(No Model.)

2 Sheets—Sheet 1.

H. O. MILLER.

CAR COUPLING.

No. 502,260. Patented July 25, 1893.

Fig. 1

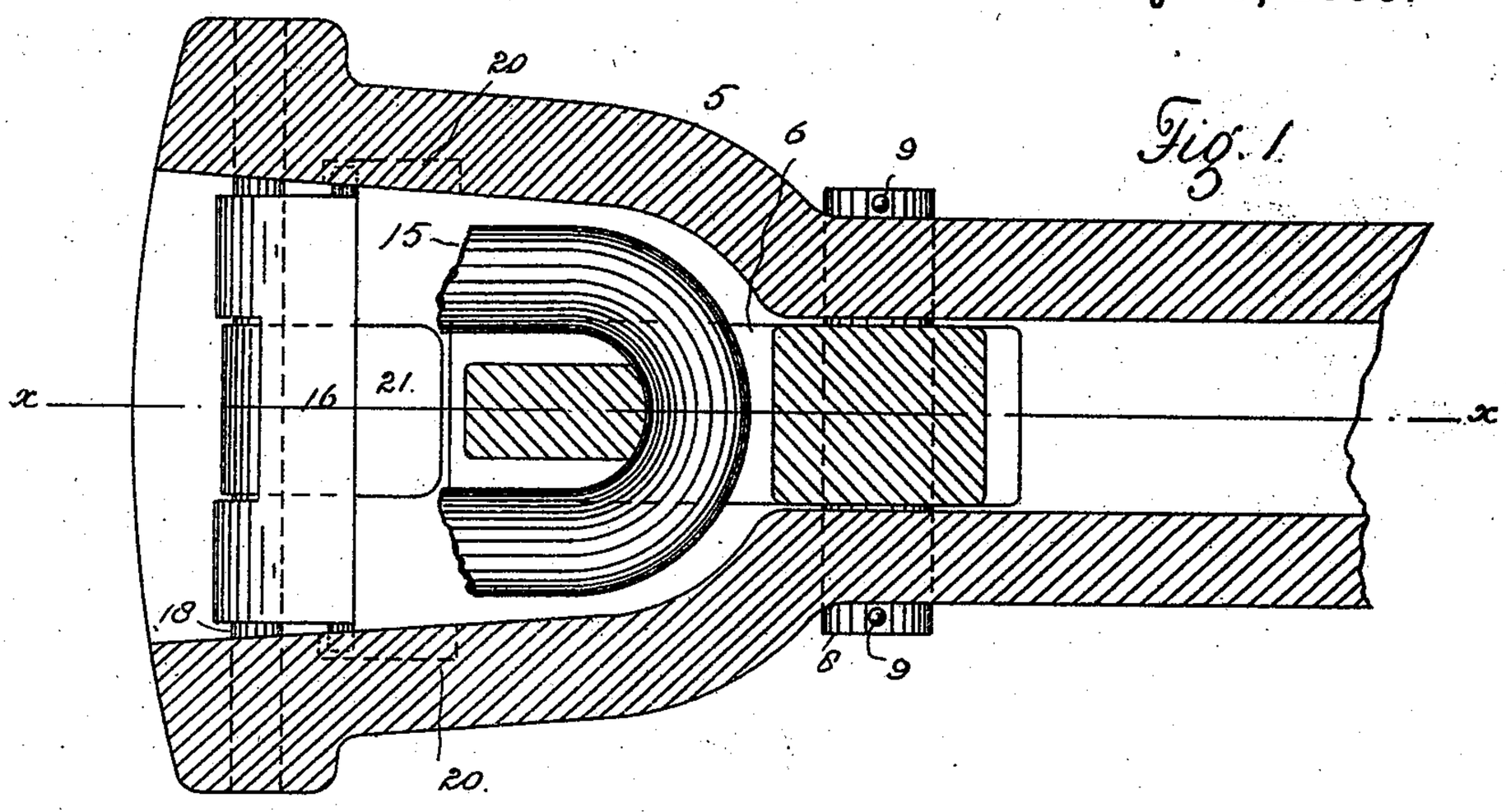


Fig. 2.

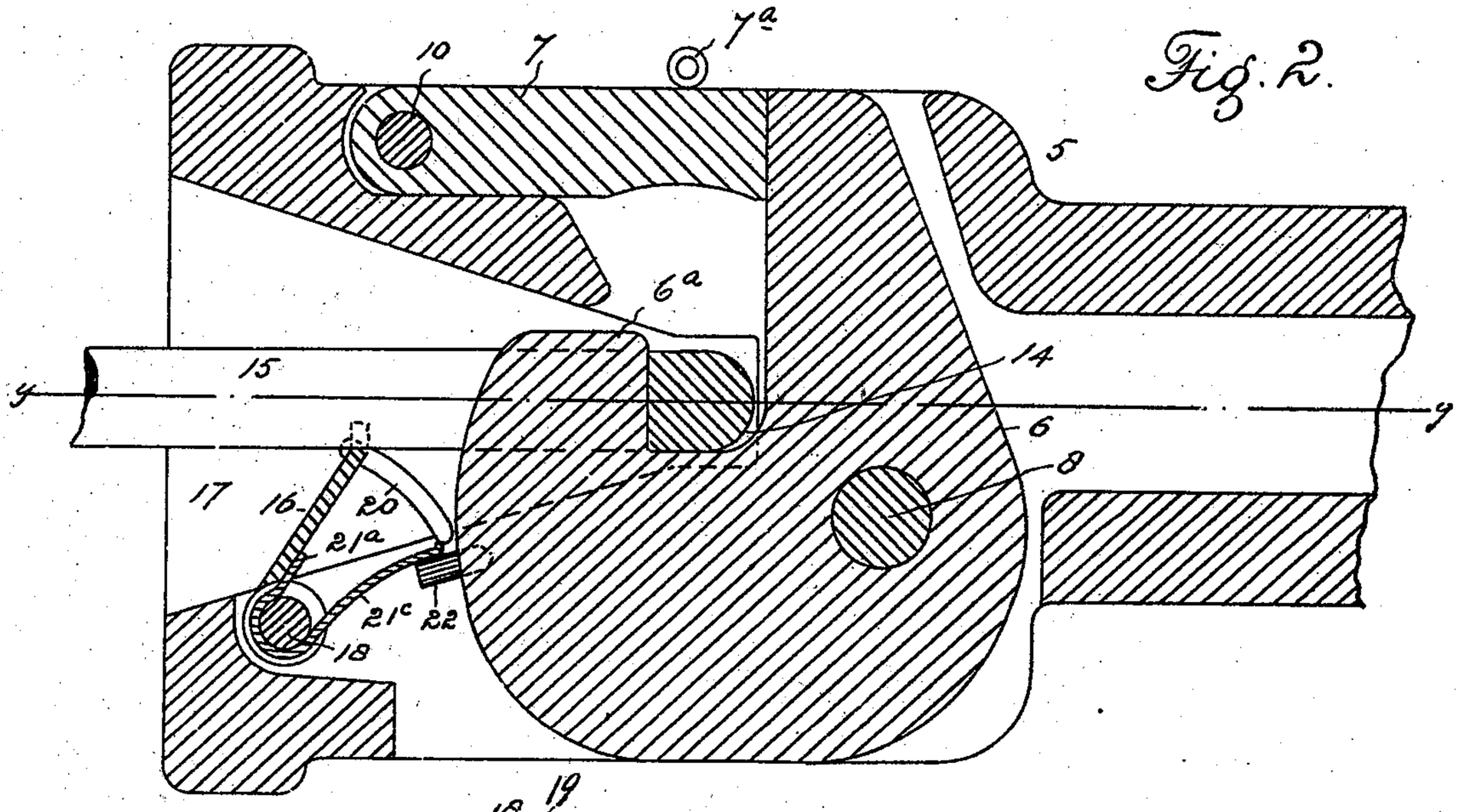
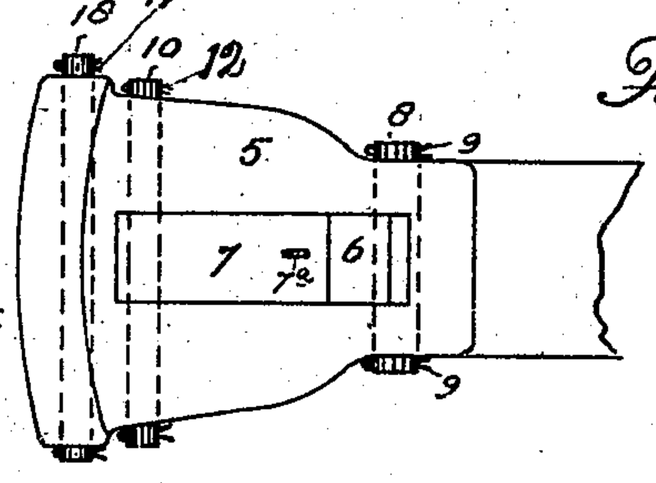


Fig. 7



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(No Model.) 2 Sheets—Sheet 2.

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CAR COUPLING.

No. 502,260. Patented July 25, 1893.

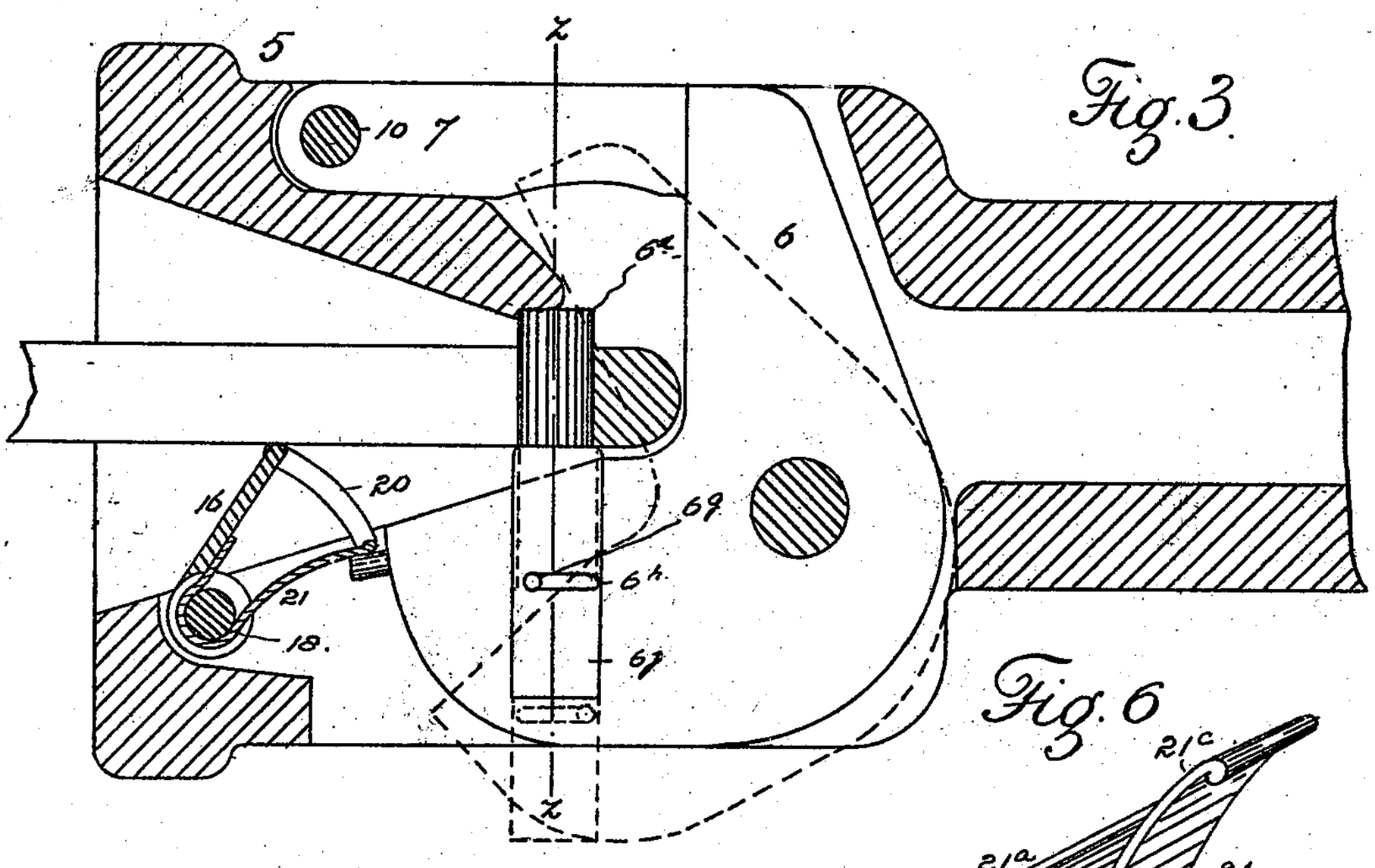

Fig. 3.

Fig. 6

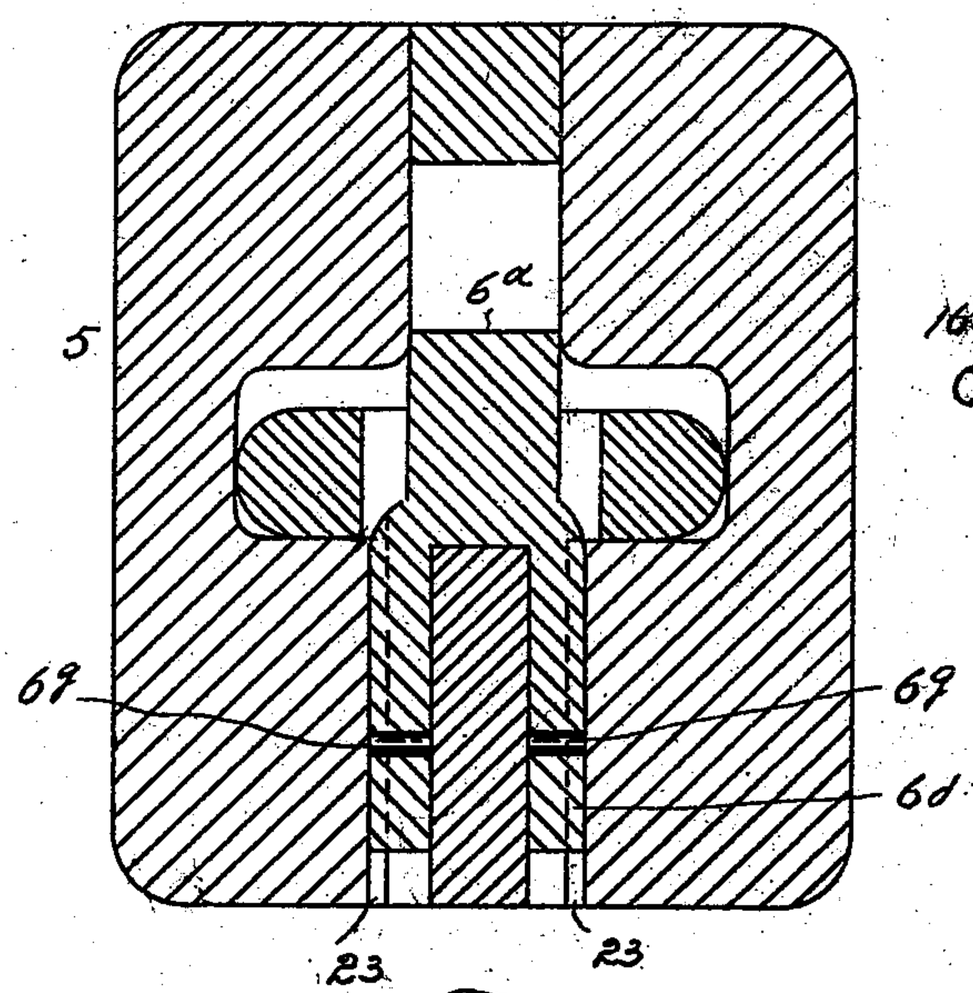

Fig. 4

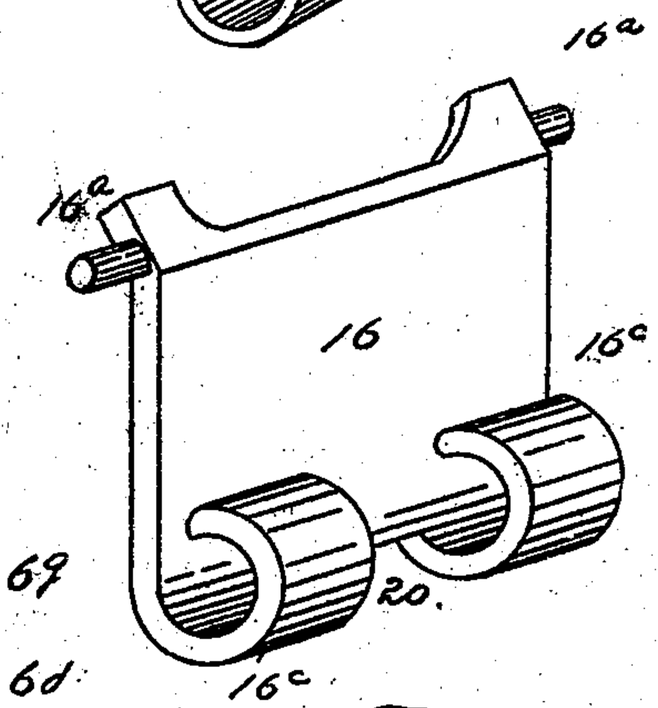

Fig. 5

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 502,260, dated July 25, 1893.

Application filed February 24, 1893. Serial No. 463,657. (No model.)

To all whom it may concern:

Be it known that I, HENRY O. MILLER, a citizen of the United States of America, residing at Eaton, in the county of Weld and State of Colorado, 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car couplings and the construction consists of the features, arrangements and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a horizontal section taken through a drawhead provided with my improved coupling mechanism. This section is taken on the line *y—y*, Fig. 2. Fig. 2 is a vertical section taken on the line *x—x*, Fig. 1. Fig. 3 is a similar section taken through the drawhead, a modified form of coupling hook being shown in elevation. Fig. 4 is a transverse vertical section taken on line *z—z*, Fig. 3. Fig. 5 is a perspective view of the link supporter. Fig. 6 is a similar view of the spring used in connection therewith. Fig. 7 is a top or plan view of the drawhead on a reduced scale.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views let the numeral 5 designate the drawhead, recessed to receive the coupling hook 6 and the locking bar. This hook is pivoted in the drawhead and is substantially of the same construction as that shown in my Patent, No. 490,811, granted January 31, 1893, application Serial No. 428,588, filed April 11, 1892, as is also the locking bar 7, which engages the upper extremity of the hook when in the locking position. The coupling hook is pivoted on a horizontal pin 8 held in place by keys 9 passing through its extremities which project outside of the drawhead sufficiently for the purpose. The pivot pin 10 of bar 7 is also provided with retaining keys 12 passed through its exteriorly projecting extremities. Bar 7 is provided with an eye or ring 7^a formed on its upper surface, the same affording means for the connection of any suitable uncoupling or unlocking mechanism. This mechanism is not shown or described in this application as nothing is claimed thereon.

When the cars are coupled or when the link is in the drawhead in position for coupling, the link extremity is located in a recess 14 formed in the coupling hook and is retained in the drawhead by the hook or projection 6^a located in front of the recess. The link 15 is supported in the horizontal position ready for coupling with the hook of the opposite drawhead, by the supporting plate 16 located in the lower part of the drawhead near the entrance of the link recess 17 into which it projects upwardly when the coupling device is in the locking position, and supports the links by engaging the same from beneath. This supporting plate is pivoted on a pin 18 passed through apertures formed in the sides of the drawhead and held in place by keys 19 passed through apertures formed in its extremities. The lower part of plate 16 is centrally cut away as shown at 20 while the parts 16^c on each side of the recess are bent downwardly over the pivot pin whereby the plate is movably supported thereon. This plate is further provided with lugs 16^a projecting from either side of its upper extremity and entering ways 20 formed in the drawhead on each side of the link recess.

A spring 21 is attached to pin 18 between parts 16^c of the supporting plates. One part 21^a of this spring engages the inner surface of plate 16, while the other part 21^c projects backward into the path of a lug or short pin 22 formed upon or attached to the coupling device whereby as said device is moved to the locking position or that shown in Figs. 2 and 3 the pin 22 engages part 21^c of the spring and raises the plate 16 to engagement with the link. This spring is so constructed that while it maintains the supporting plate in operative relation with the link, it reacts on the pin 22 and maintains the coupling device in engagement with the locking bar 7.

In the modified form of coupling device illustrated in Figs. 3 and 4, the hook 6^a is cut

away and a forked pin 6^d slipped over the forward extremity of the device and having a vertical movement in ways 23 formed in the adjacent walls of the drawhead. The body part 6 of the coupling device is provided with pins 6^g which enter slots 6^h formed in arms 6^j of the forked pin 6^d. Hence as the coupling device is moved to the unlocking position it carries the pin 6^d downwardly a sufficient distance to release the link as shown by dotted lines in Fig. 3.

Having thus described my invention, what I claim is—

1. In a car coupling the combination with the drawhead and link, of the coupling device pivoted in the drawhead, the link supporting plate pivoted in the lower part of the drawhead near the entrance of the link recess into which it is adapted to project, and the double spring movably supported on the pivot, one part engaging the supporting plate on the under side and the other part projecting backward into the path of a projection formed upon the locking device whereby as said device is raised to the coupled position said projection engages the spring and raises the plate to engagement with the link, substantially as described.

2. In a car coupling the combination with the drawhead and link, of the pivoted coupling device, the movable link supporting plate and means actuated from the coupling device whereby the supporting plate is maintained in operative relation with the link, substantially as described.

3. The combination with the drawhead, link and pivoted coupling device, of a link supporting plate pivoted in the drawhead at one extremity and carrying projections at the opposite extremity adapted to enter guide ways formed in the adjacent walls of the drawhead, and means actuated from the coupling device whereby the said plate is maintained in operative relation with the link, substantially as described.

4. The combination with the drawhead and link of the coupling device projecting into an opening formed in the upper part of the drawhead, the pivoted locking bar engaging the same, the link supporting plate and means actuated from the coupling device whereby said plate is maintained in operative relation with the link, said means being adapted to react on the coupling device and hold the same in engagement with the locking bar, substantially as described.

5. The combination with the drawhead of the coupling device pivoted therein and carrying a locking pin adapted to move in ways formed in the adjacent walls of the drawhead as the coupling device moves from one position to the other, substantially as described.

6. The combination with the drawhead of the coupling device pivoted therein and carrying the vertically movable locking pin engaging ways formed in the walls of the drawhead and slotted to receive a projection formed upon the coupling device whereby as said device moves the locking pin passes from the one position to the other, substantially as described.

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

HENRY O. MILLER.

Witnesses:
WM. MCCONNELL,
HENRY DEITZ.