(No Model.) 2 Sheets—Sheet 1.

E. B. GOELET.

CAR COUPLING.

No. 431,693. Patented July 8, 1890.

Fig. 1.

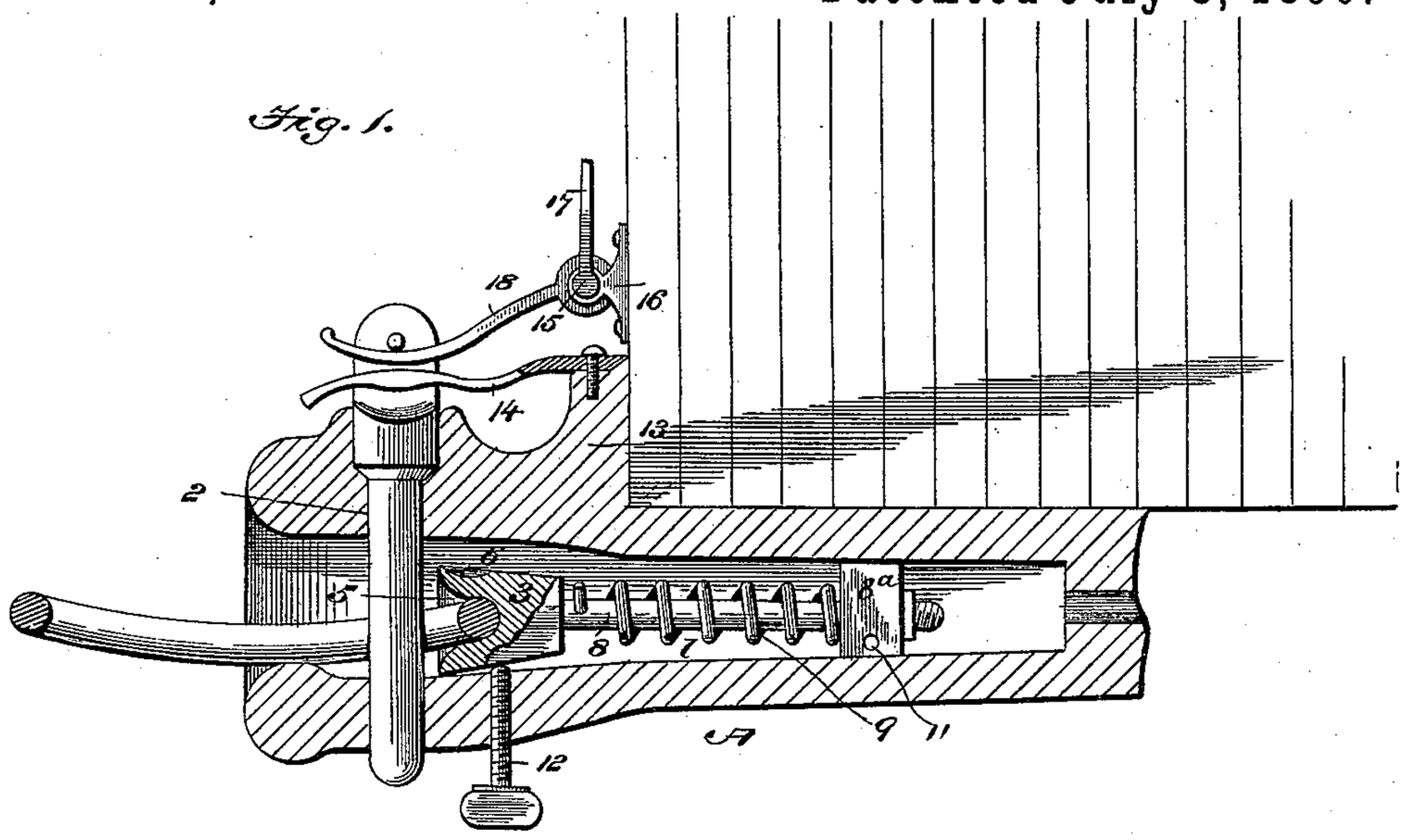


Fig. 2.

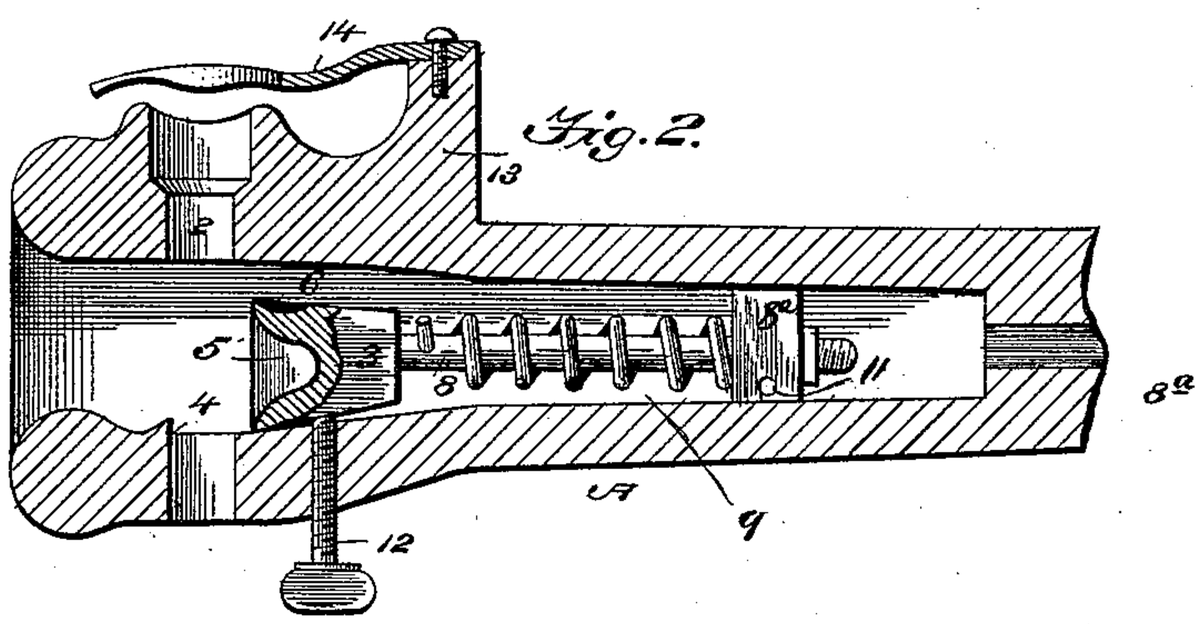
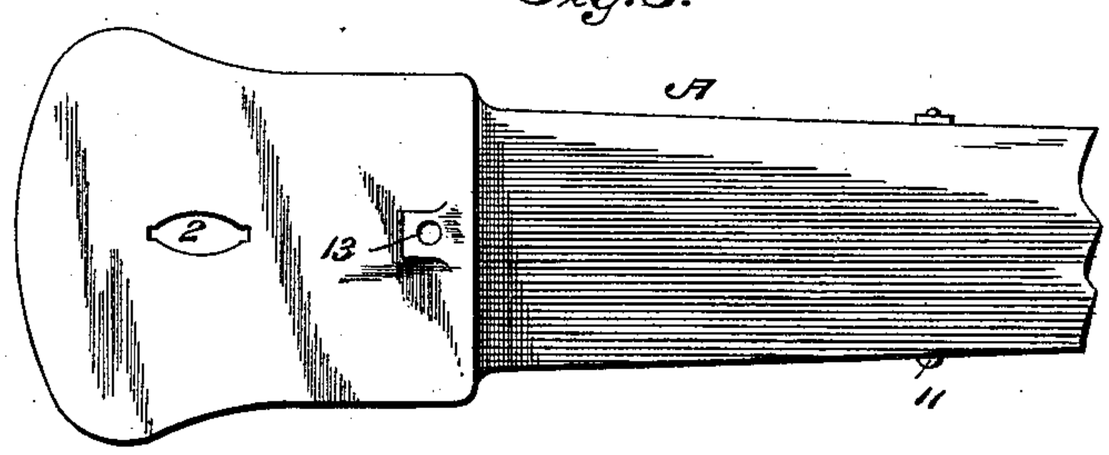


Fig. 3.



Witnesses:
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(No Model.) 2 Sheets—Sheet 2.

E. B. GOELET.

CAR COUPLING.

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Fig. 4.

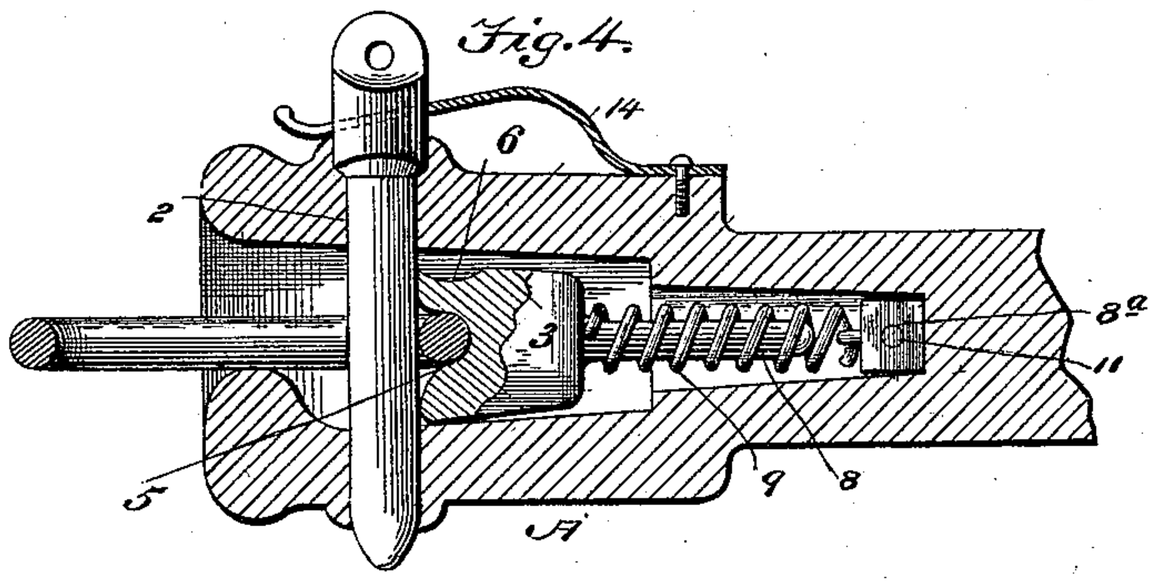


Fig. 5.

Fig. 6.

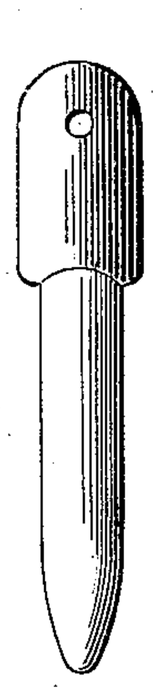
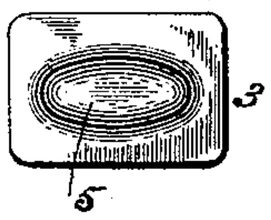


Fig. 7.



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UNITED STATES PATENT OFFICE.

EDWARD B. GOELET, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO THE GOELET AUTOMATIC CAR COUPLER AND MANUFACTURING COMPANY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 431,693, dated July 8, 1890.

Application filed April 17, 1890. Serial No. 348,309. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. GOELET, of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Car-Couplings; and I 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.

My invention relates to an improvement in car-couplings, the object being to provide a coupling peculiarly adapted for service upon freight-cars, which will act automatically, may be easily arranged to couple with cars of different heights, and which will be durable, simple, and economical and insure safety to the brakeman or other attendant having the coupling of cars in supervision.

With these several ends in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view showing the coupling on the end of a car. Fig. 2 is a longitudinal vertical section. Fig. 3 is a plan view. Fig. 4 is a sectional view of a modification. Fig. 5 is a detached view of the preferred form of link. Fig. 6 is a similar view of the preferred form of coupling-pin, and Fig. 7 is a detached view of the clutch-block.

A represents the draw-bar of a freight-car, the same being made of steel, wrought or cast iron, and in substantially the shape shown in the drawings, with a longitudinal cavity or throat 1 formed through the center to receive the link and clutch-block, and a coupling-pin hole 2 formed vertically through the draw-head and cavity to receive the coupling-pin. The floor of the cavity or throat preferably slopes downwardly as it extends forward, the object of which construction is to facilitate the forward movement of the clutch-block 3 fitted in the cavity or throat and an abrupt shoulder 4 is formed at the forward edge of the pin-hole to limit the forward movement of this clutch-block by the abutment of the latter against it. As the clutch-block is of somewhat peculiar construction, it deserves a moment's attention. This block is provided with a concaved recess 5, extending transversely and horizontally in the outer face of the block, the purpose of which recess is to receive an end of the coupling-link. The advantages of the clutch-block with a mouth leading back from a flat or square front wall and a pin-seat on top above the mouth are, first, the mouth securely clutches the end of the link, so that the outer end of the link will not drop when disengaged, and, second, by the entering end of the link passing into the mouth of the clutch-block, when the block is pushed back and the pins falls, it at once engages and enters the opening in the link, whereas without the mouth the pin would often fall on the end of the link before the opening of same reached the position under the pin. A slight recess or depression 6 is also formed in the top or upper face of the clutch-block to constitute a seat for the lower end of the coupling-pin when the cars are uncoupled and to hold the pin in readiness to drop easily from the block the moment the latter is forced from beneath it by the entrance of the link protruding from the car to be coupled into the recess 5. The rear end of the clutch-block terminates in a shank 8, which passes through a check-block 8^a with a nut, riveted head, or other device on its end to prevent said rod from withdrawing from said check-block, and the encircling spiral spring 9 with the front end shouldered against the clutch-block and the rear end shouldered against the check-block. The check-block is provided with a hole 11 through it at right angles to and above or below the hole through which the connecting-rod passes. This last hole is for passing through a bolt for bolting the check-block in place, and thus secure the clutch-block and spring in place. The object of this construction is to make my coupling attachable to an ordinary draw-head. The action of the spring or springs is to normally force the clutch-block forward against the shoulder when the coupling-pin is removed or to force and hold the link securely against the pin when the latter is in position of holding the link in place. The preferred form of link employed is that shown in Fig. 5—that is, one bent continuously from end to end. The advantage

derived by bending the link from one end to the other is that in this manner the link is made to incline either upward or downward at its outer end to enter a draw-head above the one in which the link is located, or one below owing to the fact that draw-heads are often at varying heights on different cars, especially when one car is heavily laden and the next car is empty. For finer adjustments in the inclination of link a set-screw 12 is provided beneath the clutch-block. By turning this in or out the clutch-block is raised or lowered.

A projection 13 is usually made on the top of the draw-head, through which the hole for the coupling-pin is formed. The upper end of the pin is flattened and the hole is made to conform to shape of the pin. A plate-spring 14, secured to the draw-head in either manner shown, straddles this pin and by its tension prevents the pin from working out accidentally, and also prevents its withdrawal beyond a certain point.

To raise the pin to uncouple cars, the rocking bar 15, mounted in loops 16 16 on the ends of the cars, is provided. These bars terminate with handles 17 17, by which they are rocked from the side of the cars, and in the middle they each have an outwardly-projecting arm 18 slotted to straddle or receive the upper end of the coupling-pins. In the modification the set-screw is omitted, and the shank 8 is hooked or otherwise secured to the check-block 8^a.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the precise construction herein set forth; but,

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

1. The combination, with a draw-head, of a check-block independent of the draw-head, a single bolt passing through the two sides of the draw-head and through the check-block for removably securing the latter in place, a clutch-block the shank of which passes through the check-block, and a spring bearing against the check-block for forcing the clutch-block toward the mouth of the draw-head, substantially as set forth.

2. In a car-coupling, the combination, with a draw-head having a longitudinal cavity therein and a pin-hole formed vertically therein, of a link curved from end to end and a pin adapted to secure the link in the cavity, substantially as set forth.

3. In a car-coupling, the combination, with a draw-head having a longitudinal cavity therein, of a spring-actuated clutch-block and a set-screw beneath the block for regulating the vertical position of the latter within the cavity, substantially as set forth.

4. In a car-coupling, the combination, with a draw-head having a longitudinal cavity in its center, the bottom of said cavity sloping downward and a shoulder and lip at or near the outer end of the cavity, of a link, a pin, a spring, and means for raising the pin, substantially as set forth.

5. The combination, with a draw-head, of a spring-actuated clutch-block having a concaved recess extending transversely and horizontally in the outer face and a recess in its top, of a pin adapted to be seated in the top recess, a spring for holding the pin down, and means for raising the pin, substantially as forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWARD B. GOELET.

Witnesses:
ELIZABETH G. ROGERS,
LIZZIE SANDUSKY.