

M. WESTRA.
CAR COUPLING.

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925,544.

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2 SHEETS—SHEET 1.

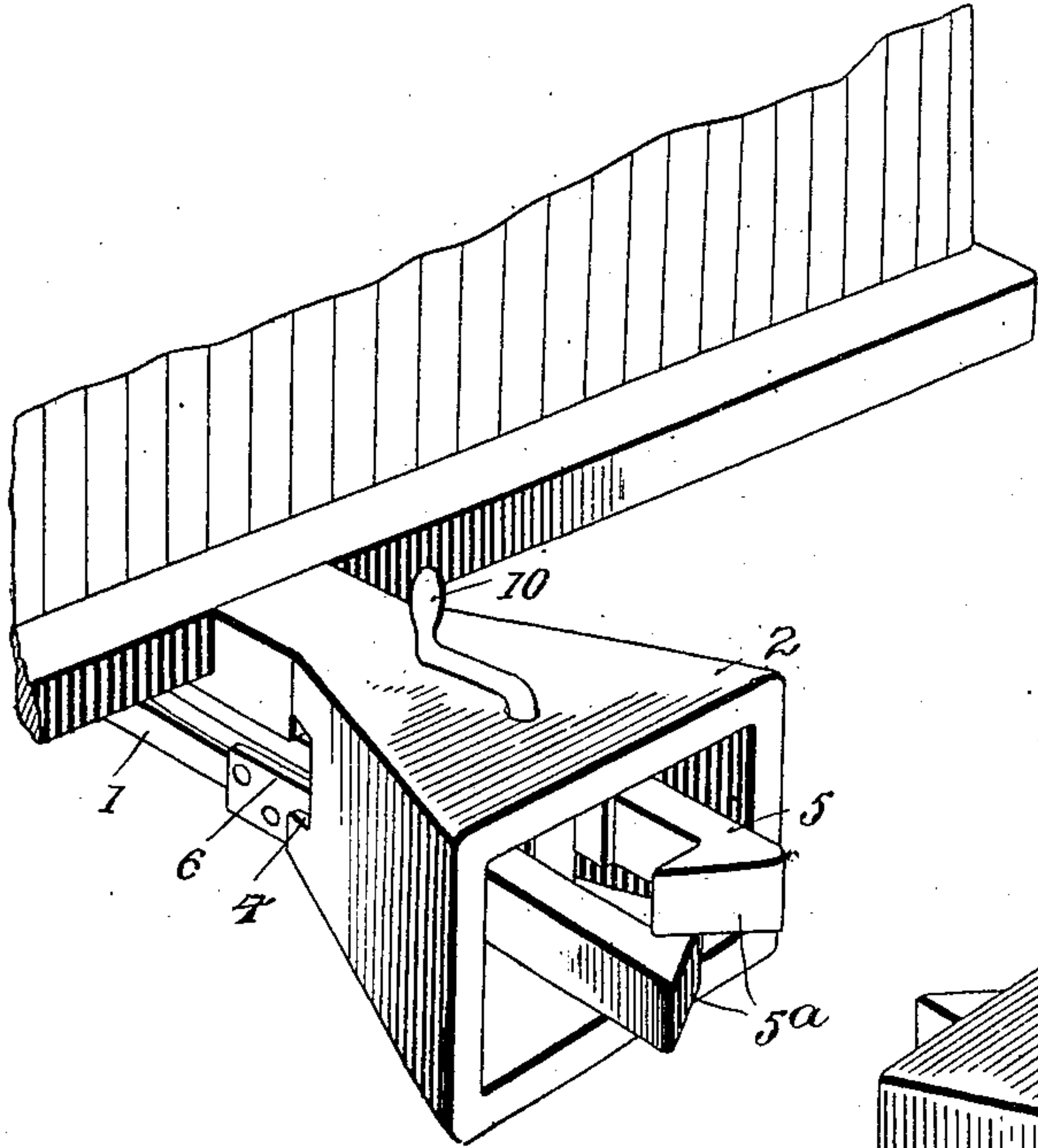


Fig. 1.

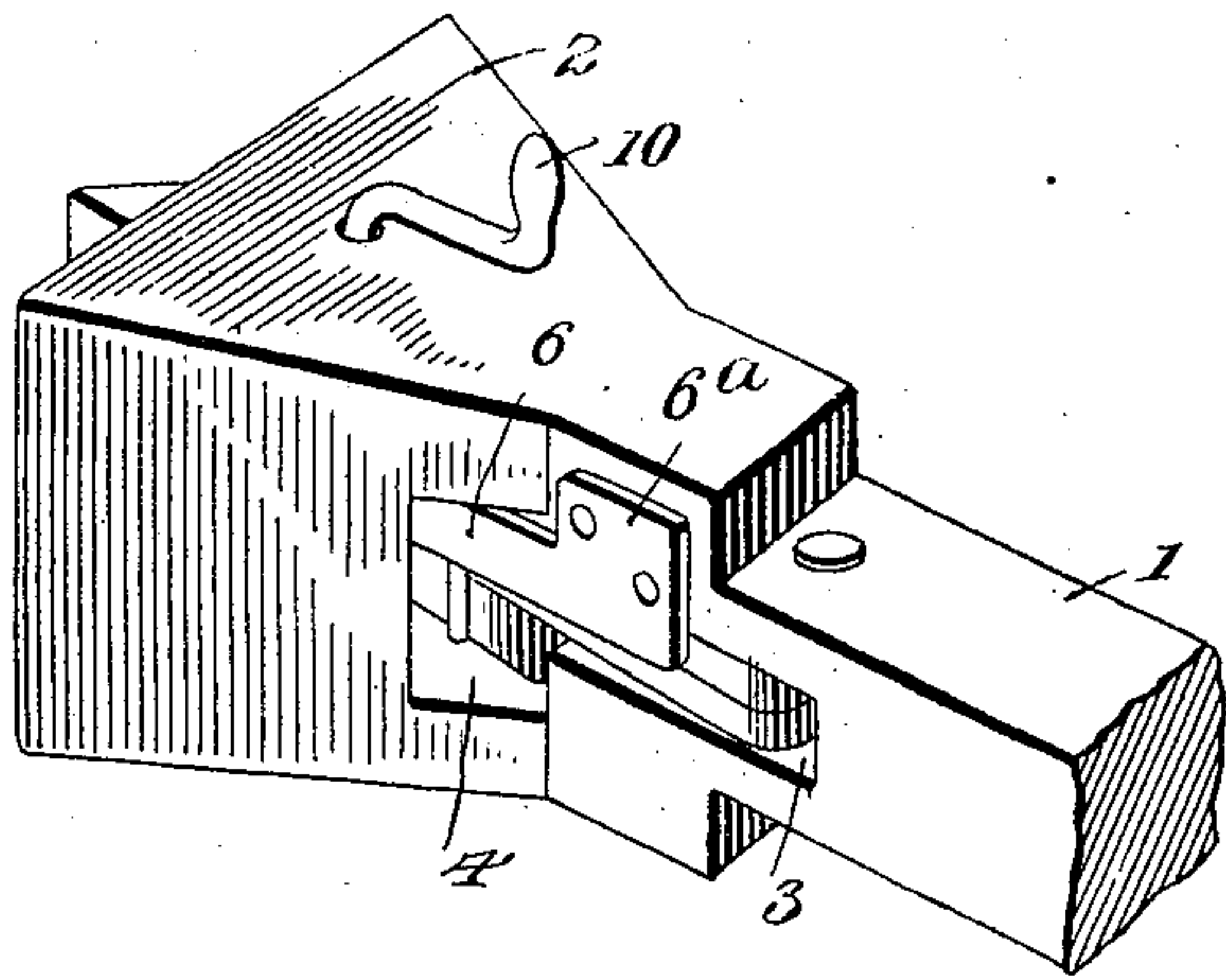
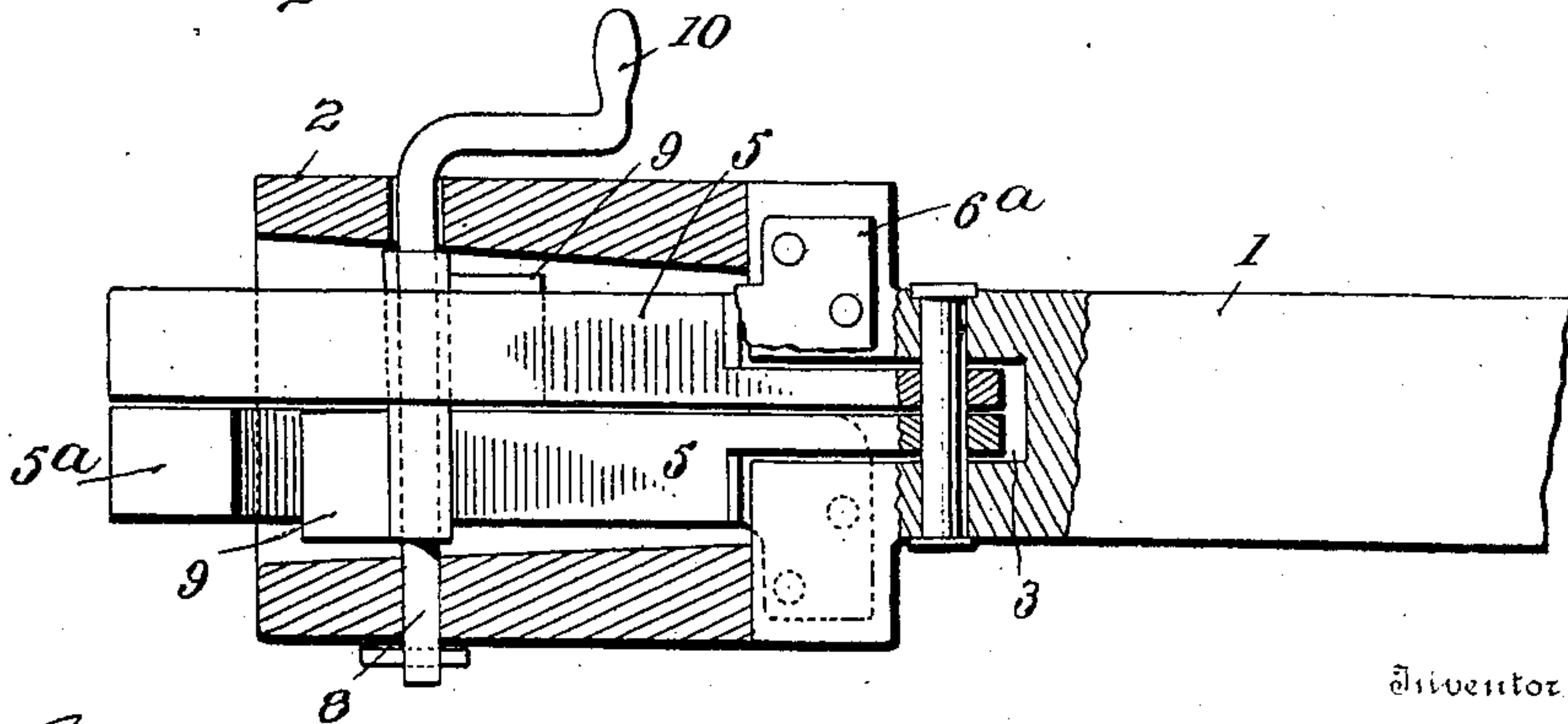


Fig. 2.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

MIKE WESTRA, OF ORANGE CITY, IOWA.

CAR-COUPLING.

No. 925,544.

Specification of Letters Patent.

Patented June 22, 1909.

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To all whom it may concern:

Be it known that I, MIKE WESTRA, citizen of the United States, residing at Orange City, in the county of Sioux and State of Iowa, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

The object of the present invention is the provision of an improved means whereby a pair of cars or the like may be easily and quickly coupled or uncoupled and which will connect the cars in such a manner that they can not be pulled apart by any ordinary longitudinal strain.

The invention further contemplates an improved car coupler which is simple in its construction and comprises few and durable parts which are so arranged and mounted that they can be readily replaced should it become necessary.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a car coupler embodying the invention, the two members being separated. Fig. 2 is a side elevation of one of the draw heads, portions being broken away. Fig. 3 is a horizontal sectional view through the coupler, showing the members in the position assumed previous to being forced together. Fig. 4 is a similar view, showing the position assumed by the members when the two draw heads are forced together. Fig. 5 is an end view of a car having the coupler applied thereto and showing a modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Each of the cars to be coupled is provided with a draw bar 1 which terminates at one end of the car in a draw head 2, the said draw heads being similar in construction and being designed to abut against each other when the cars are coupled. These draw heads 2 flare outwardly toward their free ends and are preferably somewhat thicker than the draw bars so as to project upwardly above and downwardly below the same. The extremity of each of the draw bars 1 is formed with a horizontal slot 3 which communicates with the hollow interior of the

draw head and each of the draw heads is provided at its rear end with the side openings 4.

Mounted within each of the draw heads 2 is a pair of oppositely facing hook members 5, the said hook members being superposed one above the other and the rear ends thereof being reduced and pivoted within the slot 3 in the extremity of the draw bar. The outer or swinging ends of the hook members 5 project beyond the mouth of the draw head and terminate in the beveled noses 5^a. Spring strips 6 which extend along the hook members 5 normally tend to force the same inwardly toward each other and the said spring strips project through the side openings 4 of the draw head and are provided at their rear ends with the lateral wings 6^a by means of which they are secured to the draw head upon the exterior thereof. For the purpose of limiting the inward swinging movement of the hook members 5 each of the said hook members is provided with a laterally extending pin 7 which is designed to engage the opposite hook member when the two hook members have been swung inwardly into operative position. For the purpose of separating the hook members for releasing the hook members of one draw head from those of the opposite draw head a vertical shaft 8 is journaled in each of the draw heads between the hook members. These shafts 8 are provided with the oppositely extending wings 9 and terminate at their upper ends in the handles 10 which are disposed immediately above the draw heads. Through the medium of these handles 10 the vertical shafts 8 may be rotated and the wings 9 caused to engage the hook members 5 in such a manner as to force the same apart. However, as long as these wings 9 are disposed longitudinally with respect to the axis of the car coupler they will not in any manner interfere with the hook members and the same will be normally forced together by means of the springs 6.

When the two cars to be coupled are moved toward each other the beveled noses 5^a of the corresponding hook members 5 upon the draw heads 2 carried by the cars will engage each other and the said beveled noses of the hook members will ride upon each other so as to force the hook members apart, the two hook members of each draw head being moved in opposite directions so that the tendency of each hook member to move the draw head laterally is counter-

acted by the tendency of the opposite hook member to move the draw head in the opposite direction. As soon as the draw heads of the two cars abut against each other the beveled noses of the hook members will have moved past each other and the hook members will spring into engagement with each other and the cars will be coupled in such a manner that they can not be pulled apart by any ordinary longitudinal strain. It will be obvious however that the various hook members will swing from side to side so that the draw heads may have the limited amount of lateral play which is necessary in such devices. Should it be desired to uncouple the cars one of the handles 10 is turned so that the wings 9 upon the corresponding vertical shaft 8 engage the hook members 5 and spread the same apart until they are disengaged from the hook members of the opposite draw head. The two cars may then be drawn apart and the hook members which were thus separated permitted to swing together by again turning the handle 10 until the wings 9 are in alinement with the longitudinal axis of the coupler.

A slight modification of the invention is shown in Fig. 5 in which means is provided for operating the coupler either from the top of the car or from one side thereof. In this construction the shaft 8 is extended upwardly at 8^a to the top of the car where it terminates in a handle 11 by means of which the shaft can be turned to release the hook members. Immediately above the draw head the shaft 8 is formed with a crank portion 10^a and connected to this crank portion are the slides 12 which extend to opposite sides of the car where they terminate in the

handles 12^a. It will thus be obvious that the coupler can be released from either side of the car through the medium of the handles 12^a and slides 12 or from the top of the car through the medium of the handle 11.

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

In a car coupler, the combination of a pair of draw bars having the extremities thereof slotted, hollow draw heads at the ends of the draw bars, the said draw heads being provided with side openings at the rear ends thereof, a pair of oppositely facing hook members arranged within each of the draw heads and superposed one above the other, the rear ends of the hook members being pivoted within the slotted extremity of the draw bar, while the outer ends project beyond the draw head and terminate in beveled noses, spring strips bearing against the hook members and normally tending to force the same inwardly, the said spring strips extending through the side openings of the draw heads and being secured to the exterior of the draw heads, means for moving the hook members outwardly against the action of the springs, and a laterally extending pin upon one of the hook members of each draw head for engagement with the opposite hook member when the two hook members have been swung inwardly into operative position.

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

MIKE WESTRA. [L. S.]

Witnesses:

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