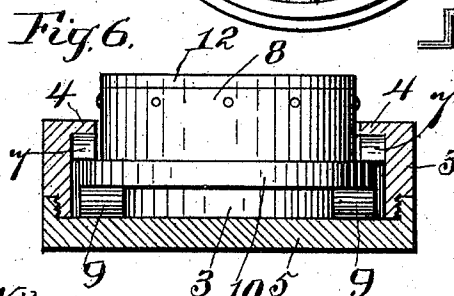
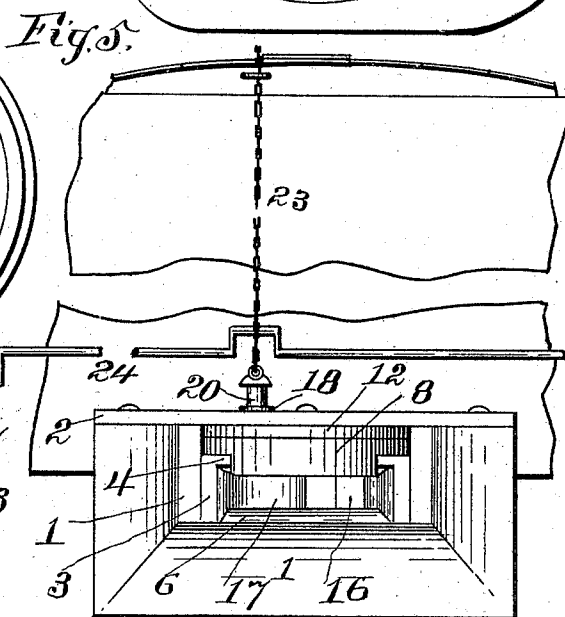
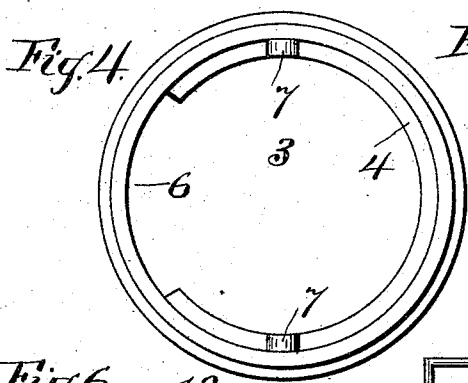
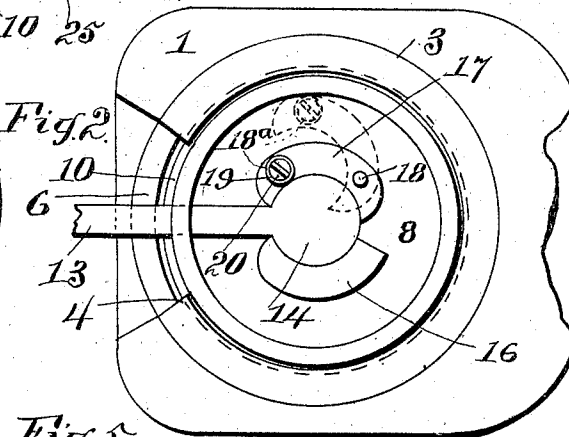
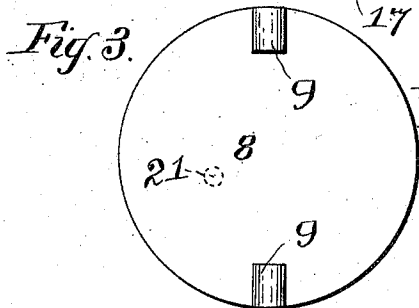
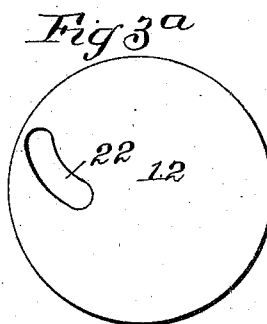
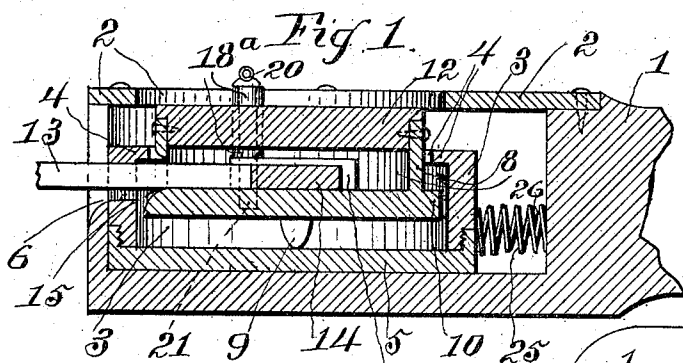


(No Model.)

G. D. PETTINGELL.
CAR COUPLING.

No. 575,166.

Patented Jan. 12, 1897.



Witnesses:
John S. Stump
J. H. Smith

Inventor:
George D. Pettingell
By C. J. DeL...
Atty.

UNITED STATES PATENT OFFICE.

GEORGE D. PETTINGELL, OF JEFFERSON, IOWA, ASSIGNOR OF ONE-HALF
TO HENRY C. LAUB, OF DENISON, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 575,166, dated January 12, 1897.

Application filed June 4, 1896. Serial No. 594,296. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. PETTINGELL, a citizen of the United States, residing at Jefferson, in the county of Greene and State of Iowa, have invented certain new and useful Improvements in Automatic Car-Couplers, of which the following is a specification.

This invention relates to car-couplers, and particularly to an automatic coupler adapted to oscillate vertically or transversely in accordance with the movement of the cars it couples.

The object of the invention is to provide an automatic coupler making a rigid connection between the cars and adapted to hold the coupling-link immovable between the cars until the latter are uncoupled.

A still further object of the invention is to provide a car-coupler of such novel and peculiar construction that the coupling-link is held rigid and at the same time adapted to be oscillated vertically and transversely in accordance with the movement of the cars.

The invention consists in the novel construction and arrangement of parts, as will be hereinafter fully described, and set up in the claims.

In the accompanying drawings, forming part of this application, Figure 1 is a longitudinal section of a draw-bar having my invention applied. Fig. 2 is a plan view of Fig. 1 with the top of the draw-bar removed and the slotted cover or cap also removed, showing the coupler open in dotted lines. Fig. 3 is an inverted plan view of the bottom of the cup. Fig. 3^a is a top view of the cover or cap. Fig. 4 is an inverted plan view of the inclosing ring with its bottom removed. Fig. 5 is a front elevation of part of a car-front, partly broken away, with the coupling-pin raised and the coupler in position to receive a link. Fig. 6 is a cross-section of the inclosing ring, showing the cup in elevation.

The same numeral references denote the same parts throughout the several figures of the drawings.

The draw-bar 1 is of the hollow form, with flaring jaws, and having a removable top 2. In the hollow of the draw-bar is inserted a ring 3, having a lateral inwardly-extending flange 4, a removable bottom 5, a cut-out 6,

formed by cutting a portion of the ring away, and pivot-lugs 7 upon the inner side of said lateral flange.

Within the ring 3 is housed a cup 8, having upon its bottom V-shaped projections 9, which rest on the bottom 5 of the ring 3, allowing the cup free vertical oscillating or vibrating movement in accordance with a like movement of the cars. The cup has a cap or cover 12 and a flange 10, which engages the lugs 7, whereby the cup is poised in the ring pivotally between the said lugs 7 and the projections 9 and is free to turn or oscillate transversely in accordance with such action of the cars upon the coupling-link 13, the latter having a circular head 14, which passes through the cut-out 6 in the ring and a slot 15 of the cup 8 into the latter.

Inside of the cup 8, upon the bottom, is formed rigid therewith a semicircular jaw 16, and a semicircular dog 17 is pivoted at 18 to the bottom of the cup. One free end of the dog has an arm 18^a, provided with a hole 19 for the coupling-pin 20, and the other free end is engaged by the link-head 14 to inclose the latter between the said jaw and dog and to bring the coupling-pin hole 19 over a similar hole 21 in the bottom of the cup, whereupon the pin is dropped and the coupling completed. It will be observed that in normal position the end of the coupling-pin rests upon the bottom of the cup, and as the link is pushed home against one end of the dog the other end of the latter will carry the pin into the hole 21.

The cap or cover 12 has a slot 22 for the arm 18^a, and the coupling-pin is lifted by a chain 23, attached to a hand-bar 24, which can be operated from the top or either side of a car. A spring 25 is fixed upon a projection 26 in the rear of the ring 3 and acts as a cushion for the coupling device.

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

1. In an automatic car-coupler, the cup pivoted in a draw-bar to oscillate transversely and vibrate vertically, a jaw in the bottom of the cup, and a dog pivoted in the bottom of the cup and carrying a coupling-pin, said dog being operated by the link to lock the dog to

the cup and the link-head between the jaw and dog, as set forth.

2. In an automatic car-coupler, the cup having a fixed jaw and a pivoted dog, pivot projections upon the bottom of the cup, combined with a ring surrounding the cup and having pivot-lugs whereby the cup is held in the ring upon the said projections and lugs, as set forth.

3. In an automatic car-coupler, the combination of the cup having a jaw integral with its inner bottom, a dog pivoted in said bottom and carrying a coupling-pin, a removable slotted cover for the cup, and pivot projections on the under side of the cup-bottom, with the flanged ring surrounding the cup

and having pivot-lugs engaging the cup-cover and the removable ring-bottom, as set forth.

4. The combination with a car-coupler, of a cup held in a draw-bar to oscillate transversely and vertically, and having a link-slot, the jaw integral with the inner cup-bottom, a dog pivoted to said bottom, and having an arm carrying a coupling-pin, and a removable cup-top having a slot for the said arm, as set forth.

In witness whereof I hereunto set my hand in the presence of two witnesses.

GEORGE D. PETTINGELL.

Witnesses:

J. A. HENDERSON,
PERRY D. ROSE.