

J. Q. A. & J. D. YOUNG.
Car-Coupling.

No. 166,327.

Patented Aug. 3, 1875.

Fig: 1.

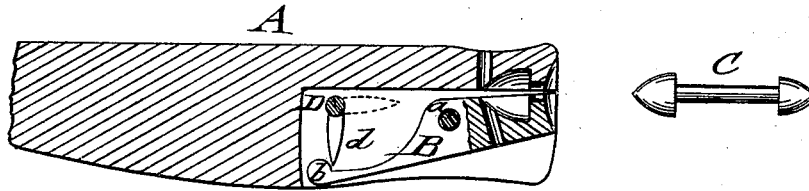


Fig: 2.

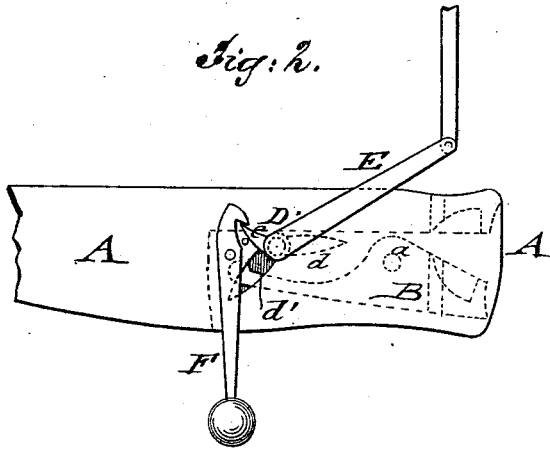
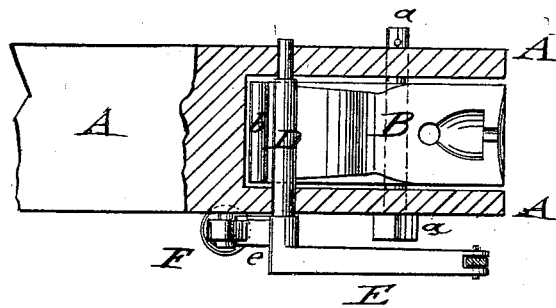


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN Q. A. YOUNG AND JAMES D. YOUNG, OF CEDAR MILL, OREGON.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **166,327**, dated August 3, 1875; application filed April 9, 1875.

To all whom it may concern:

Be it known that we, JOHN Q. A. YOUNG and JAMES D. YOUNG, of Cedar Mill, in the county of Washington and State of Oregon, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of our improved car-coupling; Fig. 2, a side view, and Fig. 3 a top view, of the lower pivoted jaw with upper part of draw-head cut off.

Similar letters of reference indicate corresponding parts.

Our invention relates to improvements on the car-coupling of H. E. Smith, patented August 25, 1874, and numbered 154,423, by which the operation and construction of the same are greatly simplified.

The invention consists of a bottom-recessed draw-head, with jaw-shaped front end, and of an interior horizontally-pivoted lower jaw, that lock the enlarged head of the coupling-pin. A cam on the lateral shaft of the uncoupling-lever binds on a rear swell of the lower jaw, for securely locking the coupling-link, the shaft and cam being introduced to the cavity of the draw-head by a corresponding side slot.

In the drawing, A represents a draw-head, constructed with a recess or cavity at its front part—that is, open at the bottom part—and provided with side walls for applying the swinging lower jaw B therein. The front end of draw-head A and jaw B are recessed for the enlarged conical head of the coupling-link C, the jaw end of the draw-head being especially designed to dispense with the upper swinging jaw of Smith's coupling, and make the draw-head take its place for locking the coupling-link. The direct action of the lower front-weighted jaw B and the jaw-shaped end of the draw-head makes the coupling less complicated, less heavy, and more durable, allowing one jaw to perform the opening, and to produce thereby more readily the release of

the coupling-link in the act of uncoupling. The lower jaw B is fulcrumed to a lateral horizontal cross-pin, *a*, and provided at the end of the rear extending part with a cam-shaped swell, *b*, against which a lug or cam, *d*, of the lateral shaft D is carried for binding thereon and locking the jaw on the head of the link. The lateral shaft D is connected by an outer lever-arm, E, with suitable uncoupling mechanism, so that on raising the lever-arm the cam releases the swell of the lower jaw and uncouples the link. A slot, *d'*, of one of the side walls of draw-head A, of about the size of the cam *d*, admits the introduction of shaft and cam to their position inside of the draw-head. An outer lug, *e*, of shaft D, in connection with a pivoted weighted lever-hook, F, retains the cam shaft and lever-arm in uncoupled position, and drops the same as soon as, by the concussion of the draw-heads, the hook connection is interrupted. The downward-turning cam carries thereby the rear part of the lower jaw down, and locks, by the upward motion of the front end, the link securely in position to couple the cars. The release of the cam from the rear part of the jaw causes, by the heavier front part, the instant dropping of the same and the uncoupling of the cars. A pin-hole of the draw-head and jaw admits also the use of the same with the common pin-and-link coupling.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The draw-head A, provided with recessed jaw-shaped front end, in combination with the swinging front-weighted jaw B, cam *d* of the lateral shaft D, and the conically-headed coupling-link C, for coupling and uncoupling the link by the action of the cam, substantially as and for the purpose set forth.

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Witnesses:

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