



STAUNTON COAL COMPANY

Served by the MGB Railroad

Build a retail coal distributor without shoveling out a fortune

By Gary E. Maitland

When management of the MGB Railroad asked me to build a structure for the small industrial area located down track from Bardstown Yard on Version 2 of the model railroad, I knew right away what I wanted to model -- a retail coal distributor.

It wasn't too many decades ago that many homes and businesses burned coal for heat and energy. That meant the local coal yard was a thriving business in most towns, and a customer for railroads as well.

I knew that fitting a coal yard into the more modern era of the MGB would stretch the bounds of believability. But such a business would give us another small industry to switch, a big plus as we move towards a more operations-oriented railroad empire. It would also be the perfect place to park some 55-ton, 2-bay hoppers.

My favorite building material is wood, which I thought would be a nice change of pace from the brick and mortar structures planned for the remainder of the industrial area. And I wanted to give Staunton Coal a distinct design that would set it apart from the big box design so characteristic of most plastic brick buildings.

So, I decided to model Staunton Coal after a Fine Scale Miniatures kit released in 1993 by George Selios -- Duffy's Coal Yard. Duffy's has always been one of my favorite FSM kits. I like the design a lot better than two other coal companies that Selios has produced -- Jacob's Fuel Co. and Bartholow Coal Co. One of the key attractions of Duffy's is the trestle dump, which I definitely wanted to incorporate into my model.

Buying a Fine Scale Miniatures kit is an expensive proposition. These kits have become collectors' items with nice premiums. Purchasing Duffy's Coal Yard in 1993 would have set you back \$185. That same kit today would cost you about \$300.

Instead of shoveling out a small fortune for a classic kit, I opted to kitbash and scratchbuild my own version. The final result is not a perfect match for Duffy's, but it has the general feel of a retail coal distributor that's struggling to stay in business. And that's exactly what I was looking for.

Best of all, it cost me less than \$75 to build Staunton Coal, and half of that amount was used to buy a wooden kit by Bar Mills Scale Model Works that is so innovative, it should be a staple of your kitbashing supplies. Using the Bar Mills “The 1-Kit” makes building this structure easy and affordable.

Now, let’s get to work.



DUFFY'S COAL YARD

Fine Scale Miniatures produced Duffy's Coal Yard in 1993. It retailed for \$185 when it was issued, but today you would have to spend about \$300 for this craftsman's style kit.

A picture’s worth ...

Since my model was going to be loosely based on Duffy’s Coal Yard, I made a color print of the above photo. I found it on the Railroad Lines Forum Web site at www.railroad-line.com. I taped the photo in front of me above my workbench. It became an invaluable visual aid as I proceeded with my kitbash.

I started my construction with the trestle dump, perhaps the most tedious, time-consuming part of the project. You could simplify this part of the project by using flex track, but I chose to hand lay the track for added realism.

The length of the siding will depend upon how many coal cars you plan to spot in front of your business. I decided Staunton Coal would handle two cars. I borrowed a couple of 55-ton coal cars from the club to ensure I built my siding long enough.

Below is a step-by-step guide to how I built the trestle, including a list of materials used, the approximate cost of the materials, and the hours it took to build this component.

I'll follow the same outline for all the sections that follow.

SECTION 1 THE COAL TRESTLE

1) The concrete bents and back wall

The concrete wall and trestle bents were made from two pieces of ¼-inch by 3-inch by 24-inch basswood.

To make the basswood look more like concrete, I glued strips of HO-scale 2x10s on top of the basswood to replicate the wood formers used to make the concrete wall and bents.

Taking one piece of the basswood, I marked off nine (9) trestle bents, each a HO scale 15 feet wide. I used a razor saw to cut the bents from the longer piece of basswood. The bents then had to be tapered from 15 feet to 13 feet at the top. I used a rule to mark the angle and then used a razor saw to cut the taper.

To complete these bents, I glued pieces of HO scale 2x10s on the backside of the basswood to replicate the wood former marks. When this was completed, I glued the nine (9) trestle bents to a 13-inch long piece of ¼-inch by 3-inch basswood, which will be the back wall of the coal pits.



2) The trestle dump

The stringers for the coal trestle were made from 1/16-inch by ¼-inch basswood. The basswood was aged and weathered using a razor saw and alcohol and India ink solution. Once dry, I glued two pieces of the 1/16-inch x ¼-inch wood together. Grandt Line .063-inch conical head rivets were added to the sides. The rivets were painted with Folk Art Metallic Gunmetal acrylic paint before being installed.

I used strips of 1/16-inch square basswood for scale 8x8 ties. Cut 14 pieces of the basswood a scale 14.5-feet long to be used as combination ties and a walk platform. Cut 12 pieces of basswood to regular tie width and glue them to the stringer at the front and end of trestle. Cut 54 pieces a scale 2 feet wide to be used on each side of the dump areas of trestle.

After allowing the trestle pieces to dry, apply contact cement to the underside of two pieces of Code 70 Railcraft rail that had been weathered with a spray of Model Master Light Earth paint. Then attach the rails to the basswood ties and weigh them down to dry overnight.

When the trestle/rail pieces were dry, I used Micro Engineering medium spikes to spike the rail to the ties for more realistic looking ties.

After the trestle was completed, it was glued to the tops of the concrete bents and back wall assembly. Once this was dry, the completed trestle and bents were glued to a piece of 2-inch foam and the trestle, bents and back wall were weathered. Charcoal sticks were rubbed over sandpaper to produce a powder. Use a paintbrush to apply the weathering chalk to the surfaces of the wood trestle and bents.



The landform behind the back wall of the trestle was built up using five pieces of 1/2-inch foam.

Place a Walthers rail bumper at one end of the trestle.

The walkway was constructed of scale 6x8s for the posts, 2x6s for the braces and 2x8s for the walkway. The wood pieces were stained with an alcohol and India ink solution. A razor saw was used to create wood grain.

TIME: 15.0 hours

COST: \$15.35

LIST OF MATERIALS:

- 2 pieces of 1/4-inch x 3 x 24 basswood (\$2.78)-- \$5.56
- 25 strips of HO-scale 2x10s (15 cents each) -- \$3.75
- 2 strips of 1/16-inch by 1/4-inch basswood (.49) -- \$.98
- Grandt Line conical head rivets (\$1.50/pkg. of 5 sprues; 2 used) -- \$.60
- 3 strips of 1/16-inch square basswood (.33) -- \$.99
- 1 piece of 3-foot long Railcraft Code 70 rail -- \$1.00
- 1 rail bumper from Walthers (12/pkg. 8.00) -- \$.67
- 4 pieces of HO scale Kappler 2x8s (15 cents each) -- \$.60
- 4 pieces of HO scale Kappler 2x6s (15 cents each) -- \$.60
- 4 pieces of HO scale Kappler 6x8s (15 cents each) -- \$.60

‘1-Kit’ you shouldn’t be without

Cutting all those shortened ties for the trestle dump was, well, a bit tedious. But the rest of the process should be similar to putting together a manufactured kit, thanks to “The 1-Kit” from Bar Mills Scale Model Works. If you’re not familiar with this product, by all means check it out on the company’s Website at www.barmillsmodels.com.

Here’s why “The 1-Kit” is an invaluable product for first-time scratchbuilders. You get four laser-cut walls and more than three (3) dozen laser-cut windows, doors and freight doors. And get this, the door and window openings are precut into the back of the wall sections. Just determine where you want your windows and doors to go, cut through the laser etchings, build up the doors and windows and paint them, then glue them into the openings.

It doesn’t get any simpler than that.

By using “The 1-Kit,” I was able to build Staunton Coal without any plans. That saved a lot of time. By eyeballing the photo of the model taped to my wall, I was able to come up with some workable measurements for my building.

Essentially, I used the full width of two wall sections for the front and back walls of the structure. The two end pieces and short wall pieces were cut from the other two wall sections.

You’ll notice that my finished building doesn’t look exactly like Duffy’s Coal Yard. But I never intended to build an exact replica of the FSM kit. I just wanted a structure that captured the general feel of Duffy’s, but would not be so familiar that it might draw comparisons.

So get your X-acto knives and rulers out and let’s put together the office building.

SECTION 2

THE OFFICE BUILDING

1) Preparing the walls.

First, brace the inside of the walls of the clapboard siding in “The 1-Kit” with 3/16-inch square basswood. Pieces of 1/8-inch square basswood were used as corner pieces.

The clapboard siding was stained with two washes of alcohol and India ink mixture. Weights were placed on the wood as it dried to ensure there would be no warpage.

The walls were then painted with diluted washes of Americana Burnt Sienna acrylic paint. Nail holes were applied using a pounce wheel.

2) Making the signs.

There are three signs on the building. Since the rail siding would be the side of the building viewed on the model railroad, a large block-style “Staunton Coal Co.” sign was put above the loading dock’s overhanging roof. The official company sign and logo was placed on the right-hand side wall of the structure, and an promotional sign was placed on the left-hand side wall.

The official company sign and logo was created by fellow MGB member Darren Scott. Darren generated the logo on his computer and e-mailed me a PDF of the logo.



The large block-style “Staunton Coal Co.” sign was computer generated on a reverse background, the printed on a laser printer. The backside of the paper was sanded until it was very thin. This requires some practice to make sure you do not sand too much and tear through the paper. It took me a couple of tries to get it right.

Once you have the paper thinned, cover the backside of the paper with white glue. Carefully position it on the trackside wall and allow the sign to dry for a few minutes. By allowing the glue to set up a few minutes, you lessen the chance you will tear the paper during the next step.

After the sign has dried a few minutes, use the rounded end of a paintbrush to gently impress the sign into the clapboard siding. Work slowly. The goal is to make the sign look like it was painted on the clapboard siding. That means the paper must wrap around the edges of the clapboard. Gently push the sign against the underside of each clapboard and pretty soon you’ll see the difference.

Now, set the building aside and let it dry for several hours. When it's completely dry, you can take complete your weathering. You might even want to take a sharp X-acto knife or single-edge razor blade and score the sign at the bottom of each clapboard. Then dip a paintbrush into water and fold the paper edge beneath the clapboard. Rewetting the sign will soften the white glue and bond the paper to the clapboard again.

To tone down the stark black background of the sign, dry brush some Burnt Sienna paint across the surface of the sign to give it a faded look. Dip your paintbrush into the bottle of acrylic paint, then move the brush back and forth across a paper towel until almost all of the paint is gone. Then slowly and carefully fade the black background of the sign.

Use the same procedure for two other signs that were placed on the ends of the building.

3) Add the windows, doors and stairwell.

All the windows and doors for the kit were made using Bar Mills' laser cut components. Don't count on much help from the instructions here, but the process is really simple. The doors and windows are made from a sandwich of parts -- a front piece and a back piece. You'll get the hang of it after successfully completing one.

I made my roofs from 1/16-inch sheet basswood. Many kits suggest using cardboard for roofs. But I like to use basswood to lessen the chances of warpage.

Cover the basswood with strips of typing paper painted grimy black and cut to the scale 3-foot width of rolled tarpaper roofing. Glue them to the basswood with white glue, making sure to just barely overlap the edges.

To block the view through the building and to give a more realistic appearance for the back inside wall, which was visible from the open freight doors, the wall was covered with a piece of HO scale scribed siding cut from a 2-foot length piece. The wall was brush painted with a tan color of Folk Art acrylic paint.

All of the office building walls were dry brushed with a white Folk Art acrylic paint. The dry brushing technique is designed to enhance the raised details. Brush lightly against the edges of the clapboard siding. Highlighting the edges of the board enhances the overall paint job.

The fascias are HO-scale 2x8s weathered and brush painted gray. The rafter tails are HO-scale 2x8s that were cut down to 2x6s and then applied individually.



I built the back stairwell from 6x8s for supports, 2x8s for the platform and stair steps, and 3x9s for the stair treads. I used a plastic stair tread from an old Campbell Kiowa Tower kit to trace the tread design on two pieces of Kappler 3x9s and then used a single-edged razor blade to cut out the treads. Cut carefully to avoid splitting the wood.

All the wood was stained with an alcohol and India ink solution and wood grain was applied using a razor saw.

TIME: 18.0 hours

COST: \$46.59

LIST OF MATERIALS:

- Bar Mills "The 1-Kit" -- \$38.43
- 5 pieces of 3/16-inch by 3/16-inch basswood (.49 each) -- \$2.45
- 2 pieces of 1/8-inch by 1/8-inch basswood (.49 each) -- \$.98
- 1 piece of 1/16-inch square strip wood (.13 each) -- \$.13
- 1 piece of 1/16-inch sheet basswood (2.50) -- \$2.50
- 7 pieces of HO scale 2x8s for fascias, rafter tails (1.25 for 10) -- \$.88
- 4 pieces of HO scale Kappler 2x8s (15 cents each) -- \$.60
- 2 pieces of HO scale Kappler 3x9s (16 cents each) -- \$.32
- 2 pieces of HO scale Kappler 6x8s (15 cents each) -- \$.30

SECTION 3

THE FOUNDATION and LOADING DOCK

1) Building the stone foundation

The foundation for Staunton Coal's office building was built up block by block from Doctor Ben's Scale Consortium Baby Building Blocks. It's a time-consuming

process to stack the scale building blocks in a random fashion, but the end results are worth the effort.



You don't have to make your stone foundation this way. There are a variety of manufactured alternatives from paper prints of stone foundations to uncolored plastic sheets of stone patterns to urethane castings of stone walls. You can use whichever suits your tastes.

To mark the foundation's location, the completed building was placed beside the coal trestle and the footprint of the building was then traced on a piece of extruded Styrofoam being used for the landform. The Styrofoam was then cut to shape and the finished shape was used to trace a footprint on the diorama base.

The first row of blocks was glued to the Styrofoam using Elmer's Wood Glue with the outer edges lining up on the pencil marks of the footprint. A total of 44 blocks were used for the foundation's first row.

Once the glue had dried, the Styrofoam footprint of the building was laid over the row of blocks. Pencil marks were made on the Styrofoam above the inside edges of the row of blocks, and the Styrofoam was trimmed to size. A bead of adhesive was spread inside the row of blocks and the Styrofoam inner core, which will become the inside floor of the building, was inserted inside the blocks and left to dry.

Four additional rows of blocks were then applied, bringing the block foundation to the level of the 1-inch Styrofoam flooring. All told, 224 scale building blocks were used to build the foundation.

After allowing time for the stones to dry completely, measure the Styrofoam flooring area and cut a piece of scribed siding or plain basswood for the inside flooring of the building. Then paint the flooring the color of your choice. I painted mine with a diluted

stain of the Burnt Sienna used to color the outside walls.

2) Building the loading dock

The loading dock platform located next to the railroad tracks that wraps around the right side of the building was built using Kappler HO scale 6x8s as legs, 4x6s as joists, and 2x6s, 2x8s and 2x10s as planks.

All of the wood was stained using an alcohol and India ink solution and wood grain was applied with a razor saw.

The scale 4x6s were used to build the frame of the platforms. The legs were then cut from the 6x8s and glued to the front rail and back rail of the joists. Once this assembly was dry, the platform was glued to the back and right side of the building and to the Styrofoam landscape. The platform was checked with a level to ensure it was straight, and allowed to dry.

Once the platform supports had dried, the planks were cut to the appropriate length and glued to the supports one by one.



TIME: 10.0 hours

COST: \$10.39

LIST OF MATERIALS:

- Doctor Ben's Scale Consortium Baby Building Blocks -- \$6.49
- 8 pieces of HO scale Kappler 2x8s (15 cents each) -- \$1.20
- 4 pieces of HO scale Kappler 2x12s (17 cents each) -- \$.68
- 4 pieces of HO scale Kappler 6x8s (15 cents each) -- \$.60
- 4 pieces of HO scale Kappler 2x10s (15 cents each) -- \$.60
- 1/3 of a piece of 2-foot long scribed siding (2.45) -- \$.82

The total construction time for Staunton Coal Co. was 43 hours. The cost of the materials was \$72.33.

You'll notice in the photos of the completed project that detail work on Staunton Coal has not been completed. Shortly after the diorama was incorporated into the Bardstown Yard location, the club tore down the old benchwork and began construction of Version 3 of the MGB. Staunton Coal was carefully removed from its Bardstown Yard location and put in storage, awaiting the completion of trackwork in the town of Beaver Creek, where the business will now be located.

As work progresses on Beaver Creek, we'll provide updates on Staunton Coal Co. and provide comments on adding scenery and details to complete our retail coal distributorship diorama.

I hope this article inspires you to try your hand at a scratchbuilding project. Building your own version of a real-life structure, or simply copying an existing kit, ensures you will have a one-of-a-kind structure for your railroad at a fraction of the cost of a manufactured kit.