(No Model.)

R. H. DOWLING.

CAR COUPLING.

No. 385,301. Patented June 26, 1888.

Fig. 1.

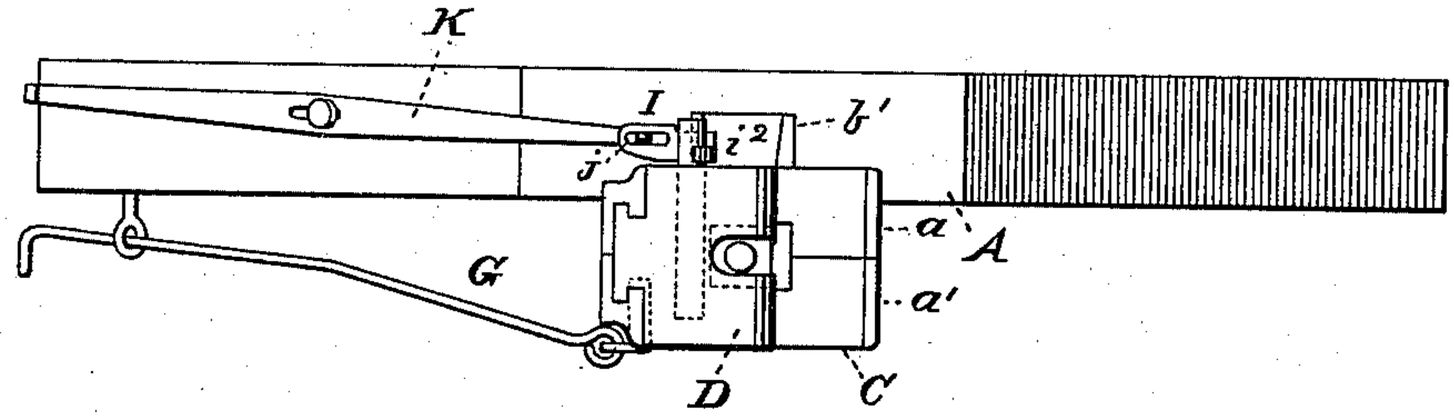


Fig. 2.

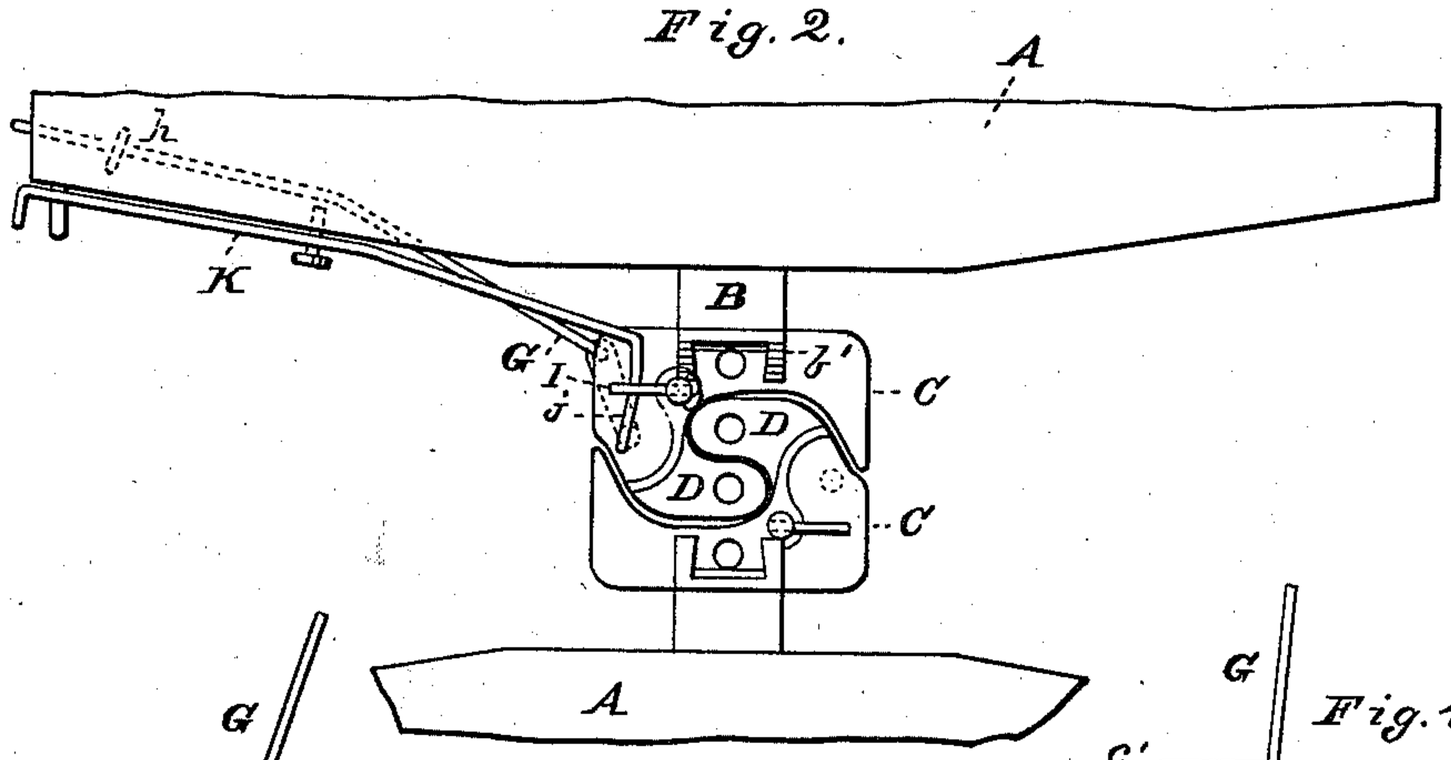


Fig. 3.

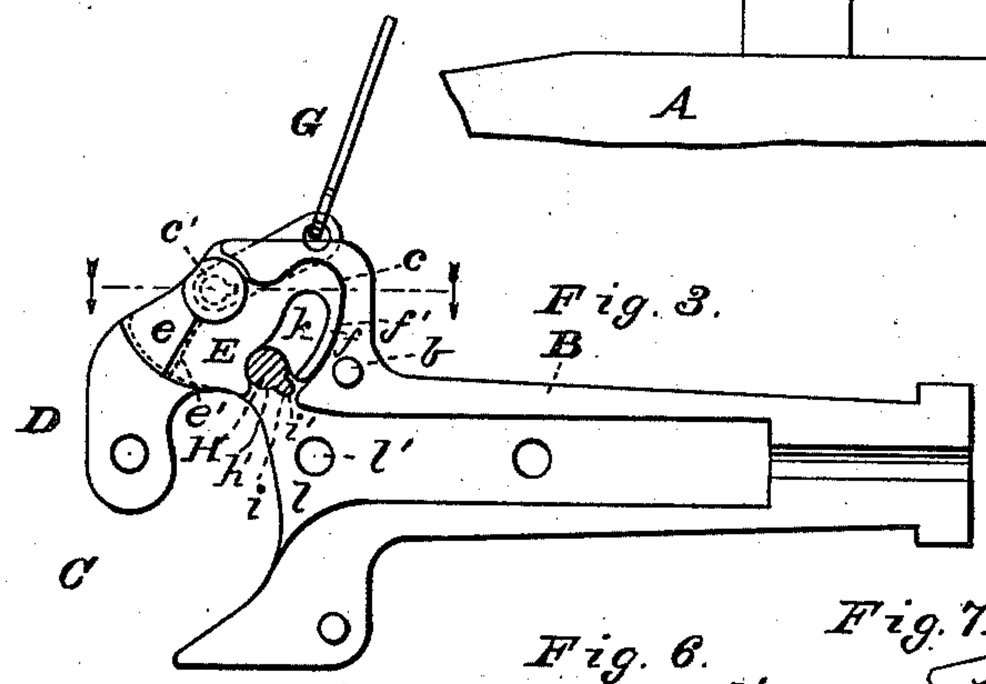


Fig. 4.

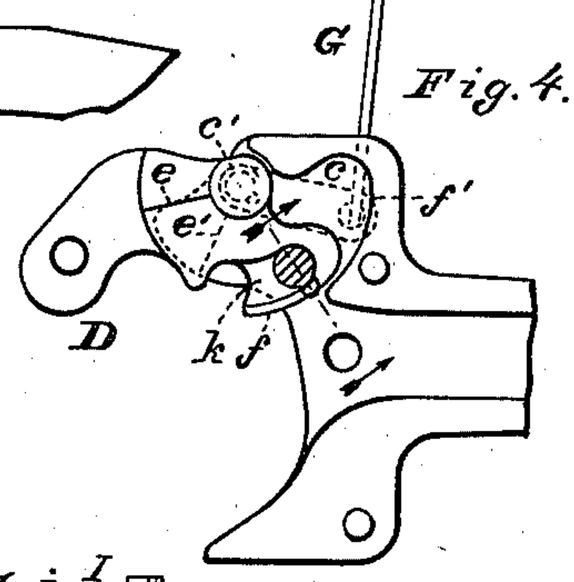


Fig. 5.

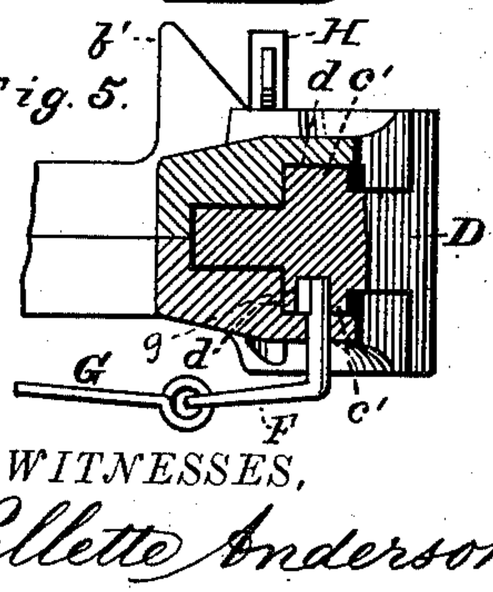


Fig. 6.

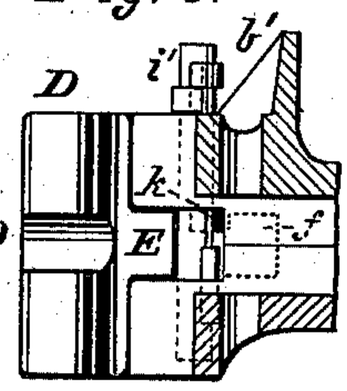


Fig. 7.

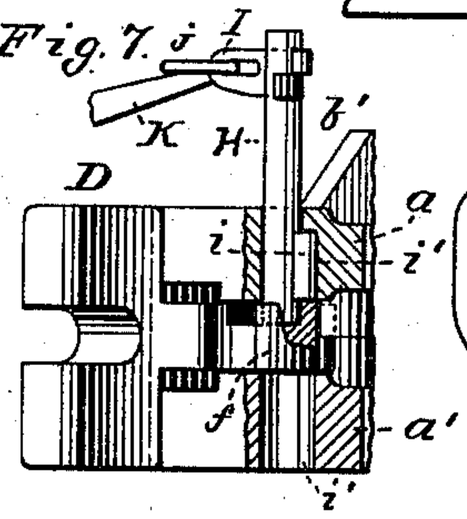
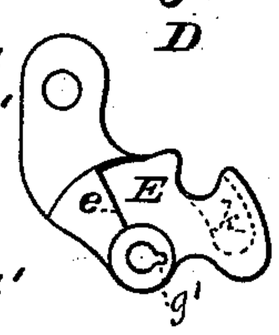


Fig. 8.



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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,301, dated June 26, 1888.

Application filed April 18, 1888. Serial No. 271,010. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. DOWLING, a citizen of the United States, and a resident of Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention, and is a front view. Fig. 2 is top view. Fig. 3 is a top view of the lower half of the coupling, showing the locking-jaw closed. Figs. 4, 5, 6, 7, and 8 are details.

The invention relates to improvements in car-couplings; and it consists in the construction and novel combination of parts, as hereinafter set forth.

Referring to the drawings, A designates the end sill of a car, and B shows the draw-bar secured to the under side of the sill in the ordinary manner. The draw-bar B and the draw-head C are preferably cast in two integral longitudinal sections, as shown at *a* and *a'*, adapted to fit closely together, and dowel-pins *b* are provided to secure the parts from lateral displacement. The upper side of the draw-head is provided with an upstanding lug, *b'*, designed to strike against a buffer-head and relieve the coupling from shock while connecting the cars. The front face of the draw-head C is of a general concave form in cross-section, as shown in the drawings.

D represents the locking or coupling jaw, which in a closed position extends half-way across the face of the draw-head and at a proper distance therefrom to allow the entrance of the similar coupling of an adjacent car. The shank E of the coupling-jaw stands at nearly right angles thereto and extends into the recess *c* in the draw-head, where it is held by the trunnions *c'*, having pivotal bearings in the recesses *d*. The shoulders *e* on the shank E are designed to abut against the shoulders *e'* in the draw-head, and the curved end *f* of the shank is adapted to turn easily against the curved wall *f''* within the recess, so that the trunnions are relieved from direct strain. A crank-arm, F, has its crank portion extending upwardly through the wall of the draw-head and into an opening in the lower trunnion, and the guard *g* is designed to enter a corresponding recess, *g'*, in the side of the trunnion-opening. The crank-arm F is provided at its outer end with an eye, from which the operating-rod G extends through a ring-bearing, *h*, to the outer side of the car.

H is the locking-pin, which extends downwardly through an opening in the draw-head and engages a recess, *h'*, in the outer edge of the shank E, as shown, which prevents the jaw from turning when the coupling is in use. A guard, *i*, at one side of the lower end of the locking-pin, is designed to enter a corresponding recess in the side of the pin-opening and prevent said pin from turning.

It will be observed that the recess *i'* does not extend to the outer end of the opening, that the end of the pin extends slightly beyond the inner wall, and that a curved slot, *k*, in the shank E provides a seat for the protruding end of the pin when said pin is drawn upwardly to allow the coupling-jaw to be opened.

A slotted arm, I, extends outward from the upper end of the locking-pin, the inner end of said arm being bifurcated and inserted through a slot in the pin, where it is secured by turning the ends in opposite directions, as shown at i^2. A lifting-rod, K, centrally pivoted to the sill of the car, has its end *j* turned outwardly through the slot in the arm I. The said rod K extends to the outer side of the car, and is designed to operate the locking-key. Should the coupling-jaw be broken away by accident, an ordinary link may be inserted in the recess *l* and a coupling-pin inserted through the pin-opening *l'*.

Having described my invention, what I claim is—

1. In a car-coupling, the combination of the draw-head having the recess for the shank, the coupling-jaw provided with the shank portion having the trunnions thereon, and the crank-arm having the crank portion extending through the draw-head and into an opening in the trunnion provided with the guard to enter the recess, and the operating-bar, substantially as specified.