(No Model.)

C. A. BOND.

CAR COUPLING.

No. 385,994. Patented July 10, 1888.

Fig. 1.

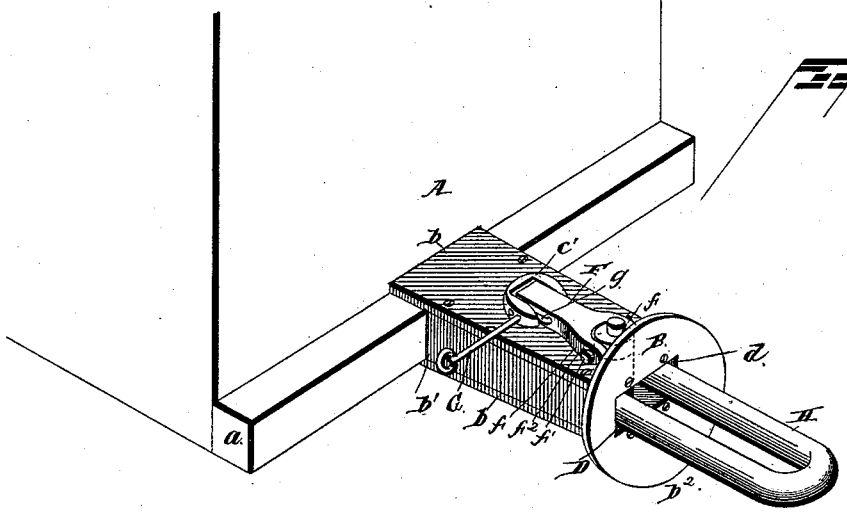
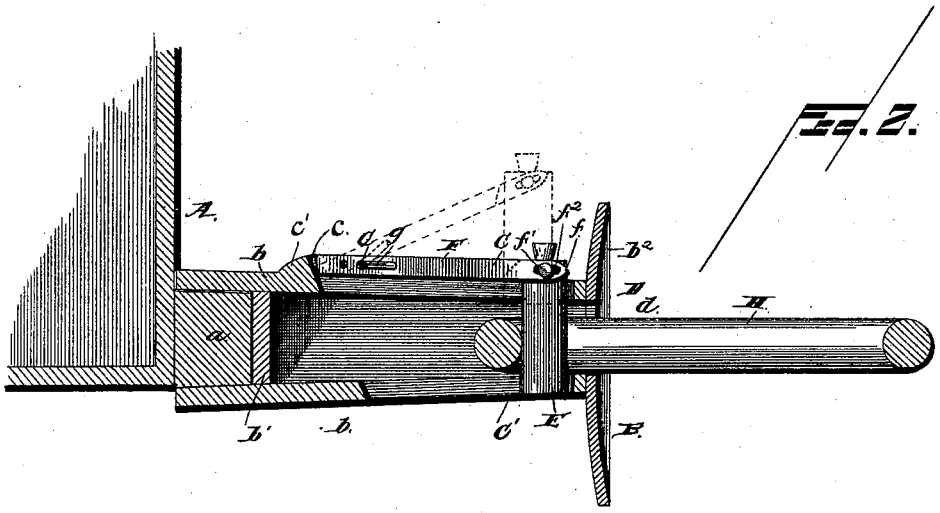


Fig. 2.



Witnesses.
Geo. P. Hoyt.
Theodore S. West.

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Catherine A. Bond.
By her Attorneys.
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CATHERINE ANN BOND, OF SENECA, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,994, dated July 10, 1888.

Application filed April 30, 1888. Serial No. 272,255. (No model.)

To all whom it may concern:

Be it known that I, CATHERINE ANN BOND, a citizen of the United States, residing at Seneca, in the county of Ontario and State of New York, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

The invention relates to improvements in car-couplers; and it consists in the construction and novel combination of parts, hereinafter described, illustrated in the accompanying drawings, and pointed out in the appended claim.

Figure 1 of the drawings is a perspective view of the end of a car having a coupler embodying my invention attached. Fig. 2 is a central vertical longitudinal section thereof.

Referring to the drawings by letter, A designates the end of a car, and *a* the draw-bar thereof.

B is the draw-head attached, by means of its upper and lower plates, *b b*, to the draw-bar, the said plates being secured, respectively, above and below to said bar, which abuts against the transverse end plate, *b'*, of the draw-head. The said upper and lower plates converge toward the circular outer end plate, b^2, which is made slightly concave on its face to direct the link.

C C' are respectively the upper and lower pin-openings, which are longitudinal registering-slots in the plates *b*, and have their outer ends adjacent to the end plate, b^2, rounded for the side of the pin, hereinafter described, to rest against. The rear end, *c*, of the upper pin-slot, C, is beveled downward and forward and extends into the boss *c'*, rising from the upper surface of the draw-head.

D is the recess of the draw-head opening transversely in the center of the end plate, b^2, through the rectangular slot *d*, which is but slightly wider than the link.

E is the cylindrical coupling-pin depending through the outer or front end of the slot C and into that of the slot C'. The said pin, near its upper end, is pivoted to and between the arms *f* of the bifurcated outer end of the lever-arm F upon a pin, *f'*, that passes through the opposite longitudinally-elongated openings, f^2, in said arms, the said pivotal pin being retained in place by a transverse key that passes through a suitable opening in the end of the pin opposite the head thereof, as shown. The rear end of the arm is similarly pivoted upon a pin passing through openings in the side portions of the boss *c'*, and is beveled downward and outward to correspond to the bevel of the adjacent rear end of the slot C, near which the rear end of the said arm stands, the distance between the two being just sufficient to permit the rear end of the arm to impinge on the rear end of the slot and stop the upward motion of the arm when the coupling-pin has been raised to a proper height to clear the link. Thus the free end of said pin is prevented from leaving the draw-head.

G is a transverse operating-arm extending to the outer side of the adjacent car and having a suitable handle on its outer end. The said arm is pivoted in the adjacent lateral portion of the boss *c'*, and has on its inner end a crank, *g*, the end of which is bent inward and secured in the side of the arm F a suitable distance outward from the pivotal pin of the rear end of said arm. The brakeman can, by rotating said arm G from the outer side of the cars, lift the arm F, and thereby the coupling-pin, disengaging the latter from the link H. The link in entering swings inward the coupling-pin, which falls within it when its end has passed sufficiently far inward. When the link pulls outward on the coupling-pin, the elongated pivotal openings f^2 permit the latter to be moved slightly outward, so that it will rest vertically upon the outer rounded ends of the slots C C'. The pull of the link is thus rendered at right angles to the coupling-pin, and the strain is taken off the pivotal pin *f'*, which is comparatively small and might be broken, the coupling-pin standing against the ends of the slots, as if it were free at its ends and were held in place by the pull of the link.

Having described my invention, I claim—

The improved car-coupling comprising the draw-head having the longitudinal slots C C' in its upper and lower sides, and the boss *c'* on its upper side at the rear end of the slot C, the said boss having its front side beveled downwardly and outwardly, the lever-arm having its rear end pivoted in said boss and similarly beveled, and having its front end bifurcated and provided with the slots f^2 in the arms of

the bifurcations, the coupling-pin arranged in the slots C C′ and having its upper end projecting through the bifurcation of the lever-arm, the pivot-pin f', inserted through the slots f^2 and the coupling-pin, and the arm G, journaled in the boss c', and having the crank-arm g, secured to the lever-arm in advance of its pivot, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CATHERINE ANN BOND.

Witnesses:
EDGAR PARKER,
FRED T. BOND.