

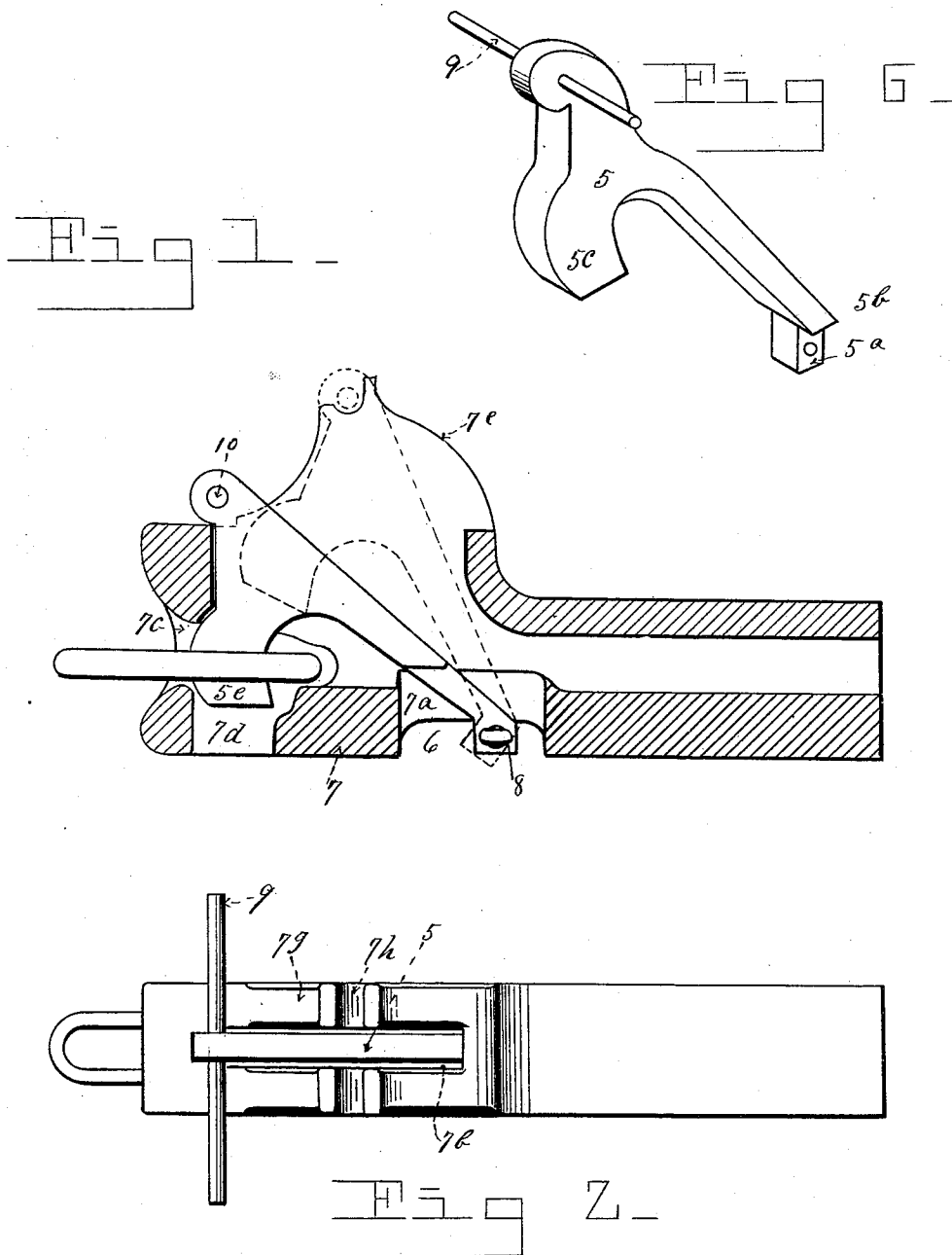
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3 Sheets—Sheet 1.

H. DEITZ.
CAR COUPLING.

No. 487,666.

Patented Dec. 6, 1892.



WITNESSES:

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INVENTOR

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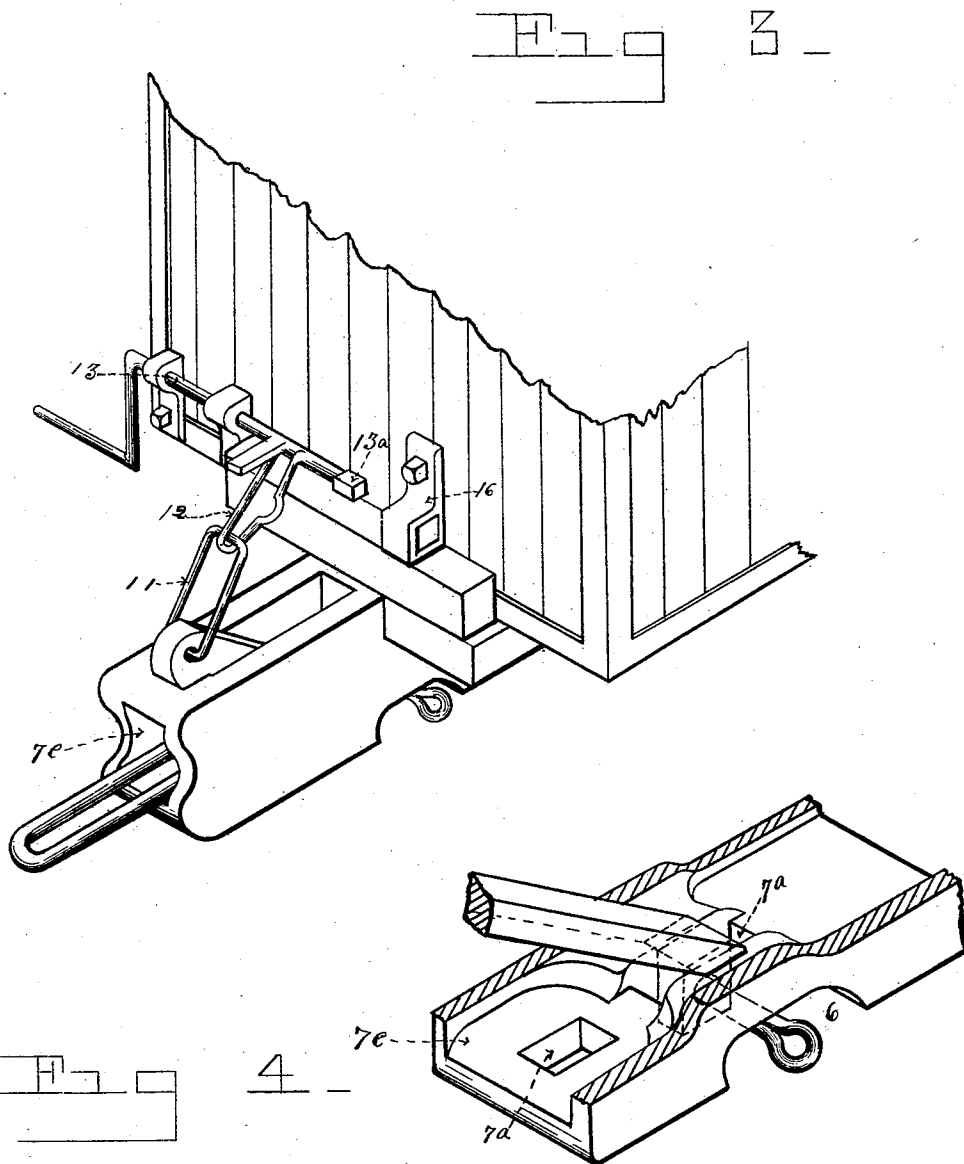
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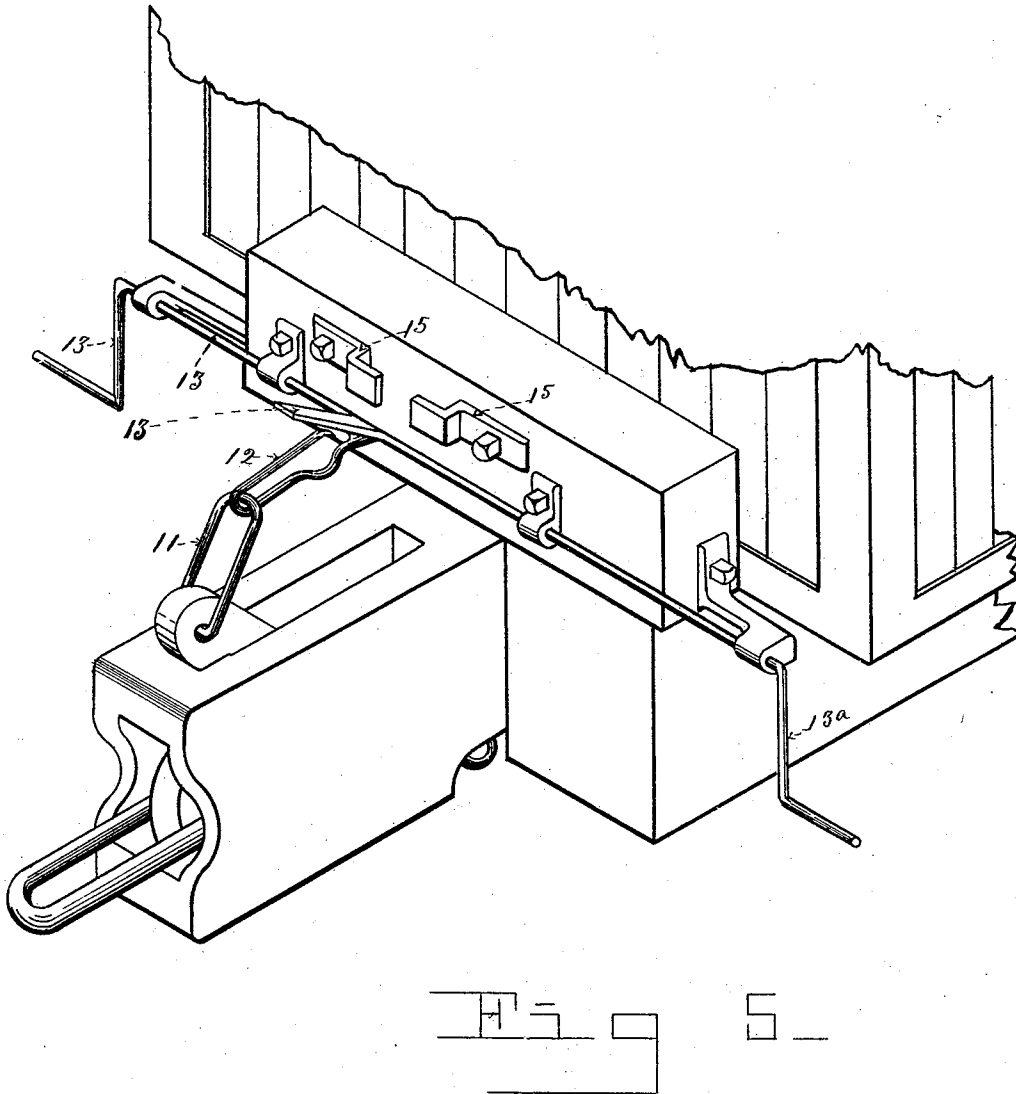
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CAR COUPLING.

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Patented Dec. 6, 1892.



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UNITED STATES PATENT OFFICE.

HENRY DEITZ, OF DENVER, COLORADO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 487,666, dated December 6, 1892.

Application filed July 26, 1892. Serial No. 441,343. (No model.)

To all whom it may concern:

Be it known that I, HENRY DEITZ, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Car-Couplers; 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 of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car-couplers specially designed for use on freight-cars; and the object of the invention is to provide a device of this class which shall be as simple in construction as is consistent with the proper performance of its function as an automatic coupler.

This invention has relation not only to the construction of the locking or coupling device, but also to a simplified means for uncoupling the cars.

To these ends the invention consists of the features, arrangements, and combinations hereinafter described and claimed, and will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a vertical longitudinal section taken through the draw-head, showing the coupling device in place, the uncoupled position being indicated by dotted lines. Fig. 2 is a top or plan view of the same. Fig. 3 is a perspective view showing the uncoupling mechanism attached to the end of the car. Fig. 4 is a horizontal section taken through the lower part of the draw-head, showing the coupling device in place, the upper part of which is broken away. Fig. 5 is a detail view in perspective of the locking device. Fig. 6 is a perspective view showing a modified form of construction for locking the coupling-hook in the uncoupled position.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views, let the numeral 5 designate the coupling-hook, which is somewhat

similar to that shown in my previous application, Serial No. 421,649. The lower extremity of hook 5 is provided with an apertured tenon or reduced part 5^a, which when in place is located within a recess 6, formed in the lower bottom of the draw-bar 7, which is recessed to receive the coupling-hook. The shoulder 5^b above the tenon 5^a rests upon the bottom of the draw-head, the slot 7^a therein being only wide enough to receive the tenon. A key 8 is inserted in the aperture of the tenon, which key prevents the hook from being drawn out of the draw-head without first removing the key. Recess 6 is of sufficient length to allow the tenon with its key the required movement during the manipulation of the hook 5. The upper portion of the draw-head is provided with a slot or recess 7^b, communicating with the link-recess 7^c, while the bottom of the draw-head is provided with an opening 7^d, forward of recess 6 and slot 7^a. The hooked extremity 5^c of the coupling device enters opening 7^d when said device is in the coupled position, as shown in full lines in Fig. 1. The upper part of the draw-head is provided with an elevation 7^e, adapted to support the coupling-hook in the unlocked position. For this purpose the elevated part is provided with a notch or recess 7^f, adapted to receive a bar or rod 9, inserted in an aperture 10, formed in the upper extremity of the coupling device. If it is desired that the hook shall be supported in the uncoupled position and at the same time couple automatically, the bar 9 is placed in the recess 7^f, when the sudden slacking of speed caused by the engagement of the cars, will cause the bar to move forward from its support, allowing the coupling device to drop to the coupled position. If it is desired to maintain the coupling-hook permanently in the unlocked position, or so that it will not couple automatically, the bar 9 may be carried to the rear of the recess 9^b. Bar 9 is of sufficient length to permit it to be grasped by the hand without going between the cars. The coupling-hook is then raised and placed in the recess formed in the elevated part of the draw-head, or carried to the rear thereof, as may be desired. Instead of using this simple form of uncoupling device, that shown in Figs. 3 and 5 may be employed, and consists

of the links 11 and 12 and the transverse bar 13. Link 11 engages the aperture 10, formed in the upper extremity of the coupling-hook, while link 12 is connected with link 11 and also with bar 13, which is movably attached to the end of the car. This bar is provided with an arm 13^a, which when moved backward, as during the operation of uncoupling the cars, can be made to engage a locking-button 15, secured to the end of the car by simply shifting the bar 13 endwise in either direction. Bar 13 is provided with crank-arms 13^a, whereby the bar may be manipulated from either side of the cars without going between the same.

In Fig. 3 is shown another form of locking device for the uncoupling mechanism, and consists of an apertured lug 16, secured to the end of the car and adapted to receive the angular end 13^a of the bar, the aperture in the lug being of corresponding shape. Bar 13 is locked in position by moving it endwise to engage the opening in the lug.

Having thus described my invention, what I claim is—

1. In a car-coupler, the hooked coupling device provided with the reduced lower extremity apertured to receive a locking-key, in combination with a draw-head recessed to receive said device, substantially as described.

2. In a car-coupler, the combination, with the draw-head provided with the elevated part, of the coupling-hook located within the draw-head and provided with a bar attached to its upper extremity and adapted to engage the elevated part of the draw-head when said

hook is raised to the uncoupled position, substantially as described.

3. In a car-coupler, the combination of the draw-head and locking-hook, the lower extremity of the hook being reduced and apertured to receive a key, the upper part of the hook being provided with a bar adapted to engage a ledge or recess formed in the elevated part of the draw-head, substantially as described.

4. The hooked locking device provided with the reduced and apertured lower extremity and having a bar attached to its upper extremity, substantially as described.

5. In a car-coupler, the combination of the draw-head having an elevated part in which is formed a recess, and a hooked coupling device having a reduced lower extremity provided with a key and having a bar attached to its upper extremity, said bar being adapted to engage the recess formed in the elevated part of the draw-head, substantially as described.

6. The combination, with the draw-bar, of the loose coupling-hook having the keyed lower extremity and suitable means attached to its upper extremity, whereby the same may be manipulated from either side of the car for the purpose of coupling or uncoupling, substantially as described.

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

HENRY DEITZ.

Witnesses:

J. M. SELLERS,
W. P. BOWEN.