

(No Model.)

M. E. WALLACE.
CAR COUPLING.

No. 491,301.

Patented Feb. 7, 1893.

Fig. 1.

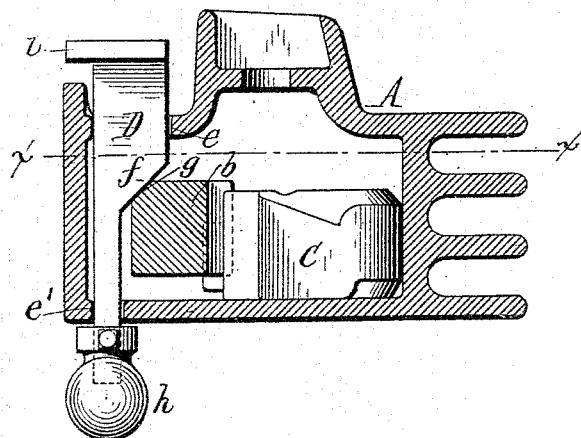
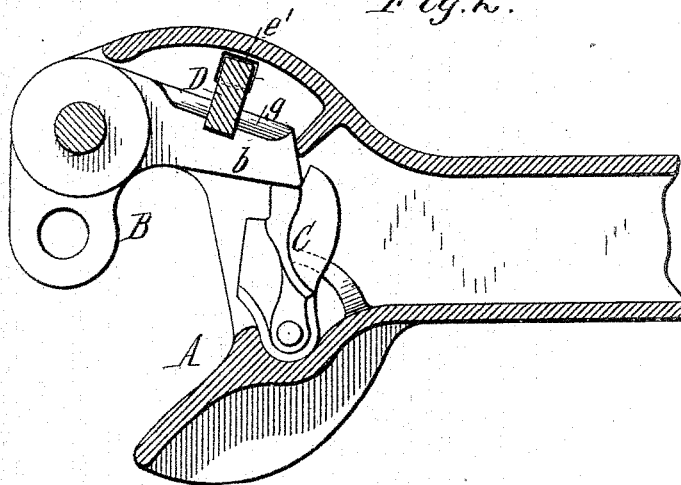


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

MARTIN E. WALLACE, OF AURORA, ILLINOIS, ASSIGNOR TO THE GOULD
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 491,301, dated February 7, 1893.

Application filed September 29, 1892. Serial No. 447,246. (No model.)

To all whom it may concern:

Be it known that I, MARTIN E. WALLACE, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to car couplings which consist essentially of a pivoted coupling jaw or hook capable of swinging horizontally on the draw head, and a locking device whereby the pivoted hook is retained in its closed or coupled position, and more especially to couplings of this character which are provided with means for automatically throwing the coupling hook to its open position when released from its locking device.

The object of my invention is to provide the coupling with a simple and inexpensive device for shifting the pivoted coupling hook to its open position.

In the accompanying drawings:—Figure 1 is a vertical cross section of a car coupling containing my improvement. Fig. 2 is a horizontal section of the same in line $x-x$, Fig. 1.

Like letters of reference refer to like parts in both figures.

A represents the draw head which is chambered or recessed in a well known manner.

B is the horizontally-swinging coupling hook pivoted to the draw head and having the usual locking arm b , and C is the locking device of the hook which preferably consists of a dog or pawl pivoted in the recess of the draw head by an upright pin and interlocking with the arm b of the coupling hook when the same is in its closed position. This locking device is moved out of engagement with the arm of the coupling hook by the usual hand lever pivoted to the car platform and connected with the locking device by a chain, this releasing mechanism being common and not shown in the drawings.

D is a vertically movable shifting bar arranged on the draw head and whereby the pivoted coupling hook is automatically swung into its open or uncoupled position when unlocked by the retraction of the pawl C. The shifting bar D is guided in openings e and e' , formed respectively in the top and bottom of the recessed draw head and is provided on its

inner side with an incline f which bears against a corresponding incline g formed on the adjacent outer side of the locking arm b of the coupling hook, when the latter is in its closed position. When the coupling hook is in this position, the shifting bar D is supported in an elevated position by the incline of the hook bearing against the incline of the shifting bar. Upon disengaging the locking pawl from the coupling hook, the shifting bar D descends by gravity, and its incline rides down the incline of the locking arm of the hook, thereby deflecting said arm outwardly and swinging the hook to its open position. In order to render the shifting bar sufficiently heavy to overcome the inertia of the coupling hook, it is provided at its lower end with a weight h . When the coupling hook is swung into its closed position in coupling, the incline on the locking arm of the hook impinges against the incline of the shifting bar and raises the latter to its former position where it is supported until the coupling hook is again released from its locking pawl.

The shifting bar is limited in its downward movement by a stop or flange i formed at its upper end, and in its upward movement by the weight h .

I claim as my invention:—

1. The combination with the draw-head, the swinging coupling-hook having a locking arm and its lock, of an independent shifting bar sliding vertically on the draw head and provided above the locking arm of the coupling hook with an incline which rests upon said locking arm and supports the shifting bar in an elevated position when the coupling hook is in its locked position, and which automatically moves the coupling hook to its open position by the descent of the shifting bar when the coupling hook is unlocked, substantially as set forth.

2. The combination with the draw-head, of the swinging coupling hook having a locking arm provided in its upper side with an incline, a lock for retaining the coupling hook in its closed position, and an independent shifting bar provided above said locking arm with an incline which bears against the incline on said arm and supports the shifting bar in its elevated position when the coupling hook is

locked and which automatically swings the coupling hook into its open position by the descent of the shifting bar when the coupling hook is unlocked, substantially as set forth.

5 3. The combination with the draw-head, of the coupling hook having a locking arm provided on its upper side with an incline, a lock for retaining the hook in its closed position, and a vertical shifting bar sliding in openings

10 in the draw-head and having at its lower end a weight and above the locking arm of the coupling hook an incline bearing against the incline of said locking arm and which automatically opens the coupling hook when unlocked, by the descent of the shifting bar, 15 substantially as set forth.

Witness my hand this 19th day of September, 1892.

MARTIN E. WALLACE.

Witnesses:

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