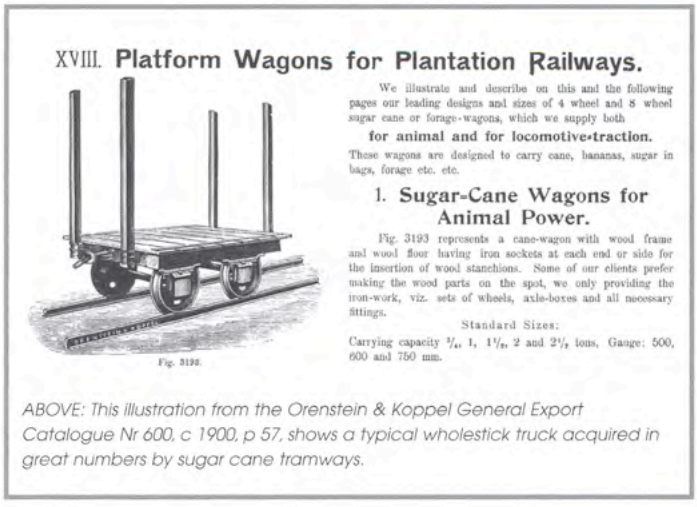
Wholestick Cane Trucks

Lynn Zelmer

Modern mechanical sugar cane harvesters chop the bamboo-like cane stalks into 200-400mm lengths (billets) for ease of handling in a bin, bulk transporter and the mill. Prior to the 1970s, however, harvesting was by hand with the wholestick cane simply cut and topped prior to transport.



XVIII. **Platform Wagons for Plantation Railways.**

Fig. 3193.

We illustrate and describe on this and the following pages our leading designs and sizes of 4 wheel and 8 wheel sugar cane or forage-wagons, which we supply both

for animal and for locomotive-traction.

These wagons are designed to carry cane, bananas, sugar in bags, forage etc. etc.

1. Sugar-Cane Wagons for Animal Power.

Fig. 3193 represents a cane-wagon with wood frame and wood floor having iron sockets at each end or side for the insertion of wood stanchions. Some of our clients prefer making the wood parts on the spot, we only providing the iron-work, viz. sets of wheels, axle-boxes and all necessary fittings.

Standard Sizes:

Carrying capacity ¾, 1, 1½, 2 and 2½ tons, Gauge: 500, 600 and 750 mm.

ABOVE: This illustration from the Orenstein & Koppel General Export Catalogue Nr 600, c 1900, p 57, shows a typical wholestick truck acquired in great numbers by sugar cane tramways.

The earliest wholestick trucks were simply four small wheels under a timber or metal platform, and were pushed along temporary tracks laid into the field. Some trucks carried the cane longitudinally (parallel to the rails), or stacked vertically in hopper-type wagons, but the general pattern in Australia was to load cane crosswise. This meant that the ends of the cane sometimes dragged on the ground, but permitted the use of shorter trucks and sharper curves, with less chance of one truck sweeping another off the poorly laid track.

As the capacity of cane trucks increased, ladders were needed to get the maximum amount of cane onto the truck. Cane cutters would chop a row of cane using a cane knife, laying the cane down so that they could return down the row and top the stalks, then gather the cane into loose bundles, heft them onto their shoulders, walk to a nearby truck, climb up the timber ladder one-handed, and drop the bundle across the load on the truck.

The cane load was secured with a fibre or wire rope, or chain, thrown over the top, hooked and tightened down with a ratchet mechanism. Couplings were generally some form of hook and link and, in Australia and Fiji at least, usually the only brakes were those provided by the locomotive. Braked trucks have been used in Queensland, especially necessary when used with animal power.

Loaded cane trucks would be pushed/pulled out of the field to a nearby permanent line which either ran to the mill or to a punt loading point on the nearby river or creek. Sometimes trucks were unloaded into the punt, but often the truck and its load were simply rolled onto the punt to be floated to another part of the rail system for eventual unloading at the mill.

Almost every mill in Australia seems to have had a slightly different pattern of wholestick truck, some with timber decks and upright timber stanchions, freestanding or braced, and others with metal frames and ends. CSR's initial trucks, for example, were built by Decauville and were of the 'Porto Rico' type using an open-sided iron 'basket'. Their upgraded 'Kidd' type trucks were later copied by a variety of mills and truck suppliers, some with roller bearings and rubber springs.

ABOVE: Moreton Mill's Coolum (Fowler 0-6-0T) with a rake of wholestick trucks at the mill, undated. Photo No 3002 A Sydney, G Hughes Production from the John Browning Collection.

Fortunately for the modeller, wholestick trucks are still in regular service in Fiji and other less-mechanised cane growing countries. Examples of wholestick truck can also be found in several museums around Queensland, and drawings are available for the Moreton Mill truck and others. It's fairly easy to build an oversize, but credible, wholestick HOn30 truck on a 4 wheel HOe or N scale chassis, and accurate models of Moreton Mill trucks are commercially available in On30 (RJ Models) and SM32 (Tootle Engineering).

Acknowledgments and References

Dyer, Peter and Hodge, Peter (1988). Cane Train: The Sugar-cane Railways of Fiji.

Orenstein & Koppel (c 1900). General Export Catalogue Nr 600 of Portable and Permanent Railways, Wagons, Locomotives, etc., Folio 1563/13 in the Central Queensland Archives, Special Collections ex-Mount Morgan Mine.

Additional prototype and model photos, etc., can be found on the CaneSIG web site (http://www.zelmeroz.com/canesig).

Fiji Update: Only wholestick trucks were used during the 2006 crushing season in Fiji, with the cane bins requiring too much maintenance for use. →

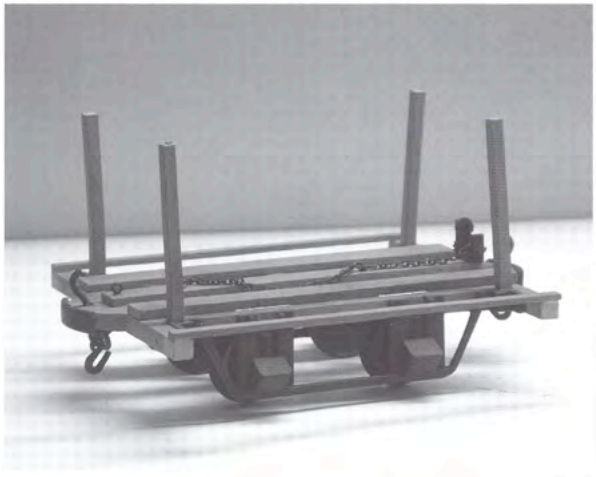
TOP RIGHT: Metal CSR basket-type wholestick truck, presumably from the Childers Mill, on display at the Childers Historical Complex. The timber floor is likely a later addition for safety at the museum. Lynn Zelmer photo, 2006.

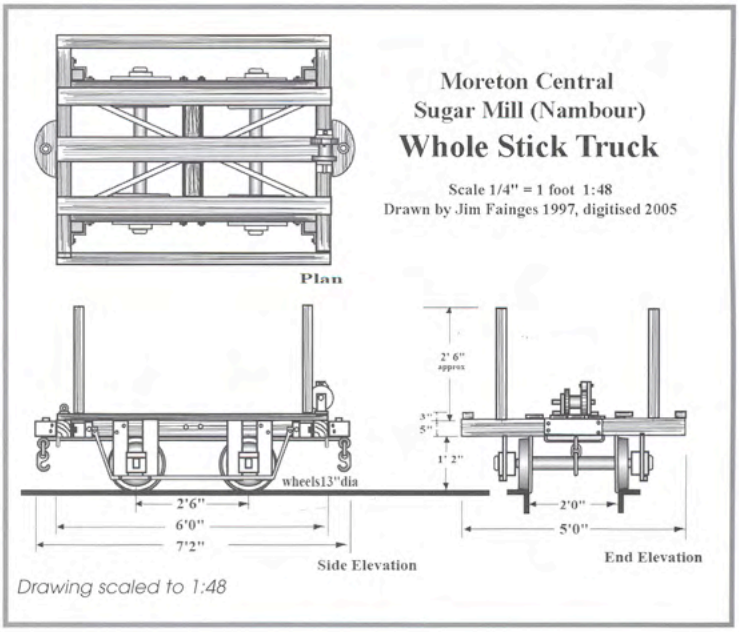
BOTTOM RIGHT: Somewhat battered but clearly showing the frame construction and wire rope winch, this modern CSR-type metal frame wholestick truck was photographed in Fiji, 2006. John Browning photo.

BELOW: Still in use: wholestick cane truck at Yako, Fiji. Ian Dunn photo, December 2004.

ABOVE: Wholestick trucks being transported on a river barge near Dunethin Rock in the 1920s.
Image from the 'Sugar Transport' collection, courtesy of State Library of Queensland (Image ref: 72131).

BELOW: Moreton Mill type wholestick truck in SM32 (16mm = 1') from Tootle Engineering using a combination of metal castings and timber planks. The RJ Models wholestick truck (On30, 1:48) has the same prototype and is an all metal model, making it heavy enough for good operation either empty or loaded.





Drawing scaled to 1:48