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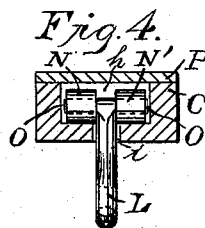
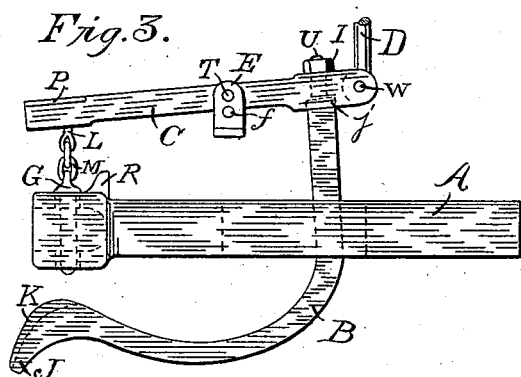
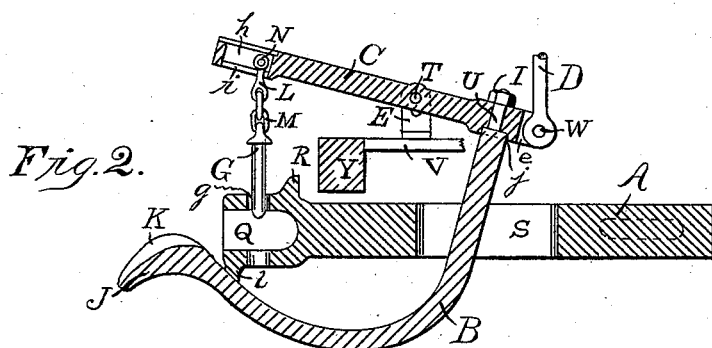
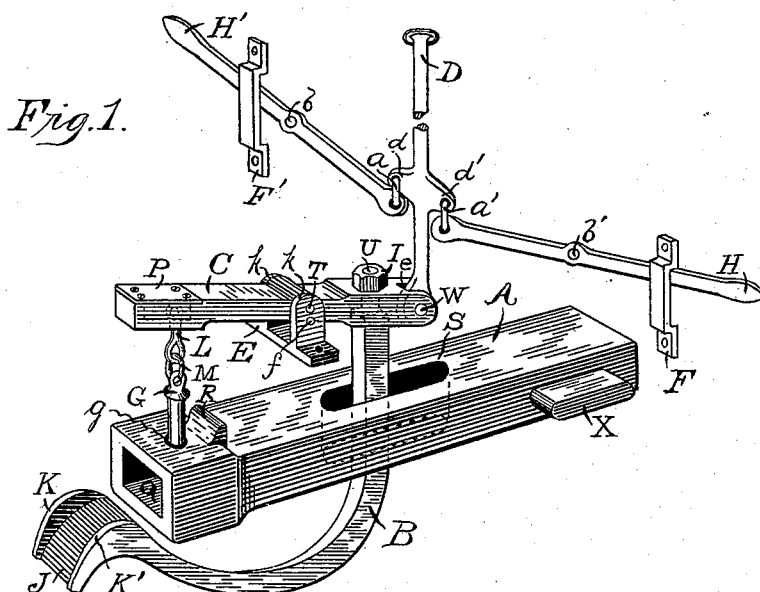
J. TEBO & A. PAQUIN.

2 Sheets—Sheet 1.

CAR COUPLING.

No. 490,838.

Patented Jan. 31, 1893.



Witnesses:

O. H. Kean.

Arch. M. Catlin

Joseph Lebo,
Asarios. Paquin.

by Benj. R. Gordin, Attorney

(No Model.)

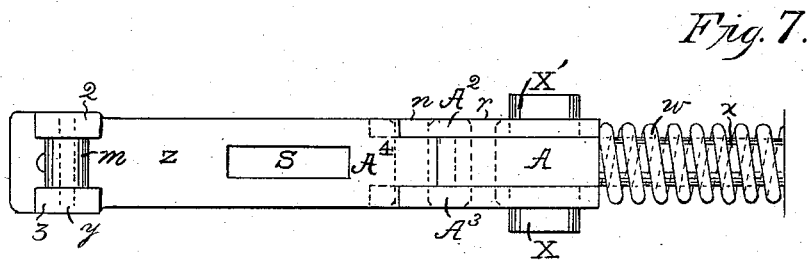
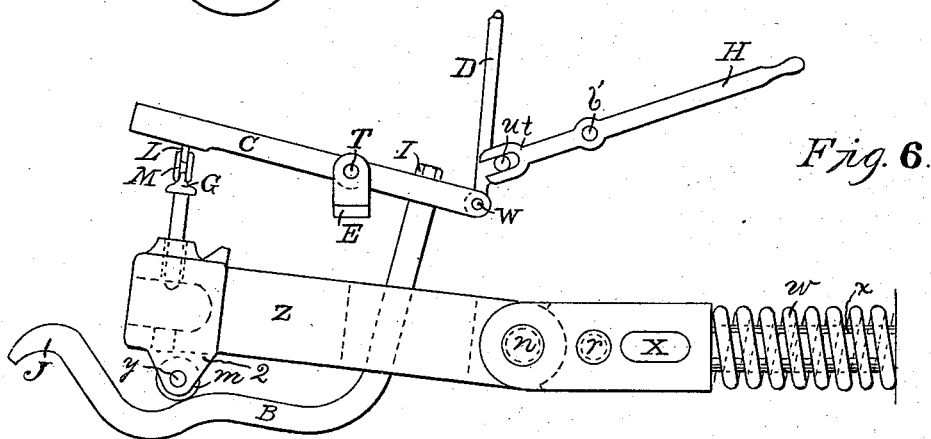
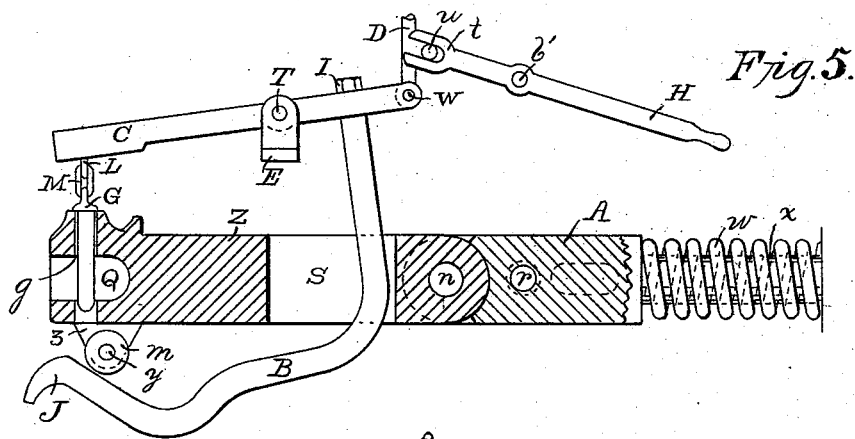
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2 Sheets—Sheet 2.

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Inventors

Joseph Tebo

Asarico Paquin

per

Reu. R. Lathin, Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH TEBO AND ASARIOS PAQUIN, OF CLAREMONT, NEW HAMPSHIRE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 490,838, dated January 31, 1893.

Application filed April 13, 1892. Serial No. 428,996. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH TEBO and ASARIOS PAQUIN, of Claremont, in the county of Sullivan and State of New Hampshire, have
5 invented certain new and useful Improvements in Car-Couplers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it
10 pertains to make and use the same.

The invention relates to car couplers of the link and pin variety and its object is to increase the efficiency and safety of operation in such devices without undue complexity
15 and expense of construction; and it consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawings: Figure 1 is a perspective of coupling devices; Fig. 2 is a longitudinal section of the same, the car platform being indicated; Fig. 3 is a side elevation; Fig. 4 is a section of a detail on an enlarged scale; Fig. 5 is a central longitudinal section of the coupler showing modifications
25 of certain parts and additional improvements; Fig. 6 is a side elevation of the same the pin being represented as raised and other parts in corresponding position; and Fig. 7 is a bottom plan, the link guide being omitted.

Reference letter Y, (Fig. 2) indicates a bumper, and V a platform of a car.

E denotes a bracket or plate provided with two short uprights or posts K, between which a pin supporting lever C is pivotally supported on a pin or fulcrum T.

f indicates one of an extra pair of holes in which the pin T may be placed when desired.

In the front end of lever C a coupling pin G is supported by means of friction rollers N, N', on short axes O, O' which constitutes the head of a T shaped link that is loosely connected to the pin by a ring M. The friction rollers are adapted to move in a recess h covered by a detachable plate P. In the
45 floor of the recess is a slot i through which the link L extends and is adapted to move lengthwise of the lever. Before the plate P is applied the link L may be inserted through the said slot from below and its head pushed

above the lever so that the friction rollers 50 may be slipped onto said head, whereupon they are dropped into the recess and the covering plate secured in proper position.

At the rear end of lever C a link supporter and guide is detachably secured by means 55 of a nut, I, screwing upon its threaded end U, the shoulder j on the link guides is preferably let into the enlarged end of lever C as indicated. In the slotted end e of lever C is secured an operating rod D by means of a 60 pivot W. To each side of said rod D, at d', (or d) is loosely secured a lever H (or H') by means of a link a' (or a). These levers have their fulcrums at b and b' respectively.

F and F' indicate retaining brackets, adapted 65 to be secured to the car, (not shown).

The link guide B extends down through a slot S, in the draw-bar A and is curved forwardly and upwardly as indicated and at its front end is provided with a curved or inclined face J situated between two cheeks or side walls K, K'.

l indicates a guiding lip and Q the mouth of the draw-head and g the hole for the coupling pin.

R is a boss or anti-bumper adapted to strike 75 the beam or bumper Y.

X, X' indicate draw-bar pins.

The several parts of the coupler remain in whatever position they are automatically 80 made to assume. As illustrated in Figs. 1 and 2 they are in position for coupling the coupled position being indicated in Fig. 3. It will of course be understood that in use similar opposing coupling devices which are not 85 shown are employed, except that on the opposite side a link embraces a pin like G and is sustained in approximately horizontal position by a link guide B, which latter by means of the handle levers can be made to raise 90 or lower.

In the form of the device shown in Figs. 5, 6 and 7, m indicates a friction roller for the link guide. This roller is pivoted in the brackets 2 and 3 depending from the draw-head and y denotes the pivot. The free end of the link guide is curved to properly pass under the roller and bear against the same.

The pin G is supported from the lever C by means of a link M and a screw bolt or staple L.

H denotes a coupling lever having a fulcrum at b' and provided with a forked end t arranged to embrace the pin u on the vertical bar D. The draw bar consists of two sections connected by a hinge joint composed of the interlapping parts A^2 , A^3 and A^4 through which passes the hinge pivot n . The parts A^2 and A^3 are held upon A by the bolt r . x is a part of A made round to receive the spring W as shown. By means of this hinge joint and the operating lever H the draw-head or its front section z can be raised and lowered as required in coupling draw-heads differing materially in elevation. In such operation the link guide raises the draw-bar by bearing against roller m though it is evident that it would operate without such roller.

Having thus described our invention what we claim is:

1. In a car coupler the combination of the draw-bar, the pin supporting lever, the coupling pin and the link guide, said guide and lever being joined and the latter having a recess in its end and a slot in the bottom of the same and the pin having a connecting device or link with a head situated in said recess; substantially as set forth.

2. In a car coupler the combination of the car platform having a bracket provided with posts, the pin supporting lever pivotally supported between said posts, the pin loosely supported in the end of the lever, a handle lever pivoted to the opposite end of the first named lever and the link guide fixed to said link supporting lever; substantially as set forth.

3. In a car coupler the combination of the draw-bar, the pivoted pin supporting lever having a recess and the pin having a link or like device provided with friction rollers, the link and rollers being adapted to automatically move in the recess; substantially as set forth.

4. In a car coupler the combination of a pin, a pivoted supporting lever, a link guide

and a draw-bar, said pin and its suspending devices being movable lengthwise of the lever; substantially as set forth.

5. The combination of a draw-bar, pin, pin supporting lever, link, guide and handle lever, the pin lever and guide being directly movable by the handle lever; substantially as set forth.

6. The combination of a draw-head, a link guide having a movable support and a handle or lever connected directly to said support; substantially as set forth.

7. The combination of the link guide, the slotted draw-bar, the pivoted lever C and the pin supported by said lever; all substantially as set forth, whereby the movement of the lever to raise or lower the pin moves the link guide into and out of operative position.

8. The combination of the link guide, the friction roller, the slotted draw-bar, the pivoted lever C and the pin supported by said lever; substantially as set forth, whereby the movement of the lever to raise or lower the pin moves the link guide into and out of operative position.

9. The combination of the link guide, the slotted draw-bar, having a hinge joint, the pivoted lever C and the pin supported by said lever; all substantially as set forth, whereby the movement of the lever to raise or lower the pin moves the link guide into and out of operative position.

10. A draw-head combined with mechanism for raising and lowering it to adapt it to couple with draw-heads of different heights, and with a link guide, said mechanism being adapted to act directly upon the link guide and mediately upon the draw-head; substantially as set forth.

In testimony whereof we have signed this specification in the presence of three subscribing witnesses.

JOSEPH TEBO.
ASARIOS PAQUIN.

Witnesses:

WM. DOIRON,
EDMUND PRUDHOME,
BURT CHELLIS.