

Modelling Cane Railways

A C Lynn Zelmer, CaneSIG coordinator
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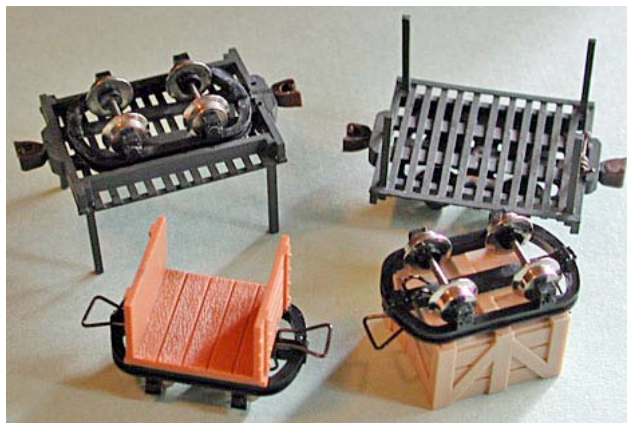
HOn30
Wholestick
Truck

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

Greg Stephenson on Modelling Timber Wholestick Cane Trucks in HOn30



Hauling wholestick cane on Greg's home layout. Lynn Zelmer, photographer.



HOe wagons and finished trucks. Lynn Zelmer, photographer

I chose to model a generic type of wholestick wagon in HO scale using the HOe Minitrains/Roco/Eggerbahn/Jouef small 4 wheel wagons as a basis. I had

14 assorted open, flat and box type wagons that were used. The original bodies and couplers were removed and the raised coupler hooks cut off. Where necessary, I replaced some of the wheelsets with ones with finer flanges.

A new body was fabricated from styrene strip. The dimensions were chosen so that the new bodies would fit over the chassis. The sizes that I used are shown in the drawing on the next page. In HO, they scale out towards the high end of the range of typical sizes of wholestick wagons. The same dimensions used for OO scale would represent the more typical size range.

I made the wagons in a batch and started by cutting the components for all the wagons. I used Evergreen HO Scale styrene strips. The table below sets out the components for each wagon.

Wholestick Wagon Styrene Components Per Wagon

Component	Scale Size	Length	Number/Wagon
Longitudinal beams	8"x4"	26 mm	4
End beams	8"x4"	23 mm	2
Dumb buffer	8"x4"	8 mm	2
Corner posts	4"x4"	16 mm	4
Transverse decking	4"x1"	23 mm	13
Longitudinal decking	4"x1"	28.5 mm	2

The next step is to assemble the basic wagon. I made a simple jig from timber and pins to locate the longitudinal and end beams before gluing with MEK. The two outer longitudinal beams are placed "on edge" and the two inner beams "on the flat". This is to allow the underframe to sit up into the new body. Because we want a flat top surface, this stage was assembled upside down. When the solvent had set sufficiently the frame was removed from the jig and set aside to cure whilst the next wagon was set up.

The next stage is to fit the four corner posts ensuring that they are vertical. These fit into the outer corner of the outer longitudinal beams and the back of the end beams. The transverse floor decking was then added. I put a piece of decking on either side of the upright corner posts. The remaining boards were evenly spaced in the remaining gap. I used a piece of metal the thickness of the required gap between boards as a spacer whilst these boards were being positioned and glued. I held the wagon against a timber stock to ensure that the ends were all aligned. The two outer longitudinal boards were then added.

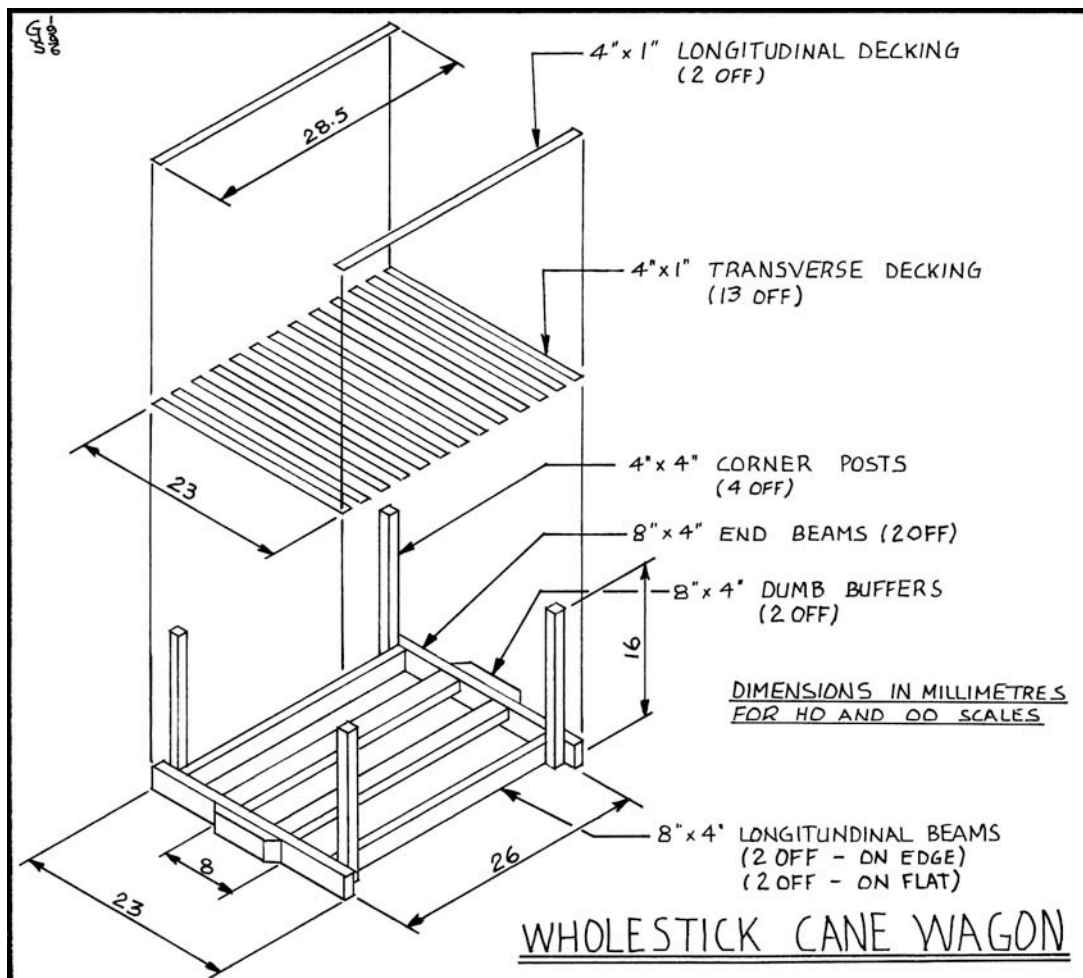
The dumb buffers were made from a piece of 8"x4" styrene strip with a 45° chamfer on each end. These were positioned centrally on the end beams.

The representation of the winch is made from two turned handrail knobs, a piece of wire and small gears. The gears I used came from a number of watches I had disassembled over the years. However, small disks of styrene sheet would suffice. The winch parts were assembled into holes drilled into the top of the end beams. A small eyelet was fitted to the centre of the other end beam. I used Grandline castings but they could be fabricated from fine wire bent around a former.

The body was painted with Humbrol German Grey to represent weathered hardwood. The winch and eyelet was painted with Humbrol Track Colour.

The body was then glued to the underframe. I found that there are subtle differences in the underframes and wheels from the various manufacturers that I had used. Part of the underside of some of the inner longitudinal beams had to be trimmed to clear the wheels. It would be easier to close up the spacing of the inner longitudinal beams to ensure that this trimming is not required.

The final stage was to add the couplers. I used Unimate N scale dummy knuckle couplers mounted on the end beams. These couple to Kadee / Microtrains N scale couplers which I use. I used a Kadee coupler height gauge to ensure that the couplers were set at the correct height.



Sugar Cane: There are probably as many variations in sugar cane as there are of wholestick wagons. The older varieties such as Badila were short and thick - say 2 metres tall and 50 mm diameter - whereas newer varieties are tall and thin - say 3.5 metres tall and 20 mm diameter. A loaded wholestick wagon disappears under its load of cane with the cane often dragging on the ground. This is particularly difficult to model whilst maintaining some semblance of operation.

I opted to use the fine millet from the short handle brooms available from Asian shops. The millet is much finer than that used in normal straw brooms. Bob Dow supplied me with the remnants of a broom he had been using for chopped cane. I cut the millet about 400 scale millimetres longer than the width of the wagon and glued it in place with PVA glue. The finished product looks a bit too tidy but is reminiscent of the older types of cane. The look may also be improved with a little wash a green water colour.

A piece of brown cotton was tied to the eyelet and fed over the top of the cane and glued to the winch to represent the tie down rope.

Observations/Operations: So far I have built 14 wholestick wagons and added cane to 4 of them. I set up a production line to manufacture them completing each stage on all wagons before moving to the next stage. This has the advantage that it

allows ample time for the glue to cure before returning to the next stage. If I were to build them again, I would use square brass section for the four corner stanchions. In use, the upright plastic posts are easily broken.

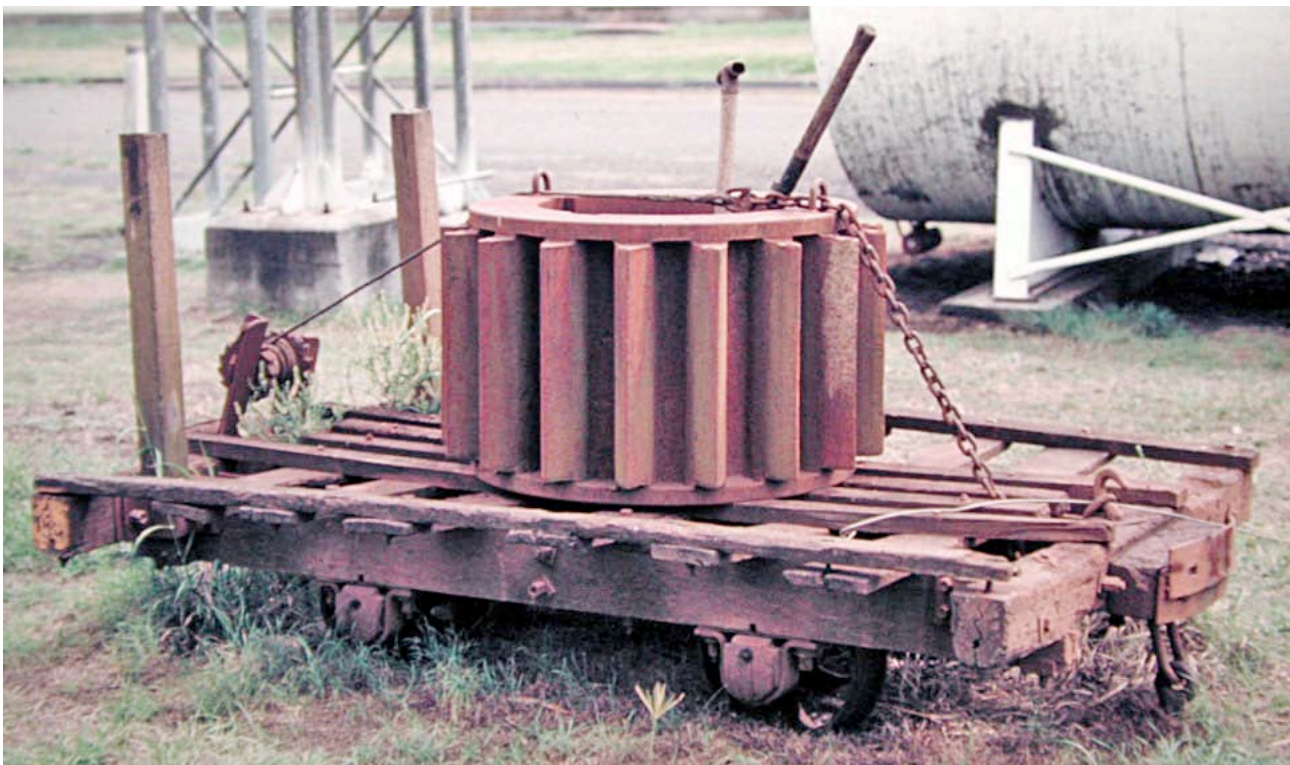
The wagons have proved to be reliable runners despite their light weight and have been regularly and successfully shunted through reverse 225 mm radius points.

The wagons as built are freelanced. However, they contain all the features of a typical wholestick cane wagon and have proved a valuable addition to my fleet of steam locomotives.

Acknowledgements

This note was originally published by the *Modelling the Railways of Queensland Convention 2006* as part of 'Goods Traffic on the Narrow Gauge Cane and Shire Tramways', a presentation by Greg Stephenson. Reproduced and edited with permission. Additional images are credited where they appear.

The rest of Greg's presentation is available as the three part CaneSIG handbook series *Goods Traffic on Cane & Shire Tramways*. Additional photos and some plans are also available on the CaneSIG web site (www.zelmeroz.com/canesig) and on Queensland's rail heritage web site (QldRailHeritage.com).



Timber wholestick truck, likely in navy service at Bingera Mill. The transverse timbers, with the outside longitudinal rails, are clearly visible, as are the wheel mounts, various bolts, the tie rod ends, and the ratchet winch and hook for tying down the wholestick cane. Greg Stephenson, photographer. Another photo of a timber wholestick truck similar to Greg's models is in part 3 of the *Goods Traffic on Cane & Shire Tramways Handbook* series.