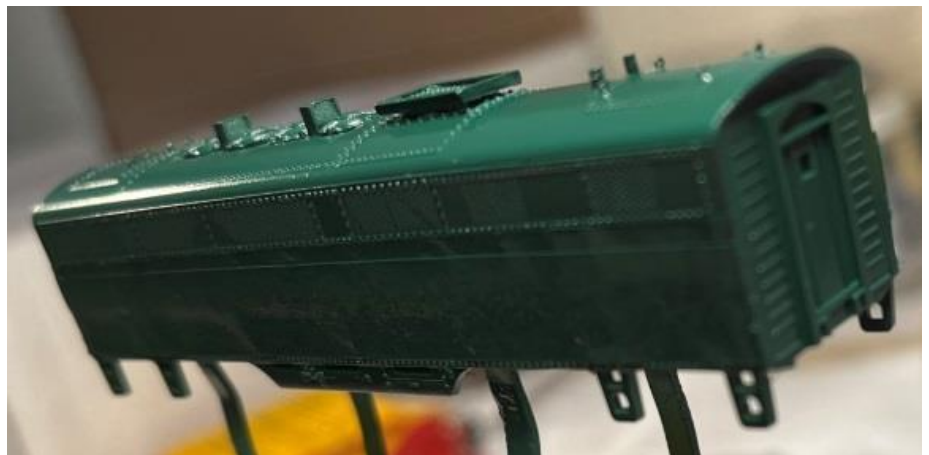


After drilling 56 #80 holes, 12 for the lift rings and 44 for the grab irons, homemade grab irons were installed but not glued in. Then came the Installation and gluing in of the Gold Metal Models lift rings and the .040" Polystyrene Rod to stimulate the HEP exhaust stacks. The unit was then painted with primer.



Before the yellow and green paint was applied the homemade grab irons were removed. The sides of the unit were sprayed painted with Tru-Color C&NW Early Yellow.

The sides were taped off to protect the yellow then the top and ends were sprayed with Tru-Color C&NW Green.



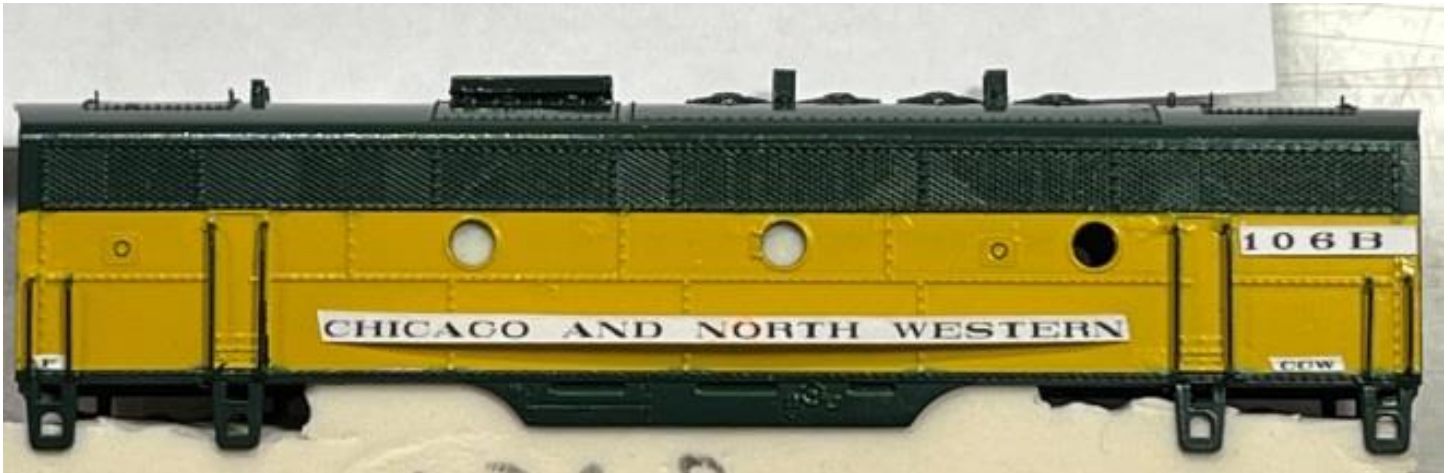


The unit was set aside after the tape was removed for the paint to cure for a few days.

With the paint cured the homemade grab Irons were reinstalled and glued into place.



I made a final inspection of the inside of the shell to make sure that all areas are smooth and do not interfere with the drive mechanism. Window glazing was added and the drive mechanism was installed with Key short shank dummy couplers for close coupling.



Paper printouts were made to get close as possible to the size of decals needed to make. I made the decals on my inkjet printer using inkjet-safe paper and a protective overspray.



With the homemade decals applied I coated the decals with setting solution a few times and set aside again for a couple days before I applied a clear protective coat. Then I trimmed/filled down the excess material from the homemade grab irons on the inside of the shell.



C&NW's only Suburban Commuter Passenger B Unit, 106B earning its keep in revenue service.



# CHICAGO GREAT WESTERN BOX CAR 87432 in HO

by Lester Breuer, MMR

(This article originally appeared on Les' blog,  
<http://mnrailroadcab100.blogspot.com/2022/02/chicago-great-western-box-car-87432.html>  
This article used by permission of the author.)

With the addition of the Chicago Great Western (GGW) interchange to my Minneapolis & Northland Railroad Company I wanted to add to the number of CGW boxcars I have to serve customers. Upon review of kits in inventory no CGW kits to build. I only had two Train-Miniature undecorated X-29 car kits, # 2050, I could use to build CGW boxcars referred as "X-29's" by modelers. Gene Green in his book *Chicago Great Western Color Guide to Freight and Passenger Equipment* (Morning Sun Books, Inc., 1998) makes us aware the CGW box cars were virtually identical to box cars of that class on the Pennsylvania Railroad (PRR); however, the PRR X-29 cars were three inches wider inside.

The prototype I chose for my Chicago Great Western box car build was in CGW series 87000-87998. More specifically in series 87000-87498 as this series was equipped with Ajax hand brakes. The cars were built by Pullman-Standard Car Manufacturing Company in 1933. The steel-sheathed cars had plate ends and Pullman doors which we modelers have named "Creco doors". The cars were painted boxcar red with white lettering. Color photos of these cars can be found in Gene Green's book and builder's photos in *Pullman-Standard Freight Cars 1900-1960* (Signature Press, 2007). One of the builders photos of CGW 87886 is a 3/4 view showing the "B" end.

I began the build knowing that door guides of the car would have to be redone, all molded on grab irons and ladder rungs would have to be carved off and underbody scrapped. If I could have found a Red Caboose X-29 kit I would have used it as the former mentioned items would not have to be done.



I began the build of CGW box car 87432 by carving off molded on grab irons, ladder rungs, retainer line on the "B" end and the door handles on the doors on one undecorated boxcar. The carving was done with various tools such as scalpels and chisels.

Grab irons, ladder rungs and retainer line  
carved off.  
(click or tap on this or any image to enlarge)



After I finished carving off molded on items I installed the kit upper door guides. Next, I used an UMM saw to cut off the installed upper door guide and the molded on lower door guides. New door guides were cut from Evergreen #8203, 2 x 3" strip styrene and installed. When the glue had set the doors with reworked hinges were installed.



New door guides and reworked door installed.

The running boards were next. I milled and scraped the longitudinal running board to .022" and installed it with Testors tube cement. I decided to add a repair to the running board and did so with a thinned piece of scale lumber which was replaced later with styrene. The brackets on the ends were cut from Evergreen #8103, 1 x 3" strip styrene; however, I really was not happy with the look so later made new bracket supports with Evergreen #8102, 1 x 2" strip styrene.



Running board after milling installed.

At this time in the build I sprayed the car body with Vallejo Grey Surface Primer 70.601 to see if areas where carved off details were sanded were paint ready. And, I prefer to work with a gray rather than black car body.

Car body sprayed with Vallejo Grey Surface Primer.



While the car body was drying I began the fabrication of the latitudinal (lateral) running boards since the kit ones are not correct. The lateral running boards were made with seven boards cut from Evergreen #8206, 2 x 6" strip styrene cut to 3 ft. 6 inches. The seven cut boards were glued to brackets, .005" thick and .040" wide, strips cut from photo etched material, to build each lateral running board. The brackets/strips were cut to allow an extension on the rear and front. The front extensions were bent with a round nosed pliers to conform to the roof edge when mounted and the rear extensions were glued to the underside of the longitudinal running board when installed. Roof grab irons bent from Tichy .010" diameter PBW were installed with Yarmouth Model Works photo etched eye bolts without shoulders for corner legs.



Latitudinal running boards installed and  
repair board in longitudinal running board  
changed to styrene.

Happy with the roof, I began the build of a new floor to replace the scrapped Train-Miniature (TM) underbody. Evergreen #4040 V-Groove sheet styrene .040" thick and .040" groove spacing was cut to the size using measurements of the scrapped TM underbody. To the back side of the V-Groove floor Evergreen #153 .060 x .060" strip styrene was glued around the perimeter. The added .060 x .060" styrene strips plus the .040" thick floor made a new underbody equal in thickness to the scrapped TM underbody.



New floor next to old.

Now the kit underframe with the coupler pockets and brake components cut off was installed. Accurail brake gear (coupler pockets) were installed. Truck kingpins and coupler pockets had holes drilled and tapped for 2-56 screws. Trucks with 33" metal InterMountain wheels were installed with Fastenal 1/4" screws and coupler pockets with Kadee #148 couplers installed were attached with Fastenal 3/16" screws. Of the cut off brake components the brake cylinder was drilled to accept a piston with brake lever clevis from Tichy Train Group (Tichy) set #3013 and installed using a Tichy bracket, set #3013. In addition, the cut off air reservoir was drilled for piping and installed on brackets that were repurposed cut off sill steps. Sill step brackets were added when center underframe members were reworked and relocated.



New floor with underframe added.

After the basic underbody items were installed, I turned the underbody assembly over and added kit and tire weights to bring the weighted car to 3.8 ounces including car body.

After the weights were added the underbody was glued in the car body. Moving back to the car body, I bent and installed the grab irons and ladder rungs, Tichy .010" diameter phosphor bronze wire (PBW), on the sides and ends. Holes to accept the grab irons and ladder rungs were drilled with a #80 drill. On the sides a drop grab iron is needed under the ladders. On the ends the ladder stiles were extended to match side stile length with styrene from the bits box.



Grab irons and ladders rungs installed.

Sill steps, Yarmouth Model Works #213, 12" doubled angled sill steps were installed in holes drilled with a #76 drill.



Sill steps installed.

Only the "B" end details needed to be added. The "B" added details were as follows:



- Brake step, Tichy set #3013
- Brake step brackets, Evergreen #8102 1 x 2" strip styrene
- Brake wheel housing and chain, Tichy set #3013
- Bell crank, Tichy set #3013
- Clevis for brake shaft to connect to bell crank, Tichy set #3013
- Brake shaft between chain and bell crank clevis, Detail Associates .015" diameter brass wire
- Retainer valve, resin from parts box
- Retainer line and brackets, Tichy #1100 .008" diameter PBW
- Brake wheel, Kadee Ajax #2030



"B" end details installed.  
 Note: end ladder stile extensions and running  
 board supports are now 1 x 2".

Back to the underbody to add the details items. Before adding the usual detail items several underbody items needed to be installed. A resin AB valve from the parts box, previously drilled for piping, was installed. One floor stringer, Evergreen #132 .030 x .040", was installed on each side of the center sill. Next the four corner braces, Evergreen #261 .060" channel were installed. Now the following normal detail items were added:

- Brake cylinder lever, made with Evergreen #8108, 1 x 8" strip styrene
- Brake floating lever, made with Evergreen #8106, 1 x 6" strip styrene
- Brake lever hangers, cut off sill steps
- Brake piping from air reservoir to control valve, Tichy #1101, .010" dia. PBW
- Brake pipe from brake cylinder to control valve, Tichy #1106, .0125" dia. PBW
- Brake rods, Tichy #1106, .0125" diameter PBW
- Brake rod clevises, made with MEK Goop
- Chain, A-Line #29219, black 40 links per inch
- Train line, .018" diameter flora wire
- Dirt collector, Tichy set #3013



Underbody details installed.

With the underbody done it was back to the ends to add the final detail - the uncoupling levers. The **uncoupling levers were bent** from Tichy #1106 .0125" diameter PBW. Eye bolts for mounting brackets were bent from Tichy #1101 .010" diameter PBW.

Uncoupling lever with eye bolt bracket installed.



CGW steel X-29 design box car was ready for paint and

lettering. The car body and underbody were sprayed with Vallejo/MicroMark Model Air Box Car Red X29015X2. The trucks and wheels were hand painted with the same color as the car and underbody. After the paint on the underbody was dry I decided to correct the size and location of incorrect frame members. I cut off the two inner frame members from the center sill, cut off the top hat and reinstalled them in the correct location.



Underbody prior  
the underframe  
change.



Underbody after underframe changed.

Once the paint was dry, the car body was sprayed Vallejo Gloss Medium 70.470 to have a gloss base for decal application. While the gloss finish was drying I reviewed the decals to choose car number 87432. After gloss finish was dry, lettering from three Champ decals sets and two other sets was soaked off in distilled water and applied to the car body where MicroScale Micro Set had been applied with a brush. The dimensional data decals were made using Woodland Scenics dry transfers applied to decal paper and coated with Microscale Liquid Decal Film. After decals were applied in the Micro Set and positioned the edges had MicroScale Micro Sol applied. Any excess solution was sucked away with the torn edge of a paper towel.



Decal sets used.



Decals applied. Note: Road Name and old Champ Decal difficult to hide edges.

When dry, car body was sprayed with Vallejo/MicroMark Clear Satin #29018 to better hide decal edges. Finally, the car body was sprayed with Model Master Acryl, #4636, flat to protect decals and provide a flat finish for weathering when applied.

One more step before putting Chicago Great Western 87432 in service was to weather the car with Pan Pastels. Pan Pastel Paynes Grey Extra Dark 840.1 was used on the roof and lightly over entire car body. And, for the rust starting to show near the sill that will require patch panels, Burnt Sienna Shade 740.3.



CGW 87432 weathered.



Chicago Great Western 87432 was ready for service on the Minneapolis & Northland Railroad Company, "Serving today, Shaping tomorrow." A car card was made for each, the final step to put the cars in service on the Minneapolis & Northland Railroad Company Railroad.



CGW 87432 sitting on CGW Interchange  
next to Anchor Glass Plant in  
Randolpf, Minn. waiting pickup.

*Editor's Note: Once again, our profound thanks to Les for letting us reprint his excellent article.*

# KITBASH A SMALL TOWN COCA-COLA BOTTLING PLANT IN HO SCALE

by Robert Baudler



## RESEARCH

The Chicago Great Western Railroad (CGW) offered local service in just about every town that it served as it was the last railroad to reach that town. This localized service was an important part of the growth and financial stability of the CGW. Included in this local service was the ability to take loads that other railroads would pass on. These loads would include the shipment of glass bottles from Chicago to a small-town bottler.

There were two bottling plants in the city of Waterloo, Iowa which was one of the cities serviced by the CGW. The bottling plants were the Waterloo Bottling Works, which produced Ewald's Root Beer, and the Tucker Bottling Works.





**Photo of Arnold Ziemer who was a driver for Tucker Bottling Works in Waterloo, Iowa. The Tucker Bottling Works was located at 1442 W 2<sup>nd</sup> in Waterloo in a carriage house. Photo was taken in 1930. Owned by Marty Ziemer.**

The late 1800s saw extreme variations in ways that soda and mineral bottles could be sealed. While many of these closure devices failed to become popular with the majority of bottlers, the ingenious stopper using a porcelain stopper with a rubber gasket fastened with a metal clip dominated the soda bottle industry from the 1880s to the turn of the twentieth century. This stopper was developed by William H Hutchinson, the prominent bottler in the Chicago, IL area.  
(from "Collecting Bottles by State, The Ioway" Part 5 – Hutchinson Soda Bottles)

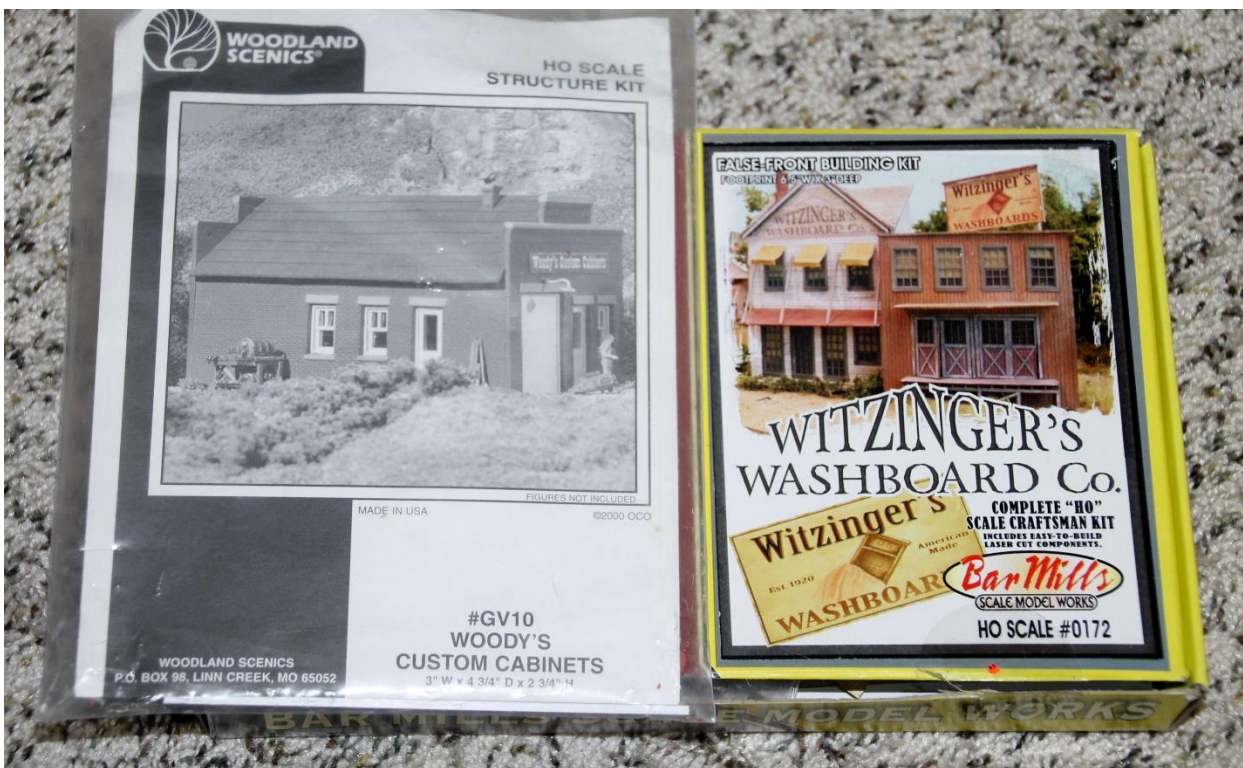
With over three dozen small bottle works in the State of Iowa, glass bottles with the Hutchinson stopper would be shipped via the railroad to each small-town bottler. Some of the small-town bottlers stayed in business less than a year but some stayed in business for over twenty years and would eventually be bought out by Coca-Cola; 7-Up or Pepsi, the major soda bottlers of the mid twentieth century.

## BACKGROUND

While reviewing my plan for a small-town on my new layout, I noticed that I needed to fill an 8-inch by 6-inch corner lot on the edge of the commercial downtown district. As this spot would be in a prime location that would be viewed closely by visitors, I also wanted a lot of detail in this small space. In my home state of Iowa, bottling facilities were in production with the small town of Dyersville, Iowa having a bottling plant in 1872. Coca-Cola started being bottled in small town Iowa in 1915! A lot of small towns still had a bottling facility as late as the 1950s. Mini Metals recently came out with a 1941/46 Chevy Box Truck for Coca-Cola and this was just the incentive I needed to get me working on a Coca-Cola Bottling Co. facility for my small town.

## STARTING KITS

This Coca-Cola Bottling Co was kit-bashed from the WITZINGER'S WASHBOARD Co. False-front Building kit (#0172) manufactured by BAR Mills Scale Model Works and the Woody's Custom Cabinets Structure kit (#GV10) manufactured by WOODLAND SCENICS.

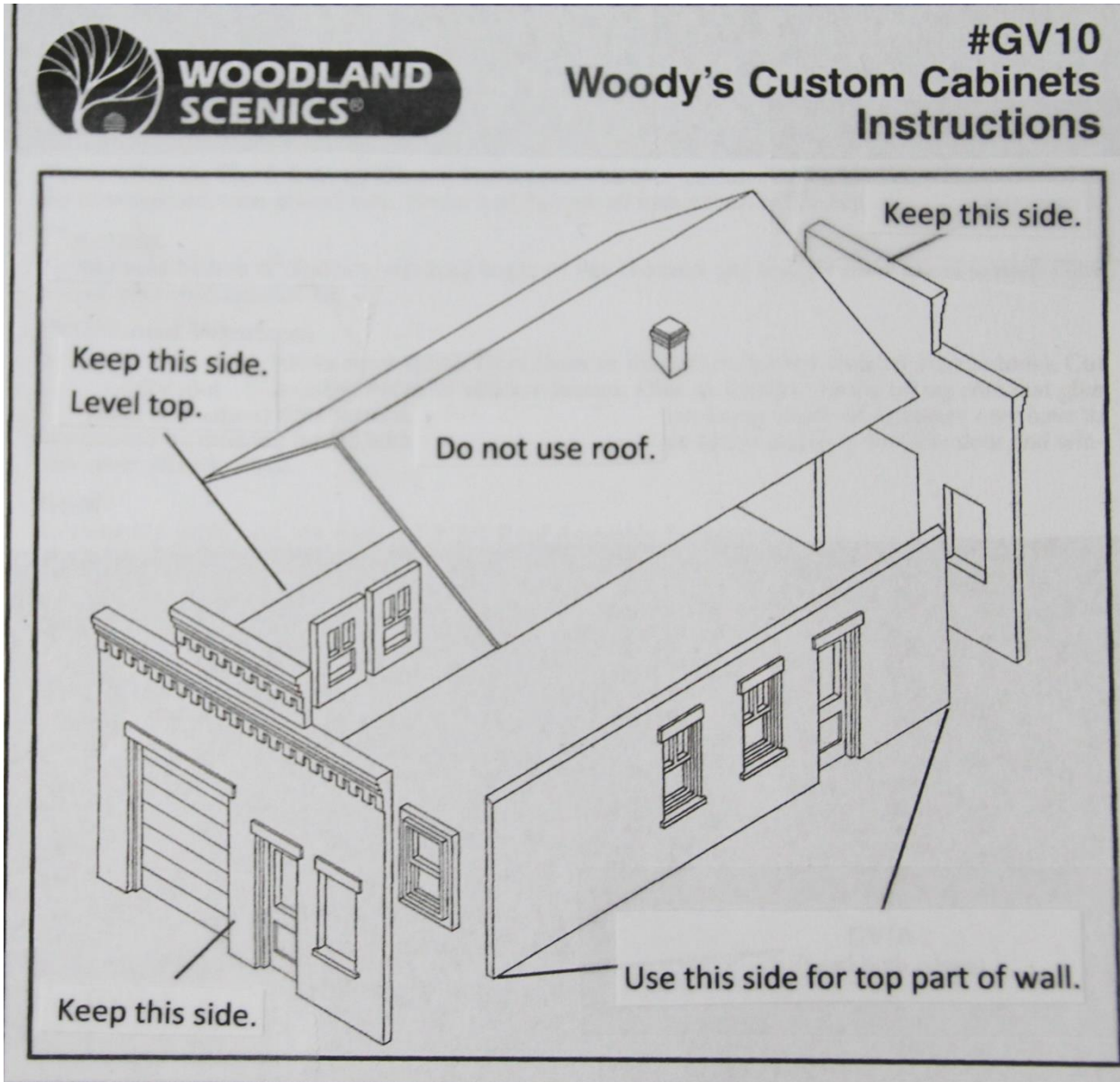


## BUILDING THE BRICK WAREHOUSE

For the brick warehouse building addition, I used the front side and back side of the Woodland Scenics kit. I did not like the original short side brick walls of the Woodland Scenics kit, so I shaved the angled top off the side wall which did not have a door opening. I cut the other side wall straight across above the protruding brick above the windows. After cutting and make sure the new extra piece for the side wall was square, I glued the cut off top side wall to the top of the brick side wall that



I had shaved the angle top off. I kept the angled top of the new heightened brick side wall. The brick sides were painted with a combination of Polly Scale Model Railroad Colors Boxcar Red and Rock Island Maroon.



## BUILDING THE CLAP BOARD BUILDING

For the two-story clap board building I used the clap board front and the two clap board sides of the Bar Mills kit. The two clap board side pieces from the false-front Bar Mills kit were glued together to match the clap board solid front piece with the seven windows. The additional clap board sides are from MICRO-MARK clap board siding. The clap board sides were measured and cut to the same length as the modified Woodland Scenics brick side wall. Interior bracing was used from the wood bracing pieces in the Bar Mills kit. The wooden dock doors from the Bar Mills kit were heighten by adding wood strip pieces from the kit to the top and the bottom of the original doors so they would fit the door openings in the front and back brick walls of the Woodland Scenics kit. The appropriate windows and doors from both kits (and the modified wooden dock doors) were painted with Floquil Pullman Green. The clap board building was painted with Testor's Flat White. The concrete drive was painted with Polly Scale Model Railroad Colors Concrete. After the concrete paint had dried, the cut marks were made with a lead pencil and the wear was made by turning the lead pencil on its side for light shading.





## ROOF TOPS



The “Pause Refresh yourself” Coca-Cola sign was down loaded from the internet and sized to fit the Witzinger’s Washboards billboard include with the Bar Mills kit. Additional detail and bracing was added to the billboard with scale lumber from NORTHEASTERN SCALE LUMBER CO.

The rolled tarp paper on the roof of the brick warehouse was left over from another Bar Mills Kit. The shingling on the clap board building was also from left overs of various kits. Several shingles on

one side of the clap board roof were made to look like they had gotten loose.

The piping on the brick side wall was put in place to cover the joint from stacking the two brick wall pieces. The pipe was made from a left-over plastic sprue from a previous kit. The plastic sprue was trimmed so it would appear that there is a valve on one end of the pipe. I cut after the bend in the plastic sprue and the remaining end bend was turned and glued back onto the pipe so it that the pipe’s spout was facing away from the building. I drilled a hole in the pipe and added a brake wheel to the pipe as a control valve for the pipe. After the brake wheel was glued in place the brake wheel was painted with Testor Red.

## WAREHOUSE ROOF DETAILS

The warehouse roof detail was made from left over scrap pieces of wood that were randomly stacked. The wood was covered with a tissue that had been soaked on one side with Elmer’s glue. After the tissue had dried, the tissue was painted with Brown Oak Detail Wash by Model Master to make a realistic looking canvas tarp. The individual bricks holding down the canvas tarp were made from scale 2X2s painted with the same paint as the brick walls. The canvas tarp and individual bricks holding down the canvas tarp were weathered with the black wash solution and Testors Flat White. With the weathering, the individual bricks appear to have some remaining mortar on them.



## SIGNAGE ON THE CLAP BOARD

I wanted all the signage and lettering on the clap board siding to appear as if it was painted. All signage on the clap board building was down loaded from the internet and printed on white laser copy paper as I have a Laser printer. All the clap board siding was painted and let dry before applying the signage. The signage on the laser copy paper was sanded on the back with fine sand paper until you could see the sign in reverse order. The sign was then cut out and the back of the sign had a small amount of Elmer's Glue spread across the back in an even coat. The sign was then placed on the clap board siding in position and smoothed by the tip of a finger from the middle to the outside edge. The Coca-Cola Bottling Company lettering was printed on the computer and the same method was used to apply it to the clap board siding as the signage. A very light weathering was done over the signage and lettering which tied it all in and made the signs and lettering appear that they were painted on the clap board siding. This method was pioneered by George Selios and I really enjoy the results.



## EXTRA DETAILS



Additional rafters for the overhangs on the clap board building were cut from NORTHEASTERN SCALE LUMBER CO and spaced a scale 2 feet apart. The tree on this side of the building was made from two individual branches out of the JTT Scenery Products 95519 Wire Foliage Branches package.



The front second story window awnings are made from the yellow window shades in the Bar Mills kit and held in place with cut paper clips. Each side of each awning was traced on a piece of paper and used as a template to cut out the finished sides of the awnings. The overhang over the drive is from the Bar Mills kit with the detail edge trim from a Laser Art Structure kit left over piece. The hedge is by Noch and the ends have been trimmed to be at a beveled shape as the ends of hedges are in real life. The front tree is a JTT Scenery Products 94431 3" Beech Tree. The trunk of the tree has been kit-bashed by unwinding the last one inch and then forming tree roots at the base. The grass is from Woodland Scenics.



The delivery man was kitbashed from a construction worker by Preiser. The original Preiser figure had a yellow construction cap which was carved to look like a delivery man's hat. The original Preiser figure was wearing a jacket and this was carved into a shirt. The shirt and the cap was painted Pullman Green. The bill of the cap was painted black along with the pants and shoes. A spot of Testors Red paint was applied to the front of the shirt with the end of a rounded toothpick to represent the Coca-Cola logo on the shirt.

cap was painted Pullman Green. The bill of the cap was painted black along with the pants and shoes. A spot of Testors Red paint was applied to the front of the shirt with the end of a rounded toothpick to represent the Coca-Cola logo on the shirt.

The 1941/46 Chevy box truck by Mini-Metals was kitbashed by carefully removing the black sub floor. With the box lowered, the Chevy box truck looked more prototypical. I am really pleased with the results of this kit-bash project!

