

No. 830,717.

PATENTED SEPT. 11, 1906.

G. A. HERMANSON.  
CAR COUPLING.

APPLICATION FILED JUNE 2, 1906.

Fig. 1

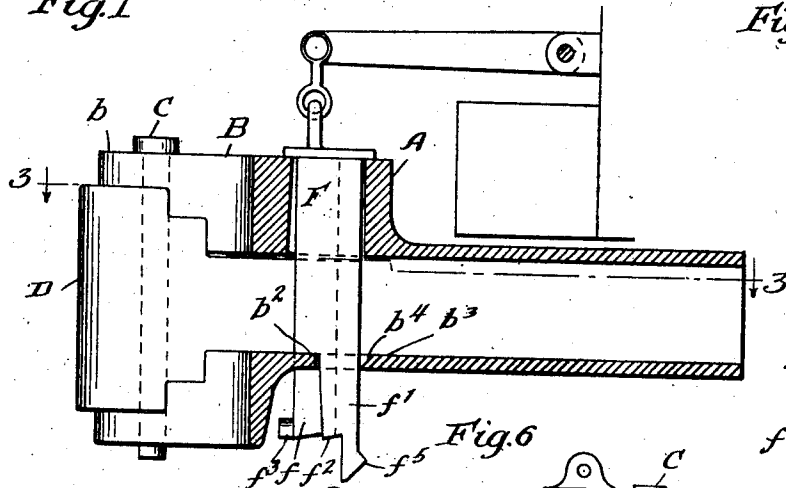


Fig. 4

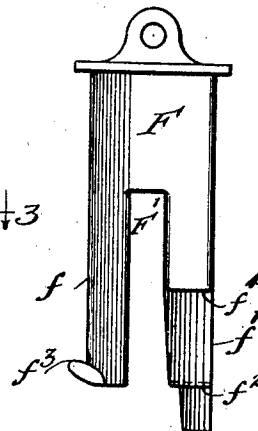


Fig. 6

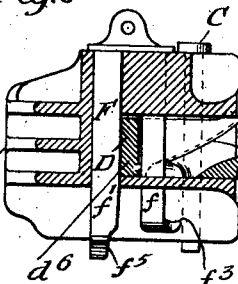


Fig. 5

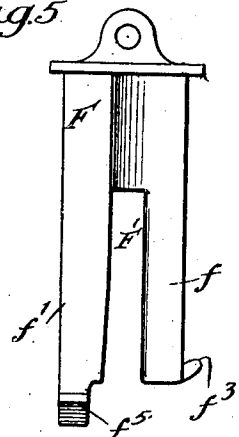


Fig. 2

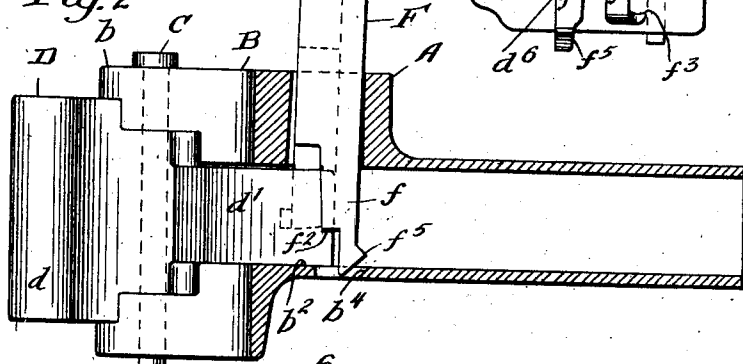


Fig. 3

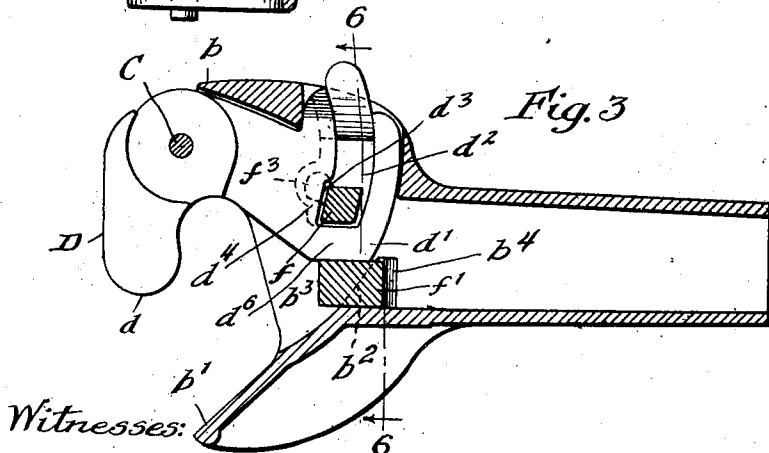
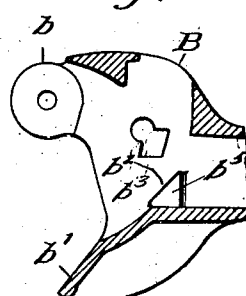


Fig. 7



Witnesses:

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# UNITED STATES PATENT OFFICE.

GUSTAF A. HERMANSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO JAMES MUNTON, OF MAYWOOD, ILLINOIS.

## CAR-COUPLING.

No. 830,717.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed June 2, 1906. Serial No. 319,803.

*To all whom it may concern:*

Be it known that I, GUSTAF A. HERMANSON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to improvements in car-couplers, and more particularly to improvements upon the car-coupler heretofore patented to me in Letters Patent No. 812,927 of February 20, 1906.

The object of my present invention is to improve and perfect the car-coupler of my said patent No. 812,927, and more particularly to provide the lock and draw-bar with means for securing the proper engagement of the lock-set shoulder on the lock with the lock-set ledge or shoulder on the draw-bar.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists in a coupler of the ordinary Master Car-Builders' type having the customary forked draw-head, pivoted knuckle, and vertically-movable gravity-lock provided with a lock-set shoulder adapted to engage a lock-set shoulder or ledge on the bottom web or floor of the draw-head in providing the lock-set leg of the lock with an incline or wedging face adapted to engage a corresponding incline or wedging face on the bottom web or floor of the draw-head as the lock descends, and thus throw the lower end of the lock forward so as to cause its lock-set shoulder to certainly and properly engage the lock-set ledge or shoulder on the bottom web or floor of the draw-head.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a central vertical longitudinal section of a car-coupler embodying my invention. Fig. 2 is a similar view showing the lock in a raised position. Fig. 3 is a horizontal section on line 3 3 of Fig. 1. Fig. 4 is a detail front elevation of the lock, and Fig. 5 is a detail rear elevation of the lock. Fig. 6 is a vertical cross-section on line 6 6 of Fig. 3, and Fig. 7 is a detail horizontal section of the draw-head.

In the drawings, A represents the draw-bar; B, the draw-head having the customary

pivot-arm *b* and guard-arm *b'*; C, the pivot-pin; D, the knuckle, and F the vertically-movable gravity-lock.

The knuckle D has the customary front arm or nose *d* and rear arm or tail *d'*. The rear arm or tail *d'* of the knuckle has a transversely-extending slot or passage-way *d<sup>2</sup>* to receive the knuckle-throwing leg *f* of the lock F. This slot or passage-way *d<sup>2</sup>* in the knuckle-tail is preferably curved about the pivot of the knuckle as a center and has a slight enlargement *d<sup>3</sup>* in its front wall *d<sup>4</sup>* to permit the lock to tilt slightly forward at its lower end and backward at its upper end to enable the lock-set shoulder or ledge *f<sup>2</sup>* on the lock to properly engage the lock-set ledge *b<sup>2</sup>* in the bottom web or floor *b<sup>3</sup>* of the draw-head adjacent to the opening *b<sup>5</sup>* therein, through which the lock-set leg *f'* of the lock F projects. The knuckle-tail *d'* is also provided on the outer or pivot-pin side of the slot *d<sup>2</sup>* with an upwardly-extending incline or cam *d<sup>4</sup>*, adapted to be engaged by the knuckle-throwing foot or projection *f<sup>3</sup>* on the knuckle-throwing leg *f* on the lock F, and thus cause the knuckle to be automatically thrown open when the lock is lifted to the required extent, as more fully shown and described in my said prior patent, No. 812,927. The lock F is also provided with a shoulder or ledge *f<sup>4</sup>*, adapted to engage the knuckle-tail and support the knuckle thereon as the knuckle begins to swing open.

The lock F has a slot *F'* between its knuckle-throwing leg *f* and its lock-set leg *f'*, which slot receives the portion *d<sup>6</sup>* of the knuckle-tail, one leg of the lock thus passing through the knuckle-tail and the two legs of the lock fitting astride said portion *d<sup>6</sup>* of the knuckle-tail.

To insure the proper engagement of the lock-set shoulder *f<sup>2</sup>* on the lock with the lock-set ledge *b<sup>2</sup>* on the bottom web or floor of the draw-head, I provide the lock F or its lock-set leg *f'*, preferably near the lower end thereof, with an incline or wedging face *f<sup>5</sup>*, which is adapted to engage a corresponding cam or incline *b<sup>4</sup>* on the bottom web or floor of the draw-head, and thus cause the lower end of the lock to be moved forward as the lock descends, so that the lock-set shoulder *f<sup>2</sup>* on the lock will certainly and properly engage the corresponding lock-set ledge of the draw-head.

For a fuller and more complete description of the car-coupler to which my improvement is applied reference is hereby made to my said prior patent, No. 812,927.

5 I claim—

1. In a car-coupler, the combination with the forked draw-head, of a knuckle having a transversely-extending curved slot in its rear arm or tail, and provided with a knuckle-throwing cam or incline and a vertically-movable lock having a knuckle-throwing leg fitting in said transverse slot of the knuckle-tail and furnished with a foot or projection engaging said cam or incline to throw the knuckle open, and a lock-set leg provided with a lock-set shoulder, the draw-head having a corresponding lock-set ledge on the bottom web or floor thereof, said lock-set leg of the lock being provided with an incline or wedging face and the bottom web or floor having a corresponding incline or wedging face adapted to be engaged by said incline or wedging face on said lock-set leg as the lock descends to insure proper engagement of the lock-set shoulder on the lock with the lock-set ledge on the draw-head, substantially as specified.

2. In a car-coupler, the combination with a forked draw-head, of a pivoted knuckle having a slotted rear arm or tail, of a lock having two legs, one of which passes through the slot in the knuckle-tail, one of said legs of

the lock being provided with a lock-set shoulder and also with an incline or wedging face to insure engagement of the lock-set shoulder on the lock with the corresponding lock-set ledge on the draw-head as the lock descends, substantially as specified. 35

3. In a car-coupler, the combination with a forked draw-head, a pivoted knuckle and a vertically-movable gravity-lock provided with a lock-set shoulder adapted to engage a corresponding lock-set ledge on the draw-head, said lock being provided with an incline or wedging face to insure engagement of its lock-set shoulder as the lock descends, substantially as specified. 45

4. In a car-coupler, the combination with a forked draw-head, a pivoted knuckle and a vertically-movable gravity-lock provided with a lock-set shoulder adapted to engage a corresponding lock-set ledge on the draw-head, said lock being provided with an incline or wedging face to insure engagement of its lock-set shoulder as the lock descends, said draw-head having a corresponding incline or wedging face adapted to be engaged by said incline or wedging face on the lock, substantially as specified. 55

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Witnesses:

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