

116397

# Joseph W. Barrett. Car Coupling.

PATENTED JUN 27 1871

Fig. 1.

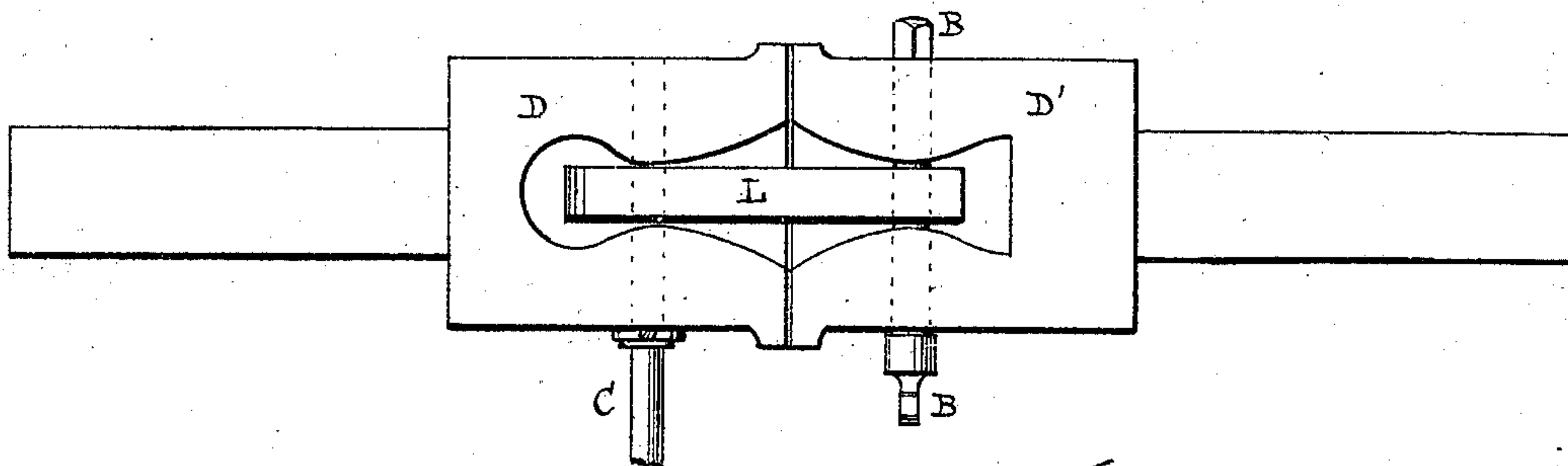


Fig. 2.

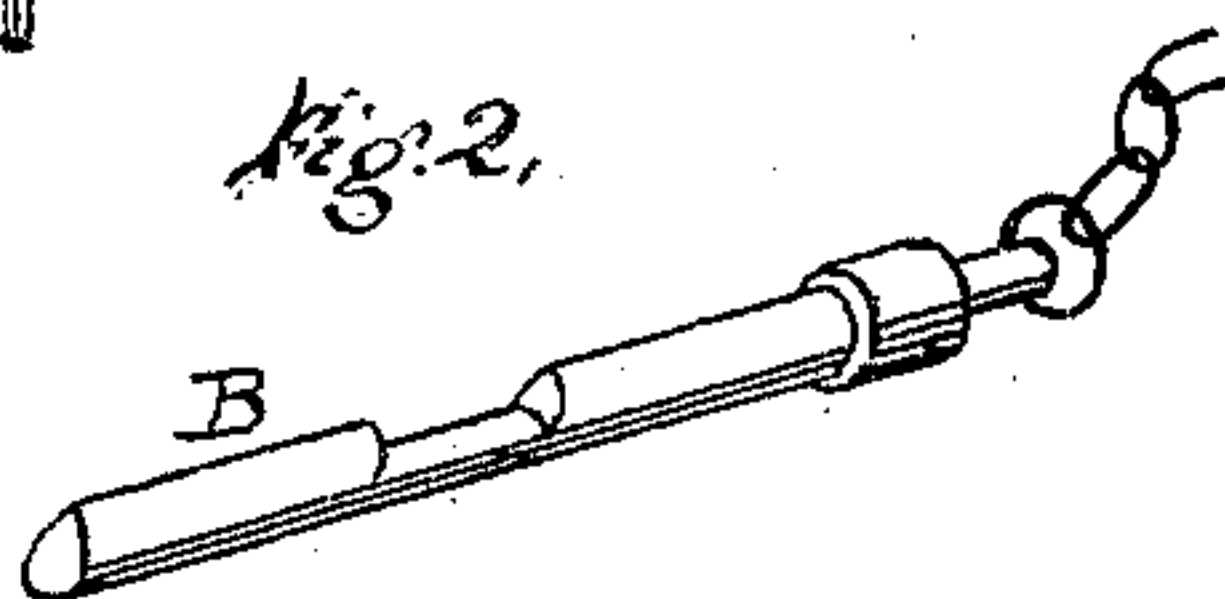


Fig. 3.

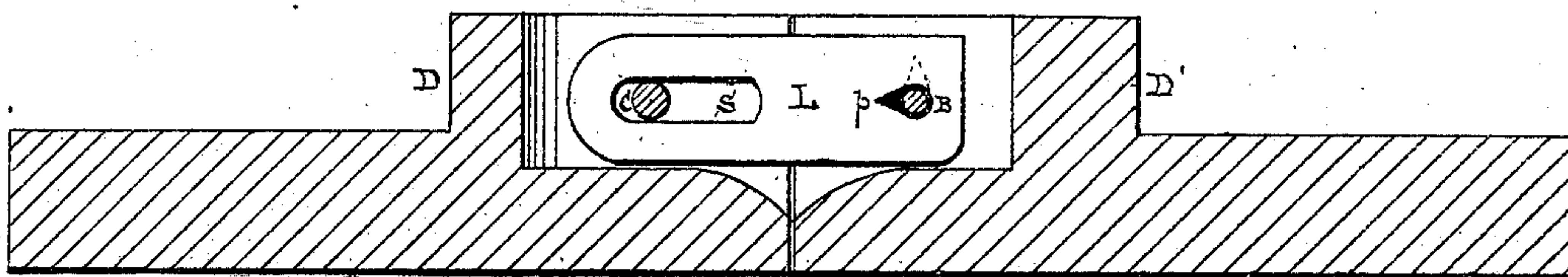


Fig. 4.

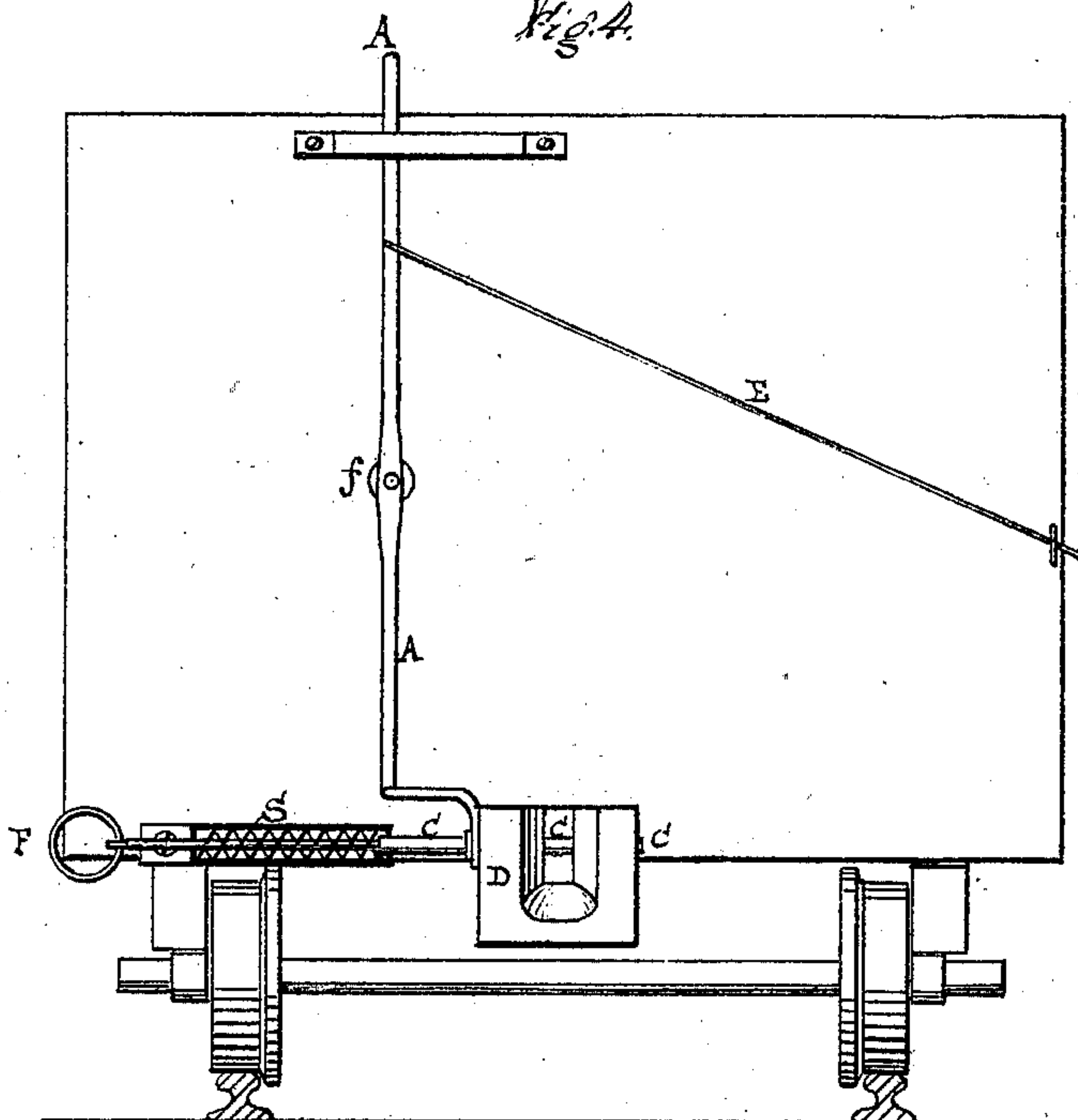


Fig. 5.



Fig. 6.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOSEPH W. BARRETT, OF CALHOUN, GEORGIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 116,397, dated June 27, 1871.

*To all whom it may concern:*

Be it known that I, JOSEPH W. BARRETT, of Calhoun, in the county of Gordon and State of Georgia, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a top view of two draw-heads united after the manner of my invention. Fig. 2 is a perspective view of my improved link-bolt. Fig. 3 is a longitudinal vertical section through the center of Fig. 1. Fig. 4 is an end elevation of a freight-car with my improved coupling attached, showing the operating mechanism. Fig. 5 is a side view of a self-coupling link. Fig. 6 is a similar view of a link for uniting heads of different heights.

The same letter indicates the same parts wherever it occurs.

The object of my invention is to diminish the liability to the accidents which so frequently occur, in the making up of trains, by the railroad men being crushed while employed in coupling the cars. With the more ordinary forms of coupling it is necessary for the men to go between the cars to be coupled in order to arrange the links and bolts and see to their proper action, and while thus engaged they often receive painful and fatal injuries.

My invention is clearly represented in the accompanying drawing, in which D D' mark the two draw-heads of adjacent cars, to one of which, D', the coupling-link L is attached by the bolt B, and to the other by the spring-bolt C. The draw-heads are both open at top, and their internal configuration is shown clearly in Figs. 1, 3, and 4. The lateral and vertical flare at the open end of the head, and the enlarged cavity at its rear or closed end, facilitate the reception of the link in coupling, guiding it to the proper position for the reception of the bolt, and afford the amount of lateral play necessary for the turning of curves. The link L, as shown in Fig. 3, has a long slot, s, in one end, and a pointed oval slot, p, in the other. The shape of the latter is shown in Figs. 3, 5, and 6. The bolt B, shown in perspective in Fig. 2, has the same shape in cross-section, as regards its end portions, as the oval slot p. The middle portion of bolt B is round, the sharp edge of the oval being at that part cut away, so as to form shoulders, as clearly shown in Fig. 2. The hole in the draw-head through which the bolt B passes corresponds in shape

and size with the oval portion of the bolt, the sharp point of the oval being uppermost. The object of this construction of these parts is that when the bolt B is passed through the draw-head and link the latter shall enter the depression in the middle of the bolt, and thus prevent it from being shaken or thrown out of the draw-head by the motion of the car. The coupling-bolt C is held in by a spiral spring, as shown in Fig. 4. It may be withdrawn from the link by means of a ring, F, attached to its head, or by means of the lever A, which has its fulcrum at f on the end of the car, and may be operated either directly from the top of the car or from its side by means of the rod E.

The operation is as follows: The link L is attached to the draw-head D' by means of the bolt B, and projects from it in such position that when its rounded end comes into contact with the draw-head D it will ride upon the inclined portion of that head and assume the proper position to receive the spring coupling-bolt C. This bolt has been previously retracted by the operator, who may stand on the top or on either side of the car, and when the link has entered the draw-head the bolt C is released and immediately enters and passes through slots and completes the coupling. The link represented in Fig. 5, when used, is to be attached to draw-head D' in the same manner as link L. When the draw-heads are brought into contact the curved forward end of the link will ride up the incline of the draw-head and engage with the bolt C without the latter having been withdrawn. The link represented in Fig. 6 affords a convenient means of coupling a car with one higher or lower than itself, the position of the link being varied accordingly.

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

The arrangement and combination of the link L, bolt B, open draw-heads D D', and spring coupling-bolt C, all constructed as described, with mechanism for operating the same from the top or either side of the car, in the manner set forth.

The above specification of my said invention signed and witnessed at Washington this 5th day of June, A. D. 1871.

JOS. W. BARRETT.

Witnesses:

W. R. STANSBURY,  
CHAS. F. STANSBURY.