

(No Model.)

2 Sheets—Sheet 1.

W. R. TEEGUARDEN.
CAR COUPLING.

No. 463,177.

Patented Nov. 17, 1891.

Fig. 1.

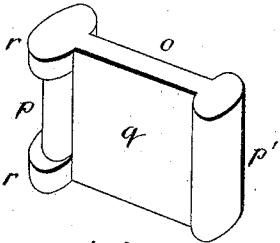
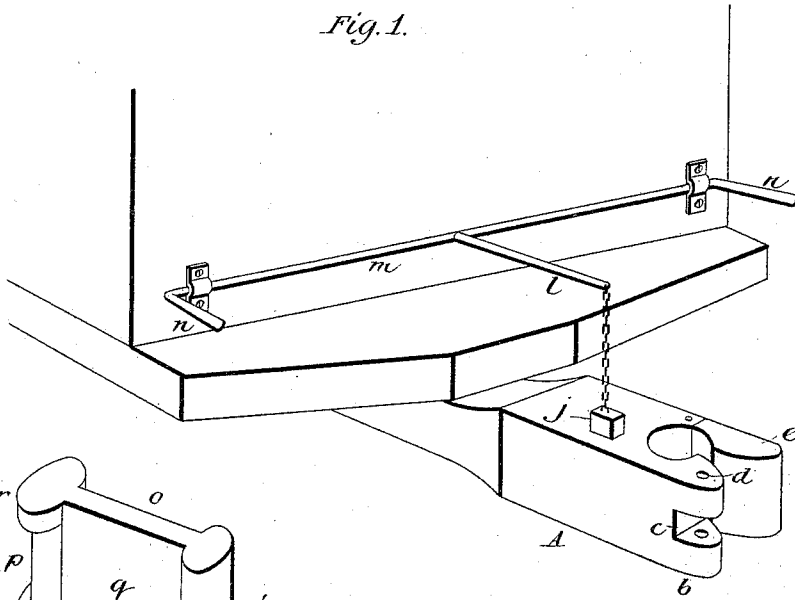


Fig. 3.

Fig. 2.

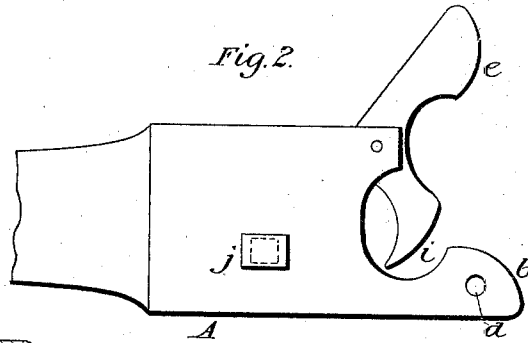


Fig. 4.

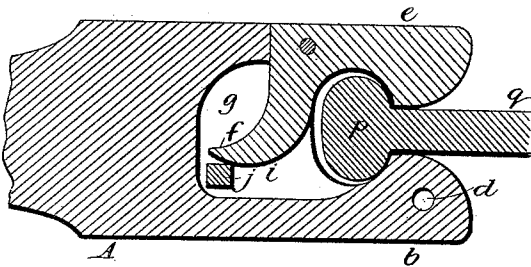


Fig. 5.

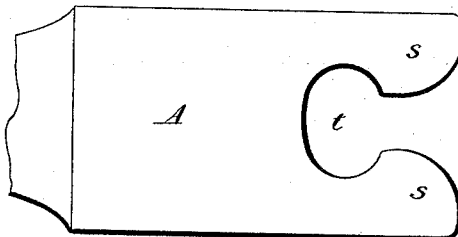
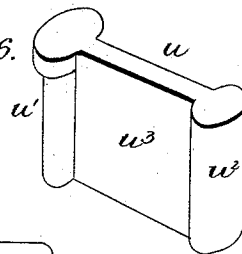


Fig. 6.



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By *W. W. Audley*
his Attorney.

(No Model.)

2 Sheets—Sheet 2.

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CAR COUPLING.

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Fig. 7.

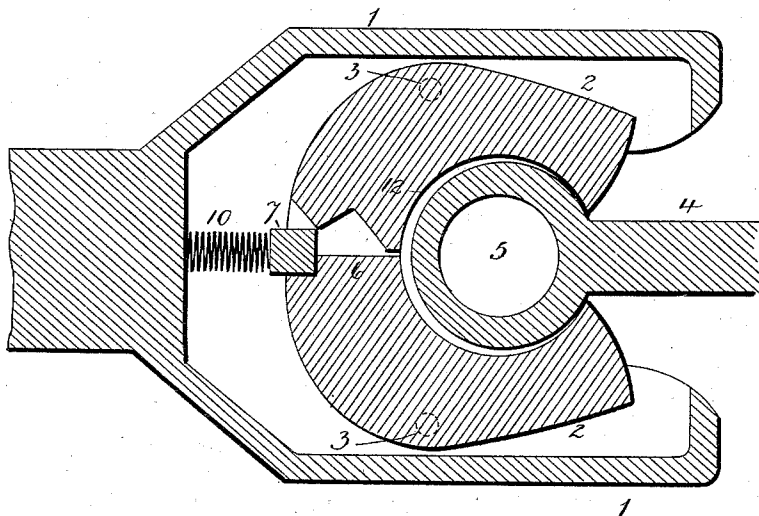
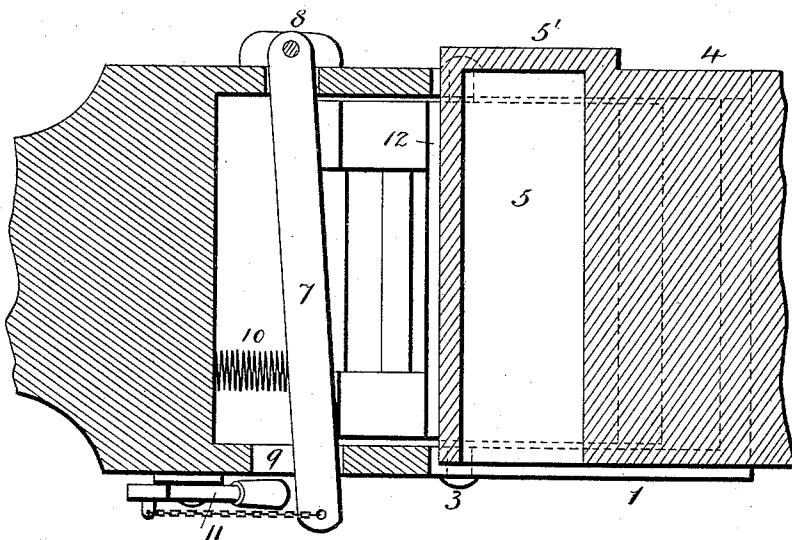


Fig. 8.



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UNITED STATES PATENT OFFICE.

WILLIAM R. TEEGUARDEN, OF BRISTOL, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 463,177, dated November 17, 1891.

Application filed April 4, 1891. Serial No. 387,595. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. TEEGUARDEN, a citizen of the United States, residing at Bristol, in the county of Sullivan and State of Tennessee, have invented certain new and useful Improvements in Car-Couplers; and I 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 appertains to make and use the same.

My invention relates to car-couplers, and especially to that class thereof designated as "twin-jaw" couplers, and has for its objects simplicity of structure and operation.

To these ends my invention consists, generally, in providing a draw-head with two jaws, which in operation confine one of the heads of the coupling-link, and also in devices in connection therewith, whereby the desired results are obtained, and in new and novel coupling-links to be used therewith, all of which will fully appear from the following description and claims, taken in connection with the accompanying drawings, in which—

Figure 1 indicates in perspective view my improved coupler as applied to the end of a car, the coupling-link being omitted; Fig. 2, a detail of the coupler enlarged; Fig. 3, a horizontal section of the coupler and link; Fig. 4, a view in perspective of the coupling-link; Fig. 5, a plan view of a modified form of construction, and Fig. 6 a perspective view of a coupling-link to be used therefor; Fig. 7, a horizontal section of another modified form of construction, and Fig. 8 a vertical section of the same.

Similar letters of reference in all the figures of the drawings indicate similar parts.

Referring first to the construction shown in Figs. 1 to 4, inclusive, A indicates the draw-head, which is attached in any suitable manner to the car.

b is a fixed jaw, preferably made integral with the draw-head, and which is provided with the recess c and hole d for connection with cars employing the old pin-and-link device.

e is a movable jaw pivoted to the draw-head in any appropriate manner and which is provided with the lateral projection f,

which works in a recess g in the draw-head. The portion h of this projection conforms in shape to the central opening a, and the portion i is curved, as shown, to permit of a clearance when the pivoted jaw is moved inward or outward.

j is a pin, rectangular in its cross-section, provided with the head, as shown. When the jaws are in their closed position and the pin inserted, the side of the pin abuts against the curved portion i of the jaw and prevents the two jaws from being separated. This pin may be inserted and removed by hand, or may be operated by means of the devices shown in Fig. 1, which consist of the lever l, connected to a rod m, terminating in handles n, the lever being connected to the pin directly or by means of a chain.

The coupling-link o (shown in detail in Fig. 4) consists of the heads p p', which are connected by means of a web q. One of these heads p is provided with enlarged portions r, forming shoulders to prevent displacement.

The operation is as follows: The coupling-link is connected at its shouldered end to one draw-head, and the other end extends outward in the direction of the car to be coupled thereto. As the cars approach each other the pin of the uncoupled car is withdrawn, and this permits the opening of the jaws by the advancing link. The link now strikes the projection f, which closes the jaws, the pin is inserted, and the cars are then coupled together.

Referring now to the construction shown in Figs. 5 and 6, A is the draw-head, having the two fixed jaws s s, which form a central circular opening t for the coupling-link u. This coupling-link, which is shown in detail in Fig. 6, is formed of the two heads u' u'', one of which u' is shouldered near its upper end, as shown. These heads are connected by a web u'''. When the cars to be coupled come together, the link is inserted, the heads thereof entering the circular opening and the web passing through the space between the jaws. The shoulder on the link prevents the link from passing entirely through the draw-heads, and the weight of the link prevents any accidental disconnection. It is evident that

my last construction could be so made as that the coupling action would be automatic. The link in this event would, before the act of coupling, rest just back of the central opening, and the draw-heads in coming together would be forced to the rear of their respective cars, which would bring the openings in line with the link-heads, and the link would naturally fall thereon and couple the cars.

Referring now to the construction shown in Figs. 7 and 8, 1 represents an outer casing or box for confining the two movable jaws 2, which are pivoted to the box, as shown, by means of lugs or projections 3. The inner faces of the jaws conform in shape to the headed coupler 4, which is shown connected thereto and which is made hollow, as shown at 5, and is provided with the shoulder 5' to prevent displacement. The inner ends of the jaws are normally in contact, the rib 6 on the one entering the recess in the other and forming a temporary hinge. 7 is a pin pivoted at its upper end to the box, as shown at 8, the other end extending through the slot 9 in the bottom of the box, and is held in contact with the inner ends of the jaws by the spring 10. 11 is a lever pivoted to the bottom of the box, the handle of which extends outward beyond the box, and the inner end is connected by a chain or other suitable link to the lower end of the pin 7. In operation the lever is turned sufficiently to disengage the pin from the inner ends of the jaws. The advancing link strikes the curved faces 12 of the jaws and automatically opens them. The link now strikes the inner faces of the jaws, which close on the head of the link, and the pin, returning to place, locks the jaws in this position. To uncouple, the lever is moved, the pin drawn back, and the link opens the jaws automatically and is drawn out.

By my invention I am enabled to manufacture, by reason of the hollow heads, a link of comparative lightness and great strength. It is also evident that by my construction cars employing couplers of different heights

may be coupled without any change of structure or operation.

I claim—

1. In car-couplers of the class described, the combination, with a draw-head having the two jaws forming a continuous cylindrically-shaped opening, as described, of a coupling-link constituted of two cylindrically-shaped heads connected by a web, one of these heads being shouldered, as described, and for the purposes set forth.

2. In a car-coupler, the combination, with a draw-head having a fixed and a pivoted jaw, of a vertically-disposed pin for locking said pivoted jaw and of a link constituted of two cylindrically-shaped heads connected by a web, one of such heads being shouldered, as described, and for the purposes set forth.

3. In a car-coupler, the combination, with a draw-head having a fixed jaw, and the recess therein, of a movable jaw pivoted thereon and having the projection *f* working in said recess, a pin removably inserted in the draw-head and adapted to lock the pivoted jaw in its closed position, and a coupling-link therefor constituted of two cylindrically-formed heads connected by a web, substantially as set forth.

4. In a car-coupler, the combination, with a draw-head having two fixed jaws forming a central opening therein, of a coupling-link constituted of the shouldered head *u'*, the head *u*², and the connecting-web *u*³, substantially as and for the purposes set forth.

5. In a car-coupler, the combination, with a draw-head having two pivoted jaws, of a pin for locking said jaws and of a link constituted of two hollow heads connected by a web, substantially as described.

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

WILLIAM R. TEEGUARDEN.

Witnesses:

E. S. McDONALD,
C. D. McDONALD.