

(No Model.)

W. MABLE.
CAR COUPLING.

No. 495,501.

Patented Apr. 18, 1893.

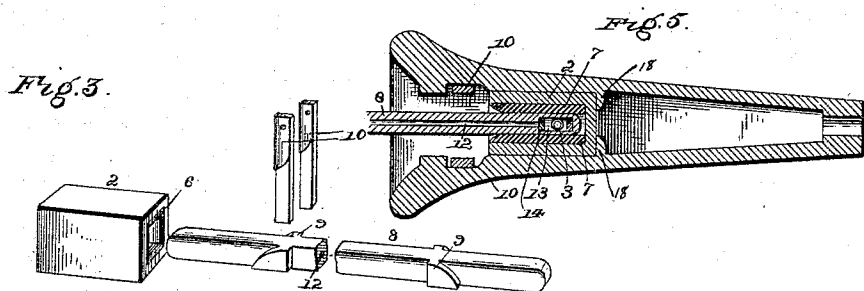
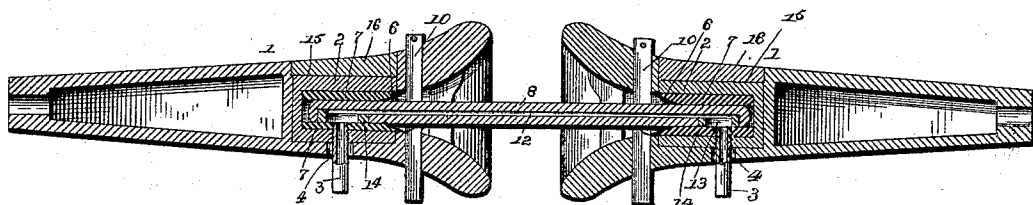
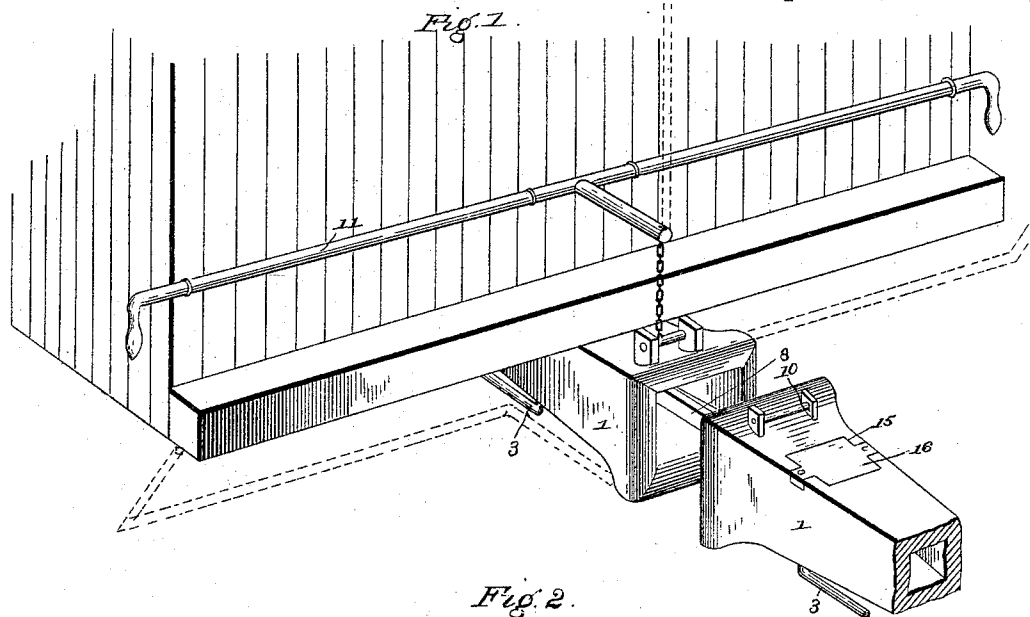
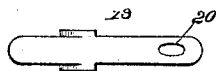


Fig. 4.



Witnesses

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Chas. E. Hyer

Inventor

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By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

WILLIAM MABLE, OF FORT COLLINS, COLORADO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF THREE-FOURTHS TO MYRON H. AKIN, JOHN A. C. KISSOCK, AND FRANKLIN C. AVERY, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,501, dated April 18, 1893.

Application filed May 27, 1892. Serial No. 434,561. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MABLE, a citizen of the United States, residing at Fort Collins, in the county of Larimer and State of Colorado, have invented a new and useful Air-Brake and Car-Coupling, of which the following is a specification.

This invention relates to certain new and useful improvements in combined car and air-brake couplings, and consists in the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

The object of this invention is to provide simple and convenient, as well as effective means, of connecting two cars and the air brake pipes through the medium and employment of a hollow link, which is fitted into the draw-heads and with which the parts are connected, the arrangement being simple and effective, strong and durable, and comparatively inexpensive in manufacture.

In the drawings—Figure 1 is a perspective view of draw-heads, showing the improved construction applied in connection therewith. Fig. 2 is a longitudinal section on the line $x-x$, Fig. 1. Fig. 3 is a detail perspective view of the parts disconnected. Fig. 4 is a horizontal central section through one of the heads. Fig. 5 is a detail perspective view of a modified form of link.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates the draw-heads, which are of ordinary form of construction and both being similar in the arrangement of their parts, only one will be specifically described. Within each of the draw-heads is fitted an air-chamber or box 2 of suitable contour, having a tap or connection 3, to which the air pipe of an air brake is connected. The air-pipe 4, projects through a slot 5, in the bottom of the draw-head, and then extends around under the car, as in an ordinary form of arrangement of such devices. It will be understood, that the air-chamber or box 2, will be properly cushioned at the rear, and the back end of the same is closed, as are all the sides thereof except the front end which is open

and flared as at 6. The interior of the said air-box is provided with a rubber packing 7, which is cut through, and having threads therein at the point where the tap or connection 3 joins the same.

A hollow link 8 of suitable form, either round or square, is employed and provided with shoulders 9, projecting from each side thereof in the form of lugs, and which are adapted to be engaged by transversely arranged coupling pins 10, located on each side of the link to bear against the shoulders of the latter. These coupling pins are connected to suitable levers 11, which may be operated from the side or top of a car in uncoupling the link, as shown in Fig. 1, in the several forms. The said link, as before stated, is tubular or has an air opening 12 extending longitudinally through the same and opening out at the ends, sides or bottom, which communicates with slots 13 at the opposite terminations thereof, extending through one of the said parts of the link, and provided with rubber gaskets 14 to insure a tight fitting of the said ends of the link in the air chambers or boxes, into which are adapted to be forced in coupling two cars. When the said link-ends are forced into the air chambers or boxes 2, the slots therein align with the openings from the taps or connections 3, so as to permit no escape of air and avoid reducing the pressure. This arrangement is employed in addition to the rubber lining of the air chambers or boxes, as an auxiliary precautionary construction. The top portions of each of the draw-heads is formed with an opening 15 through which the air chambers or boxes may be removed or inserted, and said openings are covered by caps 16, fitted to the top part of the draw-heads. As shown in Figs. 2 and 4, the draw-heads are provided with lugs or projections 18, against which the rear portions of the air chambers or boxes are adapted to bear when mounted within the said heads, and by means of said lugs or projections, the devices bearing against the same are held in proper adjusted position. The front portion of said chambers or boxes bear against shoulders formed in each of the draw-heads and thereby these parts are properly held in posi-

tion. When it is adapted to couple a car carrying the form of coupling set forth with an ordinary car, having the old form of coupling thereon, the link illustrated by Fig. 5 is used and is designated by the numeral 19, having an opening 20 in one end thereof, to which the ordinary form of coupling link may be classed.

The coupling herein set forth is especially adapted for use on railroad freight cars or passenger coaches where air-brakes are employed and the arrangement, which provides a connection for the air-brake pipes, simplifies the construction and arrangement of parts and avoids the use of complex mechanism, which is sustained by the construction of the hollow link, providing a connecting conduit for the parts.

The advantages and utility of a device of this character are readily apparent to those skilled in the art and need not be further enlarged upon herein.

In uncoupling the cars the coupling pins are drawn out or pushed up by levers laterally from the heads, or from the top of the car, and the cars being drawn asunder will force the link out of the air-boxes or chambers, the air having first been so manipulated as to permit this operation.

Having thus described the invention, what is claimed as new is—

1. In a coupling of the character described, the combination of air-chambers or boxes located within the draw-heads provided with openings in the bottom portions thereof and having the air-pipes of air-brakes connected to said openings and extending under said draw-heads and vertically upward through the under sides of the latter and a tubular link adapted to connect said air-boxes and form a

connecting conduit for the air pipe, substantially as described.

2. In a coupling of the character described, the combination of air-chambers or boxes arranged in the draw-heads and having a rubber lining, and the pipe of the air-brakes connected to the bottom portions thereof, and a coupling link of a tubular form having slots adjacent to the ends, sides or bottom at the bottom of the same with rubber gaskets therein, fitting over the upper end of the vertical portion of the said pipe of the air-brake, substantially as described.

3. In a coupling of the character described, the combination of the draw-head, the coupling link with shoulders arranged in pairs on opposite sides thereof adapted to engage said draw-heads and a pair of independent coupling pins vertically arranged in and movable from each of the draw-heads and adapted to engage the shoulders on the opposite sides of the link, said coupling-pins being arranged on each side of the coupling-link at opposite ends, substantially as described.

4. In a coupling of the character described, the combination of the draw-heads having openings in the upper sides thereof, covers for said openings, removable air-boxes or chambers located below said openings and covers, and a tubular connecting link adapted to be connected to air-pipes, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM MABLE.

Witnesses:

VERNER WOLF,
GUY LOOMIS.