



## Portable Track

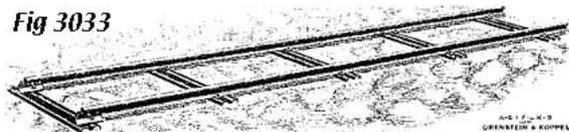


While early cane fields were usually located near the mill, there was still a need to economically and quickly move the harvested cane to the mill. For the early mills this was typically done by horse-power, either using drays or a tramway. Isis Mill, for example, operated their tramway from 1897 until 1900 without a locomotive.

A typical tramway had both permanent and temporary components, the latter using portable track sections laid right into the cane fields as the harvest progressed. Operation on the portable track usually remained horse-drawn or human-pushed long after small steam locomotives became the norm on the more permanent way.

Portable railways are these, of which the rails and sleepers are fitted to ladder-like frames, the comparatively small weight and easy joints of which will permit their being laid down and taken up again at any time, quickly and without skilled labour (O&K General Export Catalogue Nr 600, c 1900, p 9).

Fig 3033

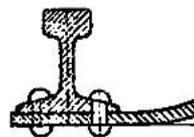


Both overseas and local suppliers provided portable track components, leading to a wide variety of types and sizes. The notes here are based on CSR practice in Australia and Fiji as indicated by drawings from roughly 1940-1965, British Standards extracted by a model supplier, and a German manufacturer's catalogue c 1900 for purchase through a Sydney agent.

**CSR BHP 14 lb Track Section:** The locally manufactured CSR portable straight section illustrated at the top of this page is 16' 6" long overall with riveted dished metal sleepers that do not extend far beyond the rail. A sole plate is fixed on diagonally opposite rails on each end to slip under the mating rail, the other rail has pair of riveted fish plates and a packing strip to fit into the web of the mating rail for a bolt connection. Similar portable sections were constructed with welded sleepers.

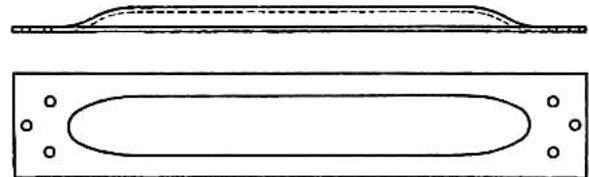
CSR standard curved sections were constructed similarly as 1/4, 1/2, 3/4 and full curves. The outer rail for a full curve is 16' 5" long, the inner rail is 15' 2 1/4" and they are riveted or welded to six dished metal sleepers.

**CSR Dished Sleepers** (below) for standard BHP 14 lb per yard rail were cold pressed from 2' 3 3/16" x 5" x 1/4" carbon steel flats to 1" inverted



dish shape and punched for rivet holes. The sleepers extend only slightly beyond the rail base (see section left) and depend upon the

structural strength of the dish to maintain the gauge and the inverted shape to avoid sinking into soft soil.



**Turnouts and Inclined Planes:** Portable track components included turnouts, crossings, etc., in lengths and radii to match standard straight and curved sections. As well, there were a variety of commercial and homemade components to move from the permanent way to the portable network.



The inclined plane above is one end of a curved section (see also the Orenstein & Koppel illustration on the next page) and slips over a straight section to allow a wagon to be pushed up and over onto the temporary track—usually by man or horse power.

**British Standard:** Robert Hudson of Leeds was the major British manufacturer of rigid portable track systems.

This comprised pressed metal sleepers bolted to short lengths of rail. In its lightest form the panels of portable track were easily picked up by one man and relaid to suit. These light tracks were only suitable for wagons pushed by men or drawn by horses. Later, when small locomotives were introduced and loads became larger, a more robust form of semi-portable track was devised. This retained the fixed geometry and moveable nature of the earlier product but was stronger and heavier (Roy C Link, *Industrial Narrow Gauge Catalogue and Handbook*, c 1994, p T2).

Link indicates the 1946 Standard specified 15' and 18' straight lengths with five and six sleepers respectively for the heavier type. Type 1 curves had a radius of 13' 3" and came in 22.5 and 45 degree sections, Type 2 had a 37' radius for 22.5 degrees, while Type 3 had a 65' radius for 11.25 degrees. Turnouts were available for all three types/radius and sleepers for the 14 or 20 lb rail used were either plain or corrugated pressings.

**Wagons and Use:** The wagons used on the early portable systems were little different from those on mining, sewage and construction tramways. Human- or horse-drawn, they were light weight with a 3/4 to 2 1/2 ton capacity. The cane cutters cut and topped the cane, then laid it into rows before lifting bundles of cane stalk to their shoulders and loading the trucks for transport to the mill.

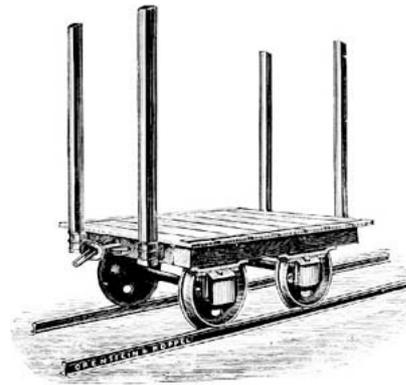
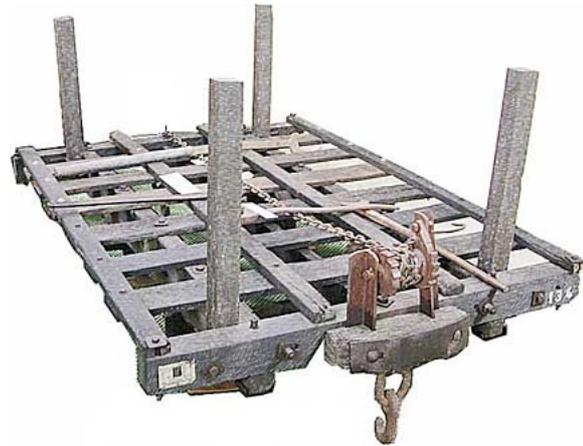


Fig. 3198.



Orenstein & Koppel man-powered cane truck c 1900 (top) and a Fairymead Mill 3-4 ton locomotive-hauled truck c 1950 (above).

**Other Resources:** A number of films and videos show Qld cane cutters at work with temporary tracks laid in the fields. Still photos are available from the John Oxley Library (Brisbane) and the CSR collection at the Butlin Archives (Canberra).

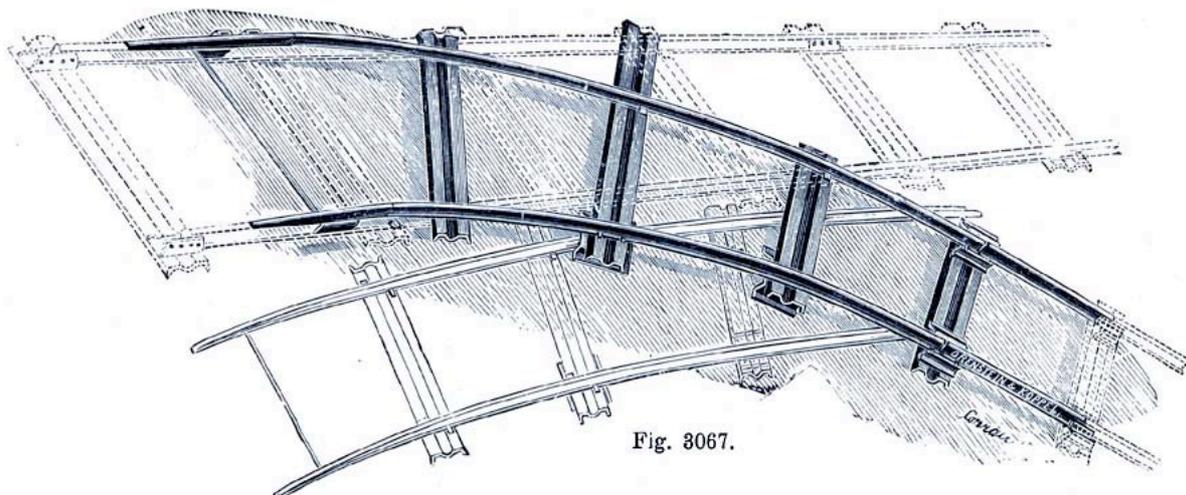


Fig. 3067.

This illustration shows one of the advantages of portable track systems, the ability to quickly change the rail network. [Orenstein & Koppel's *General Export Catalogue Nr 600 of Portable and Permanent Railways, Wagons, Locomotives, etc.*, c 1900, p. 26.]

The inclined ramp clips over the permanent way track to access temporary track laid in the cane fields. This unit is 'adjustable' and could apparently be easily swung from the 'in use' position to the shaded position beside the track for normal operation on the through track.