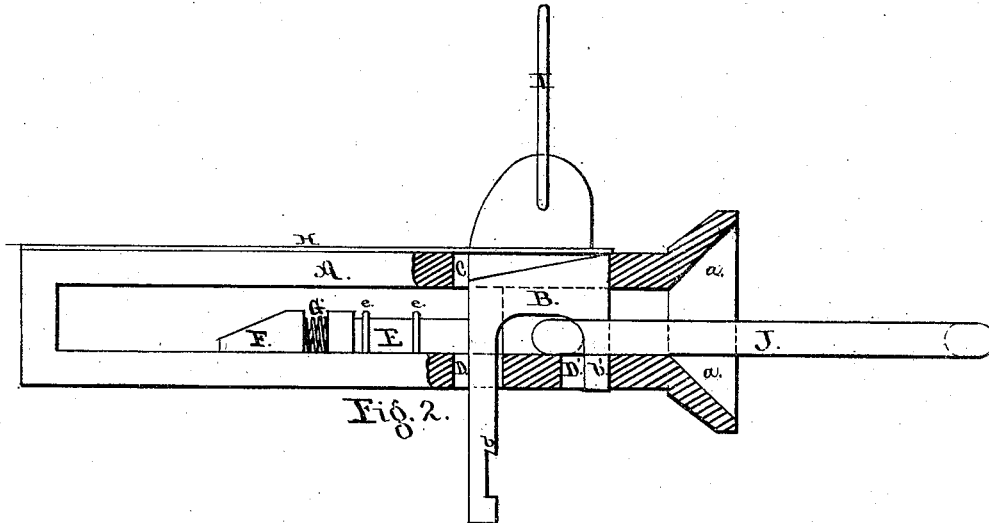
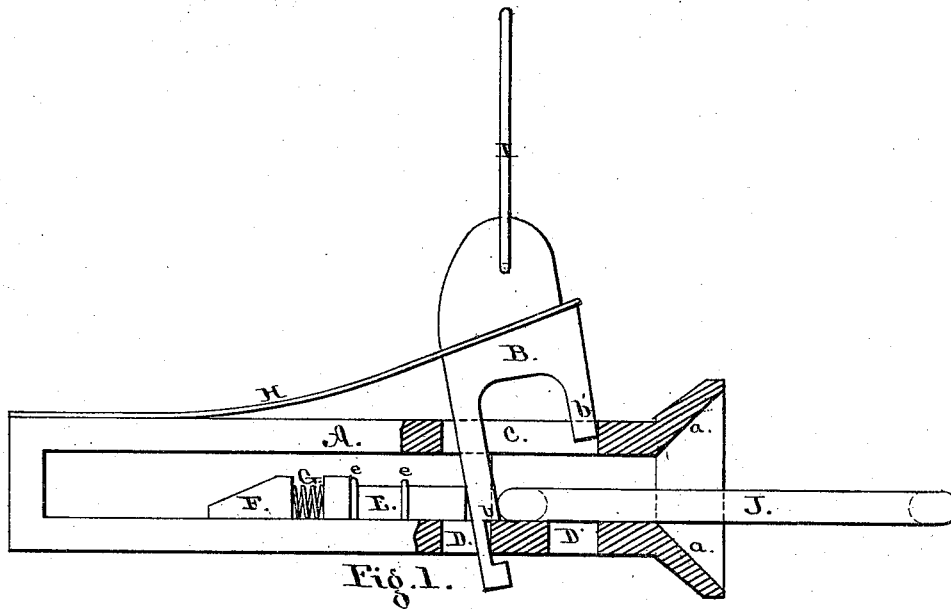


C. M. HOAG.
Car Coupling.

No. 106,936.

Patented Aug. 30, 1870.



Witnesses.

Wilhelm H. Long
James Richard

Charles M. Hoag

United States Patent Office.

CHARLES M. HOAG, OF NASSAU, NEW YORK.

Letters Patent No. 106,936, dated August 30, 1870.

IMPROVEMENT IN CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same

I, CHARLES M. HOAG, of Nassau, in the county of Rensselaer and State of New York, have invented certain Improvements in Self-acting Car-Couplings, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to a combination of devices for the coupling of cars, so arranged that the operations of uncoupling and setting the apparatus for coupling the cars may be effected from the platform or roof of the car, and the coupling of the cars effected by running them in contact with each other, the objects of my invention being to insure a certain and simple means of attaching cars by their own motion, and to avoid the imperiling of human life in doing so.

Description of the Accompanying Drawing.

Figure 1 is a side elevation of the coupling device, showing the coupling-bolt drawn up.

Figure 2 is the same, showing the coupling-bolt thrown down as when the coupling is effected.

In both figures a portion of the forward end of the "draw-bar" is removed, so as to show the details of the device more clearly.

General Description.

A is the draw-bar, only differing from those in common use from having the opening in the head made with flaring sides, as shown at *a*, and in such other slight changes as are required to adapt it to the proper working of the parts.

B is the coupling-bolt, which moves vertically through the slots C D D', they being made of sufficient length to admit of a slight motion in the direction of the length of the draw-bar.

The coupling-bolt is made with two limbs, one of which, *b*, passes through and secures the link J when the cars are coupled.

The other limb is provided with a notch, *b*, for securing the coupling-bolt in its proper position when drawn up.

E is a sliding bolt bearing against the back of the coupling-bolt.

It works in the guides *e e*, and is kept in contact with the coupling-bolt by the spring G, which is placed between it and the stop F.

H is a spring fastened to the top side of the draw-bar, and bearing on the shoulder of the coupling-bolt,

for the purpose of forcing it into its position in the operation of coupling.

I is a rod or chain, attached to the coupling-bolt for the purpose of drawing it out of the link. The other end of this rod may be carried to the roof, platform, or other place of safety on the car.

J is a link, commonly used for such purposes.

In coupling the cars together, the coupling-bolt B, when drawn up, as shown in fig. 1, has its notch *b* forced on and secured to the front end of the slot D, by means of the sliding bolt E and spring G, and is there held in proper position for effecting the coupling. The link J having been previously secured to the draw-bar of one of the cars to be coupled, is left projecting therefrom.

When motion is given to the car, the link J, upon striking against either of the flaring sides *a a* of the draw-bar A, is guided into the opening, where it strikes against the long limb of the coupling-bolt B, releasing the notch *b*, whereupon the spring H forces down the coupling-bolt B, whose limb *b'*, entering the end of the link J, secures it, and the coupling is effected.

The spring G, in addition to the function already described, serves as an aid to the "bumper-spring" commonly used behind the draw-bar.

The spring H, bearing upon the shoulder of the coupling-bolt B, as shown, causes a more instantaneous action of the coupling-bolt than can be obtained by gravity alone, thereby avoiding the liability of failure to connect caused by a recoil of the cars when brought violently together. The action of the spring H upon the coupling-bolt B also keeps the link J in a horizontal position, so as to secure its proper entrance into the opening of the draw-bar of the adjoining car during the operation of coupling.

Claims.

I claim as my invention—

1. The coupling-bolt B, constructed as shown and described, in combination with the spring H, for the purposes herein specified.

2. The combination of the draw-bar A, coupling-bolt B, sliding bolt E, and the springs G and H, as and for the purposes set forth.

Witnesses: CHARLES M. HOAG,
WILLIAM H. LOW,
JAMES ORCHARD.