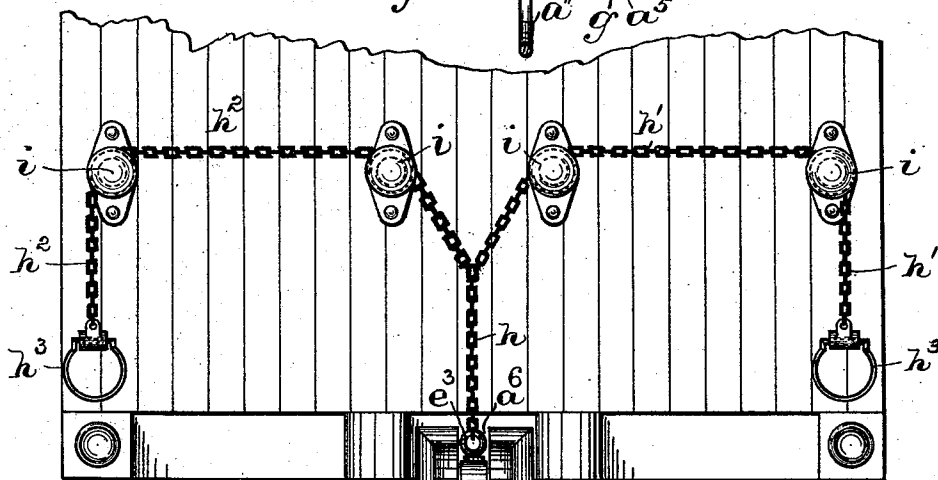
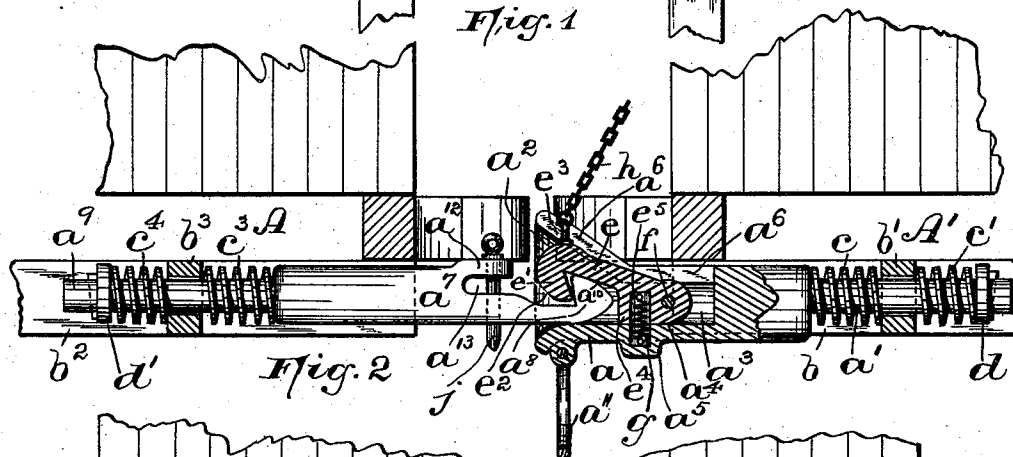
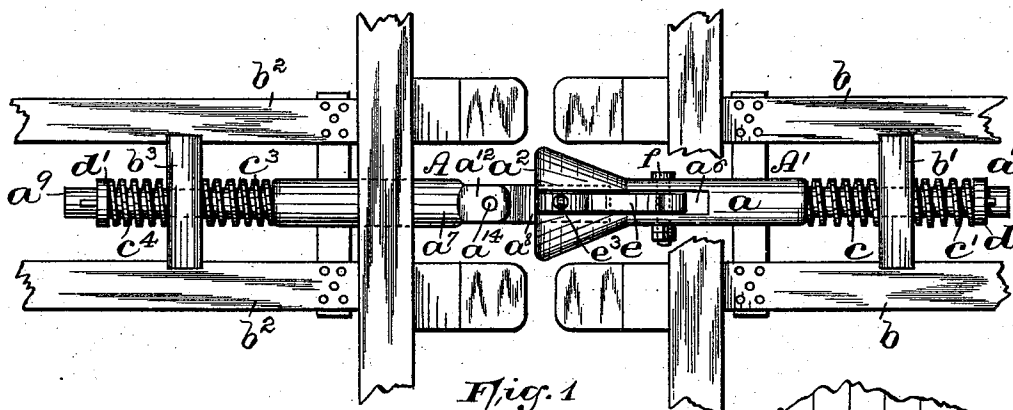


(No Model.)

S. YOUNG & M. MOSKOWITZ.
CAR COUPLING.

No. 466,481.

Patented Jan. 5, 1892.



WITNESSES: Fig. 3

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 466,481, dated January 5, 1892.

Application filed August 31, 1891. Serial No. 404,196. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL YOUNG and MORRIS MOSKOWITZ, citizens of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Car-Couplings; and we 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of the present invention is to provide a car-coupling which when two cars are brought together will automatically connect and hold them in such locked or holding engagement; and a further object of the invention is to provide a means for disconnecting the holding-jaws of the coupler without necessitating the stepping of the train-hand between the two cars and thereby endangering his life.

With these general objects in view the invention consists in certain arrangements and combinations of parts, as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

Referring to the views on the accompanying sheet of drawings, Figure 1 is a plan view of our improved car-coupler, illustrating the manner of attaching the same to the frame beneath the platform of the car. Fig. 2 is a side view of the same, with the cross-sills of the coupled cars in section and also showing the bell-head of one of the draw-bars in vertical section, the view clearly showing the several parts of the coupler in their locked or holding engagement. Fig. 3 is an end view of the bell-head provided with a spring-actuated jaw having a hook end, to which is attached a chain or other like means passing over pulleys secured on the end of a car and passing to both sides of the car for easy access to the train-man.

Similar letters of reference are employed in each of the above described views to indicate corresponding parts.

Our improved car-coupler consists of the male part A and the female part A', which

are secured to the opposite ends of a car in the frame-work thereof between the longitudinal sills and cross-pieces, as will be clearly evident from Fig. 1.

The female part of the coupler consists of a draw-head *a*, which terminates in a draw-bar *a'*, extending back underneath the car and between the longitudinal sills *b*, being secured to a cross-piece *b'*, and around the draw-bar *a'*, on opposite sides of said cross-piece *b'*, we have arranged the springs *c* and *c'*, by means of which the pulling and pushing force exerted on the draw-head is communicated to the car. A collar *d* is arranged at or near the end of the draw-bar to prevent the displacement of the spring *c'*.

The draw-head *a* of the female part A' of the coupler is provided with a bell-shaped mouth *a²*, communicating with a chamber *a³* in the body of the draw-head, as will be clearly seen from Figs. 2 and 3. Within said chamber *a³* is pivoted by means of a pin *f* a jaw *e*, provided with a hook end *e'* and an eye or ring *e³* for attaching the end of a chain thereto. As will be seen from said Fig. 2, said jaw *e* is provided on its under side with a straight and forwardly-projecting side or portion *e⁴*, which normally rests on the inner surface *a⁴* of the chambered draw-head. Said surface *a⁴* has a socketed portion *a⁵*, and in the jaw *e* is a corresponding and oppositely-placed socketed portion *e⁵* and a spiral spring *g*, having its opposite ends secured in the socketed portions, whereby, when in the act of coupling or disconnecting the holding-jaws, said jaw *e*, which passes up into an open slot *a⁶* in the top of the draw-head, is normally forced down and securely held in that position. (Indicated in Fig. 2.)

The male portion A of the coupler consists of a draw-head *a⁷*, having a hook-end jaw *a⁸*. The draw-head *a⁷* terminates in the draw-bar *a⁹*, which extends back underneath the car between the longitudinal sills *b²* and is secured to a cross-piece *b³*. Springs *c²* and *c³* are arranged around the draw-bar on both sides of the cross-piece *b³*, said spring *c⁴* being held in its position on the end of the draw-bar by means of a collar *d'*. Now when the male and female portions of the car-coupling, secured to their respective ends on the

cars, are brought together the hook-end jaw a^8 of the male portion A passes into the bell-mouth a^2 , causing the surface a^{10} on the jaw a^8 to ride up against the surface e^2 of the pivoted jaw e , which thus passes up into the slot a^6 until the hook on the jaw a^8 passes behind the hook e' on the jaw e , which by its own weight and the action of the spring g will then assume its normal position, and the
 10 locked or holding engagement of the jaws of the coupler will thereby be maintained. In order to cause the disengagement of the two holding-jaws, said jaw e , as has been previously stated in the above, is provided with a
 15 ring or eye e^3 , to which is fastened the end of a chain h . Said chain is divided into the two branches h' and h^2 , passing over pulleys i to both sides of the car, which are provided on their free ends with rings h^3 or other similar
 20 means for exerting a pull on either chain from the side of the car, and thereby lifting the jaw e within the chamber a^3 in the draw-head and allowing the two cars to be drawn apart.

25 In order to enable the use of our improved coupler with the ordinary couplings on cars, said draw-head a may be provided with a shackling-link a^{11} , secured to the mouth a^2 in any convenient position thereon, whereby
 30 this portion of our car-coupling can be connected with the ordinary coupling draw-head by means of the usual pin.

The draw-head a^7 may be provided with a forwardly-projecting lip a^{12} , forming, with the
 35 forwardly-extending jaw a^8 , a slot a^{13} . Said lip a^{12} and the body portion of the draw-head are provided with a hole a^{14} , in which an ordinary coupling-pin j can be inserted, whereby the draw-head can be connected with the com-
 40 mon link, as will be clearly understood.

Having thus described our invention, what we claim is—

1. In a car-coupler, the female portion A', consisting of a draw-head having a bell-shaped
 45 and chambered mouth, with an open slot in the top thereof, and a holding-jaw pivoted in said chamber, provided with a flat and straight portion e^4 , substantially as set forth, in combination with a male portion A, consisting of
 50 a draw-head provided with a jaw adapted for automatic holding engagement with said jaw in the chambered mouth of the portion A', substantially as and for the purposes set forth.

2. In a car-coupler, the female portion A', consisting of a draw-head having a bell-shaped
 55 and chambered mouth, with an open slot in the

top thereof, and a spring-actuated jaw pivoted in said chamber, provided with a straight and flat portion e^4 , substantially as set forth, in combination with a male portion A, consisting of a draw-head provided with a jaw adapted for automatic holding engagement with
 60 said jaw in the chambered mouth in the portion A', and means connected with said spring-actuated jaw for raising the same, substantially as and for the purposes set forth.

3. In a car-coupler, the female portion A', consisting of a draw-head having a bell-shaped and chambered mouth, with an open slot in the
 70 top thereof, and a spring-actuated jaw pivoted in said chamber, provided with a straight and flat portion e^4 , substantially as set forth, in combination with a male portion A, consisting of a draw-head provided with a jaw adapted for automatic holding engagement with
 75 said jaw in the chambered mouth in the portion A', and means connected with said spring-actuated jaw for raising the same, consisting, essentially, of a divided chain passing over
 80 pulleys to both sides of the car and having rings h^3 on the ends of the chain, substantially as and for the purposes set forth.

4. In a car-coupler, the female portion A', consisting of a draw-head having a bell-shaped and chambered mouth, with an open slot in
 85 the top thereof, and a shackling-link attached to the mouth of said draw-head, and a spring-actuated holding-jaw pivoted in said chamber, provided with a flat portion e^4 , substantially as set forth, in combination with a male
 90 portion A, consisting of a draw-head provided with a jaw adapted for automatic holding engagement with said jaw in the chambered mouth of the portion A', and a lip a^{12} and slot
 95 a^{13} on the male portion A, provided with a hole a^{14} and a coupling-pin therein, substantially as and for the purposes set forth.

5. In a car-coupler, the draw-head A, having a hook on one end and a forwardly-extending lip a^{12} , forming a slot a^{13} , and a hole
 100 a^{14} , extending through said lip and the draw-head, and a coupling-pin in said hole, as and for the purposes set forth.

In testimony that we claim the invention set forth above we have hereunto set our hands
 105 this 29th day of August, 1891.

SAMUEL YOUNG.
 MORRIS MOSKOWITZ.

Witnesses:

B. MORTIMER TRUSDELL,
 FREDK. C. FRAENTZEL.