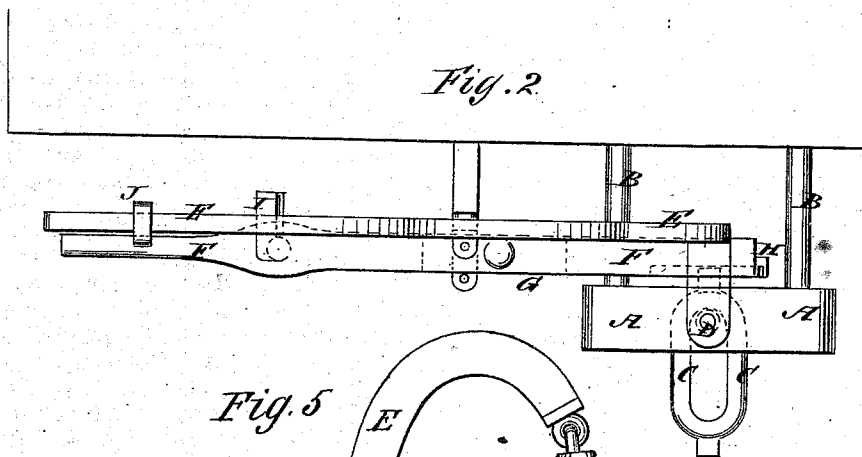
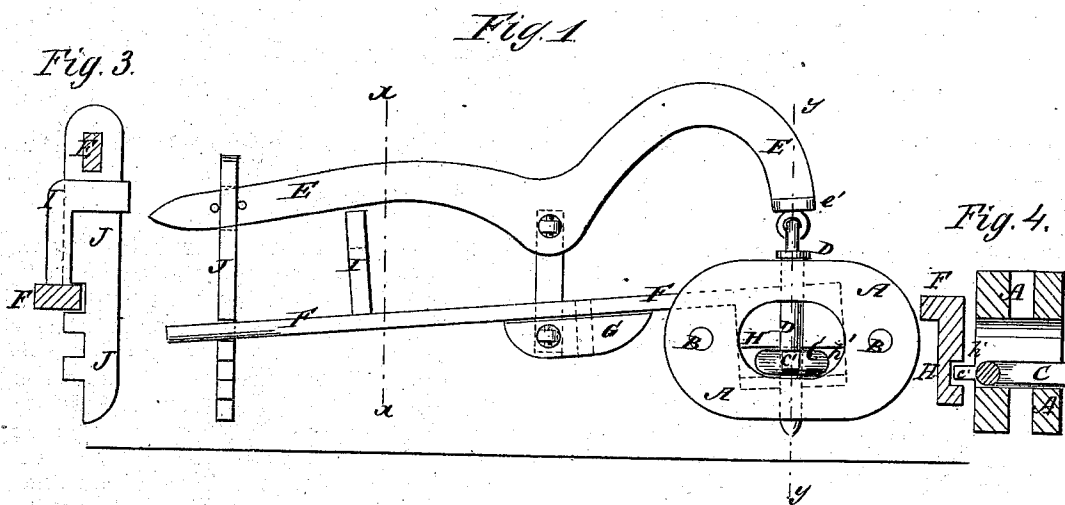


B. J. SIRMANS.
Car-Coupling.

No. 159,614.

Patented Feb. 9, 1875.



WITNESSES:
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UNITED STATES PATENT OFFICE.

BENJAMIN J. SIRMANS, OF BLACKSHEAR, GEORGIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **159,614**, dated February 9, 1875; application filed December 28, 1874.

To all whom it may concern:

Be it known that I, BENJAMIN J. SIRMANS, of Blackshear, in the county of Pierce and State of Georgia, have invented a new and useful Improvement in Car-Coupling, of which the following is a specification:

Figure 1 is a front view of my improved car-coupling. Fig. 2 is a top view of the same. Fig. 3 is a detail vertical section taken through the line *x x*, Fig. 1. Fig. 4 is a detail vertical section taken through the line *y y*, Fig. 1. Fig. 5 is a front view of the device, showing the parts in position for automatic coupling.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved automatic coupling, the construction and arrangement of parts being as hereinafter described and claimed.

A represents the bumper-head, which is connected with the car by means of two rods, B, and which has a horizontal hole formed through it to receive the link C, and a vertical hole formed through it to receive the pin D. The upper end of the coupling-pin D is pivoted to the forward end of an arm, *e'*, formed upon the inner end of the lever E, which is pivoted to a support attached to the forward end of the car.

The lever E may be made straight or curved, and its outer end projects into such a position that it may be reached and operated from the side of the car.

F is a lever, which is pivoted to a block, G, in such a way as to oscillate horizontally upon its pivot. The block G is pivoted to a support attached to the forward end of the car in such a way as to oscillate vertically upon its pivot, so that the lever F may have both a horizontal and vertical oscillation. To the inner end of the lever F is attached, or upon it is formed, a plate, H, of such a size as to pass between the rods B, and cover the inner end of the horizontal link-hole through the bumper-head A. The outer end of the lever F projects into such a position that it may be reached and operated from the side of the car. To the outer part of the lever F is attached a catch-arm, I, which projects upward and then rearward, so that, when the outer end of the lever E is moved downward to

withdraw the coupling-pin D from the link C, by moving the outer end of the lever F a little to the rearward the arm I will catch upon the said lever E, and hold the coupling-pin D suspended, as shown in Fig. 5. If, now, two cars are run together, the link C of the adjacent car will enter the hole in the bumper-head A, strike against the plate H, and push the inner end of the lever F to the rearward, which movement of the said lever F withdraws the catch-arm I from the lever E, and allows the pin D to drop through the bumper-head A and link C, coupling the cars.

When the car is to be coupled with a higher or lower car the outer end of the lever F is lowered to bring the transverse groove *h'*, formed in the lower part of the face of the plate H, opposite the hole in the bumper A, to receive the toe or projection *c'*, formed upon the end of the link C. The outer end of the lever F is then lowered or raised to raise or lower the forward end of the link C into position to enter the bumper-head of the said higher or lower car when the cars are run together. The outer end of the lever F is then placed in one of the notches formed in the hanging bar J, attached to the outer part of the lever E. As the cars come together the link C pushes back the inner end of the lever F, disconnecting the outer end of said lever F from the catch-bar J of the lever E, and allowing the lever F to take its ordinary position.

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

1. The pivoted horizontal lever F, having grooved plate H, in combination with the link C, provided with a projection, *c'*, as and for the purpose described.

2. The combination of the pivoted lever F, the pivoting-block G, the plate H, and the catch-arm I with the lever E and the coupling-pin D, substantially as shown and described.

3. The combination of the notched hanging bar J with the levers E F and the grooved plate H, substantially as shown and described.

BENJAMIN J. SIRMANS.

Witnesses:

H. H. WELLS,
R. J. HENSON.