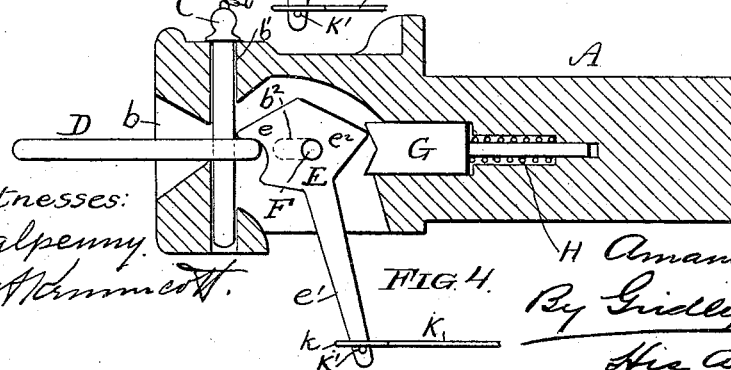
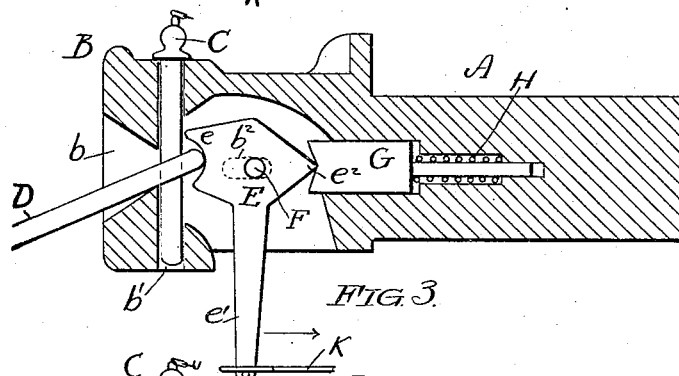
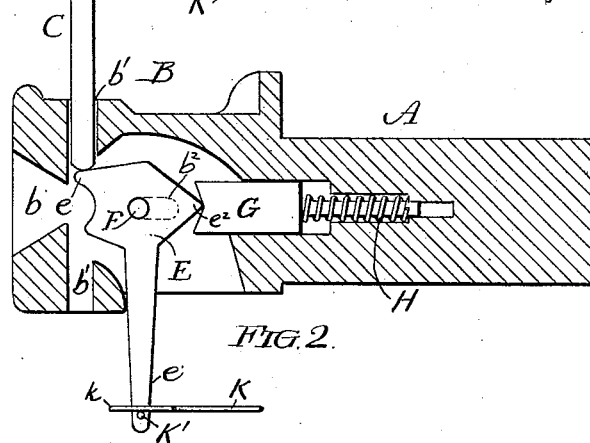
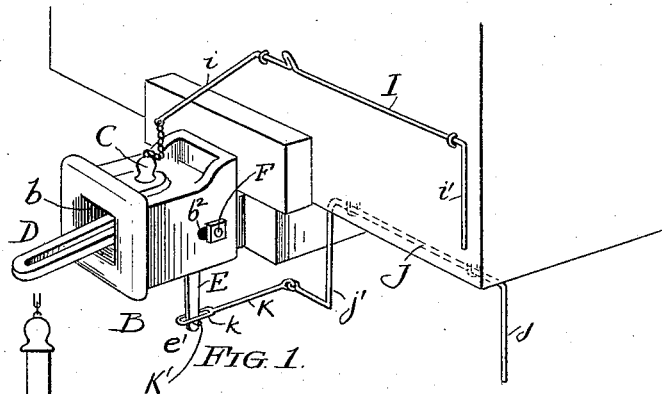


(No Model.)

A. HACKMAN.
CAR COUPLING.

No. 454,133.

Patented June 16, 1891.



Witnesses:
J. Halpenny.
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Inventor:
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UNITED STATES PATENT OFFICE.

AMANDES HACKMAN, OF PEORIA, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,133, dated June 16, 1891.

Application filed March 14, 1891. Serial No. 385,024. (No model.)

To all whom it may concern:

Be it known that I, AMANDES HACKMAN, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had to the accompanying drawings, which is made a part hereof, and in which—

Figure 1 is a perspective view of the end of a car having the invention applied thereto. Figs. 2, 3, and 4 are vertical longitudinal sections of a draw-bar head embodying the invention.

A represents the draw-bar; B, the draw-bar head; C, the coupling-pin, and D the coupling-link.

The head B is provided with the customary end opening *b* for the admission of the link and vertical opening *b'* for passage of the pin. It has also an interior cavity, in which is situated a lever E, pivoted upon a horizontal bolt F, which passes outward through elongated slots *b²* in the sides of the head. Bearing against the rear side of this lever is a follower-block G, which fits in a suitable cavity in the draw-bar head, and is pressed against said lever by a spring H, fitting in a socket in the draw-bar, with sufficient force to hold said lever normally at the forward limit of its permitted movement, in which position it is shown in Fig. 2. While in this position a projection *e* on its front side, above the opening *b*, lies across the opening *b'*, so as to hold the pin C in its elevated position. While in this position, if the link is inserted through opening *b* it comes against the front side of lever E, and forces it back, compressing spring H until the projection *e* is moved out of the path of the pin, whereupon said pin falls, passing through the link, as shown in Fig. 3. If when in this latter position the under end of the link is too low to enter the opening *b* of the abutting draw-bar head of the next car and it be desired to raise it, the lower end *e'* of the lever E is moved inward or in the direction of the arrow in Fig. 2. In doing so the projection *e* moves downward and depresses the inner end of the link D, with which it engages. This causes the outer end of the link to be elevated, since said link

rests at an intermediate portion upon the lower side of the outward-flaring opening *b*.

The follower-block G has in its outer end a V-shaped groove, and the engaging face *e²* of the lever E is of substantially complementary shape, except that the angle of the former is greater than the angle of the latter. This construction holds the lever normally in the position shown in Fig. 2 or Fig. 3, and returns it automatically to such position after the removal of the power that has moved it to the position shown by Fig. 4.

I is a shaft journaled to the end of the car and having two crank-arms, one of which is connected by a chain or other suitable device with the head of the pin D, and the other of which *i'* is situated at the side of the car, so that the operator may reach it and withdraw the pin without entering between the cars.

J is a shaft journaled to the under side of the car, and having a crank-arm *j* situated at the side of the car for operating it, and a second crank-arm *j'*, loosely connected to a rod K, having a loop *k*, through which the lower end *e'* of the lever E projects, said loop being held in place on the lever by a pin K'.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The combination, with the draw-bar head having openings *b* and *b'* for the admission of the link and pin, respectively, of a lever E, pivoted within the draw-head and having a projection *e* for engaging the inner end of the link and depressing it, and means for operating said lever, substantially as set forth.

2. The combination, with the draw-bar head having openings *b* and *b'* for the admission of the link and pin, respectively, of the lever E, having projection *e* engaging the inner end of the link for depressing it, a spring for forcing said lever toward the outer end of the draw-head, a pivot-pin F supporting it, and means for operating it, said draw-head having horizontal slots *b²*, in which said pivot-pin rests and slides, substantially as set forth.

3. The combination, with the draw-bar head having openings *b*, and *b'* for the admission of the link and pin, respectively, of the lever E, having projection *e* on its front side for engaging the inner end of the link, and having

also the projection e^2 on its rear side, the
follower-block G, having angular depression
in which said projection e^2 engages, a spring
forcing said follower-block against said lever,
5 a sliding pivot-pin supporting said lever, and
means for operating it, substantially as set
forth.

4. The combination, with the draw-bar head
having openings b and b' for the admission of
10 the link and pin, respectively, and having the
horizontal slots b^2 , of the lever E, having the
projections e and e^2 on its front and rear sides,

respectively, the pivot pin F, occupying the
slots b^2 , the follower-block G, having the an-
gular depression engaging the projection e^2 , 15
the spring H, forcing said follower-block
against said projection, the rod K, engaging
the lower end e' of said lever, and the crank-
shaft J, to which said rod is connected, sub-
stantially as set forth.

AMANDES HACKMAN.

Witnesses:

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JOHN WATT.