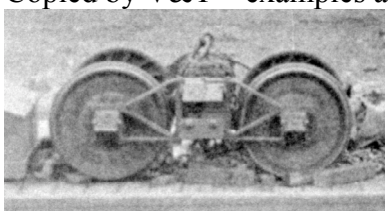
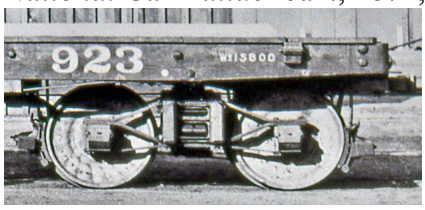
Survey of 19th Century Central Pacific Freight Trucks

Kyle K. Wyatt April 8, 2008

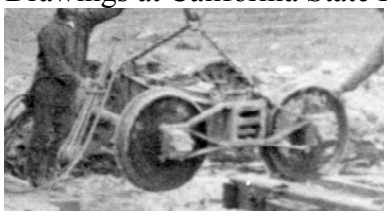
1. **1860s CP truck design**
   Copied by V&T – examples at Nevada State Railroad Museum



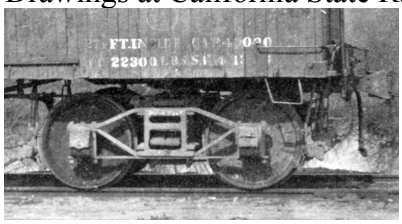
2. **Early 1870s CP design under license**
   Copied by V&T – examples at Nevada State Railroad Museum
   Drawings at California State Railroad Museum on V&T flatcar drawing
   Patented by Charles F. Allen, California Truck:
   4-wheel; April 24, 1866, pat #54,085
   8-wheel; June 18, 1867, pat #65,788
   6-wheel; May 12, 1868, pat #77,858
   White – Freight Car book, pg. 453, also pg. 199, fig. 3.10
   National Car Builder Jan., 1874, pp 5 and xi



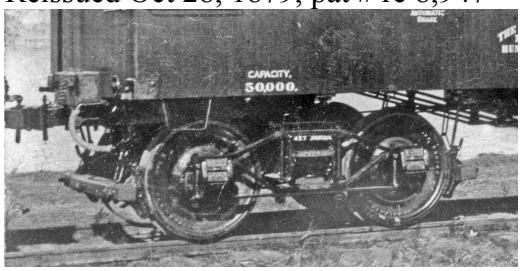
3. **Thielsen Trucks**
   Patented June 1, 1869, Pat. #90,795
   a. **Light Thielsen (15-ton) CP design under license, late 1870s**
      No known surviving examples
      Drawings at California State Railroad Museum

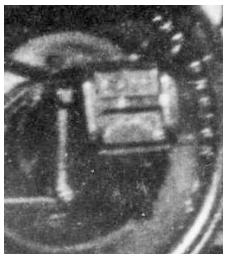


   b. **Heavy Thelsen (20-ton) CP design under license, 1880s**
      Example under California Western caboose at Roots of Motive Power, Willits
      Drawings at California State Railroad Museum



4. **Hewitt Journal Box and Lid**
   Patented June 19, 1877, pat #192,199
   Reissued Oct 28, 1879, pat # re 8,947





5. **CPRR 1890s truck**
   Example at California State Railroad Museum
   Similar to Cleveland Truck (1860s), but not the same
      Truss on bolster tied in at slightly different location
      White – Freight Car book, pg. 452

SP Transition from Thielsen to Rigid Trucks

In an 1891 interview with H. J. Small, he said he did the tests on trucks after he arrived. He started work in the Summer of 1888. So at a guess, late 1888- early 1889 for the tests. Seems to me I've seen photos of some SP cars with 1889 builders' dates that have rigid trucks.

Here is the quote:
The Locomotive Engineer, July 1891, pp132-33
". . . . (Small assessing what he found when he arrived at Sacramento - keeping the good and discarding the bad . . .)
RIGID vs. SWING TRUCKS
For instance, the question of the relative values of rigid or swing trucks, for freight cars, has so many advocates on each side that it is hard to come to a decision. Mr. Small took ten cars, each with rigid and swing trucks, and took them to a crooked and hilly section of the road, and experimented with them, light and loaded, under every conceivable condition, and proved by the dynamometer that rigid trucks not only curved easier, and wore their flanges less, but pulled easier than swing trucks. He proved that the main trouble from rigid trucks come from neglect of the side bearings. Rigid trucks can be built for a third less than swing trucks. The repairs are much less, and the truck is far stronger and safer; but many railroad officers think they can't be used safely on crooked track. All their new cars will have rigid trucks.
. . . . "

Interesting note -
SP spray painting freight cars
National Car Builder May 1882, pg. 59
White, pg. 236

Courtesy of Kyle K. Wyatt, CSRM