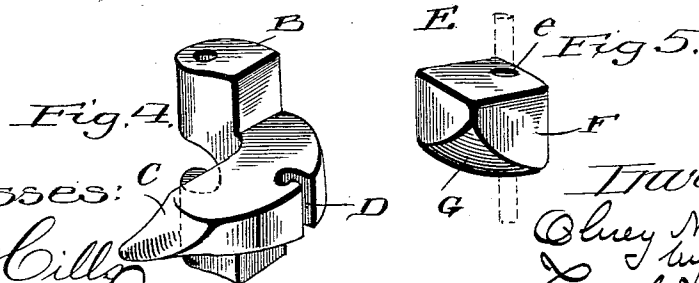
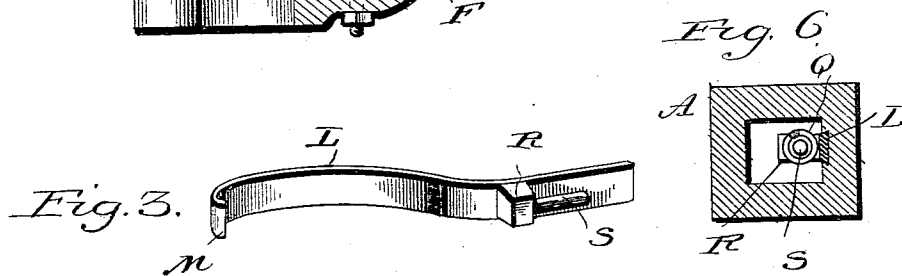
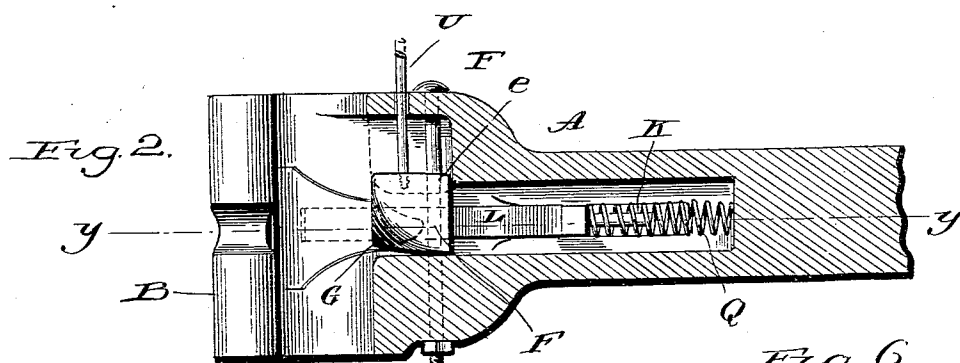
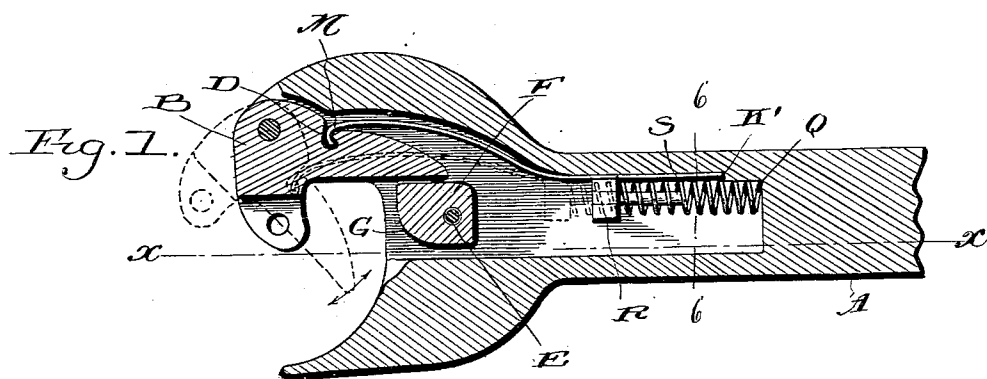


(No Model.)

O. N. HORNER.
CAR COUPLING.

No. 557,679.

Patented Apr. 7, 1896.



Witnesses:

L. C. Hill
A. L. Hough

Inventor:
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by
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Atty.

UNITED STATES PATENT OFFICE.

OLNEY N. HORNER, OF THORNTOWN, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 557,679, dated April 7, 1896.

Application filed February 10, 1896. Serial No. 578,753. (No model.)

To all whom it may concern:

Be it known that I, OLNEY N. HORNER, a citizen of the United States, residing at Thorntown, in the county of Boone and State of Indiana, have invented certain new and useful Improvements in Car-Couplers; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in car-couplers, and especially to a coupler of the Janney type, in which a pivoted locking-lever is automatically thrown open when the uncoupling is effected by means of a double-acting spring held within the draw-head. For holding the locking-lever in a locked relation a portion of the said locking-lever, which is pivoted to the end of the draw-head, is beveled for the purpose of forcing up a gravity-block having a corresponding beveled portion, and after passing under the gravity-block the latter falls in the path of the lever, thus securely locking the coupler.

A further object of the invention resides in the peculiar means for throwing the swinging or locking member open after the gravity-block is elevated out of the path of the said lever, which consists of a spring-bar having its free end bent into the form of a hook and engaging in a recess in the arm of the lever, the other end of the said spring working in a recess in the draw-head, and having a lug against which bears a coiled spring which serves to throw the spring-bar out as well as to hold it in its recess to guide the same.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

I clearly illustrate my invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a central vertical longitudinal view through a draw-head equipped with my coupling device. Fig. 2 is a sectional view on line *xx* of Fig. 1. Fig. 3 is an enlarged detail view of the spring-bar for throwing the coupling member open. Fig. 4 is an enlarged detail view in perspective of the coupling member, and Fig. 5 is a detail view of the gravity locking-block. Fig. 6 is a cross-section on line *6 6* of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates the draw-head, and pivoted in a recess at its forward end is the locking member B, having its free swing end beveled, as seen at C, and on its rear side is a curved recess D. Mounted so as to work vertically on the rod E through the aperture *e* is the gravity locking-block F, which has one of its under corners beveled away, as seen at G, and as the beveled swinging end of the said locking member comes in contact with the said beveled surface G the block F is caused to raise up on its pin E and allow the free end of the locking member to pass under, and then the gravity-block will fall in front of the locking member, thus locking the same securely.

Seated so as to slide in a recess K in the recessed draw-head is the spring-bar L, having its forward end bent into the form of a hook M and designed to engage in the recess D of the locking member.

R is a lug secured to or integral with the said spring, and is provided with the rearwardly-extending pin S, on which a spring Q is designed to rest, one end bearing against the rear side of the said lug, its other end to bear against the end wall of the recess of the draw-head. This spring Q is provided to throw the hooked end of the spring-bar L out, and with it the free end of the coupling lever or member, and also bears against the broad face of the said spring-bar, which has its edges slightly beveled to work within the recess K, which also has its side walls slightly beveled to receive the spring-bar to keep it securely within its recess K, that it may be properly guided in its forward and backward movements. Secured to the upper portion of the said gravity-block is a pin U, whose upper end passes up through an aperture in the draw-head and may be secured to any suit-

able means, as a chain or rod, whereby the block may be readily lifted to allow the locking member to swing out and effect an uncoupling without the necessity of the operator's going between the cars.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. A car-coupler, consisting of a recessed draw-head a locking member pivoted to its free end, beveled on one side, combined with a gravity-block having a beveled portion and designed to work vertically on a pin, and to be raised as the two beveled surfaces come together under pressure, and a spring-bar having its free end engaging in a recess in the said locking member, its other end designed to be held in a recess and to be thrown forward by a coiled spring, substantially as shown and described.

2. A car-coupler consisting of a draw-head having pivoted to its forward end a locking member beveled on one side of its free swinging end, combined with a gravity-block F

adapted to work vertically on a pin E, one of the corners of the said block beveled against which surface the beveled portion of the swinging locking member is designed to abut and raise the said block, a spring-bar L, having its forward end bent into a hook and engaging in a recess on the rear side of the locking member, a lug R on said spring-bar a pin S, a coiled spring Q bearing at one end against the rear side of the said lug, its other end against the rear wall of the recess of the draw-head, whereby the said spring-bar is held, under the tension of the said coiled spring in a recess in the draw-head, and is caused to swing the locking-lever forward, when the gravity-block is raised, substantially as shown and described.

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

OLNEY N. HORNER.

Witnesses:

LEONARD L. GRAVES, Jr.,
WILLIAM F. HARRIS.