

No. 654,745.

Patented July 31, 1900.

W. M. MEAD.
CAR COUPLING.

(Application filed Mar. 27, 1900.)

(No Model.)

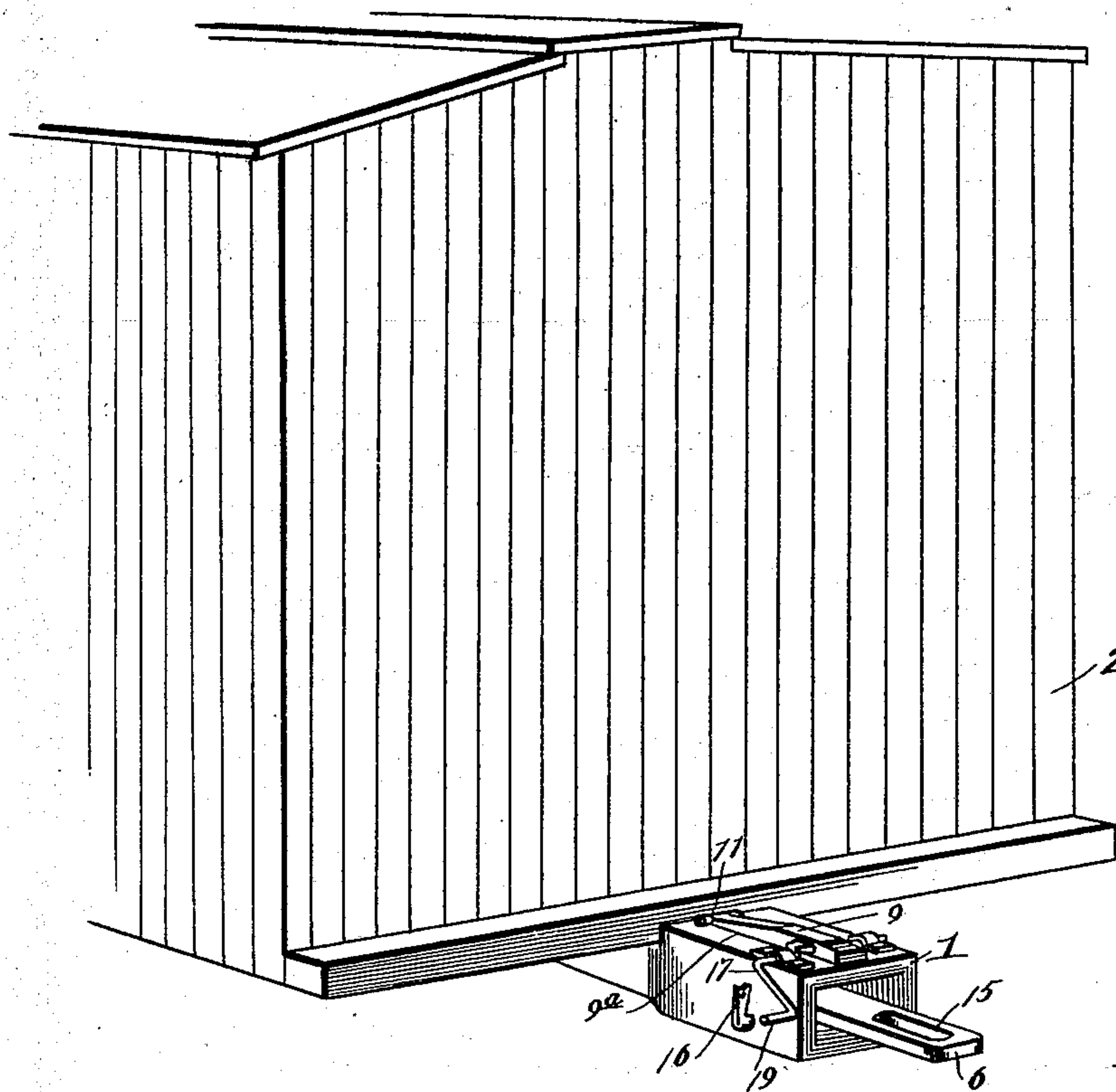


Fig. 1.

Fig. 2.

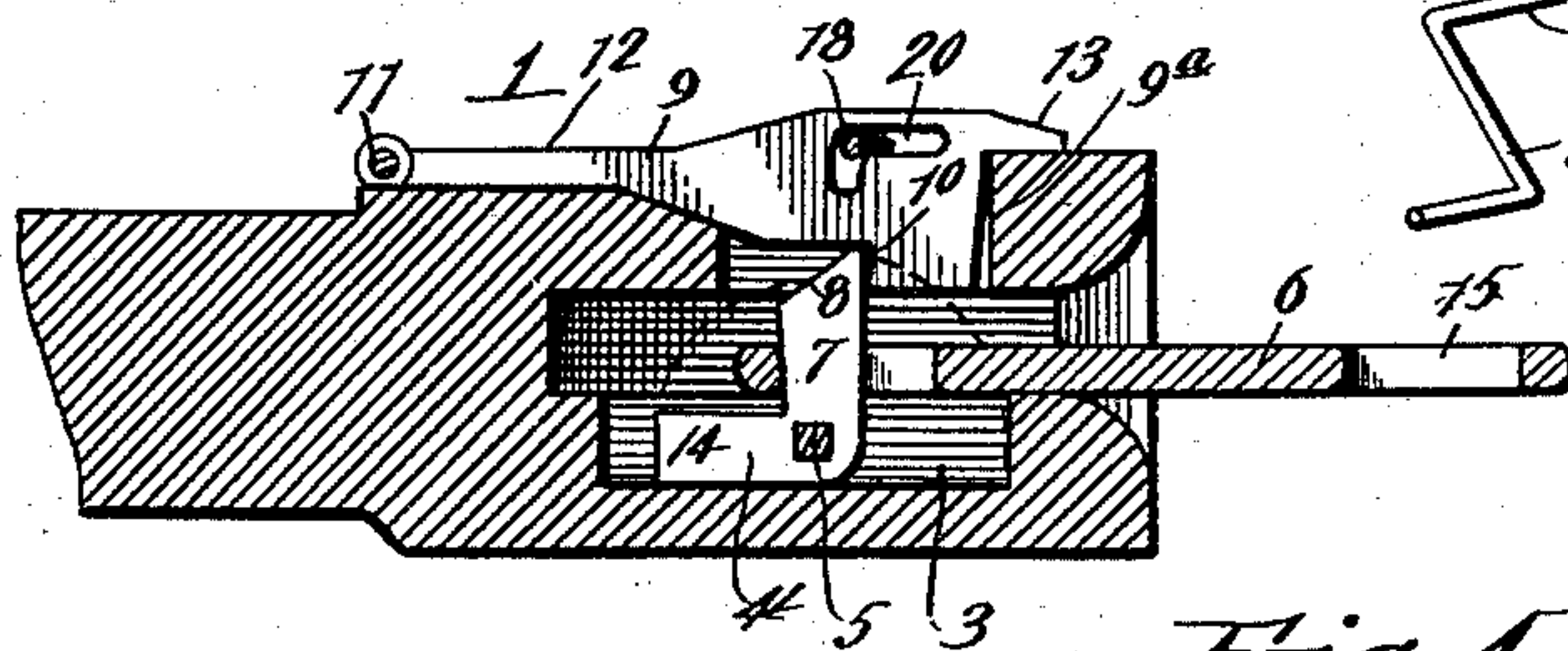


Fig. 5.

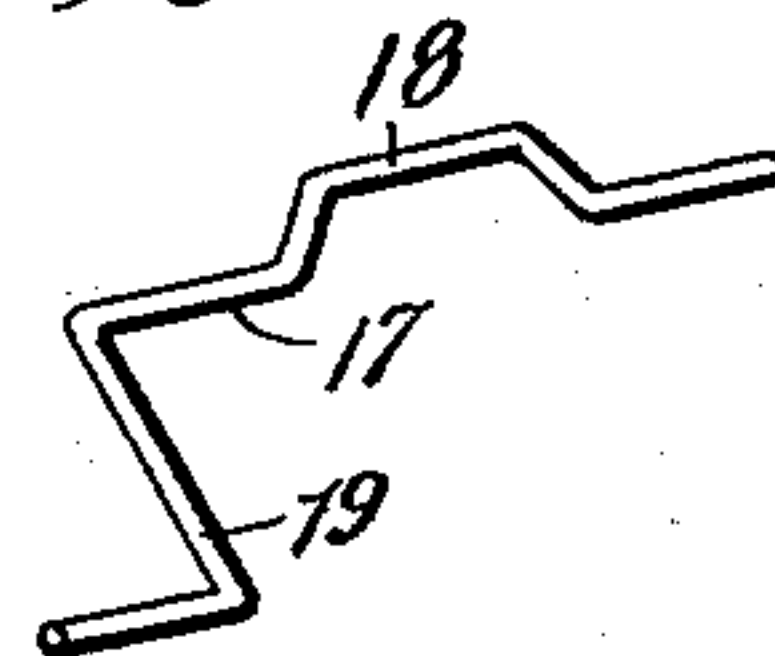


Fig. 6.

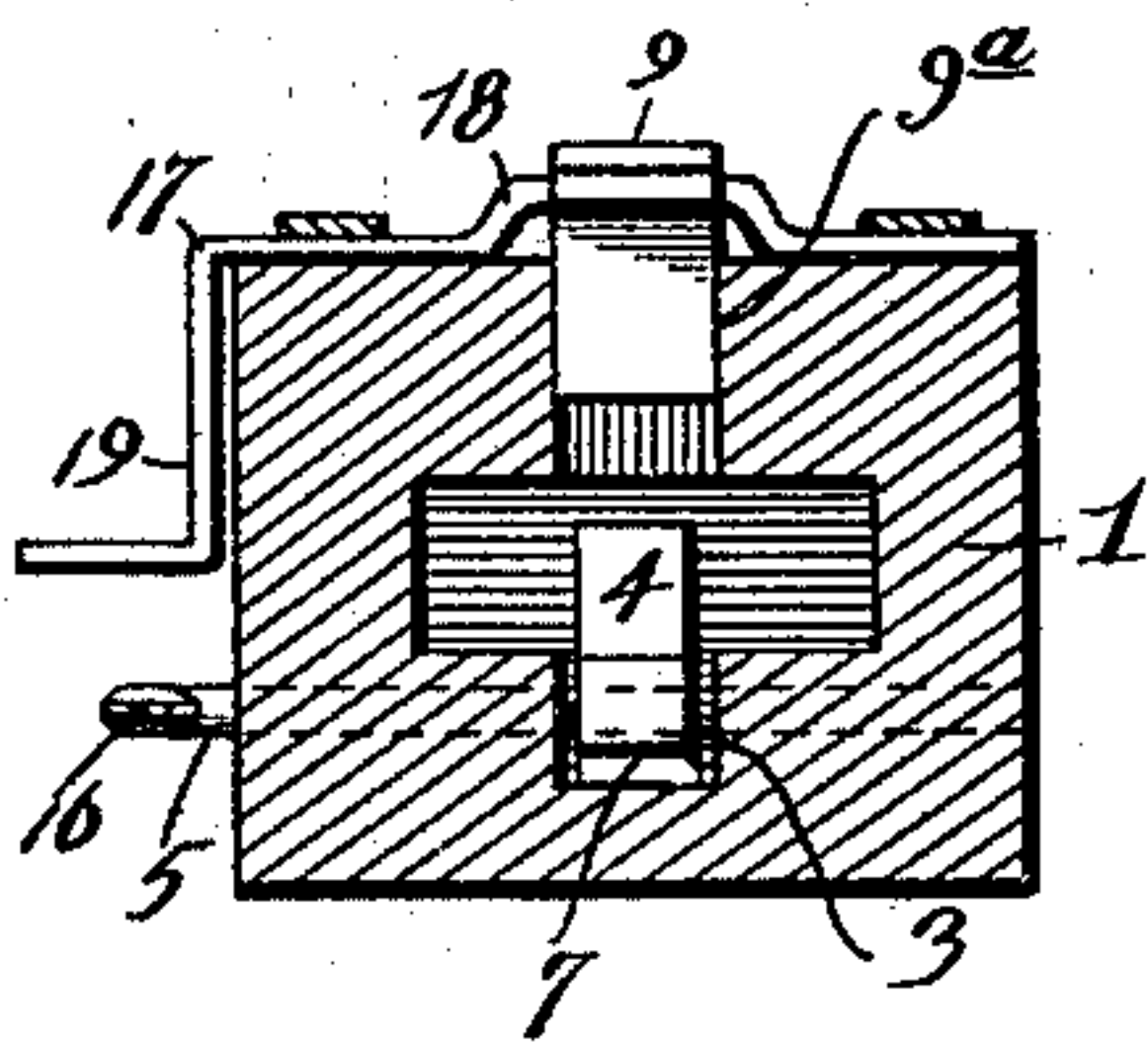


Fig. 3.

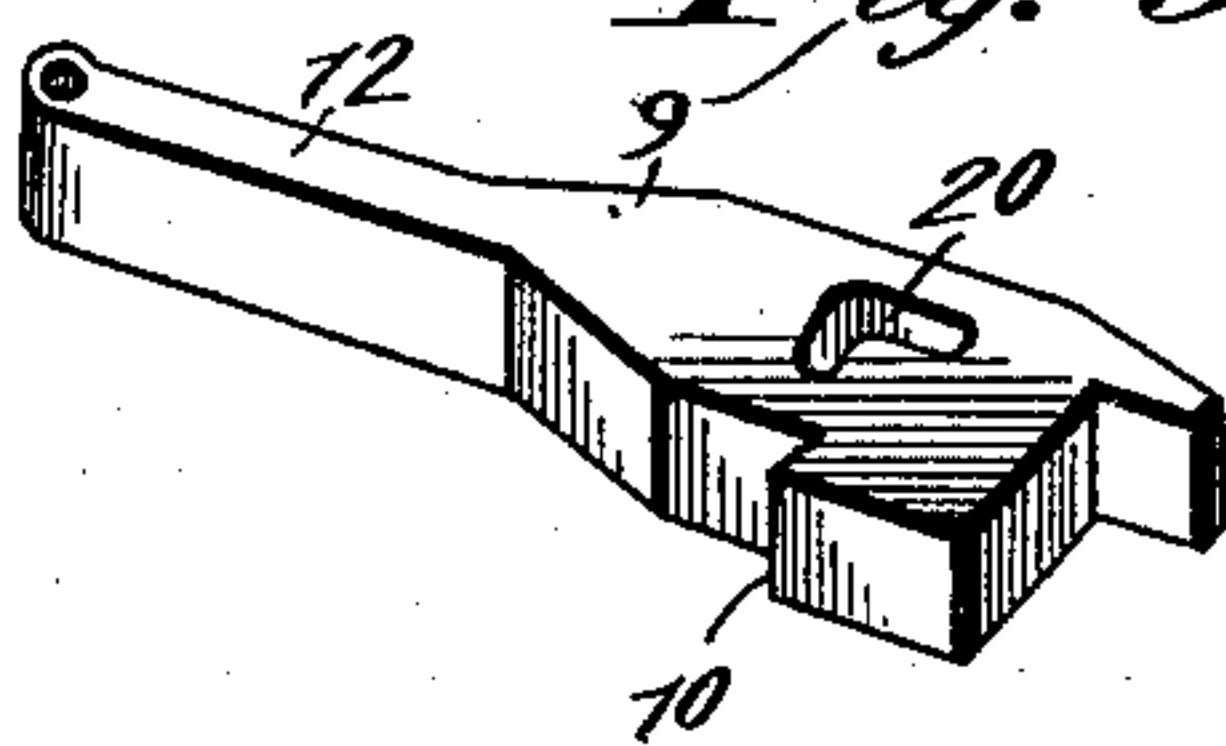
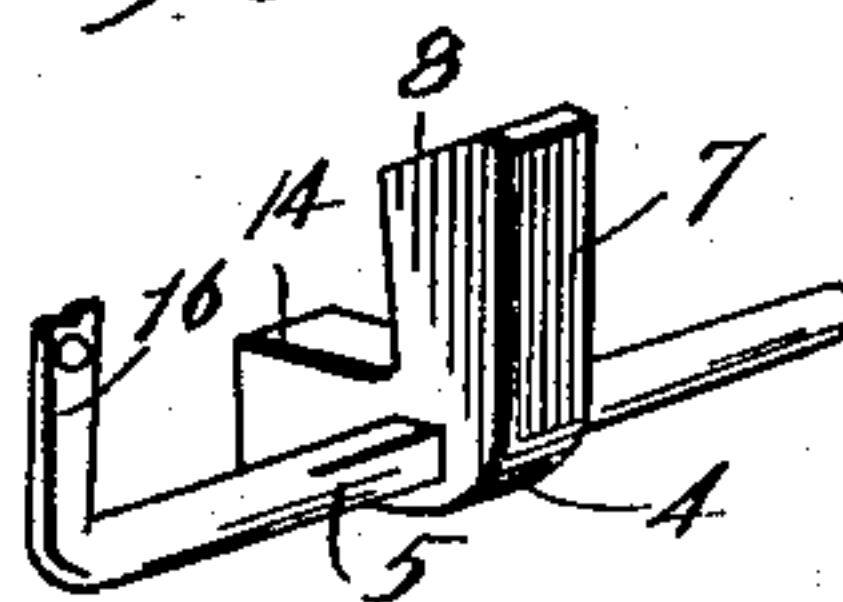


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM M. MEAD, OF WHEAT, TENNESSEE, ASSIGNOR OF PART TO B. A. ADAMS, J. G. CARMICHAEL, S. H. FISHER, R. L. RUSSELL, J. F. TAYLOR, W. T. RUSSELL, J. M. CROW, CAM JONES, A. N. ADAMS, AND L. N. HOLLOWAY, OF SAME PLACE, AND JAMES H. ADAMS, ABE L. MAY, MARSHAL WALLER, AND WILLIAM T. GALLAHER.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 654,745, dated July 31, 1900.

Application filed March 27, 1900. Serial No. 10,390. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. MEAD, a citizen of the United States, residing at Wheat, in the county of Roane and State of Tennessee, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to improve the construction of car-couplings and to provide a simple, inexpensive, and efficient one capable of coupling automatically when two cars come together and adapted to be readily uncoupled and secured in a position that will admit of automatic uncoupling.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of the locking device. Fig. 4 is a similar view of a catch and its shaft. Fig. 5 is a detail perspective view of the rock-shaft. Fig. 6 is a transverse sectional view of the car-coupling.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a draw-head designed to be mounted on a car 2 in the usual manner and provided at the bottom of its longitudinal opening with a longitudinal recess 3, in which is mounted an L-shaped clutch 4, fulcrumed at its angle on a transverse shaft 5, which is mounted in suitable bearings or openings of the draw-head. One arm of the catch is adapted to engage a link 6, as clearly illustrated in Fig. 2 of the accompanying drawings, and this arm 7, which is provided with a beveled end 8, is held in a vertical position in engagement with the link 6 by a locking device 9, located at the top of the draw-head and extending longitudinally thereof, as clearly illustrated in Fig. 2 of the accompanying drawings. The draw-head is provided at its top with a longitudinal slot 9^a, and the locking

device, which has its front or outer portion enlarged, extends downward through the slot or to the bottom of the same and is provided with a shoulder 10 for engaging the arm 7 of the L-shaped catch. The shoulder 10 is formed by recessing the enlarged portion or head of the locking device 9, and when the catch 7 swings inward or rearward by the means hereinafter described its beveled end 8 is adapted to engage and lift the locking device 9, which is hinged at its lower end at 11 to the top of the draw-head. The shank 12 of the locking device rests upon the upper face of the draw-head when it is in the position shown in Fig. 2, and the head or outer portion of the locking device is provided with an outwardly-extending arm 13, which rests upon the upper face of the front portion of the top of the draw-head.

The L-shaped catch is adapted to be swung rearward by the link 6 entering the draw-head and engaging the arm 14, and the said link is provided at its ends with openings 15 to receive the arm 7. The transverse shaft 5 is provided at one end with an arm 16 to enable it to be turned by hand, and the arm 14 of the catch lies below the plane of the upper face of the bottom of the draw-head when the catch is in the position shown in Fig. 2.

The operation of uncoupling is effected by means of a transverse rock-shaft 17, journaled in suitable bearings at the top of the draw-head and extending across the same and provided at its center with a crank-bend 18 and having an arm 19 at one end. The arm 19 may be connected with any suitable operating mechanism for enabling the operation of uncoupling to be performed from the top or sides of a car or the platform of a coach, or it may be simply operated by hand. The crank-bend of the rock-shaft extends through an approximately-L-shaped slot 20 of the locking device 9, and this slot is provided with approximately vertical and horizontal branches, the horizontal branch being adapted to receive the crank-bend of the rock-shaft when the latter is rotated, whereby the locking device is lifted out of engagement with the arm 7 of the L-shaped catch, and the said rock-shaft is adapted to retain the locking

device in an elevated position to arrange the parts so that the link will be permitted to leave the draw-head at any time. This construction enables the car-coupling to be set for uncoupling without actually separating the cars. The vertical slot or branch enables the locking device to be swung upward automatically by the L-shaped catch without actuating the rock-shaft, whereby the locking device will be prevented from binding or remaining in an elevated position.

It will be seen that the car-coupling is exceedingly simple and inexpensive in construction; that it is positive, reliable, and automatic in its operation, and that the rock-shaft is adapted to support the locking device in an elevated position for releasing the link. It will also be apparent that the locking device is adapted to swing upward independently of the rock-shaft, so that there will be no liability of the said rock-shaft accidentally holding the locking device in an elevated position.

What is claimed is—

1. A car-coupling comprising a draw-head, an L-shaped catch pivotally mounted at the bottom of the draw-head, a hinged locking device arranged at the top of the draw-head in position for engaging the catch, said locking device being provided with an approximately L-shaped slot, and a rock-shaft mounted on the draw-head and engaging the slot and adapted to hold the locking device in an elevated position, said slot also permitting the locking device to move independently of the rock-shaft, substantially as described.

2. A car-coupling comprising a draw-head, an L-shaped catch pivotally mounted at the bottom of the draw-head, a locking device

hinged at the top of the draw-head for engaging the catch and provided with an approximately L-shaped slot, and a transverse rock-shaft mounted on the draw-head and provided with a crank-bend extending through the L-shaped slot, substantially as and for the purpose described.

3. A car-coupling comprising a draw-head, a catch pivotally mounted within the draw-head at the bottom thereof, a locking device arranged at the top of the draw-head and adapted to engage the catch, said locking device being provided with an approximately L-shaped slot, and a rock-shaft engaging the L-shaped slot of the locking device and adapted to support the latter in an elevated position, substantially as and for the purpose described.

4. A car-coupling comprising a draw-head provided at its top with a slot, a catch mounted within the draw-head at the bottom thereof and adapted to engage a link, and the exterior locking device arranged on the top of the draw-head and extending in advance and in rear of the slot and hinged at its rear end to the said draw-head, said catch being supported by the upper face of the draw-head at points in advance and in rear of the slot and being provided with an enlarged intermediate portion extending downward through the slot and engaging the said catch, 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 M. MEAD.

Witnesses:

W. G. TURPIN,
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