

No. 771,427.

PATENTED OCT. 4, 1904.

L. W. JENKINS.  
CAR COUPLING.

APPLICATION FILED JUNE 13, 1904.

NO MODEL.

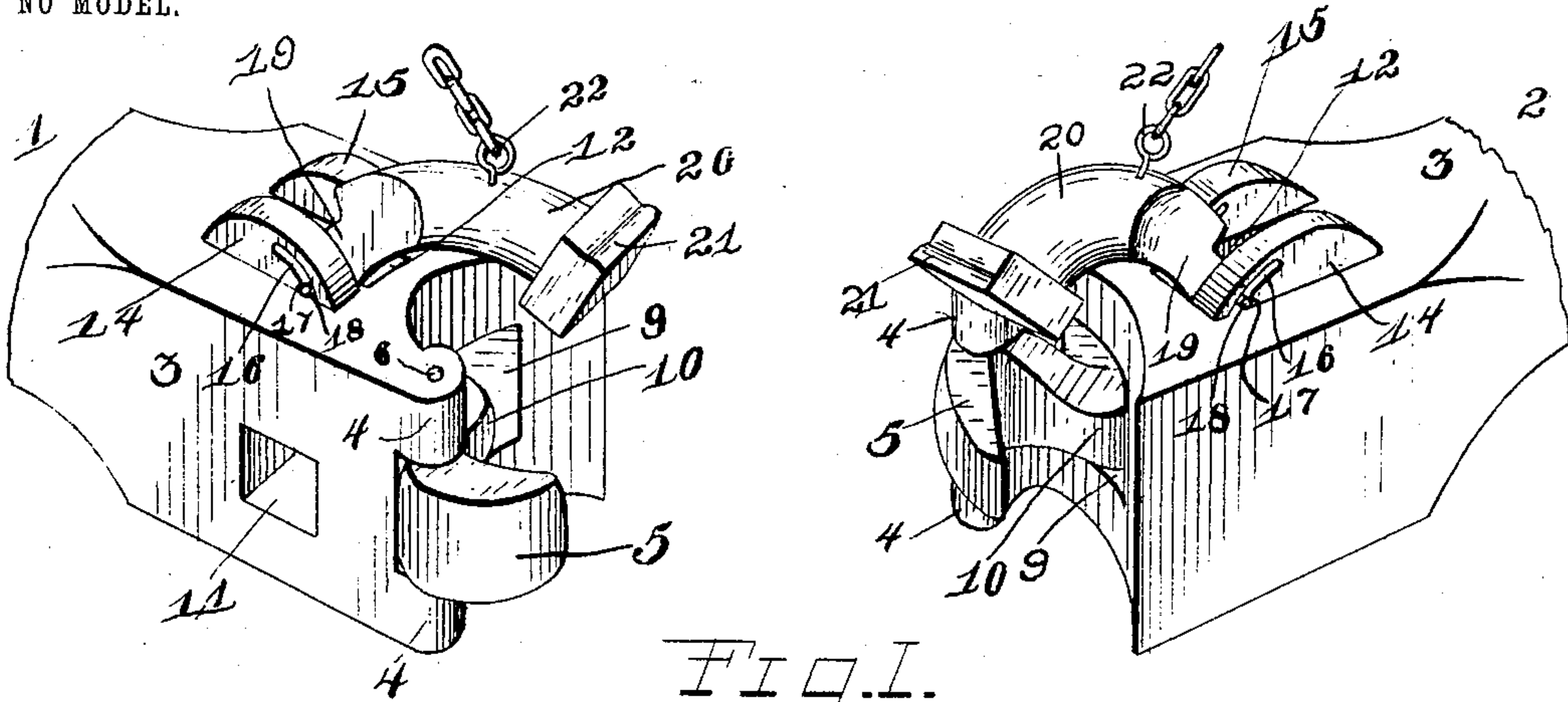


FIG. 1.

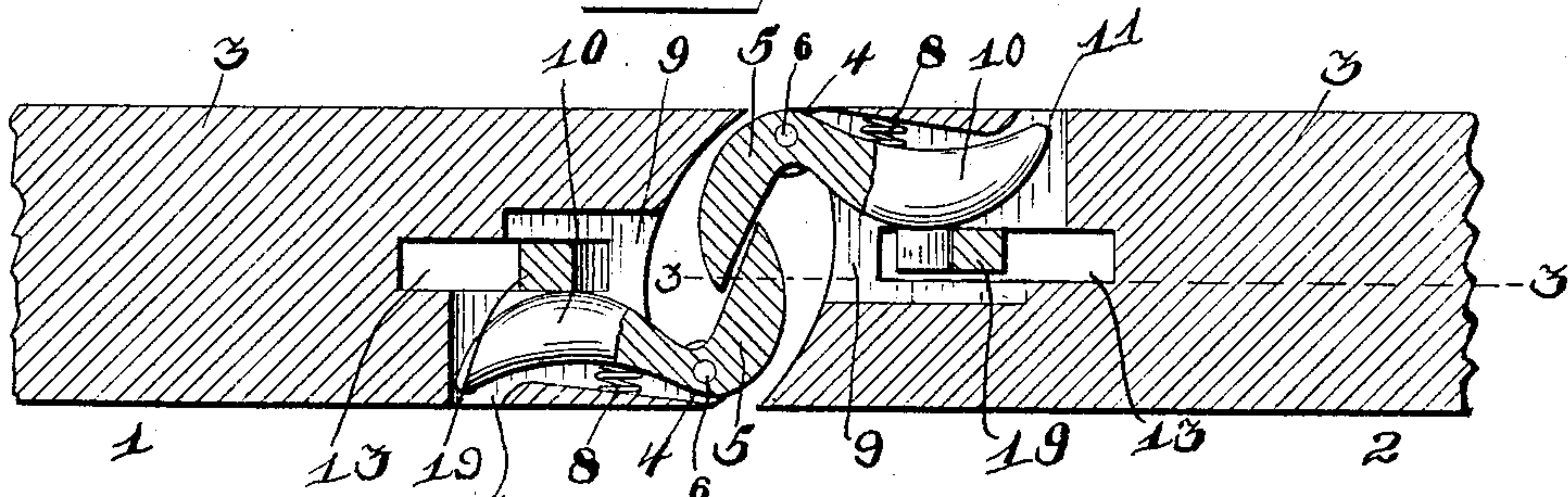


FIG. 2.

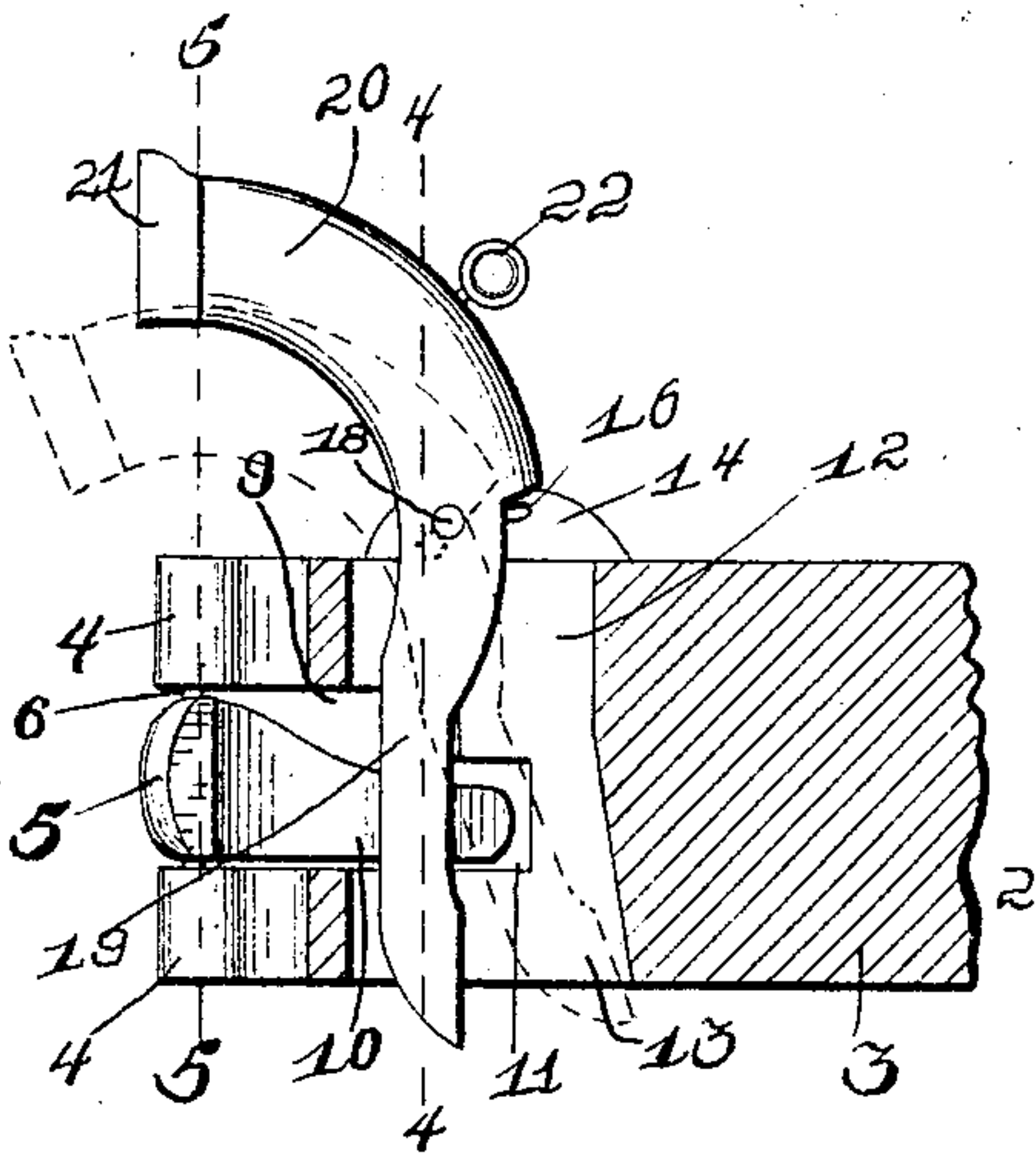


FIG. 3.

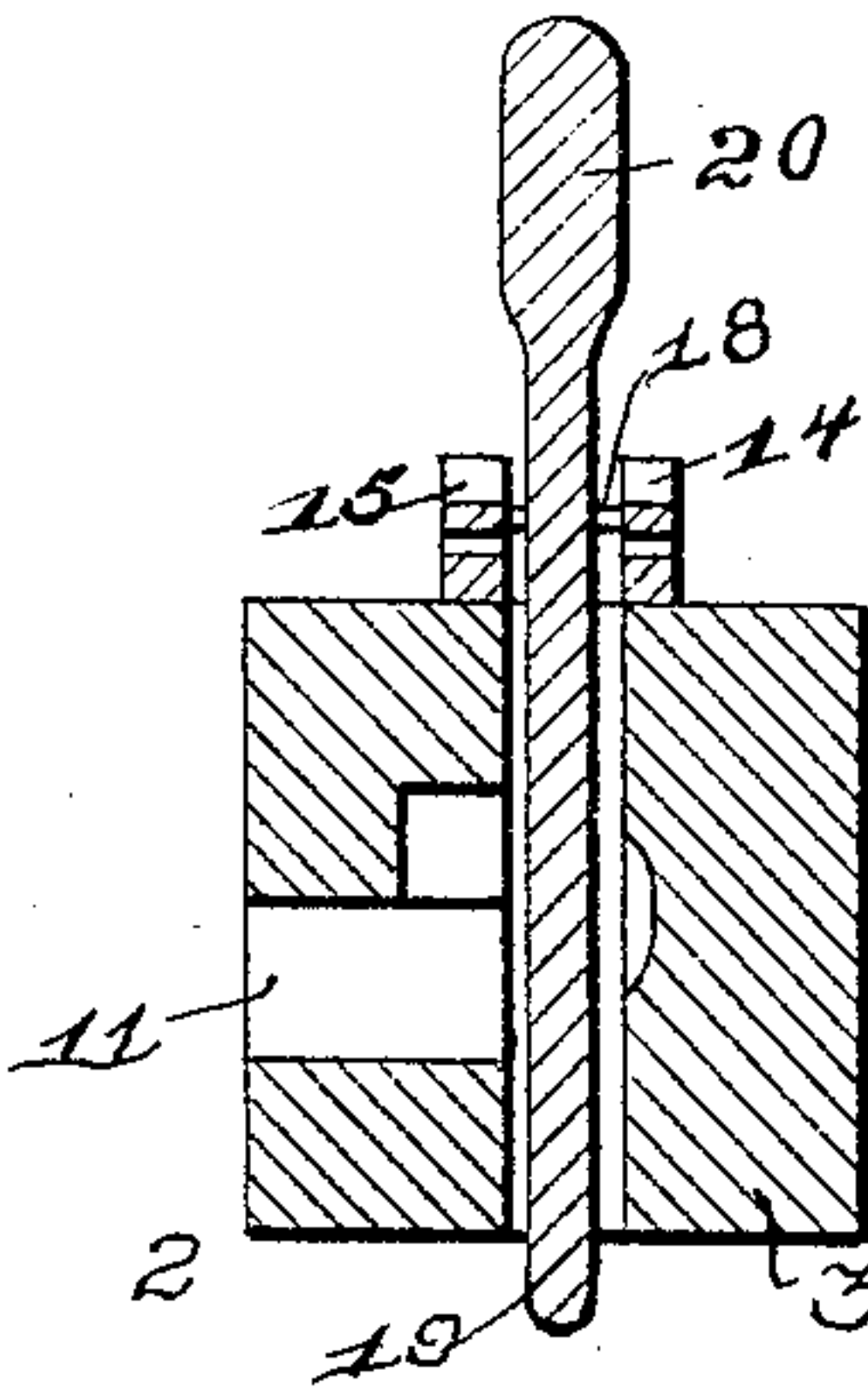


FIG. 4.

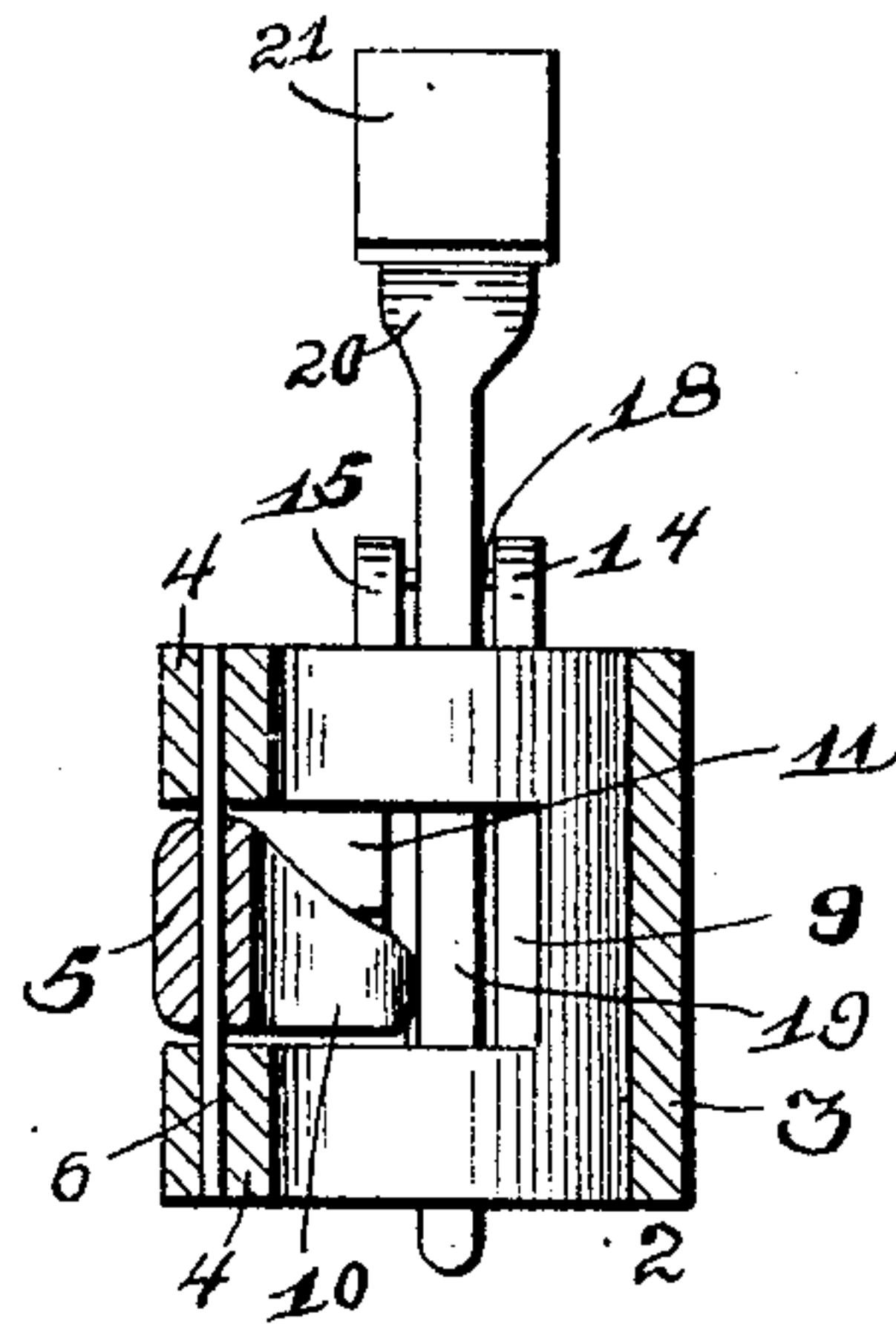


FIG. 5.

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Witnesses

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# UNITED STATES PATENT OFFICE.

LOUIS W. JENKINS, OF MULBERRY, INDIANA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 771,427, dated October 4, 1904.

Application filed June 13, 1904. Serial No. 212,369. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS W. JENKINS, a citizen of the United States, residing at Mulberry, in the county of Clinton and State of Indiana, 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.

This invention relates to improvements in car-couplers; and it consists of the features of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of opposing couplers embodying my invention, showing the hooks or knuckles thereof in position for coupling. Fig. 2 is a longitudinal section of the same in coupling relation. Fig. 3 is a vertical section through one of the couplings on line 3 3 of Fig. 2; and Figs. 4 and 5 are cross-sections taken, respectively, on the lines 4 4 and 5 5 of Fig. 3.

Referring now more particularly to the drawings, 1 and 2 represent opposing couplers adapted to be applied to the meeting ends of adjoining cars and each comprising in its construction a draw-head 3, provided with spaced lugs 4, between which fits and swings a coupling hook or knuckle 5, said hook or knuckle being pivotally mounted on a rod or shaft 6 passing therethrough and detachably fitted upon said lugs. A coil-spring 8 is suitably interposed between the hook 5 and a wall of the opening in the draw-head 3, said spring exerting pressure on the hook to normally force it to the open position, (shown in Fig. 1,) in which it is adapted to be swung backward and engaged by the knuckle of the opposing coupler. The draw-head 3 is provided with a chamber 9, opening through the front end thereof, and this chamber receives a curved wing or tailpiece 10, projecting from the rear of the hook or knuckle and adapted when the knuckle is closed to its coupling position to fold into a slot 11 in the bottom of the said chamber 9.

The top and bottom walls of the draw-head

3 are provided with alined longitudinal slots 12 and 13, and on the top wall are lugs or brackets 14 and 15, disposed on opposite sides of said slot 12. These lugs are provided with slotted guideways 16, each of which extends on a curved line or arc concentric with the center of the draw-head and is enlarged at its outer and forward end to form a shoulder 17, as shown in Fig. 1. A pivot-pin 18 projects through and is fitted to slide in the guideways 16 of the two lugs and is fixed to a latch-bar 19, which extends vertically through the rear of the chamber 9 and is fitted to swing in the two slots 12 and 13. When the parts are in position for coupling, as shown in Fig. 1, the said latch-bar 19 lies in rear of the tailpiece 10 of the knuckle and allows the latter to swing outward when the said knuckle is engaged by the knuckle of an opposing coupler; but when said latch-bar is forced forward by the movement of the pin 18 in the slot 16 it will ride over the curved inner surface of said tailpiece and force said tailpiece outward and the knuckle inward, thus shifting it to the closed position and holding it locked until the knuckle on the passing coupler is disengaged therefrom. The operation of the latch-bar is effected through the medium of a forwardly-curved arm 20, which is provided with a bumper or head 21, which normally projects slightly forward of the plane of the knuckle 5. In the normal position of the parts the pivot-pin 18 lies against the shoulder 17 at the forward ends of the slots 16, and thus prevents the arm 20 from accidentally swinging rearwardly; but when the head 21 of an opposing coupler engages the head of the arm 20 of the coupler in question the said arm 20 will be swung rearwardly by force or impact of engagement and the pin 18 will move rearwardly in the slot 16 and guide the arm in its movement, thus causing the latch-bar 19 to be swung forward and to close the coupling-knuckle 5, as will be readily understood. The arm 20 is provided with an eye or attaching connection 22 for a chain or other like operating device 23, by means of which the coupling-hook may be manually operated without the necessity of the brakeman going



between the cars. The two opposing couplers 2 and 3 are alike in construction except that the knuckle of one is located at one side of the draw-head and the knuckle of the other  
 5 at the other side of the draw-head to adapt them to come into coupling engagement, as will be understood by reference to Figs. 1 and 2.

The operation of the parts in coupling will  
 10 be readily understood from the foregoing description, and it will be seen that the arm 20 is swung forward, thus retracting the latch-bar and automatically setting the knuckle for operation and that as long as the latch-bars  
 15 19 of the couplings engage the tailpieces 10 of the two knuckles 5, which will be the position of these parts when two couplings are connected, said knuckles will be held from disengagement; but by simply drawing rear-  
 20 wardly on the chain 23 of either coupler and swinging the latch-bar 19 thereof the knuckle 5 will be left free to tilt and release itself from engagement with the knuckle of the opposing coupler, after which the arms 20  
 25 will tilt forward. The coupling will thereby be reset for further coupling operation, thus making the same entirely automatic and obviating the necessity of the brakeman adjusting any parts or going between the cars to  
 30 reset the knuckles.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without re-  
 35 quiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention. 40

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

1. In a car-coupling, the combination of a draw-head, a pivoted knuckle having a tail- 45 piece, a latch-bar adapted to engage said tailpiece to close the knuckle and hold it closed, a buffer-arm connected to said latch-bar, and a swinging pivotal connection on which the latch-bar and arm are mounted to have move- 50 ment, substantially as described.

2. In a car-coupling, the combination of a draw-head, a pivoted knuckle having a tailpiece, a latch-bar adapted to engage said tail- 55 piece to lock the knuckle, a buffer-arm attached to the latch-bar, and a pivot-bolt on which the latch-bar and arm are adapted to swing, said bolt having a sliding movement in an arcuate path, substantially as described.

3. In a car-coupler, the combination of a 60 draw-head provided with curved guide-slots, a knuckle having a tailpiece, a latch-bar adapted to engage and depress said tailpiece to lock the knuckle in closed position, a buffer-arm 65 connected to the latch-bar, and a pivot-bolt for said latch-bar and arm slidably mounted in the said guide-slots, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 70 nesses.

LOUIS W. JENKINS.

Witnesses:

JOSEPH E. GLICK,  
 WILLIAM A. WEHR.