Modelling Cane Railways

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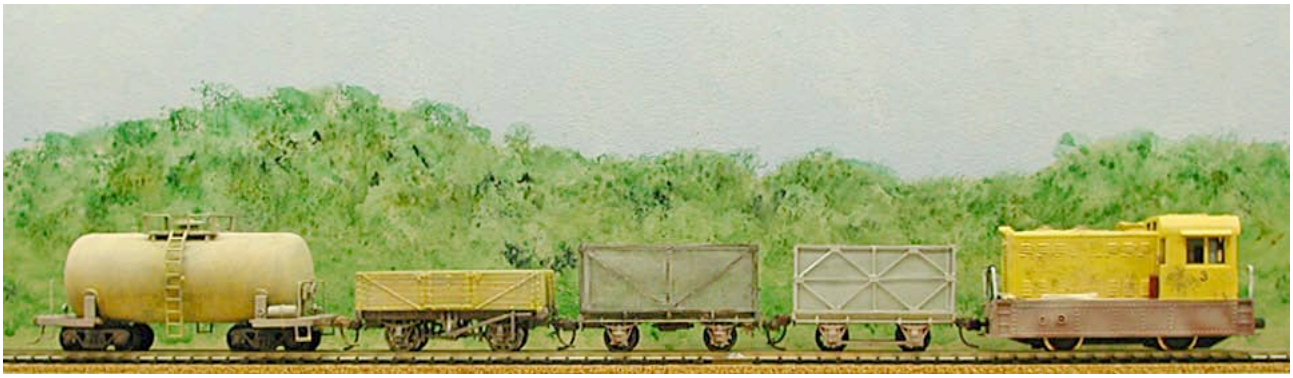
Novice HO Cane Train

CaneSIG: http://www.zelmeroz.com/canesig

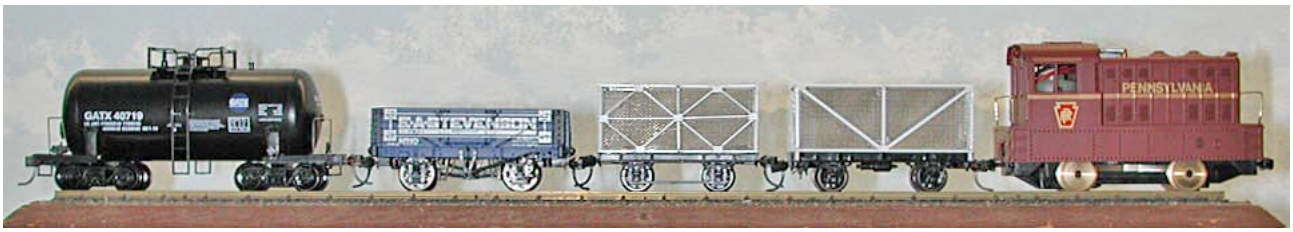
Building a Representative HO Cane Train for the Novice Modeller



This is #20 in the Handbook series but it was one of the first 'how to' web pages on the CaneSIG site. The project itself started as a query from my local hobby shop owner: *Can a novice modeller build a Queensland cane railway using off-the-shelf HO models as a way of getting started?*.

My cane train has a locomotive, two different cane bins, an open wagon for maintenance work and a bogie tanker for hauling water. While it requires some scratch building, the major requirement is an ability to build, paint and weather plastic kits.

The train and display cost just over $100, a reasonable investment to encourage novice modellers. Some of the items were purchased specifically for this project, others came from my 'to do' cupboard. Prices indicated are c1999 Aussie dollar costs.



HO standard gauge (3.5mm=1', 16.5mm track gauge) train prior to painting and weathering.

I built these models when I was also very much a novice sugar cane railway modeller, and if I did a similar project today I'd likely do it in On30. And I've learned to schedule some of my model building—the project took significantly longer than I had expected, at least partly because I was unable to paint (acryllics) during the tropical wet season. The air brush splattered and dry brush weathering smeared when the humidity approached 100%.

Locomotive: The locomotive started life as an HO Pennsylvania 'Porter Hustler' by Model Power ($37.50).

It received a partial repaint (the skirting/pilots with safety stripes are still in Pennsy maroon and gold) and weathering, hand rails (brass wire bent to shape and pressed into four holes drilled in the deck), fire extinguisher (red painted plastic sprue), broom (detail part), chain (detail part) and wooden chocks (wooden match stick cut to length and split into triangular cross-section, then glued into place).

The Wagons: The four wheel cane bins started life as Camco NSWGR CW cattle wagon ($9.95) and Silvermaz NSWGR CCH coal hopper ($9.35) kits. I could have used almost any HO 4 wheel wagon frames, but I had these as unassembled kits in my cupboard.

Construction involved throwing away everything except their frames and spoked wheelsets, then scratch-building new bodies. One bin has been weathered, the other looks quite new. Both have cane litter in the bottom but are otherwise empty. Details of their construction follow later in this note.

The maintenance wagon, repainted and weathered but otherwise a typical British model, is a Bachmann Branch Line 5 plank wagon with wooden floor and spoked wheels ($17.50). It has several sleepers and a small amount of ballast glued inside the box for detail.

The water tank is a black Roundhouse Shorty Tank Car ($21.50) built as per instructions, then painted (by hand) and weathered.

The Display: The display is constructed of inter-locking foamcore board with a computer-printed view of the Moreton Mill (Bundaberg) as a backdrop. The base was painted with water colors and the flex track glued on top. A Sentinel 1000 gallon water tank on tall stand ($8.75) and some foam ground cover complete the scene.

The display fitted neatly in the hobby shop display case (c 1999) and promoted CaneSIG as well as cane railway modelling. The hobby shop also distributed copies of a four page modelling note on Queensland cane railways to interested customers.

Building the NSWGR CW Cattle Wagon: The first step was to discard unneeded components from the superstructure... primarily the sides, roof and buffers. Next, the end sill was carefully cut from the end casting, flash was removed as required, wheel bearings installed, the underframe assembled and glued, and Kadee couplers installed.

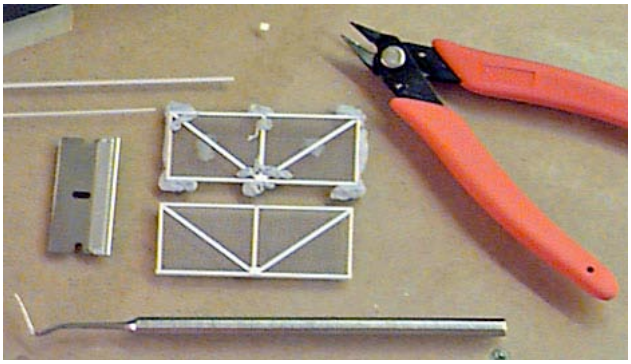
While cane bins don't normally have brakes, I decided to install the supplied brake fittings as this wagon will be operating on a standard gauge

railway. As well, the wagon has 36" wheels, rather than the 14" wheels of a typical 2' (usually represented by 9mm in HO 3.5mm=1' scale) gauge model. Thus, the models sit roughly 30" off the track rather than a more realistic height (see the Marian Mill drawing below).

Like the CCH wagon described below, this bin is probably too large to be transported into the field on a trailer or truck, but it would look quite acceptable in a rake of bins being filled by a trackside loader.

The 18' x 8', 6' 6" high bin is constructed from styrene shapes and stainless steel mesh (40 mesh size). The two sides and ends are constructed alike, a rectangular frame made from 3" x 6" channel (shallow 'U' shape) encloses the mesh, with scale 2x4s for the braces (vertical and diagonal), 1x8s for the reinforcing plates and 1x2s for the end latches.

The model has two different ends... representing the common cane railway practice of repairing a damaged bin with whatever parts are at hand, even if they don't quite match.



CW wagon's bin sides being assembled A completed side and one being glued... the work surface is a sheet of glass... that's Blu-Tack holding the pieces together while the glue sets. Styrene cement really requires several hours for the joint to set. Since the model will be painted following construction, and the styrene shapes represent a welded structure, some cement 'slop' isn't critical.

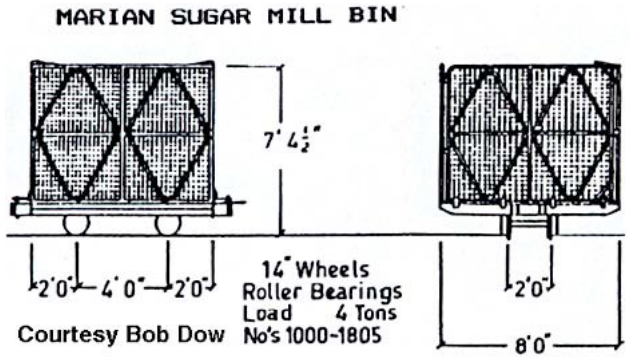
A NWSL 'Chopper' was used with both models to ensure that all components were the same length, although the same result could be obtained with careful use of a single sided razor blade. The dentist's style pick and precision side cutters in the photo were also very useful.

Building the NSWGR CCH Coal Wagon: I had an interesting start to this project as this kit didn't have any instructions. Thus the first step was to identify parts and separate those of the wagon base from the coal hopper.

The base was then assembled and Kadee couplers installed. A piece of .020 styrene was cut and fitted inside the floor opening (could have been thicker) and two 7/8" washers were cemented to the resulting floor to provide extra weight as the wheel sets are plastic. The weights will be hidden by the cane billet load, obtained by cutting fine millet straw to a 12-16" (~4mm actual) length.

The construction of the cane bin for this wagon was similar to the CW, albeit shorter and to a different mill's pattern. The main bracing uses scale 2x2s, with 1x8s for the reinforcing plates and 1x2s for the end latches.

Comment: This project demonstrated that it is possible to modify a standard gauge 4 wheel flat wagon to represent a Queensland cane bin, even if the resulting model sits too high and has a non-standard length… but then there are many variations within the Queensland mills as well.



Studying photographs of different cane bins on this site will provide ideas for modifying the bin structure after specific mill practice and to add variation in a string of wagons. Better yet, make the decision to become a narrow gauge modeller and model the bins more accurately.

This diorama was used at exhibitions to introduce HOn30 cane modelling. It uses the same scale (HO 3.5mm=1'), but a different gauge. The bins (Bob Dow Models) are no longer commercially available, the locomotive is scratchbuilt on an N scale mechanism as HOn30 (HOn2.5) and 009 (4mm=1') both use N scale's 9mm gauge track. On30 is larger (1/4"=1', 16.5mm gauge) and can use HO mechanisms.