

(No Model.)

J. C. MOWRY.

CAR COUPLING.

No. 343,722.

Patented June 15, 1886.

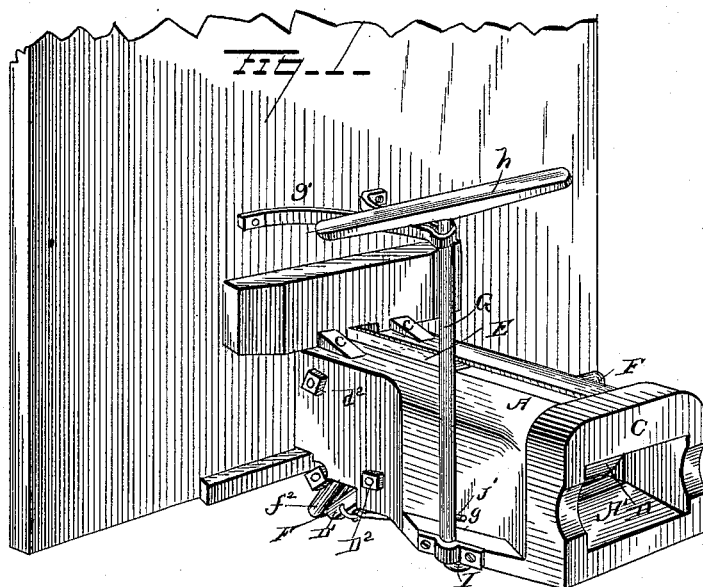


Fig. 2 -

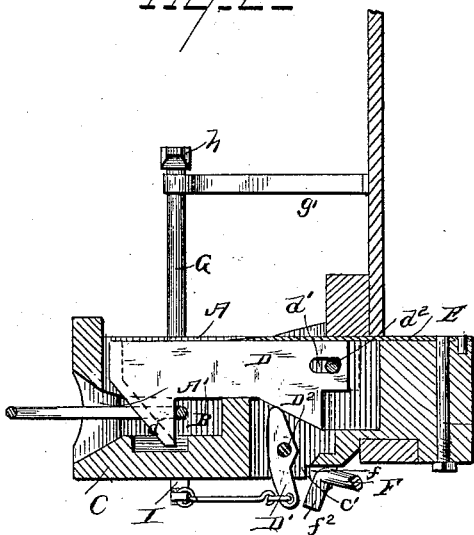
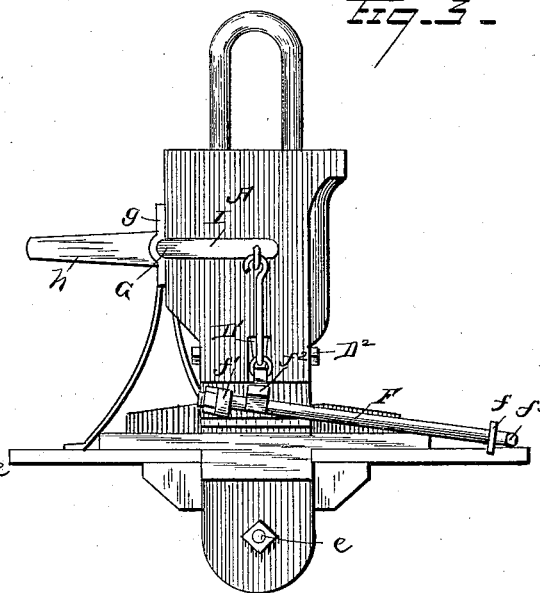


Fig. 3 -



Witnesses

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Inventor

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UNITED STATES PATENT OFFICE.

JACOB C. MOWRY, OF RISING SUN, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 343,722, dated June 15, 1886.

Application filed April 24, 1886. Serial No. 200,019. (No model.)

To all whom it may concern:

Be it known that I, JACOB C. MOWRY, a citizen of the United States, residing at Rising Sun, in the county of Wood and State of Ohio, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to an improved car-coupling; and it consists of the novel construction and arrangement and peculiar combination of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a car-coupling embodying my invention. Fig. 2 is a vertical central sectional view through the device. Fig. 3 is a bottom plan view of my invention.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the draw-head, which is secured to the car-body in the ordinary well-known manner, and provided with the link-chamber A', which is of the ordinary class. The draw-head is provided with a longitudinal slot, B, that opens into the chamber A' and terminates a short distance from the front thereof, to provide a solid front or cap, C, to the draw-head; and the draw-head is further provided near its rear end with integral abutting flanges c, that bear against the car-body, and in the lower wall of its chamber with a short longitudinal slot, c'.

D designates a coupling bar or hook, which is arranged in the slot B, and is free to move longitudinally therein for a limited distance. The upper edges of the draw-bar lie flush with or little below the upper edges of the slot in the draw-head, and at its front edge it is provided with a depending hook, d, which is preferably curved or inclined, so as to permit a coupling-link of an approaching draw-head to enter. The rear end of the draw-bar or hook has a transversely-arranged longitudinal slot, d', through which passes a pivot or bolt, d'', that is also passed through and detachably secured in the draw-head, and the draw-bar is elevated by an oscillating arm or lug, D', that is journaled on a pin, D², and depends from and projects through the slot c' of the draw-head, so as to be acted on by the devices for elevat-

ing the hook-shaped end of the draw-bar to release the coupling-link. The free hook-shaped end of the draw-bar is normally depressed and arranged in the path of an approaching coupling-link by means of a spring, E, one end of which bears on the coupling-bar, and the other end is secured to a transverse pin or bolt, e, that passes through the draw-head, to detachably secure or connect the spring thereto.

The coupling-hook or draw-bar D can be elevated from the side of the car without requiring the brakeman to pass between the cars by means of a horizontal rock-shaft, F, that is journaled in suitable bearings, f f', and carries an arm or leg, f², at its inner end, that is adapted to impinge against the arm D, that elevates the draw-bar when the rock-shaft is turned by manipulating the handle or crank f³ at the outer end thereof, the journal or bearing f' being secured to the draw-head to support the inner end of the shaft, and the bearing f secured to and depending from the car-body at the outer side thereof to support the outer end of the shaft.

G designates a vertical rod which extends to the top or roof of the car-body to operate or elevate the free hook-shaped end of the draw-bar from the roof, and this rod is journaled in suitable bearings, g g', secured to the draw-head and car-body. The upper end of the rod is provided with a handle or band-wheel, h, to be grasped and turned by hand, and the lower end of the rod is provided with a right-angled crank, I, that has pivoted to its free end a link, i, which in turn is pivoted to the free end of the arm D', to elevate the draw-bar.

This being the construction of my invention, the operation thereof is as follows: When the coupling-link of an approaching car enters the draw-head and strikes the inclined or curved edge of the draw-bar hook d, the latter is elevated against the tension of the pressure-spring and is forced rearwardly for a limited distance, thus permitting the link to pass beneath the hook and engage the hook d, thus automatically coupling the cars. The impact of the coupling-link on the draw-bar forces it rearwardly, as above mentioned, to reduce the shock on the parts of the draw-head, and when the cars are started or in motion the link draws the coupling-bar forward, and the front end thereof

engages with the cap C, thus providing an increased bearing-surface therefor. To uncouple the cars, the rock-shaft or vertical rod G is operated by hand from the side or roof of the car-body to elevate the upper end of the oscillating arm D', and consequently the hook-shaped end of the coupling-bar, whereby the hook *d* is drawn from engagement with the link, and the latter can then be easily withdrawn from the draw-head. It will thus be seen that I provide an improved coupling which will automatically couple the cars and can be operated to uncouple the cars from either the side or roof of the same, thus providing means which does not require the brakeman to endanger his life in passing between the cars to couple or uncouple them. The rod G has a projecting pin, *j*, that bears against the draw-head to limit the rotation thereof.

In lieu of supporting one end of the spring on a pin or bolt and having its opposite end bear on the draw-bar, the spring can be rigidly secured to and carried by the coupling-bar and bear on the draw-head or other device at its opposite end to normally depress the hook-shaped end of the draw-bar in the path of an approaching link.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

As an improvement in car-couplings, a draw-head having the longitudinal slots in its upper and lower walls and a solid cap, C, at the front thereof, in combination with a slotted coupling-hook pivoted in the draw-head and capable of a limited longitudinal movement therein, a spring, E, for normally depressing the hook-shaped end of the coupling-hook in the path of an approaching link, a swinging rocking arm, D', journaled in the slot *c* of the draw-head and bearing against the coupling-hook in front of the pivot thereof, a horizontal rock-shaft, F, having an arm, *f*², at its inner end for acting on the arm D', a vertical rod, G, carrying a right angled arm, I, at its lower end, and a projecting pin, *j*, that is adapted to abut against the draw-head and limit the rotation of the said rod G in one direction, and a link intermediate of the arms I and D', all arranged and combined substantially as described.

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

JACOB C. MOWRY.

Witnesses:

THAD C. BLESSING,
C. T. BLESSING.