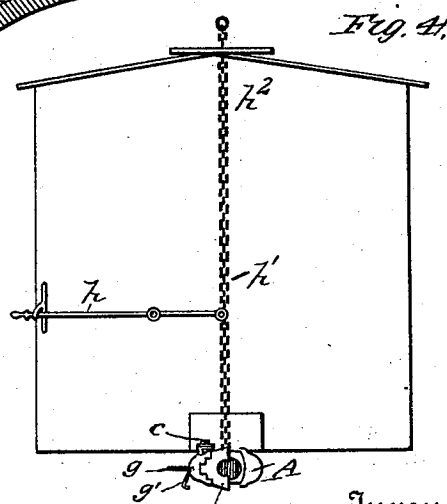
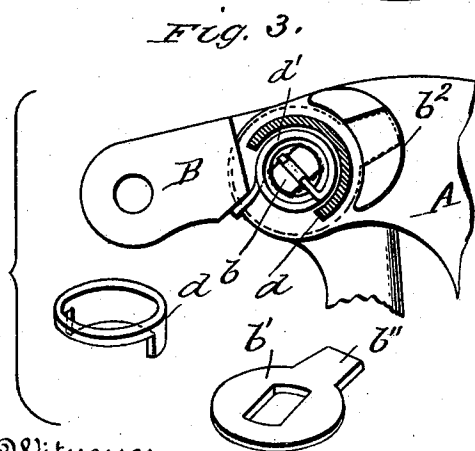
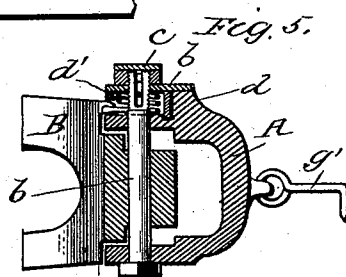
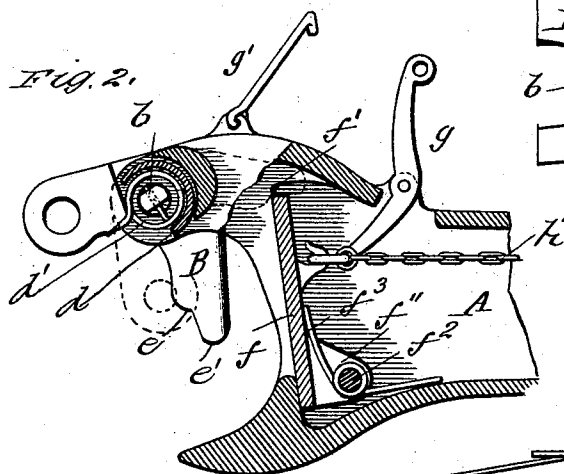
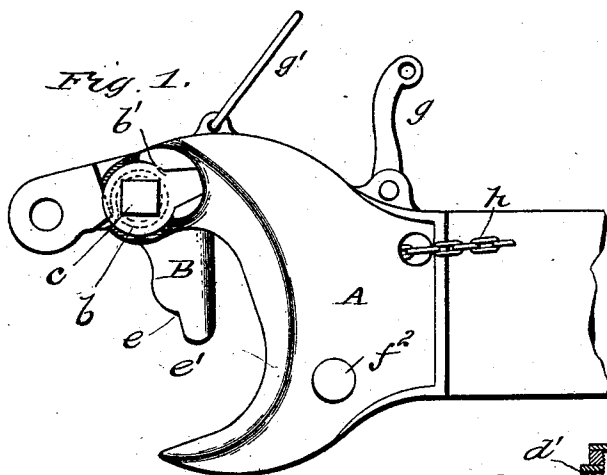


(No Model.)

L. B. KENNEY.
CAR COUPLING.

No. 506,118.

Patented Oct. 3, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

LESTER BRADNER KENNEY, OF DANSVILLE, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 506,118, dated October 3, 1893.

Application filed April 8, 1893. Serial No. 469,574. (No model.)

To all whom it may concern:

Be it known that I, LESTER BRADNER KENNEY, a citizen of the United States, residing at Dansville, in the county of Livingston and State of New York, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a plan view of the improved coupler; Fig. 2 a horizontal sectional view of the same; Fig. 3 detail views of the parts for automatically actuating the pivoted jaw; Fig. 4 an end elevation of a box-car showing the devices for operating the uncoupling devices, and Fig. 5 a detail vertical section of a portion of the draw-head.

This invention has relation to that class of twin-jaw couplers known as the "Janney" type, and it has for its objects essentially, to provide improved devices for automatically throwing open the pivoted jaw and holding it open while uncoupled, and also for automatically engaging and locking the jaw in its coupled position, as more fully hereinafter set forth.

In the drawings, A designates the hollow draw-head and B the coupling-jaw pivoted on a vertical pin *b* at one side of the mouth of the draw-head, in the usual manner. The bolt or pin *b* is prevented from turning by means of a plate *b'* engaging an angularly-formed part of the bolt near its upper end, this plate having a lateral lug or ear *b''*, which engages a recess in a boss *b³* formed on an adjacent part of the draw-head. This plate and the pin are held in place by a nut *c* tapped on the upper end of the pin.

Clamped between the plate *b'* and the upper side of the draw-head and partly surrounded by the boss *b³* is a circular casing or ring *d*, whose lower circular edge preferably rests in a similarly-shaped recess in the draw-head. This ring or casing incloses and protects the actuating-spring *d'* which is coiled several times around the bolt and has one of its ends engaging the same while the other end projects out through an opening in the casing and bears against a portion of the jaw. The action of this spring is similar to that of the spring in a shade-roller, as is evident, and it will therefore retain its elasticity a long

time. While uncoupled, the spring remains practically under little or no tension and its elasticity is therefore not being impaired while in that position; no strain is brought to bear upon it until the jaw is coupled, which action serves to put the spring under a torsional strain—that is, wind it up. The spring will not only be very durable but will also act very quickly and by reason of its location and arrangement is readily removable for renewal or repair.

The end of the locking-arm of the jaw is shouldered at *e* on its front side and its end is rounded at *e'*. The locking devices consist of a plate *f* covering the opening or mouth of the draw-head and normally bearing against the flange *f'* surrounding the same. This plate is provided on the end opposite the jaw, with rearwardly-extending ears *f''* through which the vertical pivot *f²* passes. This plate is kept normally pressed over the opening by means of a coil-spring *f³* on its pivot-pin.

To withdraw the plate and release the locking-arm of the jaw, a horizontal lever *g* is pivoted in an opening in the side of the draw-head and has its inner end connected by a link to the rear side of the plate, the outer arm of this lever projecting out a suitable distance and adapted to be operated by hand or by suitable mechanism.

To hold the locking-plate back free from the locking arm, and thereby prevent the cars coupling when they come together, a hook *g'* is pivoted on the draw-head and adapted to be engaged with the outer end of lever *g*. The locking plate may be operated from the side of the car also by a lever *h* pivoted on the end of the car, as shown in Fig. 4, and connected by a chain *h'* to the locking plate, said chain extending down through an opening in the draw-head; and it may be operated from the top of the car by a rod or chain *h²*. Any suitable mechanism may be employed for operating the locking plate.

Having thus fully described my invention, what I claim is—

1. The combination of a draw-head, a coupling jaw, a non-rotatable pivot-bolt therefor, a coil-spring surrounding the bolt at one end and having one of its ends engaging the same and its other end bearing on an adjacent part of the jaw, a removable casing surrounding

the coil-spring and having one of its sides open, through which open portion one end of the coil spring works, and means for removably clamping said casing in place, substantially as described.

2. The combination of a draw-head, a coupling-jaw and vertical pivot pin therefor, a coil-spring surrounding the pin and having one of its ends engaging the same and its other end engaging the jaw, and a casing surrounding the spring, substantially as described.

3. The combination of a draw-head, a swinging-jaw, a locking plate pivoted on the side opposite the jaw, a spring normally closing this plate, and a horizontal lever working through the side of the draw-head and having its inner end connected to the locking-plate, substantially as described.

4. The combination of a draw-head, a swinging-jaw, a locking plate pivoted on the side opposite the jaw, a spring normally closing

this plate, and a horizontal lever working through the side of the draw-head and having its inner end connected to the locking-plate, and means for locking this lever to hold the locking-plate out of operative position, substantially as described.

5. The combination of a draw-head, having a flanged mouth, a locking-jaw provided with a shouldered locking-arm, a locking plate normally bearing against the flanges around the mouth of the draw-head, ears on the end of the locking plate opposite the jaw, a vertical pin passing through said ears, and a spring normally pressing said locking-plate forward, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LESTER BRADNER KENNEY.

Witnesses:

F. P. MAGEE,

F. FIELDER.