

Just for Kids

Build a loading crane

by Stumpy Stone

Martin's Ferry, Ohio

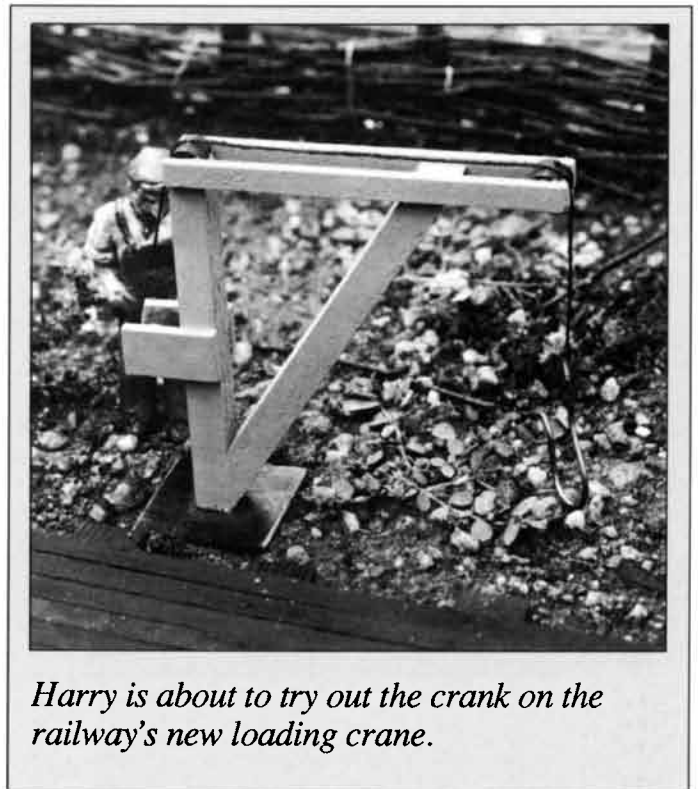
THIS SIMPLE CRANE IS TYPICAL of those found at freight stations or service tracks everywhere. It is often mounted on loading docks or on maintenance flatcars.

We'll begin building ours by cutting a 4" long piece from $\frac{3}{8}$ " x $\frac{3}{8}$ " stripwood. This will be the main arm. The ends should be cut or filed at an angle so that they are flush with the side of the post and the top edge of the side arms—when the top of the main arm is $2\frac{1}{8}$ " away from the top of the post and the bottom of the main arm is at the bottom of the post.

Next cut two pieces of $\frac{1}{8}$ " x $\frac{1}{4}$ " stripwood, each 4" long for side arms. Glue the main arm and side arms to the post as shown in the drawing. There should be about a 1" space from the top of the main arm to the ends of the side arms. The other ends of the side arms should be flush with the top and rear edges of the post.

A piece of $\frac{1}{4}$ " dowel, $\frac{3}{8}$ " long, goes between the side arms at the outer end (see the drawing). Another piece of dowel cut in half lengthwise is glued to the top of the post. Now cut two pieces of $\frac{1}{8}$ " x $\frac{1}{2}$ " stripwood, each 1" long. These are placed 1" up from the bottom of the post, one on either side, as shown in the drawing. These will form the crank housing. Between these parts put a $\frac{3}{8}$ " long piece of $\frac{1}{2}$ " diameter dowel to represent the cable reel.

The crane I built is nonfunctioning. If you want to make the reel actually work, though, drill a hole through both side pieces and through the center of the dowel. Glue a piece of tubing, rod, or stiff wire into the dowel, allowing about 1" to stick out either end. These protrusions will go through the side pieces and be bent into cranks. Wrap some string around the dowel, gluing one end to it so that it won't come off when you are unwinding the "cable."



Harry is about to try out the crank on the railway's new loading crane.

After the crank housing is assembled, drill a hole in the center of one side piece and then bend a piece of rod or wire into a crank shape. Glue it into the hole.

The base is a $1\frac{3}{8}$ " x $1\frac{3}{8}$ " piece of sheet wood glued to the bottom of the post. After the pieces are glued together, a pivot hole must be drilled up through the center of the base and post. The pivot itself is a piece of tubing, rod, or stiff wire, $\frac{1}{16}$ " in diameter. A screw could also be used. This crane could be mounted on a car or platform, or just pushed into the ground.

The cable for the nonworking crane is a piece of string painted black, just as it is for the working model. The hook is a piece of brass tubing or wire bent to shape. Metal hook castings are also available.

The crane may be painted just about any color. Mine is gray. Remember to use two coats of sealer for outdoor use.



