(No Model.)

E. KAISER & J. STOCKER.

COMBINED CAR COUPLING AND BRAKE OPERATING ATTACHMENT.

No. 566,687. Patented Aug. 25, 1896.

Fig. 1.

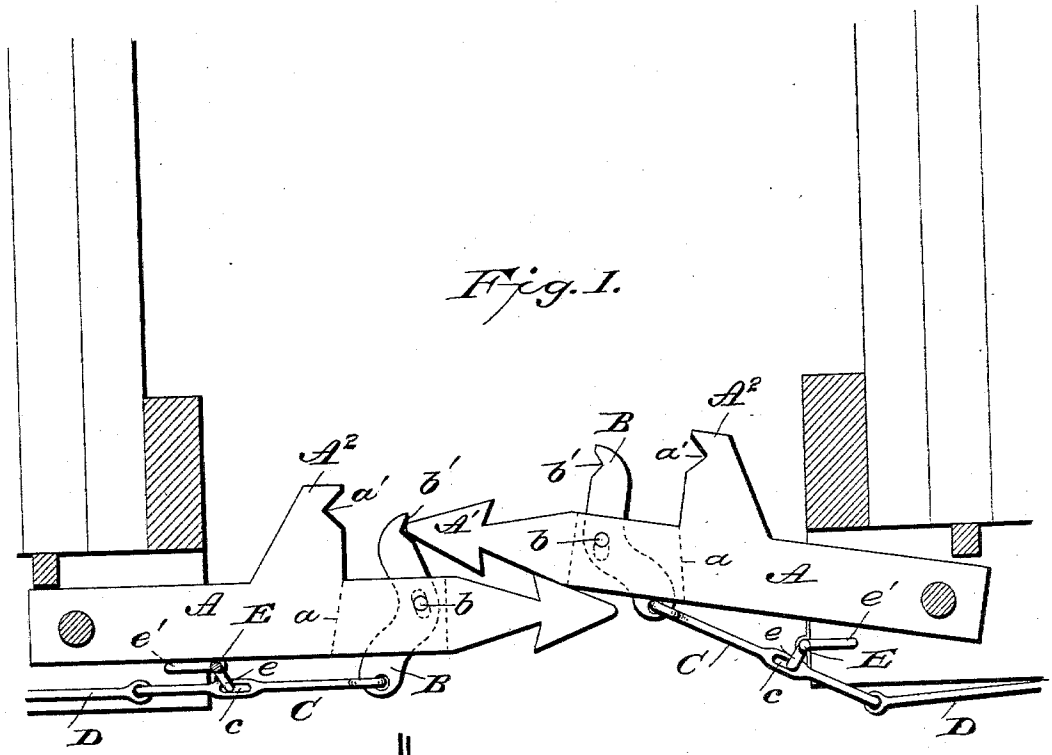
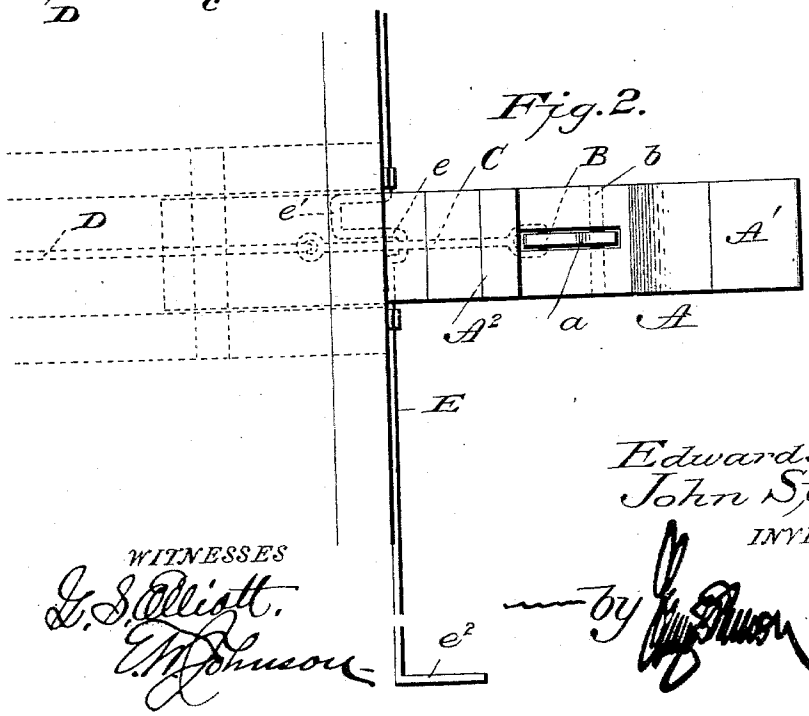


Fig. 2.



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EDWARD KAISER AND JOHN STOCKER, OF CONGERVILLE, ILLINOIS.

COMBINED CAR-COUPLING AND BRAKE-OPERATING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 566,687, dated August 25, 1896.

Application filed June 30, 1896. Serial No. 597,618. (No model.)

To all whom it may concern:

Be it known that we, EDWARD KAISER and JOHN STOCKER, citizens of the United States of America, residing at Congerville, in the county of Woodford and State of Illinois, have invented certain new and useful Improvements in a Combined Car-Coupling and Brake-Operating Attachment; and we 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide an automatic car-coupling and devices connected thereto by which, when the cars come together, said devices will be operated upon to apply the brakes; and it consists in the particular construction and combination of the parts, as hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a combined car-coupling and brake-operating mechanism constructed in accordance with our invention, and Fig. 2 is a plan view.

A designates the draw-bar, which is pivoted at its rear end between two longitudinal beams secured to the under side of the car-body, and the forward end of this draw-bar is formed into a drawhead A′ of the arrow-head type. Directly in the rear of the drawhead the draw-bar is provided with a vertical opening *a* to receive a vertical lever B fulcrumed upon a transverse pin *b*, the ends of said lever projecting above and below the draw-bar, as shown, and the recess *a* being of sufficient length to permit a rocking movement of the said lever. The upper end of the lever B is provided at its forward edge with a transverse notch *b′* to provide for the engagement therewith of the end of the drawhead of the adjoining car, as shown in Fig. 1, and for the purpose hereinafter explained, while the lower end of said lever has connected thereto a link or rod C, the other end of which is connected to the operating-bar D of the brake mechanism. (Not shown, but of any approved pattern).

The rod or link C is provided at an intermediate point with an enlarged portion having a horizontal slot *c*, with which engages the crank portion *e* of a transverse shaft E supported in suitable bearings carried by the car. This transverse shaft E is provided with a second crank portion *e′* positioned at an angle with the crank *e* and adapted to bear against the under side of the draw-bar to raise and lower the outer end of the same when said shaft is rocked, being provided with handles e^2 at its ends for that purpose. It will be here noted that when the shaft is turned to elevate the forward end of the draw-bar the crank portion *e* will act upon the link to move the operating-bar D and release the brake mechanism.

Upon the draw-bar A in the rear of the vertical opening *a* therein is formed an upwardly-projecting stop A^2, which will act as a bumper for the opposite drawhead should the same accidentally move beyond the lever B, and this stop or bumper is provided with a transverse notch or groove *a′* to insure the engagement of the drawhead therewith.

In operation, as the cars come together the shafts E are turned to raise or lower the drawheads to insure the proper coupling thereof, and in this connection the device operates in the usual manner of arrow-head couplings. Now, in uncoupling the cars, when the brakes are applied to the locomotive the cars of the train will come together and the draw-bar of one car will move upon the draw-bar of the other car and engage the upper end of the lever B thereof, swinging the same upon its fulcrum, and as said lever is connected to the operating-bar D of the brake mechanism the movement thereof will operate the bar D by drawing upon the same. It will also be noted that the upward movement of the other draw-bar will draw upon its connecting-link C and operate the brake mechanism of the car which carries said draw-bar.

The improvements herein shown and described provide devices for automatically coupling the cars and for automatically applying the brakes in uncoupling said cars.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with the draw-bars hav-

ing arrow-heads and vertical openings in the rear of the same, of levers B fulcrumed in said openings and extending above and below the draw-bars, and links C connecting the lower ends of the levers to the operating-bars of the brake mechanism, substantially as shown and for the purpose set forth.

2. In combination with the draw-bars of the arrow-head type, of vertical levers B fulcrumed thereto and projecting above and below the same, the upper ends of said levers having a transverse groove or notch, and a link C connecting the lower end of the lever to the operating-bar of brake mechanism, substantially as shown and for the purpose set forth.

3. In combination with the draw-bars of the arrow-head type, of vertical levers B fulcrumed thereto and projecting above and below the same, the upper ends of said levers having a transverse groove or notch, links connecting the lower ends of the levers to operating-bars of brake mechanism, and a stop or bumper A^2 formed upon the draw-bar in the rear of the lever, substantially as shown and for the purpose set forth.

4. In combination with the pivoted draw-bars of the arrow-head type, of vertical levers B fulcrumed thereto and projecting above and below the same, the upper ends of said levers having a transverse groove or notch; links connecting the lower ends of the levers to operating-bars of brake mechanism and provided with horizontal slots; together with a transverse shaft E supported by the car and provided with crank portions *e* and *e'*, the crank *e* engaging the slot in the connecting-link and the crank *e'* engaging the under side of the draw-bar, substantially as shown and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD KAISER.
JOHN STOCKER.

Witnesses:
J. F. CORLOCK,
J. A. ORY.