



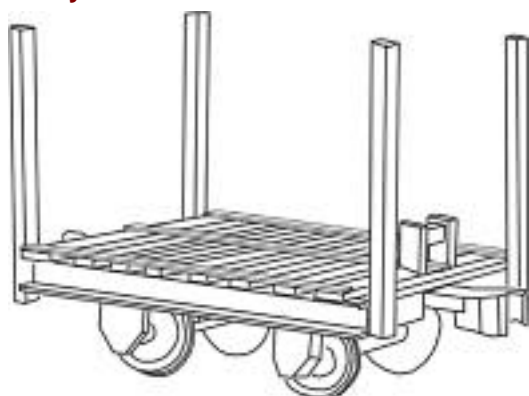
## Wholestick Cane Truck

Three to four ton wholestick (stalk) unbraked cane trucks were used in Australia by all the sugar cane railways (tramways) from the earliest days until cut cane billets/bins were introduced in the 1970s. Many were locally constructed, leading to variations (both wood and metal construction) from mill to mill.



In Queensland the cane was loaded loose and crosswise so that ends often dragged on the ground, and were tied down with wire or chain. Trucks were coupled together with a variety of locally built and patent coupling systems, often of a hook and loop nature.

### Assembly



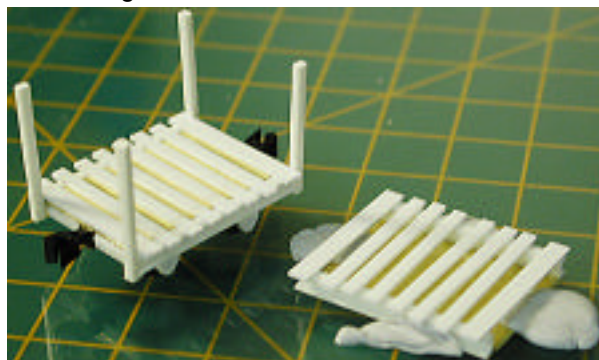
This model represents a truck with a metal frame, wooden deck and wooden stakes. While an open frame truck (metal or wood) might have more interest, the brass strip eased construction. It provides a solid rectangular base, extra weight and hopefully makes the finished model slightly less fragile. Extra weight (see below) could still be added between the axles.

### Bill of Materials

(Dimensions are mixed due to the nature of the materials)

- Frame: 1 pce brass strip 15 x 23 mm x .020"
- 2 pcs styrene Channel 1.5 x 2.5 x 23 mm
- 1 pce styrene 'I' 1.5 x 1.5 x 15 mm
- 2 pcs styrene Channel 1.5 x 2.5 x 6 mm (vary length to fit coupler shank/box)
- 1 pr N gauge operating or dummy knuckle couplers
- Deck: 2 pcs styrene HO scale 2" x 8" x 20 mm (one each end)
- 6 pcs styrene HO scale 2" x 6" x 20 mm
- 3 pcs styrene HO scale 1" x 4" x 23 mm
- Axle boxes: 4 pcs styrene HO scale 4" x 10" x 5 mm, 2 bottom corners shaped and #61 hole drilled 0.5 mm deep 1 mm from shaped end; fit inside frame 4 mm from end
- 2 pcs styrene .010" x 1.5 x 15 mm shim if needed
- Wheelsets: 2 sets N gauge wheelsets with pointed axles (length variations may necessitate shims behind axle boxes)
- Stakes: 4 pcs 1 x 1 x 16 mm
- Winch: 1 pce styrene 1 x 1 x 3 mm
- 2 pcs styrene HO scale 2" x 6" x 3 mm
- Fixative: Styrene solvent/cement and 5 minute epoxy.
- Paint: Flat acrylic
- Wholestick cane load: Brown/black thread for wire rope and scale 10'-12' lengths of fine broom/whisk straw

- Cut the components as indicated in the bill of materials (see box). The accuracy and squareness of the brass strip will determine the ease of assembly and appearance of the resulting model.

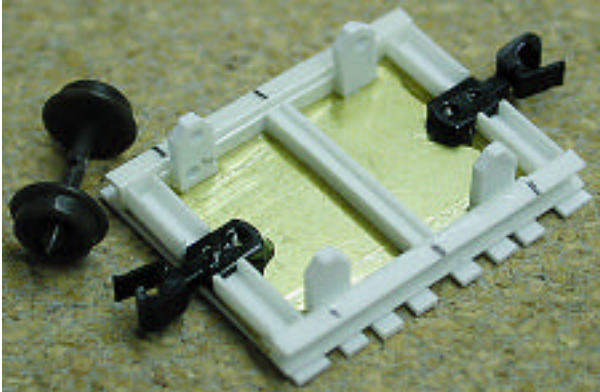


- Fix the brass strip to the work surface with *Blu-Tack* (reusable adhesive); align the two long channel pieces and similarly temporarily fix in place leaving the top edge clear for gluing.
- Coat the top edge of the channel with styrene solvent/cement and press the decking in place with a wide piece on each end (square with the channel and the brass strip) and the narrow

## CaneSIG: Modelling Cane Railways

pieces evenly spaced between. Apply a light weight to ensure the bond is secure and leave to set.

- Remove the blu tac, turn the deck upside down and fix (solvent/cement) the centre I beam in place (thus holding the brass strip tight against the deck) and leave to set. Alternatively, a 1.5 x 5 x 15 mm metal slug could be fixed (epoxy) in the centre to provide extra weight and hold the brass strip in place.



The underframe (above) has a shim fitted as well as an extra hole in the axle box (construction error). Photos of finished trucks are in the Baldwin and ANGRMS Dioramas sections.

- Test fit the axle boxes and an axle set. Fix (solvent/cement) shims inside the side channels if required and fix (solvent/cement) the axle boxes 4 mm from each end, ensuring they are square to the frame and opposite each other. Leave to set, preferably overnight. The

shims/axle boxes also help hold the brass strip in place.

- Test fit the end channel pieces and couplers. Fix (epoxy) in place and leave to set.
- Lightly file the ends where the stakes will be placed to ensure maximum surface area for gluing. Fix (solvent/cement) in place and leave to set.
- Assemble the winch and fix (solvent/cement) in place in the centre of one end.
- Add a fillet of epoxy to the inside of each stake for added strength and leave to set.
- Paint the model as desired and gently fit the wheelsets in place (the axle boxes will flex enough for the axle points to slide in place provided the solvent fixing them in place has set sufficiently).
- Fix (epoxy) a 150 mm length of thread to the deck, running out between the stakes on the end opposite the winch, and a layer of straw crosswise on the deck. Leave to set.
- Lay a full load of straw on the base layer, wrap the thread around the top of the load and thread under the winch. Fix (epoxy) the thread at the winch and cut off the loose end when set.

The design was inspired by Bob Dow's earlier model and plans (<http://www.ozemail.com/~ozbob>). The styrene shapes and sizes used were selected for strength and appearance, other suitable materials could equally well be used.

