(No Model.) 2 Sheets—Sheet 1.

R. R. ASBURY.

CAR COUPLING.

No. 367,738. Patented Aug. 2, 1887.

Fig. 1.

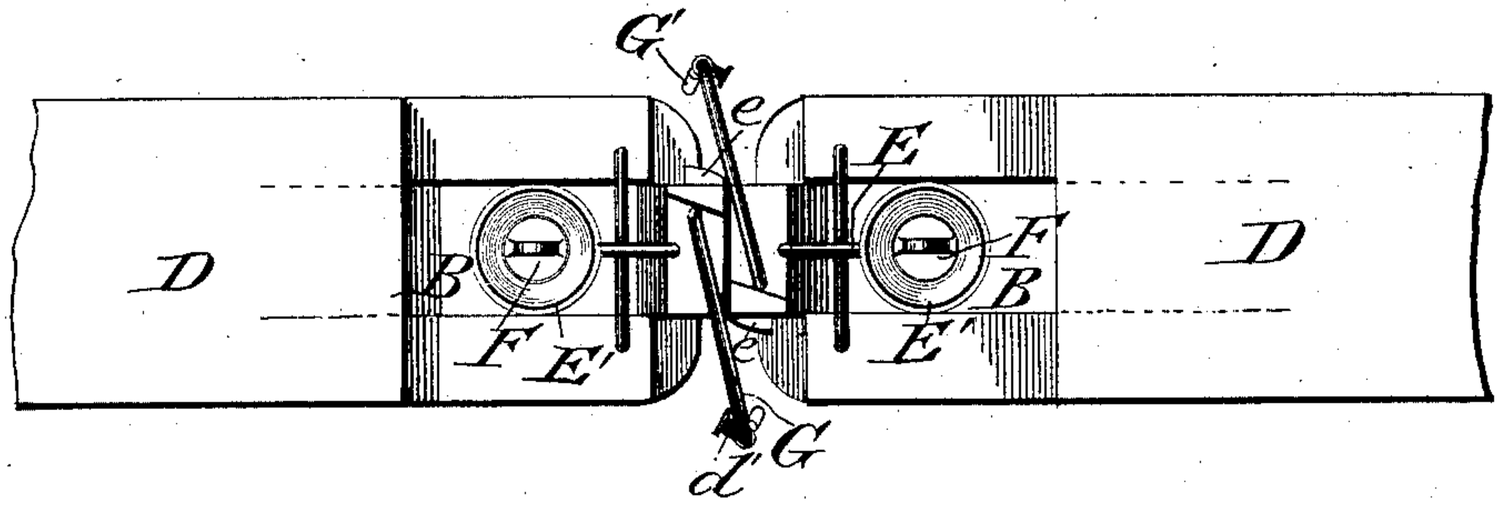
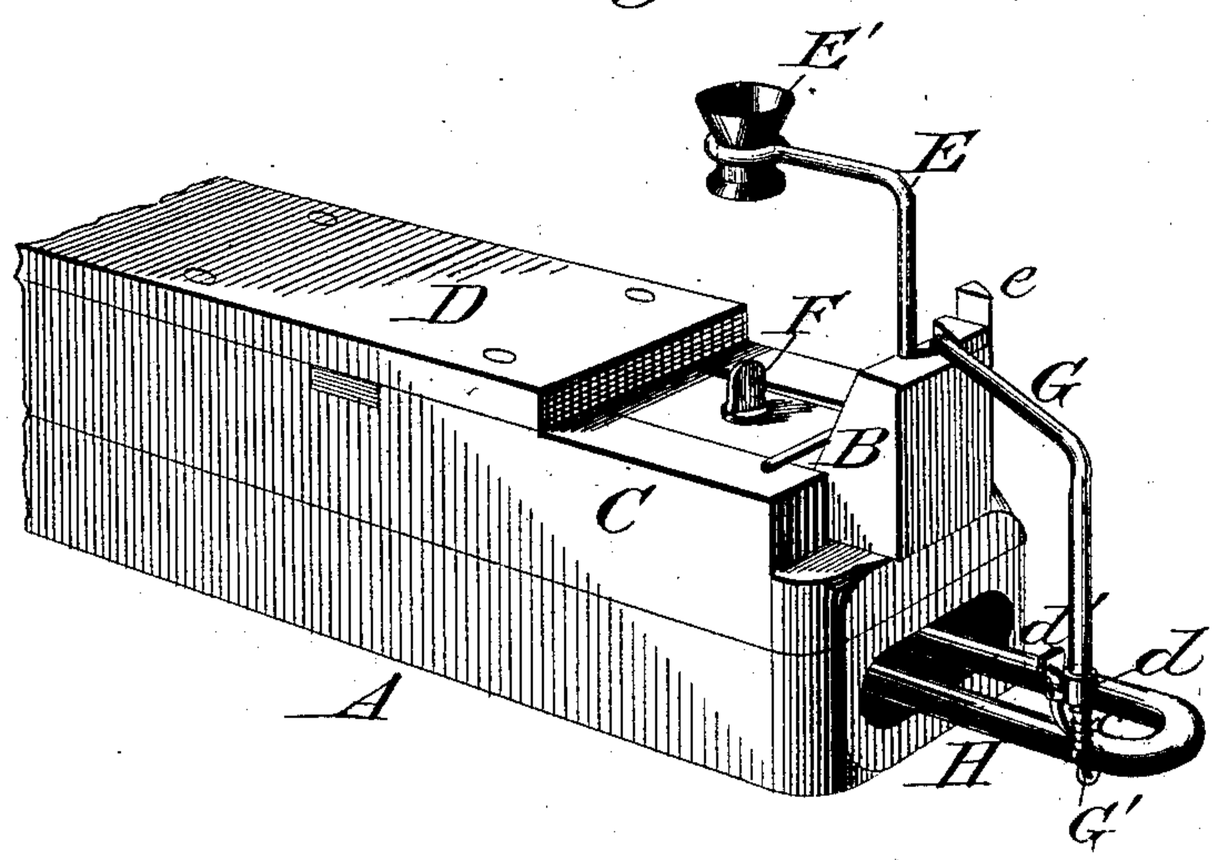


Fig. 2.



Witnesses

F. H. Schott

A. P. Ward

Inventor

Rufus R. Asbury

By his Attorney

W. E. Chandlee

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

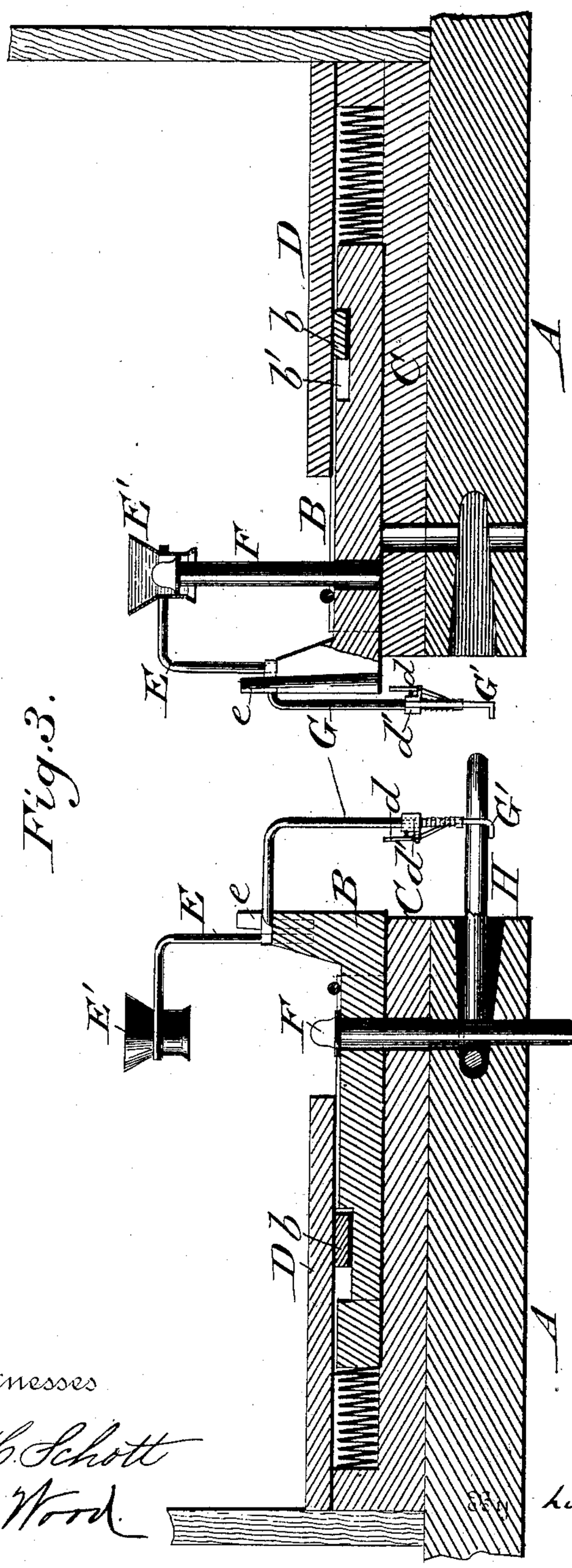


Fig. 4.

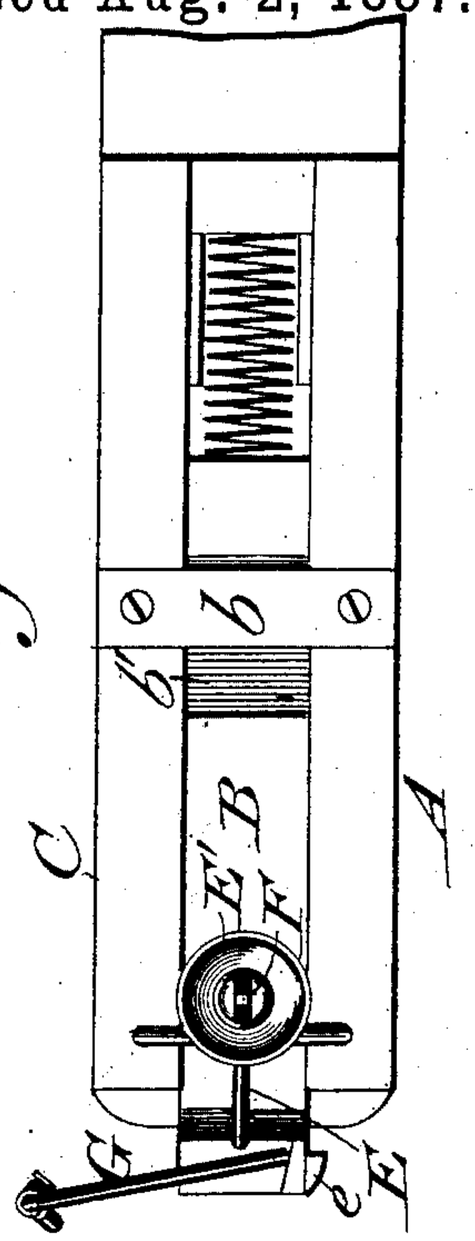
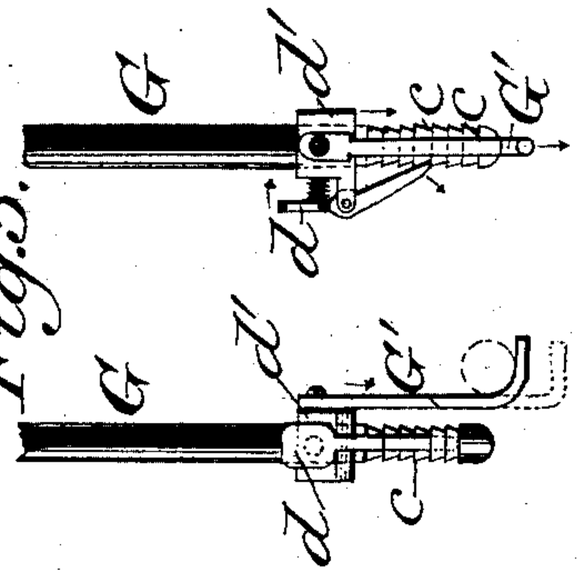


Fig. 5.



Witnesses

F. H. Schott

A. P. Wood.

Inventor

Rufus R. Asbury

by his Attorney

W. W. Chandler

UNITED STATES PATENT OFFICE.

RUFUS R. ASBURY, OF PLEASANT RETREAT, GEORGIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 367,738, dated August 2, 1887.

Application filed May 23, 1887. Serial No. 239,089. (No model.)

To all whom it may concern:

Be it known that I, RUFUS R. ASBURY, a citizen of the United States, residing at Pleasant Retreat, county of White, State of Georgia, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be such a full, clear, and exact description of the invention as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates especially to certain additions and improvements upon the link-and-pin coupling in common use by which it is made capable of acting as an automatic coupler and wholly avoids the necessity which now exists with the use of this coupler of entering the space between the cars and holding up or guiding the link when a coupling is to be made; and the invention consists in the application to the draw-head of a car of an adjustable link-supporter and device for the holding up the pin until the link enters the opposite draw-head, when the pin is dropped through the link and the link-supporter turned to one side by the automatic action of the parts in the act of coupling, all as will be hereinafter fully set forth.

In the accompanying drawings, which illustrate my invention, similar letters of reference indicate like parts in the different figures.

Figure 1 is a plan view of the coupling as seen when connecting the draw-heads of two cars. Fig. 2 is a perspective view of a draw-head provided with my improvements. Fig. 3 shows a longitudinal section of two draw-heads provided with my improved coupling devices, the link being attached to one draw-head, but not to the other. Fig. 4 is a plan view of the top of the draw-head with the cap which covers the slide removed. Fig. 5 shows a front and side view of the adjustable link-supporter upon an enlarged scale.

In applying these improvements I make little or no change in the draw-head or bumper used generally upon freight-cars, the ordinary link and pin being employed without change. A spring actuated sliding piece is fitted upon the top of the draw-head, perforated with an opening for the passage of the pin, and provided with an adjustable link-support and a support for the upper end of the coupling-pin when it is raised, so arranged as to retain said pin in a vertical position ready to drop through the hole in the draw-bar when the slide is pushed back far enough to cause the pin-hole in the slide to register with that in the draw-head.

In the several figures, A A represent the draw-heads; B, the slide upon the top of said draw-head, moving in suitable guides, C C, which guides may be fitted to and secured upon the top of an ordinary draw-head. A spring, *a*, is placed in a recess at the rear of the slide B, and tends to push it continually forward, its movement, however, in either direction being limited by a cross-bar, *b*, secured to the guides C C and entering a recess, *b'*, formed in the top of the slide.

A cover, D, is secured to the guide-pieces over the rear portion of the slide, and serves to protect it as well as the spring *a* from injury by contact with any object. It also prevents the ingress of water to the recess *b'* and spring-recess, which, by freezing therein in cold weather, might prevent the free action of the parts.

Projecting upward from the front of the slide B is a bar, E, its upper part bent to form a right angle with the lower part, and carrying the pin-support E'. This pin-support consists of a short tube open at both ends, its central part being cylindrical and its upper and lower ends funnel-shaped, to facilitate the placing of the pin F therein, as shown at the right in Fig. 3. The arm G is pivoted to the front of the sliding piece B, so that it may swing horizontally, its outer end being turned down into a vertical position and provided with a series of serrations, *c c*. Upon this serrated part of the arm G is secured, by means of the spring-pawl *d*, the sliding head *d'*, to which is attached the link-support G', consisting of a vertical portion having its lower end turned to one side, so as to form a support for the link H, when desired. By this method of construction it will be seen that the link may be held at any desired height.

If the draw-head of the car with which the connection is to be made is higher than that carrying the link, the brakeman or other person in charge seizes the link-support and raises it, together with the link, to the desired height

to enter the draw-head of the car to be coupled, the link-support being retained in any position in which it may be placed by the spring-pawl entering the serrations of the bar G. If the link is to be lowered, the operator presses upon the pawl, forcing it out of the serrations and allowing the support and link to drop to the desired position, when, the pawl being released, it is retained at that point until the link has entered the draw-head of the coming car, which draw-head coming in contact with the the arm G swings it around out of the way, as shown in Fig. 1 of the drawings.

In order to prevent the arm G from swinging across the front of the draw-head, a projection, *e*, is formed upon the front end of the sliding piece B, which projection by coming in contact with the said arm effectually prevents it from swinging too far in that direction.

The ends of the draw-head and sliding piece are both beveled at the corners, where they would be liable to come in contact with the link-supporter, so that the latter may easily slip by without injury.

The operation of this improved coupler is as follows: A link having been inserted in the draw-head of a car, the pin is dropped through it in the ordinary manner. It now being desired to connect this car with another, the pin in the draw-head of the car to be coupled is raised. As soon as its point is above the upper surface of the draw-head the spring *a* pushes the slide B forward, carrying the pin with it, so that when the parts are in position for making the coupling, as shown in Fig. 3, the head of the pin is held up by the support E′, its lower end resting upon the top of the draw-head in advance of the pin-hole through the same. Now, as the cars come together the link enters the opening in the opposite draw-head until the two draw-heads come together, when the slide which supports the pin will be pushed in until the lower end of the pin is carried over the hole in the draw-head, into which it immediately drops, passing through the link, and the coupling of the two cars together is completed without danger to any one, as the proper position of the link, as well as that of the pin, to insure a perfect coupling is secured before the cars are moved toward each other.

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

1. As an improvement in car-couplings, the draw-head, in combination with the guides C, attached to said draw-head, the recessed sliding piece B, the bar *b*, secured to the guides and entering said recess to limit the movement of the sliding piece, the springs *a*, and covering-piece D, arranged substantially as shown and described, for the purpose set forth.

2. In a car-coupling, the draw-head and sliding piece B, in combination with the horizontally-swinging link-support pivoted in said sliding piece and arranged to support the link before coupling and swing to one side when the coupling is made, substantially as specified.

3. In a car-coupling, the combination of the draw-head, the sliding piece B, and the swinging arm G, with the link-lifter G′, adjustably attached to said arm by the sliding head *d′* and spring-pawl *d*, substantially as set forth.

4. As an improvement in car-couplings, the combination of the draw-head, the sliding piece B, the pin-support, and the adjustable link-support, both attached to said sliding piece, substantially as specified.

In testimony that I claim the foregoing I hereunto affix my signature in presence of two witnesses.

RUFUS R. ASBURY.

Witnesses:
M. T. E. CHANDLER,
ROBERT E. MORRIS.