SCRATCH BUILDING SUGAR CANE BINS

By Robert B. Dow

Cane bins in Queensland were various shapes and sizes, each mill having their own design. Of late, mergers of mills have lead to less demarcation and an interchange of cane bins from system to system. After studying several examples I selected the Marian Mill bin to be the basis for my generic model (see figure 1). A cane bin is essentially a wire box on wheels. This presents some challenges to model successfully, as the mesh size needs to be small to look right, and the wheels were also small. Compromises can be made and a pleasing result achieved. Cane bins generally had external frames. I have found that internal framing upon which wire mesh is glued and then fine styrene strip attached to represent the external frame is both functional and pleasing in appearance. For cane, I chop up straw, which is obtained from a straw broom. Following is the detailed approach.

Cut floors, size 28 mm by 32 mm from styrene sheet (0.030"). Attach two strips of styrene - 4 mm by 2 mm and 20 mm long upon which the axle boxes will be glued. The exact position will depend on the width of axles used, but for most wheels the distance apart will be about 14 mm. Refer to figure 2 for more detail. Cut out axle boxes from strip styrene 4 mm by 2 mm, 4 mm long. Drill small holes at centre for axle points. Glue to strips in flooring. When dry test fit wheels. Remove wheels. Build internal framing 27 mm wide by 31 mm long and 18 mm high

from 1 mm by 1 mm strip styrene. Ensure square build into box structure and attach to floor leaving 0.5 mm at edges. Upon this attach a suitable mesh material. Here in Australia there is a company that makes wire meshes of various sizes (Melwire). I used a 0.44 mm mesh size with 0.21 mm diam wire. I have also used brass micromesh and fine nylon netting as alternatives.

Glue pieces of styrene 4 mm by 2 mm by 5 mm long on upper floor surface along the mid line at each end. This is to provide a secure base for coupler mounting screw. Add sheet lead about the size of the floor area to the inside of bin. Attach strip styrene edging beneath floor to accentuate low overhang. Attach strip styrene (0.020 x 0.030") to outside of mesh to represent external frame. I use a basic cross pattern which looks good. Paint a flat dark grey. Number if you wish. Once dry, build a balsa box to fill up the bulk of the bin say about 20 mm wide by 25 mm long by 15 mm high. Glue centrally in cane bin. Cut straw into 4 mm lengths. Fill bins with the 'cane', glue in place with dilute PVA glue. When dry, fit wheels and attach couplers. I use Microtrains N gauge 1025 couplers, mainly so that they are compatible with all my other rolling stock and locomotives. The Bemo style coupler popular in the UK and elsewhere would also work well.

The cane bins look great behind the Hudswell Clark. This basic design has proved reliable, and is reasonably cheap to construct. The dearest component being the couplers. Any small

wheels with needle point axles could be used. I used metal wheels of 5 mm diameter. It was the custom to mark the end of a long rake of cane bins with a flag on a long pole, or on a piece of cane stuck into the last bin. The engine crew could then check to ensure their train was intact at a glance. The numbers of bins used in the cane fields was considerable. Trains of 50 bins were commonplace in steam days. Today very long trains of over 200 bins are common. Large numbers of bins are necessary to model realistic sugar cane trains. To expedite the process, instead of individual axle boxes, strips of styrene can be used without compromising appearance.

If any one wants further information they can write to C/- The Turntable 88 Buckland Rd Nundah. Time to get back to the modelling, I am halfway through a another batch of 18 bins. Hope this is useful. Watch out for the cane trains!

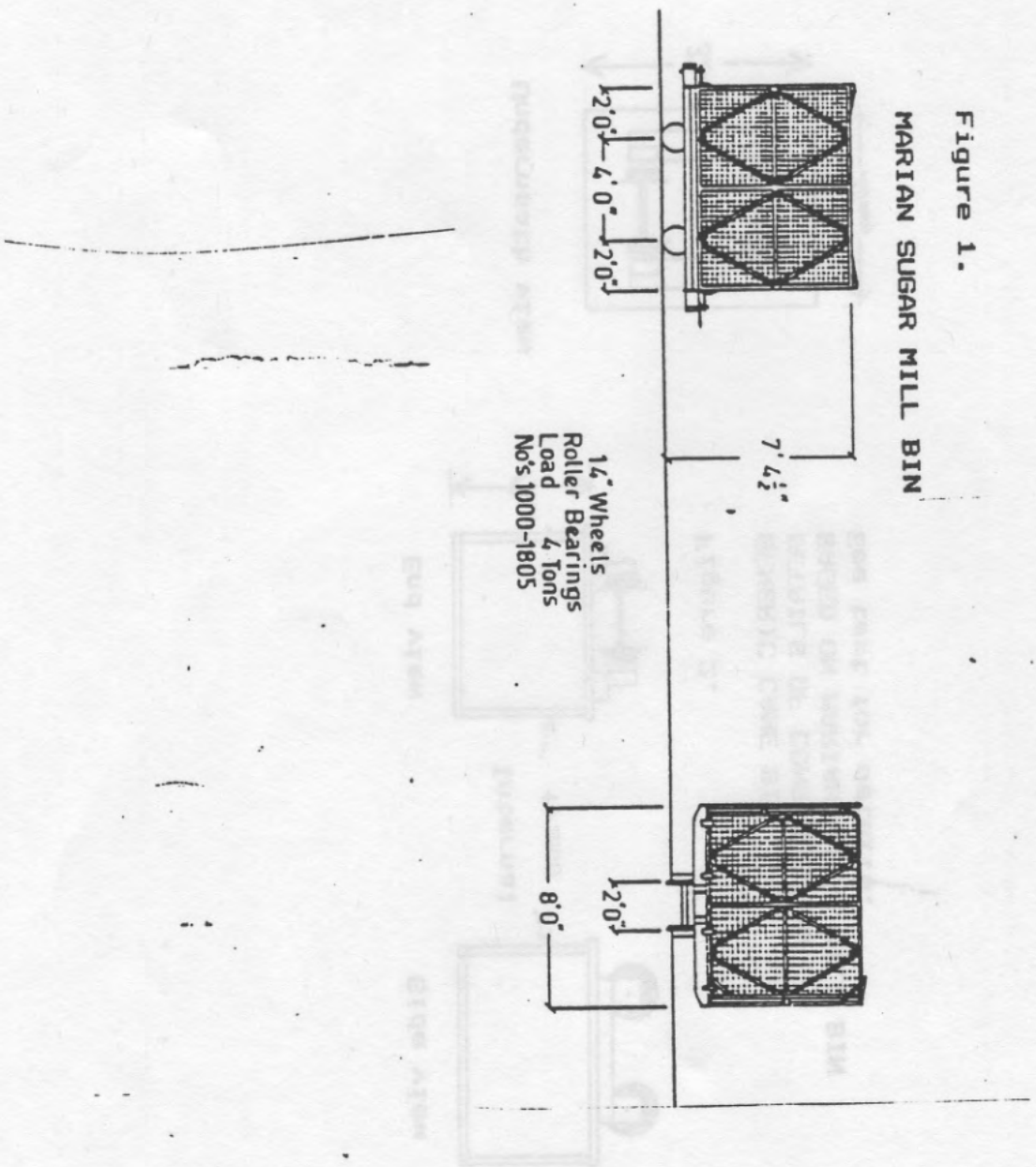

Figure 1.

MARIAN SUGAR MILL BIN

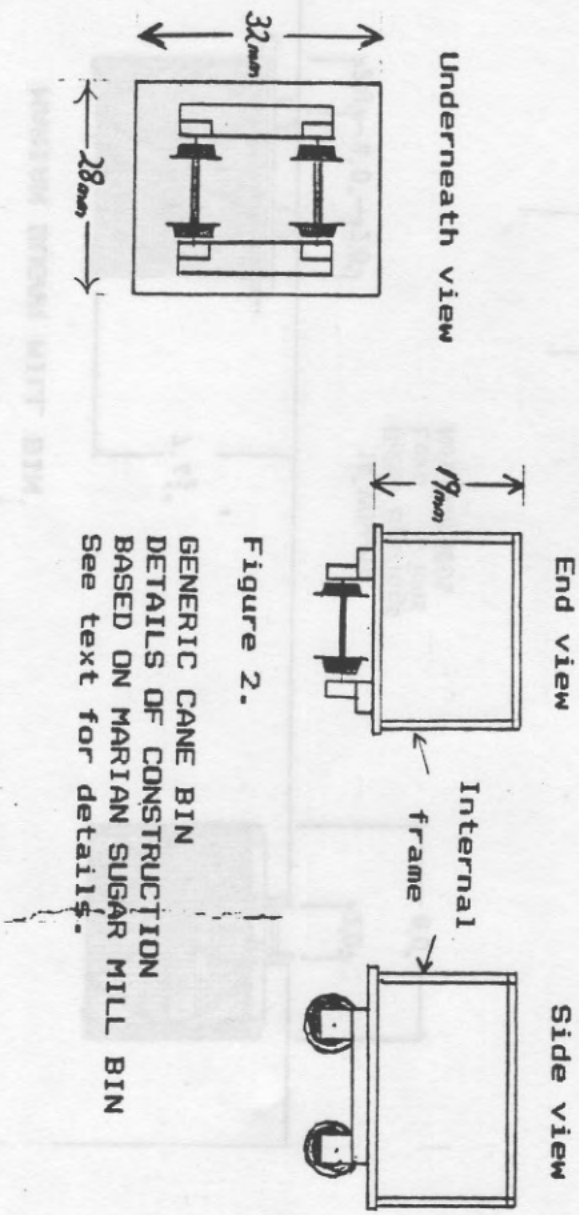

Figure 2.

GENERIC CANE BIN
DETAILS OF CONSTRUCTION
BASED ON MARIAN SUGAR MILL BIN
See text for details.