



“SOUTH PARKING” DELTON’S C-16

by Joe Crea

For the last several years, I have been modeling the 3-foot gauge Colorado & Southern Railroad as it appeared in the 1930s. (Articles about these 1/2-inch scale models appeared in the January/February 1985, July/August 1987, and November/December 1989 **GAZETTE**s). Recently, however, I have also begun to model the 1880s equipment owned by the C&S's forerunner - the Denver, South Park & Pacific. While I love the look of the little, low-slung C&S engines with their bear-trap stacks, butterfly plows, and air tanks perched atop the boilers, I also enjoy the appearance of the DSP&P's sleek and ornate locomotives with their Congdon stacks, Russia iron boilers, and polished brass. However, I don't feel comfortable running my 1880s DSP&P models on my indoor C&S 1930s layout, so I have started to plan a garden railway for them. In a garden setting, they will be handled more frequently than my C&S models are, so I will not super-detail them or make them so delicate.

When Delton came out with their new 1/2-inch scale G gauge C-16, I decided to include this little Consolidation on my garden layout. I wanted to rebuild it to show a “family resemblance” to the old time LGB Mogul that I had already modified and repainted to look like a DSP&P locomotive might have appeared after the renumbering of 1885. After looking at the builder's photo of DSP&P #63, I felt that the Delton model could be modified into a creditable DSP&P 2-8-0.

I began my modification by adjusting the locomotive for maximum performance. I didn't expect much hauling capacity because the prototypes for these small loco-

motives could only pull several cars, just like the Delton engine. I did add some weight in the firebox to increase hauling capacity, and loosened the side rod screws a bit.

I disassembled my locomotive for detailing and painting. This is not really necessary, and I do not encourage inexperienced modelers to disassemble a Delton C-16. It comes apart with difficulty, and is like the proverbial Chinese puzzle to re-assemble. If you don't disassemble your model, you will have to do more masking to paint it. But this is still a lot easier than taking the model apart and putting it back together.

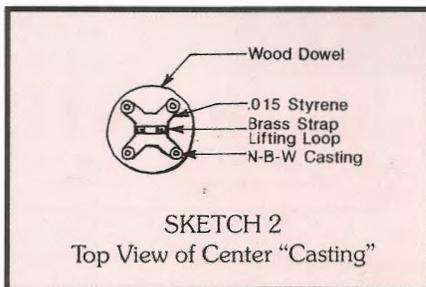
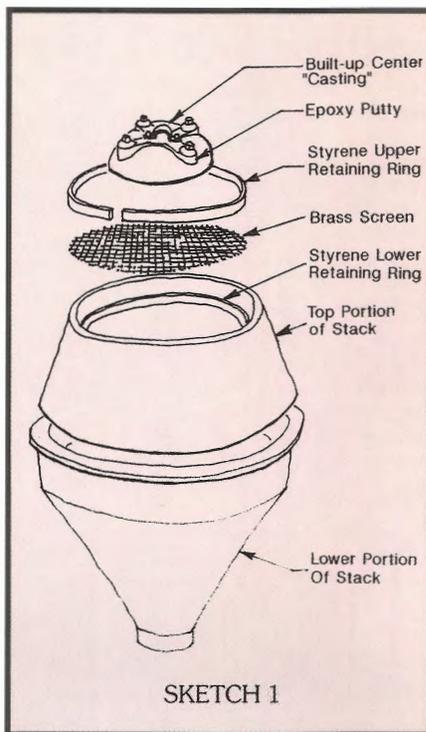
My first modification was to carefully saw off the smoke stack at its base and drill out the mounting hole to fit an LGB Congdon stack. (I ordered this stack as a separate part from Caboose Hobbies in Denver, Colorado.) The LGB stack is cast in two parts joined at a seam with glue. I carefully pried the two pieces apart and cut

Title photo: Although not an exact replica of any particular Denver, South Park & Pacific locomotive, the author's 1/2-inch scale, G gauge #194 is based on DSP&P #63 and captures the general appearance and charm of these early steam engines. *Photo by the author.*

out the strange spider-like casting in the top of the stack with a jigsaw. After smoothing the hole with a round file I installed a piece of brass carburetor screen, using two bands of styrene as retainers as shown in Sketch 1. The prototype DSP&P Congdon stacks had a large casting in the center of the screen at the top of the stack. I made this "casting" from a 7/8-inch diameter wood dowel rounded on one end to an appropriate dome-shape. An area on the top of the casting was flattened a bit and an x-shaped piece of 0.015 styrene was cemented to the top of the dome as shown in Sketch 2. I used a two-part epoxy putty to fill in the areas between the arms of the x-shaped piece and the dome. Four large nut-bolt-washer castings, a lifting loop made from a piece of brass strap, and two small nut-bolt-washer castings were also added. The completed "casting" was spray-painted with several coats of flat black, then cemented in the center of the brass screen of the stack. The two parts of the stack were reassembled, painted flat black, and set aside.

Next I replaced the small Delton air pump with a larger cast pump from Trackside Details. I had to modify the Delton air pump bracket to mount the new pump. The builder's photo of #63 shows the pump mounted further forward on the boiler than mine; you may want to re-locate your pump. Since I disassembled my model, I was able to attach the new pump from inside the boiler with a small screw. You could glue the pump on with some ACC.

The DSP&P locomotives had bent-iron rock guards attached to their pilots. Presumably, they protected the cylinder heads from damage by fallen rocks on the roadbed. One of these tube-like guards is visible on the side of the pilot in the builder's photo of #63. I formed these parts from



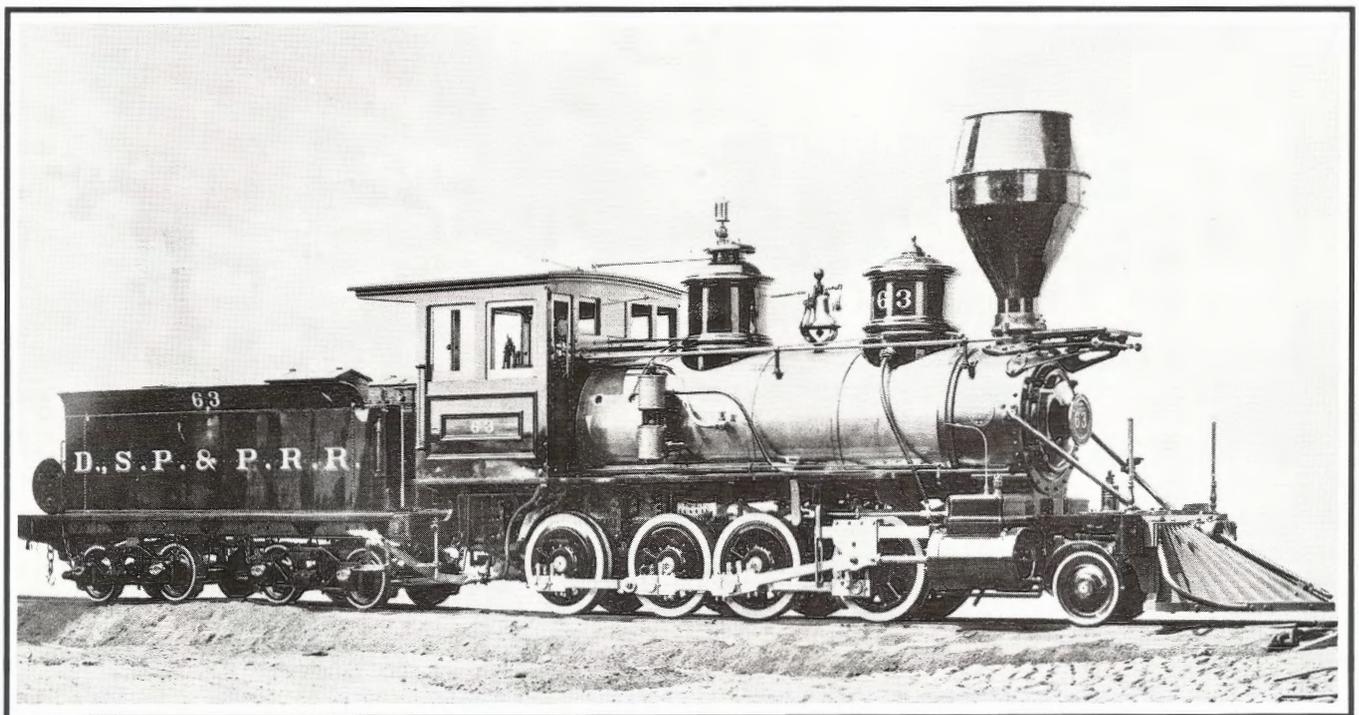
This builder's photo shows Denver, South Park & Pacific #63 as she appeared in 1883 at the Cooke Locomotive Works in Patterson, New Jersey. Photo, collection of Harold Vollrath.

brass rod, fitting them by trial and error. The brass rod was flattened at each end and drilled for the 00-80 brass hex-head bolts that were used to attach the rock guards to the pilot through appropriate holes with 00-80 hex-head nuts. Do not tighten these nuts too tightly - they twist off easily.

A new Trackside Details number plate was added to the smokebox front; wood grain was added to the cab walls, tender deck and pilot by dragging a razor saw sideways across the plastic parts. I also added some variation in the grain using an X-acto knife with a #11 blade.

The wood load on the tender was removed by separating the tender shell from the tender frame and removing the screws holding the wood load in place. A block of styrofoam was carved to represent a mound of coal and painted flat black. It was then attached to the tender shell in place of the wood load. Coal was sprinkled all over this block and sprayed with water with a drop of detergent added to it. An eyedropper was used to dribble a 50:50 mixture of white glue and water over the coal to secure it in place. You may need to repeat this process several times. Be careful to mop up, and watch that the water-glue mixture does not go where it is not wanted. Once the whole mess dries the coal will be firmly attached; the dry glue is virtually invisible.

The last step in my conversion was to re-paint the model. I really loved the beautiful drop-shadow lettering on the Delton tender and hated to obliterate it, but one glance at my Congdon-stacked conversion convinced me that I had passed the "point of no return" and had to re-paint the tender. You may want to mask off the coal load before painting the tender flat black. I sprayed the colored electrical leads making sure I

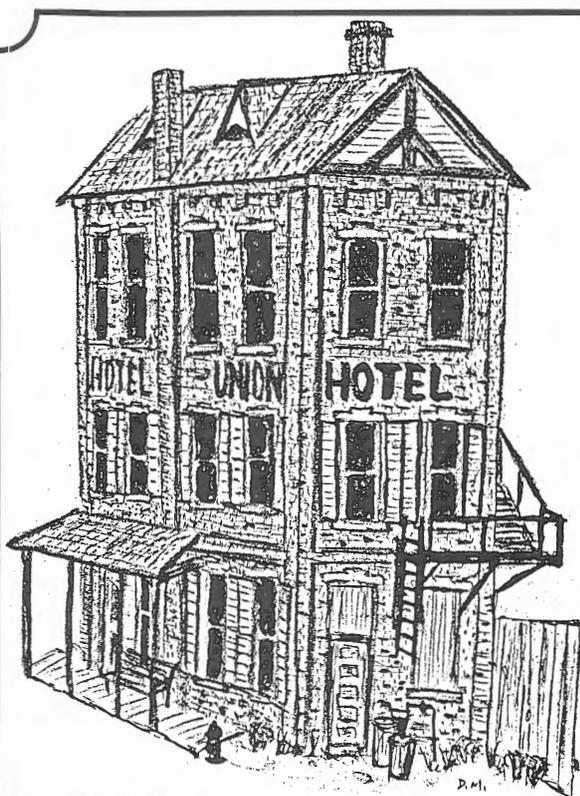


masked off the contact plug to the locomotive. Also make sure you keep the electrical contacts and the treads and backs of the wheels bright and clean. I numbered my tender with homemade tracing paper stencils, but you could use white decals or press-down letters. I sprayed the back of my stencils with a light spray adhesive, allowed it to dry completely, then applied the stencils to the sides of the tender and oversprayed them lightly with white enamel. Do not use acrylic paint because the water will penetrate the stencil paper and release the spray adhesive all over the sides of the tender. You may have to do a small amount of brush touch-up on the stenciled letters.

I really liked the Russia iron color on the Delton boiler so I carefully protected it during my repainting. I sprayed the smokebox and headlight flat black after masking off the boiler. The bell bracket and parts of the domes were hand-painted in black. The cab and pilot were hand-painted with a 50:50 mixture of brown and flat-red. This color is fairly close to the Delton color. If you did not wood-grain your cab and pilot, you could leave the original Delton paint intact. The air pump casting was painted black with some Floquil Gun Metal on the pump's cylinders. The brass parts on the Delton locomotive are really brass, and require no special treatment.

Again, be careful to keep paint off all electrical contact areas. I didn't paint the frames or drivers on my C-16 because they were already black. I did paint the brass cylinder heads black as shown in the builder's photo of #63, and used "gold" decals to letter the cab sides and add numerals to the sand dome and number plate.

The Congdon stack was secured last. Although I usually weather my models, I just couldn't bring myself to "dirty up" this beautiful color scheme, so my locomotive retains her freshly-shopped appearance.



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