

(No Model.)

A. B. STUBBINS.
CAR COUPLING.

No. 542,291.

Patented July 9, 1895.

Fig. 1.

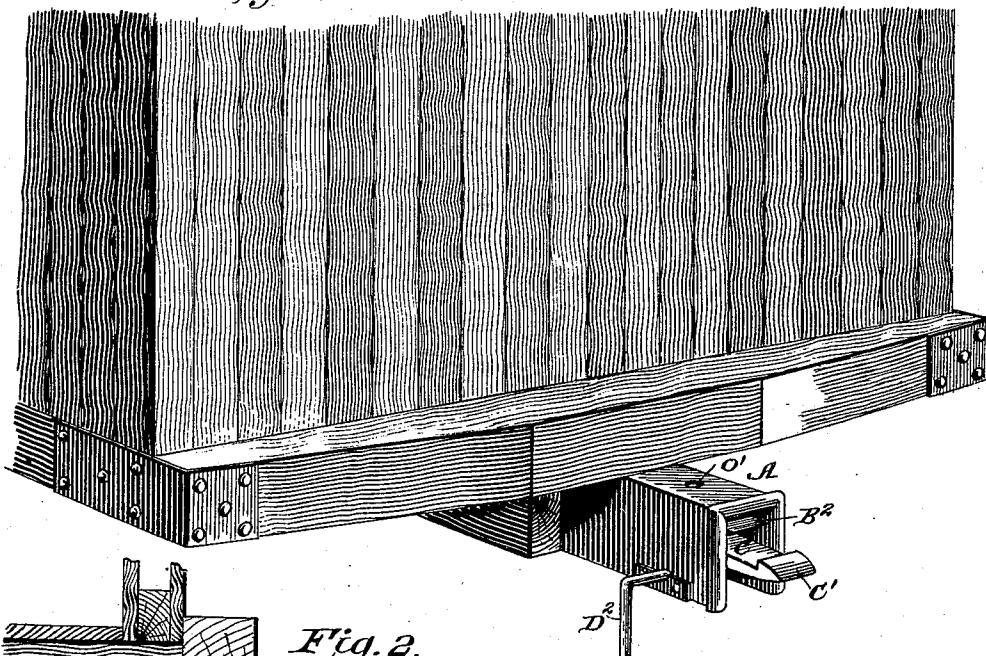


Fig. 2.

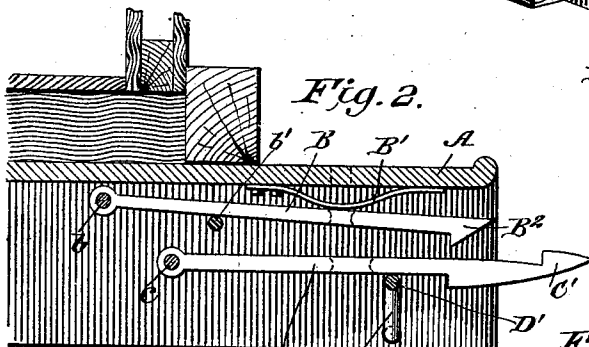


Fig. 3.

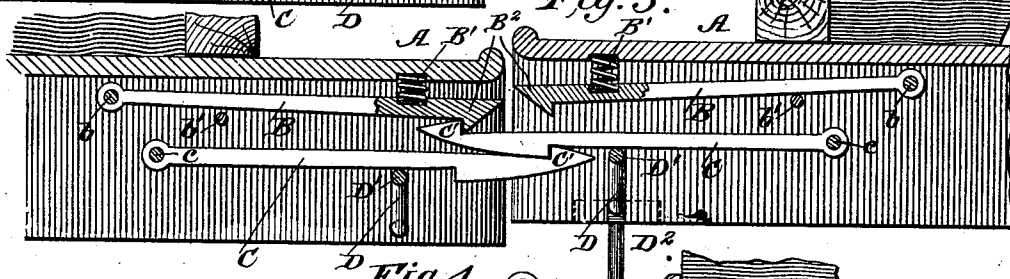
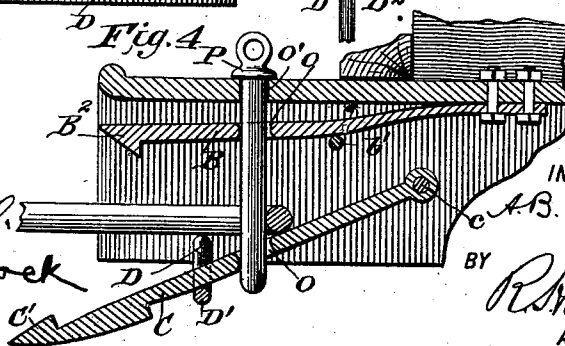


Fig. 4.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 512,291, dated July 9, 1895.

Application filed December 1, 1894. Serial No. 530,592. (No model.)

To all whom it may concern:

Be it known that I, ANCEL B. STUBBINS, a citizen of the United States, residing at Wells-ville, in the county of Columbiana, State of Ohio, have invented certain new and useful Improvements in Car - Couplers; and I do hereby 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.

This invention relates, generally, to car-couplers, and particularly to that class thereof known as "twin-jaw couplers."

The object of this invention is to provide a coupler of this class which shall be exceedingly simple in construction, easy of operation, one which will couple automatically, so that all danger incident to standing between the cars during the operation of coupling is avoided.

Another object is to so construct the parts that my improved coupler can also be coupled with an ordinary pin-and-link coupler.

With these objects in view my invention consists, essentially, in a draw-head having two jaws arranged therein, the upper one being a spring-jaw and the lower one being adjustable and capable of being made rigid when it is desired to couple the cars.

My invention consists, also, in certain details of construction and combination of parts, all of which will be fully described herein-after.

In the drawings hereunto annexed and forming a part of this specification, Figure 1 is a perspective view of my coupler attached to a car. Fig. 2 is a sectional view of a coupler fixed for coupling. Fig. 3 is a sectional view showing two couplers in coupled position, and Fig. 4 is a detail sectional view showing the method of using my coupler in connection with an ordinary pin-and-link coupler.

Referring to the drawings, A A indicate the draw-heads, and as they are both of the same construction a description of one will be sufficient.

The draw-head is formed with solid sides and top and is entirely open at the bottom. An upper jaw B is secured within the draw-head, near the top of the same, and this jaw may be a spring-jaw and connected directly

to the top of the draw-head, as shown in Fig. 3, or it may be pivoted upon a transverse pin *b* and have a spring *B'* bear upon its upper face to hold it in its normal lowered position, said jaw resting upon a pin or bar *b'* passed through the draw-head below the jaw B. The spring *B'* may be a coiled spring, as shown in Fig. 2, or a leaf-spring, as in Fig. 1, the essential idea being to make the jaw B a spring one and held normally at rest upon the pin or bar *b'*. The jaw extends to the forward end of the draw-head and is provided with an arrow-head *B²*, the bevel of which is downward, as shown.

A lower jaw C is pivoted upon a pin or bolt *c* near the rear end of the draw-head, and said arm is somewhat longer than the arm B, so that it projects beyond the forward end of the draw-head. This jaw is also provided with an arrow-head *C'*, the bevel of which is upward. A lifting-bail D is secured in the sides of the draw-head and is constructed with an offset *D'* to engage and lift the lower jaw, and also with a crank-handle *D²* for operating the bail.

The upper and lower jaws are provided with openings O, and the top of the draw-head is provided with an opening O', all of which are arranged in vertical alignment and permit the passage of any ordinary coupling-pin P when my coupler is connected with an ordinary pin-and-link coupler, as shown in Fig. 3.

Now, in operation, the upper jaw is normally held pressed down upon the pin *b'*. When it is intended to couple the cars, the lower jaw is elevated by turning the offset of the bail upward, as shown in Figs. 1 and 2, thus holding the lower jaw in an elevated and rigid position. When the couplings are then brought together, one of the lower jaws will pass in between the two opposing jaws, spring the upper jaw, pass back of its head, and the coupling is effected. The utility of having the lower jaw the longer is thus made apparent, as it must pass beyond the head of the upper jaw to effect a coupling. To uncouple the cars, the offset is thrown down, the lower jaw drops by gravity, and the cars are uncoupled, and when it is desired to use a pin-and-link coupling the bail is turned so as to bring the offset in its lowest position, and the lower arm

dropping into said offset will be removed entirely from all possible contact with the link, as shown in Fig. 3.

It will also be noted that by having the pin-
5 openings in the draw-head and upper and lower jaws that the said pin has three bearing-points, so that all danger of said pin bending is avoided.

It will also be noted that the shoulders of
10 the jaw-heads are made straight instead of inclined, so that the cars can be uncoupled without backing the cars, this being a fault common among this class of couplers.

When the cars are uncoupled by hand, the
15 lower jaw can then be reset ready for coupling again, and if this is done, all that is necessary to effect a coupling is to bring the cars together and the coupling will be done automatically.

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

1. In a car coupler, the combination with a
25 drawhead, of an upper spring jaw and the lower jaw adapted for rigid adjustment, said jaws having arrow headed ends, the lower jaw being made longer than the upper one,

and movable independent of the upper jaw, substantially as shown and described.

2. In a car coupler, the combination with a
30 drawhead of the upper spring jaw, the lower pivoted jaw and the bail for lifting and holding the lower jaw in a rigid position, substantially as shown and described.

3. In a car coupler, the combination with a
35 drawhead, having solid top and sides, of a spring actuated upper jaw, a pivoted lower jaw, a lifting bail having an offset and crank handle, all arranged, substantially as shown and described.

4. In a car coupler, the combination with a
40 drawhead, having a pin opening in the top, the upper spring jaw, the lower pivoted jaw, and the bail with offset and crank handle, said upper and lower jaws also having pin
45 openings, substantially as and for the purpose described.

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

ANCEL B. STUBBINS.

Witnesses:

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