

Car-Coupling.

Patented July 22, 1879.

[illegible]

WITNESSES:
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IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **217,757**, dated July 22, 1879; application filed February 25, 1879.

To all whom it may concern.

Be it known that we, SETH S. WATROUS and WILLIAM GERBER, of Fremont Centre, in the county of Newaygo and State of Michigan, have invented a new and Improved Car-Coupler, of which the following is a specification.

Figure 1 is a plan, partly in section, of the draw-head and couplers. Fig. 2 is a side elevation. Fig. 3 is a view of the under side of the draw-head.

Similar letters of reference indicate corresponding parts.

The invention is an improvement in the class of coupling devices which consist of pivoted hooks.

The improvement consists in the arrangement of the coupling bars or hooks we employ, as hereinafter described and claimed.

The hooks or coupling-bars A A are pivoted in different but parallel planes on bolts *a' a'*, that pass vertically through the draw-head B. Thus when the hooks are brought together by springs C C one lies above the other, as shown in Figs. 1 and 2. This adapts them to engage or lock with other similarly-arranged hooks of another draw-head.

The hooks are opened, Fig. 3, by dogs or cams E, fixed on pin *b'*, to whose lower end a lever-arm, F, is attached, as shown.

In coupling, the bars are forced apart, as shown in Fig. 3, by the coupling-bars of the opposite car, and at once resume the position shown in Fig. 1, locking with the ends of the opposite bars through influence of the springs C C.

To uncouple, the dogs E E are turned against the inner ends of the bars by the lever F, as shown in Fig. 3, so that the hooked ends are thrown apart and the engaging-bars of the opposite car released.

These levers may be worked and the cars uncoupled from either side, or from the top of the car, by simple rod-connections.

The draw-head is provided with holes *d' d'* for pins when the pin-and-link coupling is used, as may be the case when the one car is provided with this coupling while the other is not. That it may have an upward and downward motion, be raised or lowered, the draw-head is hinged, as shown at G, to the draw-bar H, and is provided with a hook or staple, I, in its upper face, by which it may be raised by means of rod, lever, chain, or rope. This adjustment is necessary at times when one draw-head is lower or higher than another; but the draw-head may be constructed advantageously without the hinge, as shown at G.

One cam E is arranged to act on the upper hook, and the other cam E on the lower hook, so that when the pin *b'* is rotated the cams act in opposite directions and press the arms A A apart.

We do not claim a cam arranged to act simultaneously on two opposite pivoted hooks within a draw-head; but

What we do claim is—

The combination of the two cams E E, projecting in opposite directions, and the pin *b'*, on which the same are fixed, with the coupling-hooks A A, pivoted within the draw-head on vertical pins *a'*, but in different horizontal planes, and the arm F, fixed on the pin *b'*, all as shown and described, for the purpose specified.

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Witnesses:

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