(No Model.) 2 Sheets—Sheet 1.

J. F. PRESTON, A. F. FERRELL & H. SCHIFFBAUER.

CAR COUPLING.

No. 496,368. Patented Apr. 25, 1893.

Fig. 1.

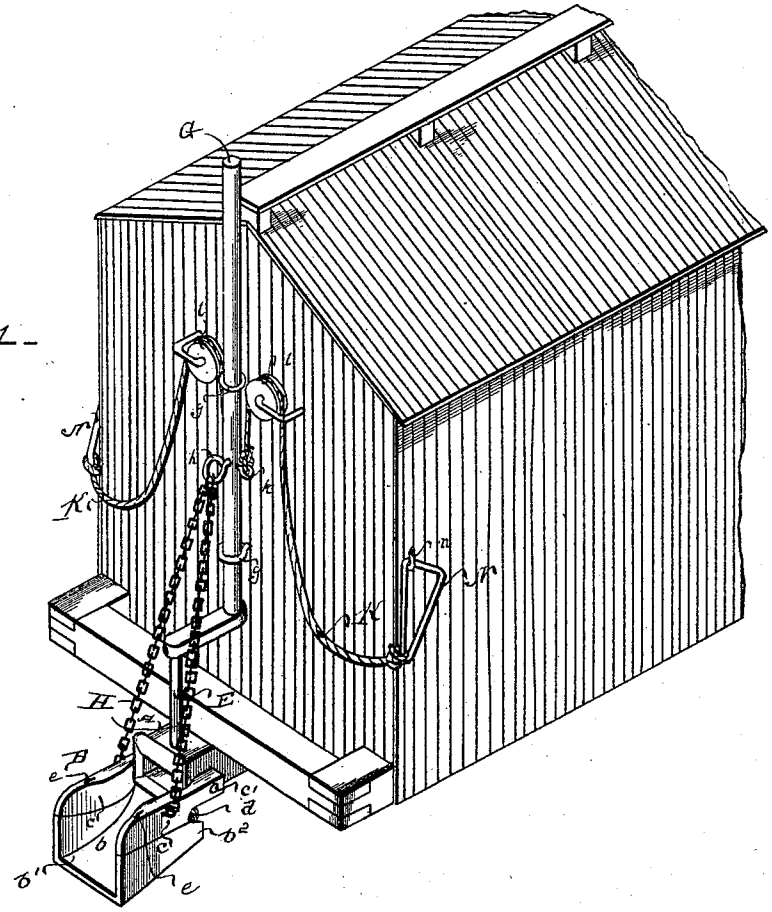
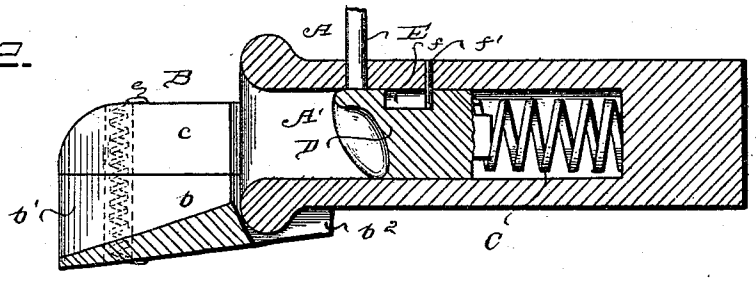


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

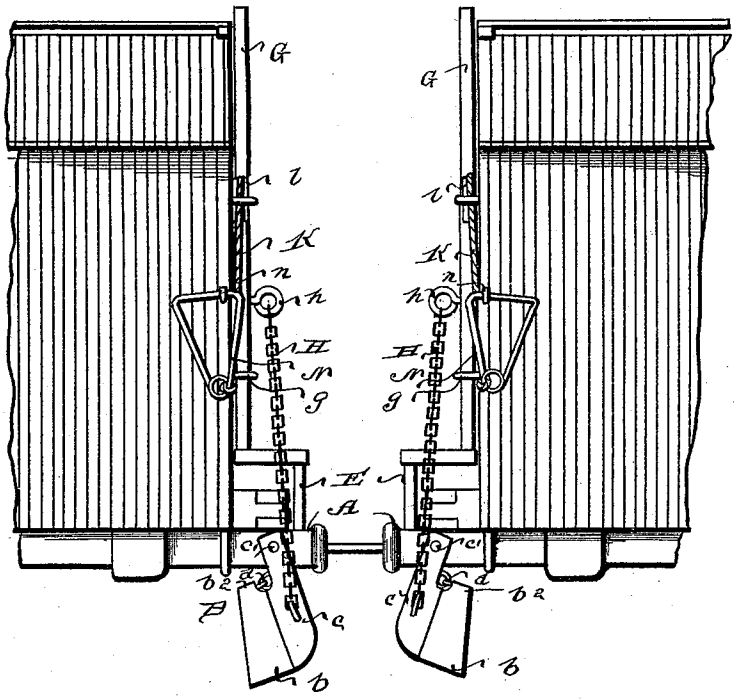
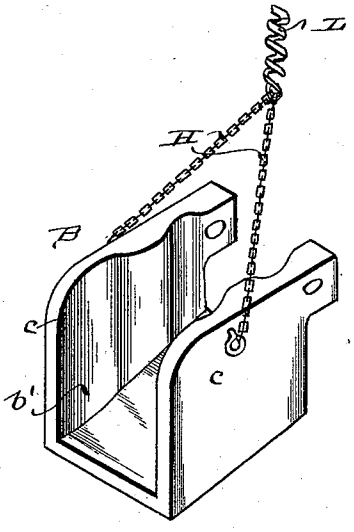


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES F. PRESTON, ALEXANDER F. FERRELL, AND HENRY SCHIFFBAUER, OF ARRINGTON, KANSAS; SAID PRESTON ASSIGNOR TO SARAH A. SCHIFFBAUER AND CHARLES E. SCHIFFBAUER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 496,368, dated April 25, 1893.

Application filed August 16, 1892. Serial No. 443,207. (No model.)

To all whom it may concern:

Be it known that we, JAMES F. PRESTON, ALEXANDER F. FERRELL, and HENRY SCHIFFBAUER, citizens of the United States, and residents of Arrington, in the county of Atchison and State of Kansas, have invented certain new and useful Improvements in Automatic Car-Couplings; and we 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view showing front of car with guide and attachments. Fig. 2 is an enlarged longitudinal-sectional view of guide and draw-head. Fig. 3 is a side view and Fig. 4 is an enlarged perspective view of the guide.

This invention has relation to certain new and useful improvements in car couplings, and it consists in the novel construction and combination of parts, all as hereinafter specified.

The object of the invention is to provide an attachment which can be readily applied to the ordinary draw head, and link and pin coupling, whereby its action in coupling will be rendered automatic, and the uncoupling may be effected without the necessity of passing between the cars.

Referring to the accompanying drawings, the letter A designates a draw-head, such as employed in the ordinary pin and link coupling, and which is provided with our improved link guide B. This guide comprises two parts, the lower part *b*, having the beveled mouth portion *b'*, and the rearwardly projecting lateral arms b^2, and the two side pieces *c*, *c*. Said side pieces at their rear portions are pivoted to the lateral faces of the draw-head at *c'*, and the forward portions are beveled on their inner faces to correspond with the bevel of the lower part *b*. The arms b^2 of the lower part are connected with the rear portions of the side pieces by the hinges *d*, and also by the spiral springs *e*, which are seated in recesses in the meeting faces of the parts By this connection, the lower portion is enabled to swing down upon the approach of an opposing car, and permit the two draw-heads to come together. The side pieces *c*, *c* are also capable of a lateral spread sufficient to permit the parts to come into coupling contact.

Seated in the rear portion of the draw-head chamber A', is a spring C in front of which is a plunger D, which is adapted when in its forward position, to form a support for the coupling pin E. In this plunger is a slot *f*, which slides upon a pin *f'*, or set screw, projecting through the wall of the chamber.

Supported on the end of the car, is a vertical rod or shaft G, which is capable of a vertical endwise movement in the guides *g*. This rod, at its lower end, is connected to the head of the coupling pin, as shown, and its upper end is extended sufficiently to enable it to be operated from the top of the car. Said rod also carries an eye *h*, which is connected by flexible mediums H with the side pieces *c*, *c*, of the link guide. It will be apparent therefore, that when the rod is raised, the pin will be withdrawn from its coupling position, and the link guide elevated into its operative position. For the purpose of operating the rod from the sides, as well from the top of the car, the chains or cords K, K, are provided, which are connected at one end to the rod at *k*, *k*, thence up and over small pulleys *l*, *l*, on the end of the car, and to the respective sides. To their free ends may be attached the handle rings N, N, which are normally hung on the hook *n*, *n*, on the car. In place of said cords however, suitable levers may be employed.

When a coupling is to be made, the link entering the chamber of the draw-head, comes in contact with the plunger, which recedes under the concussion, and permits the coupling pin to fall through the link. The lower portion of the link guide swings downwardly out of the way of the opposing draw-head, and the side portions spread laterally as hereinbefore specified, permitting the draw-heads to come in coupling contact. The uncoupling is effected, as above stated, by raising the rod G.

It will be apparent that this attachment may be applied to an ordinary coupling without change of the parts. In Fig. 4, the link

guide is shown as formed in one piece, without the side pieces a spring L being used in the lifting chain.

Having described this invention, what we claim, and desire to secure by Letters Patent, is—

1. In a car coupling, the combination with the draw-head, of the link guide therefor, said guide comprising the side pieces pivotally connected at their rear portions to the lateral faces of the draw-head, and the lower portion having the rearward arms hinged to said side pieces, and springs seated between said lower portion and side pieces, the forward portions of said pieces forming a flaring mouth, substantially as specified.

2. In a car coupling, the combination with the draw-head, having the chamber therein, the spring seating in the rear thereof, and the plunger seated in front of said spring and serving as a support for the coupling pin, of the vertical rod or shaft supported on the end of the car, and capable of an endwise vertical movement, said rod at its lower end having a connection with the coupling pin, the cords or chains also connected to said rod and running to the sides of the car, their pulleys, and the swinging link guide also connected to said rod, substantially as specified.

3. The herein described attachment for pin and link couplings, said attachment comprising the spring-actuated pin supporting plunger, the link guide consisting of the side pieces pivotally connected to the lateral faces of the draw-head, the lower portion hinged to said side pieces, and also connected thereto by springs, said parts forming a flaring mouth at their forward ends, and means for raising said guide and the coupling pin, substantially as specified.

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

JAMES F. PRESTON.
ALEXANDER F. FERRELL.
H. SCHIFFBAUER.

Witnesses:
MIKE HISSONG,
J. A. HUBBARD.