

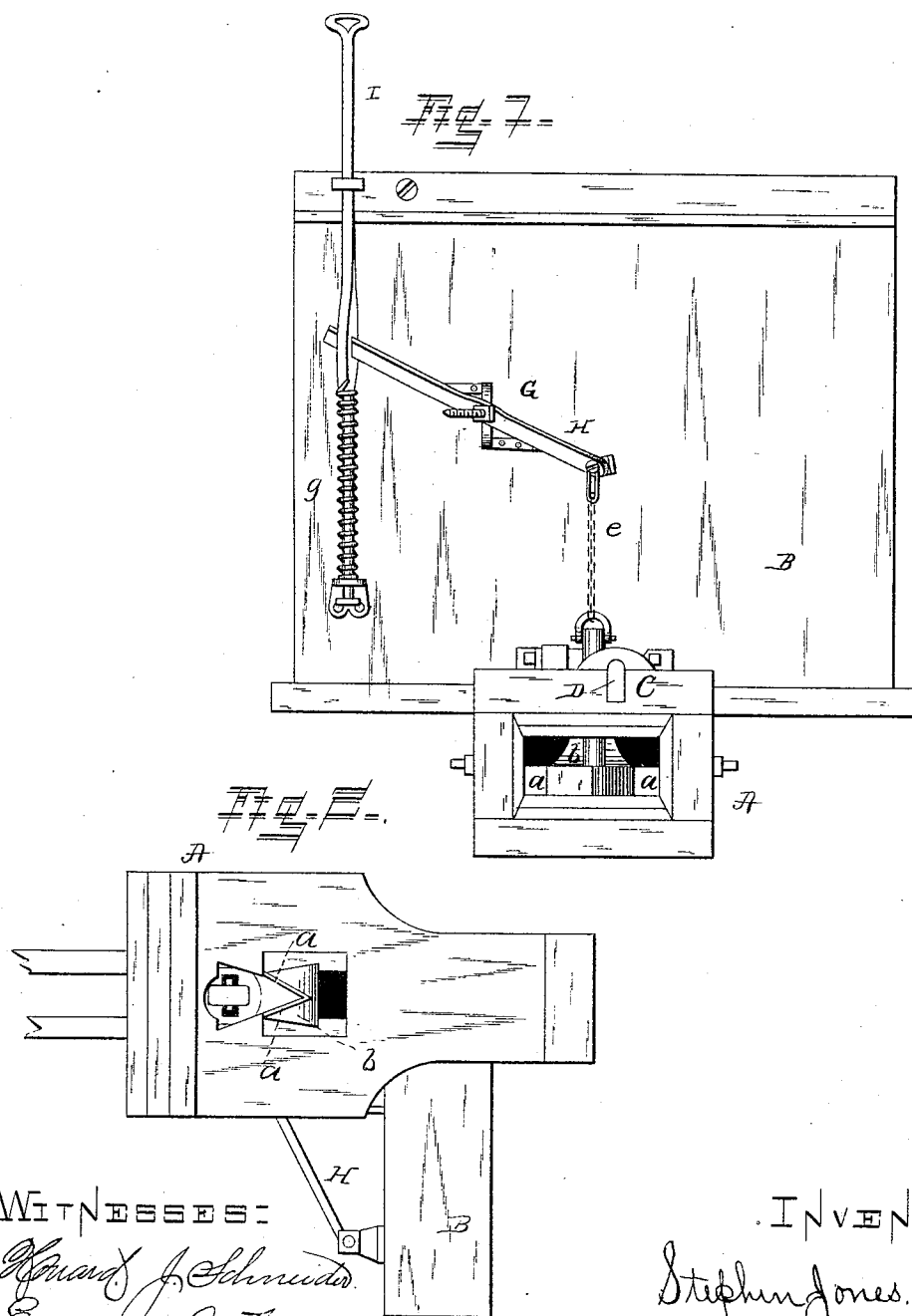
(No Model.)

2 Sheets—Sheet 1.

S. JONES.
CAR COUPLING.

No. 346,551.

Patented Aug. 3, 1886.



WITNESSES:

Kenneth J. Schmidt.
Edmund A. Straus.

INVENTOR:

Stephen Jones.

By Frank Sheehy.

ATTORNEY:

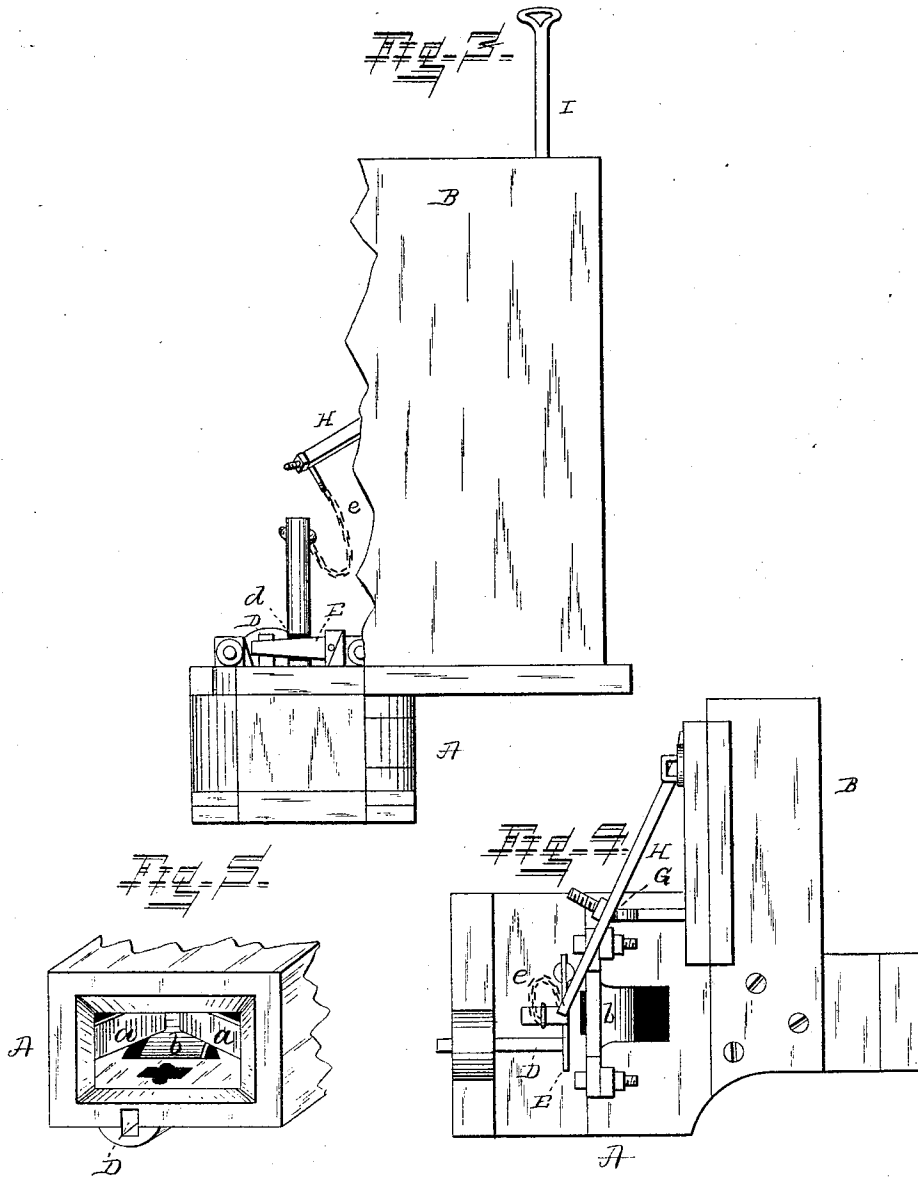
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WITNESSES:

Edward J. Schneider.
Edmund A. Strause

INVENTOR:

Stephen Jones.
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ATTORNEY:

UNITED STATES PATENT OFFICE.

STEPHEN JONES, OF MINNEOTA, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 346,551, dated August 3, 1886.

Application filed May 18, 1886. Serial No. 202,523. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN JONES, a citizen of the United States, residing at Minneota, in the county of Lyon and State of Minnesota, have invented certain new and useful Improvements in Car-Couplings; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in devices for coupling cars; and it consists in the construction, novel arrangement, and adaptation of parts, as will be hereinafter more fully set forth, and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front view of my improved device as applied to a car. Fig. 2 is an inverted plan view showing a portion of the coupling-link. Fig. 3 is a plan view. Fig. 4 is an elevation showing the coupling-pin raised, and Fig. 5 a front perspective of the draw-head.

The main object of the invention is to improve couplers, which may be made to act automatically, and the uncoupling may be effected without going between the cars.

Referring by letter to the said drawings, A indicates the draw-head, and B the front, of an ordinary car.

Within the draw-head are two lateral yielding plates, *a a*, which are secured at their forward ends. These plates converge rearwardly, and normally touch at their inner ends. These plates are designed to conform to the shape of the ends of the connecting-link, which is somewhat pointed, and prevents the same from undue lateral movement when uncoupled, or when the link is in a position to engage a meeting draw-head. Above these lateral plates, and within the draw-head, is also arranged a yielding plate or spring, *b*, which is secured at its forward end, and then curves downwardly and rearwardly. The object of this curved plate or spring is to engage the upper side of the link and keep its opposite end suitably elevated. By means of these

yielding plates it will be seen that a coupling-link will always be held in proper horizontal position to enter the draw-head of an abutting car, thereby dispensing with the objectionable and dangerous necessity of an operator going between the cars to guide the link in coupling.

In the face of the draw-head, and preferably above the mouth thereof, I provide a horizontal longitudinal slot, C, and arrange therein a slide, D, which may have a suitable stop to prevent it from leaving its seat. At the rear end of this slide is a spring, E, which I have shown as a flat spring. This spring is secured at one end, as shown, and bears at its opposite end against the inner end of the said slide. The coupling-pin is provided in its rear vertical side with a notch or recess, *d*, which is engaged by the said spring when the pin is raised. Thus it will be seen that when the pin is raised, as more fully shown in Fig. 3 of the drawings, and the slide is engaged by a meeting car, the spring will be moved away from the pin, and the latter allowed to drop down in the draw-head and into the coupling-link. The spring will then react upon the pin and prevent the same from lifting out of position, but when the pin has been drawn up by means hereinafter explained, the spring will act promptly and automatically in engaging the notch of the pin, and again hold the same until the slide has been moved, as before mentioned.

G indicates a fulcrum, which is arranged at a suitable point on the front of the car, and in which is journaled about midway of its length a lever, H, the inner end of which is connected with the upper end of the coupling-pin by means of a chain, *e*, and the outer end is attached to or passed through an aperture in a vertical bar or rod, I. This vertical rod passes through loops or guides on the car front, and is held in a raised position by means of an encircling spiral spring, *g*. In this position of the vertical rod the inner end of the lever H is depressed and the pin allowed to remain in the draw-head, but when the vertical rod has been depressed the position of the lever H will be reversed, and the pin drawn out of the draw-head and its notch engaged by the flat spring. The coupling-pin is provided at its lower end with a stop, so as to

prevent the same from being entirely drawn out of the hole in the head.

While I have shown and described this invention as being applied to a box-car, yet it is
5 obvious that the same may be applied to a flat car or passenger car without departing from the gist of the invention.

Having described my invention, what I claim is—

10 1. The combination, with a draw-head constructed as described, and provided with the yielding devices therein, of a coupling-pin having a transverse notch in its rear side, a
15 said notch, and the slide engaging the free end of the spring, substantially as specified.

2. The combination, with the draw-head, of the notched coupling-pin, the spring engaging the notch, the slide engaging the free end of the spring, the pivoted lever connected with
20 the coupling-pin, and the spring-pressed vertical rod connected with the said lever, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN JONES.

Witnesses:

F. R. JOHNSON,
J. S. ANDERSON.