



The 1996 'cut' was well under way on August 1996 when Jamaica was photographed working a rake of loaded bins back to 'River Depot'. From here this load was added to another train and then hauled off to Morton Mill for crushing. The sugar railways are relied upon to move the freshly cut cane to the mill within a very short period. To achieve this a fleet of easily maintained bins are required. The photographs accompanying this brief article represent just some of the bins in use on the Queensland Sugar Cane Railways. Photo Bob Gallagher.

## SCRATCHBUILDING SUGAR CANE BINS

*In recent years, there has been a growing trend to model the Queensland sugar cane railways, the industry that stretches from just above Brisbane to above Cairns. Robert B. Dow describes his construction method for these lightweight baskets on wheels.*



*Cane bins Moreton Central Mill - showing end of train marker.*



*Isis Mill - empty 6 ton bin.*

*Photos by Bob Dow*

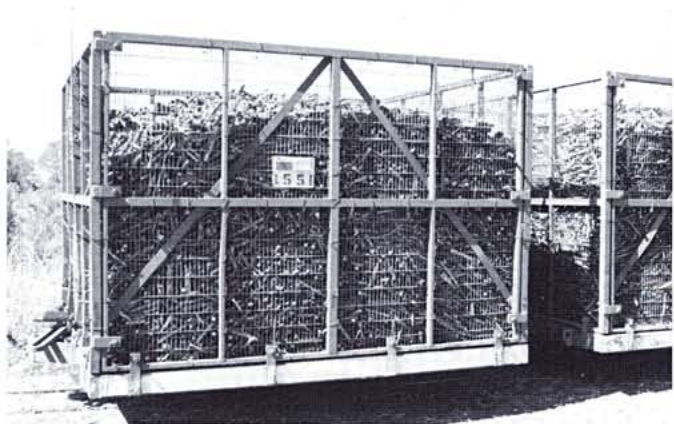
My modelling interests have, until recently, been directed mainly at the Victorian Government 2'6" railways. My recent acquisition of a Chivers Finelines Hudswell Clark 0-6-0 sugar cane locomotive kit prompted me to build some cane bins. Cane bins in Queensland were various shapes and sizes, each mill having their own design. Of late, mergers of mills have led to less demarcation and an interchange of cane bins from system to system. After studying several examples I came up with a generic bin that is relatively straightforward to model. A cane bin is essentially a wire box on wheels. This presents some challenges to model successfully, as the

*While there is great appeal to model cane fields, with and without the cane, a model railway can have a cane railway without the expanse of the big fields. There are a number of examples of where cane bins are road transported from the farm to railway sidings, some quite near the mill. In this scene, near Isis Mill, three empty bins are being winched onto the deck of the truck.*

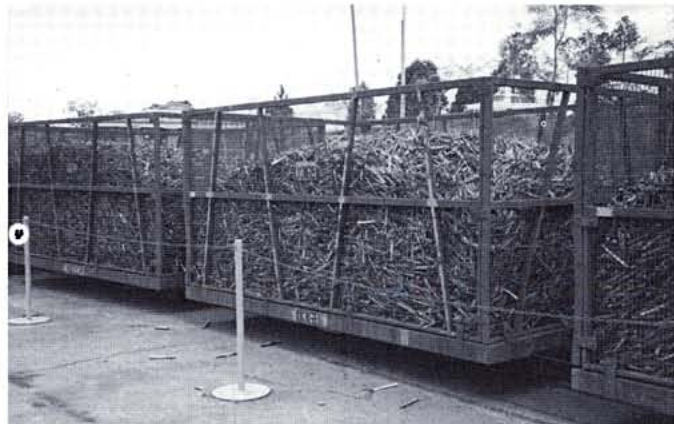


*A short rake of bins, loco and bins scratchbuilt by Bob Dow.*



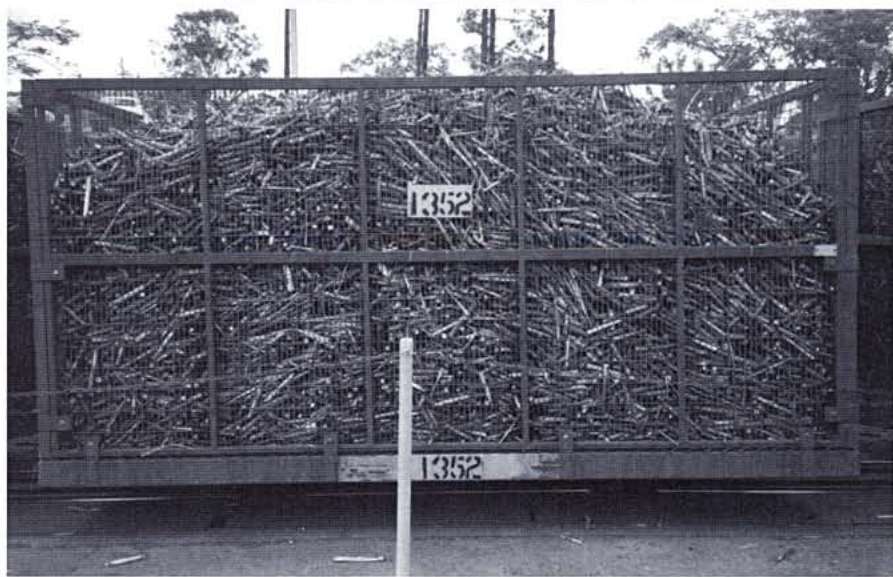


Above: Moreton Central Mill - 4 ton bin.



Above Right: Isis Mill - 6 ton bin.

Right: Isis Mill - 6 ton bin.



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, when scratchbuilding bins, 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 fine millet broom. Following is the detailed approach.

For HOn2<sup>1/2</sup> scale floors, cut rectangles 28mm x 32mm from 0.030" styrene sheet. Attach two strips of styrene - 4mm x 2mm and 20mm 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 14mm. Refer to

### Plane Creek Mill

The CSR owned mill at Sarina, 30km south of Mackay, is serviced by two railways, the Queensland standard (3'6") gauge and the massive 2'0" gauge cane rail railway. Plane Creek uses a 4-tonne bin comprising a tubular frame, either square or round, and a wire mesh basket mounted on a four-wheel underframe. The frame structure varies with the type of material used. The axlebox assembly is very basic.

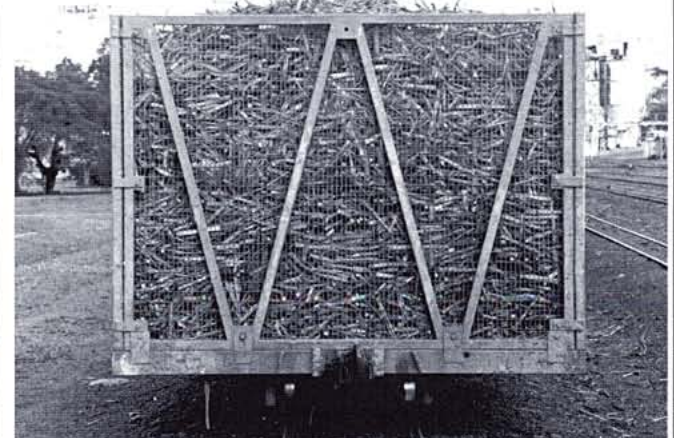
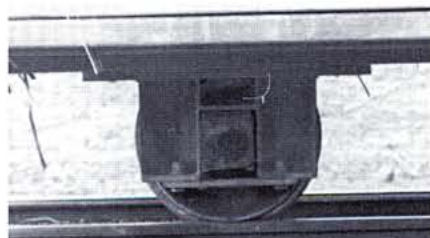
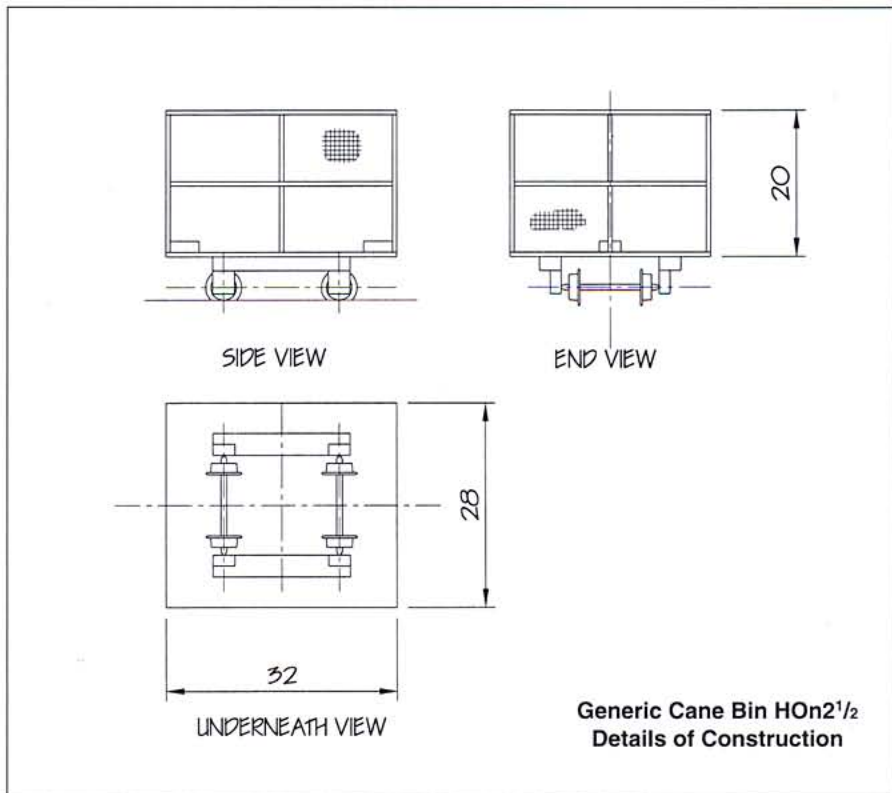


figure for more detail. Cut out axle boxes from strip styrene 4mm x 2mm and 4mm long, round corners at bottom of axle box. Drill small holes at the centre for axle points. An alternative is to use Delrin bearings, e.g. Steam Era. For this approach, drill 2mm holes into which the bearings are pushed. Build internal framing 27mm wide x 31mm long and 18mm high from 1mm x 1mm strip styrene. Ensure the box structure is square and attach to the floor, leaving 0.5mm at the edges. Upon this attach a suitable mesh material. Here in Australia there is a company that makes wire mesh of various sizes (Melwire). I used a 0.44mm mesh size with 0.21mm dia. wire. I have also used brass micromesh and fine nylon netting as alternatives.

Glue pieces of styrene 4mm x 2mm and 5mm long on the upper floor surface along the mid line at each end. This is to provide a secure base for the coupler mounting screw. Attach strip styrene edging beneath the floor to accentuate the low overhang. Attach 0.020" x 0.030" strip styrene to the outside of the mesh to represent the external frame. I use a basic cross pattern which looks good. Glue two axle boxes onto the strip on the floor on one side and allow to dry. Carefully glue the opposite side axle boxes onto the strip with the wheels in position. This is not as difficult as it sounds. Simply support the axles with a pair of tweezers and position the other axle box onto the end of the axle and on the floor strip. Paint a flat dark grey or red oxide. Number if you wish.

Once dry, build a balsa box to fill up the bulk of the bin, say about 20mm wide x 25mm long x 15mm high. Glue centrally in the cane bin. Cut straw into 4mm lengths. Fill bins with the 'cane' and glue in place with dilute PVA glue. When dry, attach the couplers. I use Microtrains N gauge 1025 couplers which look prototypical and are a reliable coupler. The Bemo style coupler popular in the UK and elsewhere would also work well.

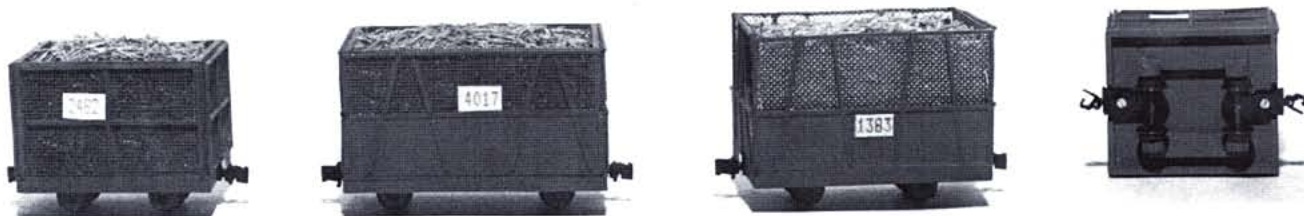
The cane bins look great behind the Hudswell Clark. This basic design has proven



reliable and is reasonably cheap to construct. The dearest component is the couplers. Any small N gauge wheels with needle point axles could be used. It was the custom to mark the end of a long rake of cane bins with a flag or marker on a long pole, or even a long piece of cane stuck into the last bin. The engine crew could then check to ensure their train was intact at a glance. The number of bins used in the cane fields was considerable. Trains of 50 bins were commonplace in steam days. Today

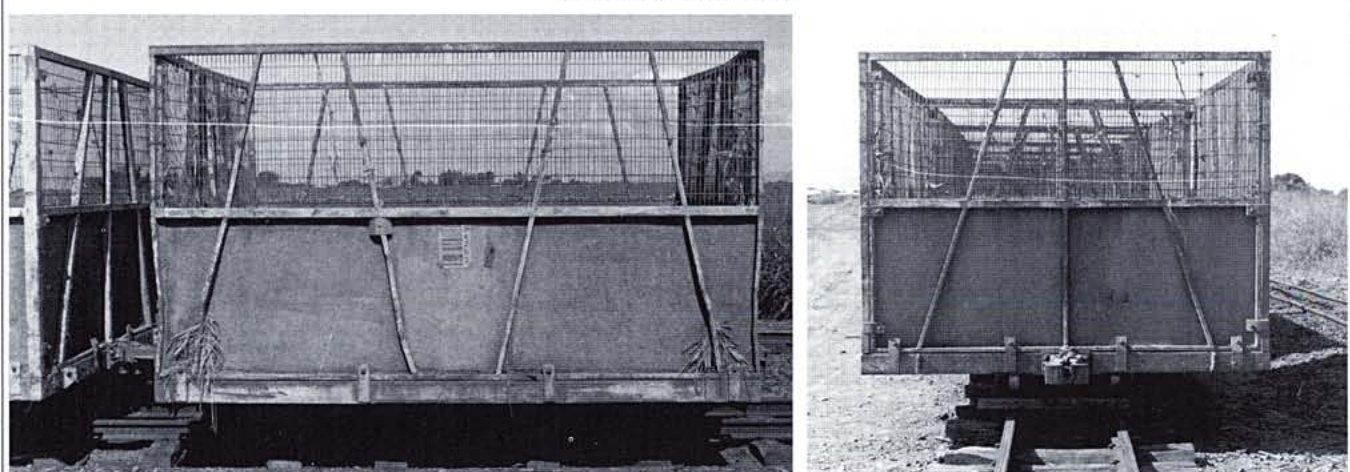
very long trains of over 200 bins are common. Large numbers of bins are necessary to model realistic sugar cane trains. To expedite the process, the sides and ends can be cast in polyurethane. This approach eliminates the need for an internal frame. The accompanying photographs show some of the variation and detail of cane bins.

*Happy modelling!*



Examples of scratchbuilt bins, 4 ton and two variations of 6 ton bins, built by Bob Dow.

### Racecourse Mill Bins



The cane bins used by the Mackay Sugar Co-operative owned mill in Mackay have a sheet steel and mesh bin supported by a tubular steel frame which can get 'quite a hiding' in traffic. The 6-tonne bins are bar-coded so that the grower and load details can be easily recorded at the mill.