

No. 639,324.

Patented Dec. 19, 1899.

F. H. WENDT.
CAR COUPLING.

(Application filed May 29, 1899.)

(No Model.)

Fig. 1.

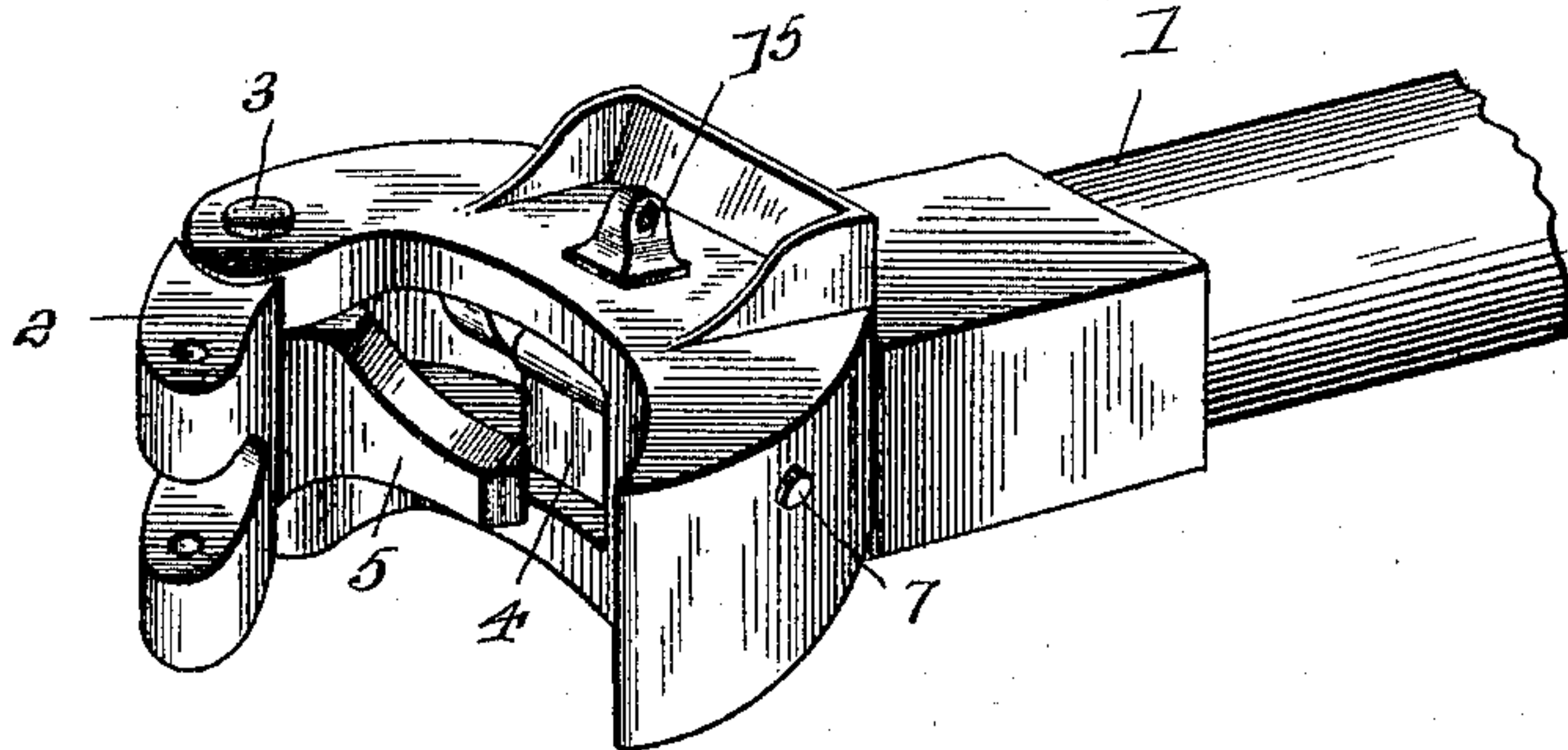


Fig. 2.

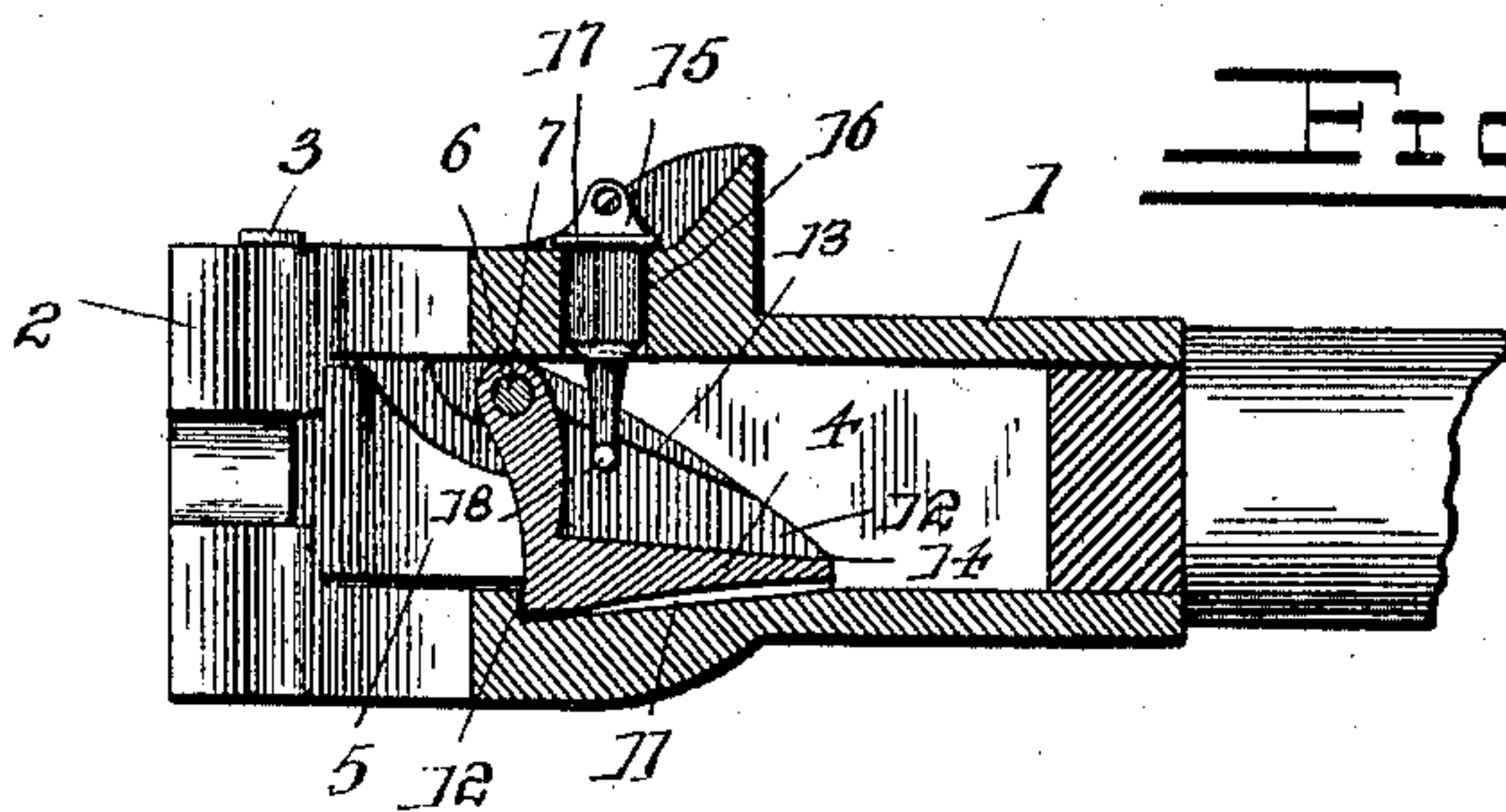


Fig. 4.

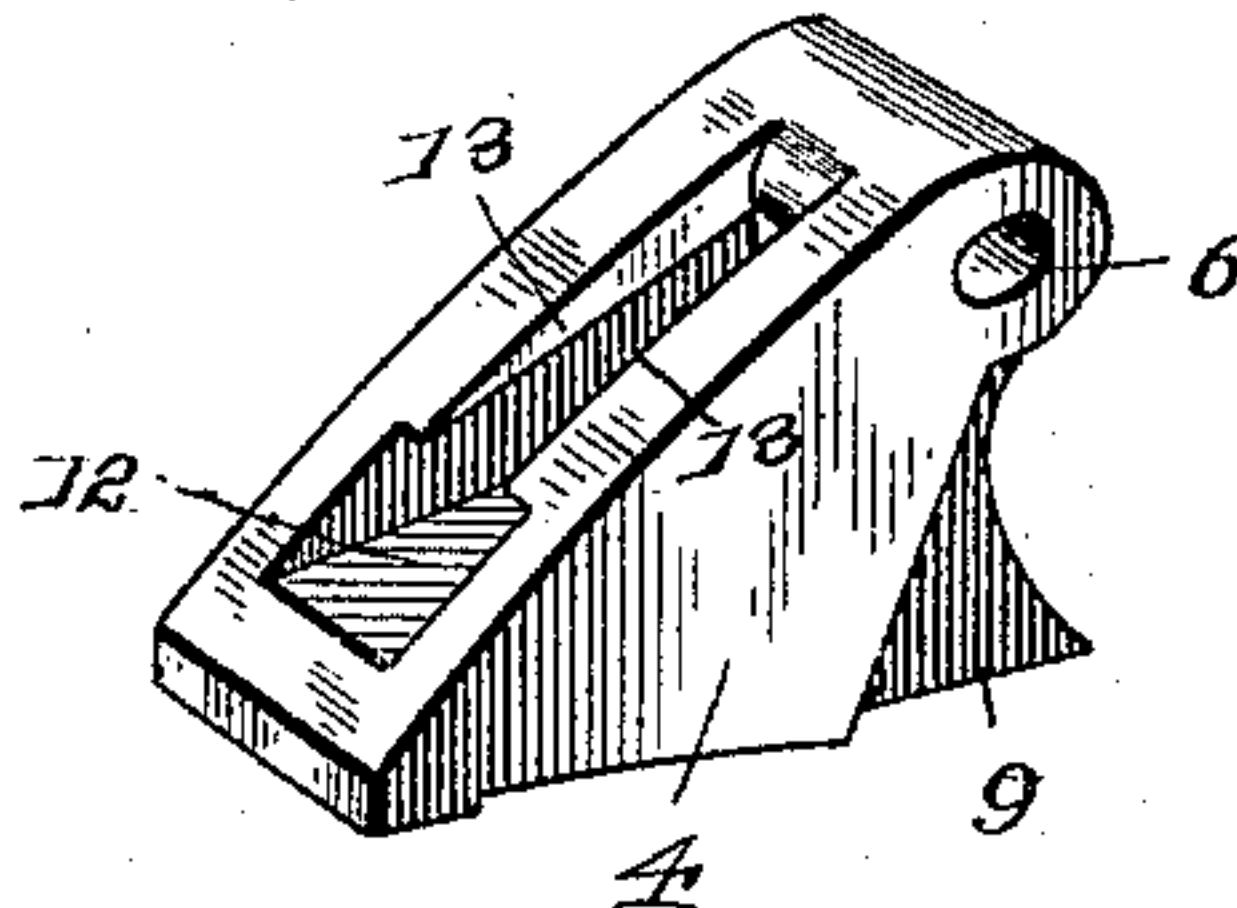


Fig. 3.

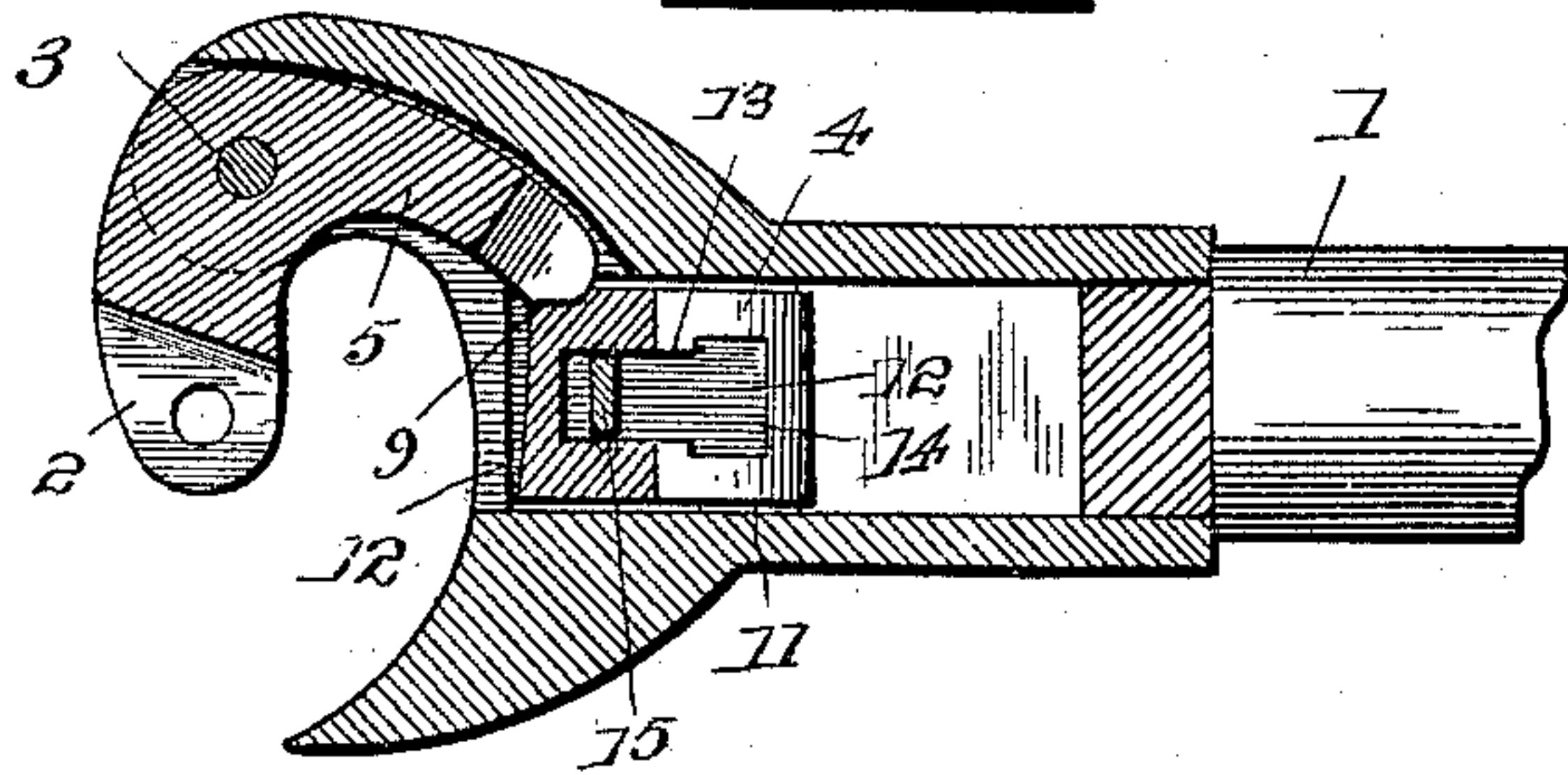
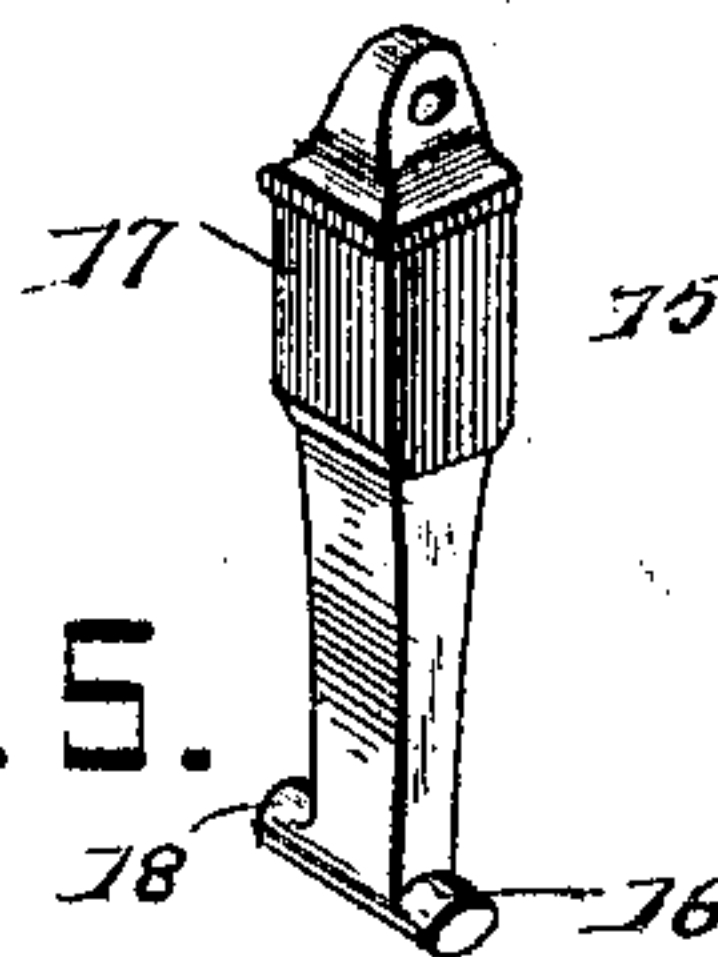


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

FRED H. WENDT, OF MARSHFIELD, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 639,324, dated December 19, 1899.

Application filed May 29, 1899. Serial No. 718,716. (No model.)

To all whom it may concern:

Be it known that I, FRED H. WENDT, a citizen of the United States, residing at Marshfield, in the county of Wood and State of Wisconsin, 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, more especially the means for locking a pivoted knuckle in its closed position, and to provide a simple, inexpensive, and efficient device adapted to permit the car-coupling to couple automatically and capable of preventing the knuckle from being unfastened by jar or vibration.

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 claim 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, the knuckle being closed. Fig. 3 is a horizontal sectional view of the same. Fig. 4 is a detail perspective view of the pivoted catch. Fig. 5 is a similar view of the vertically-movable lifting-pin.

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

1 designates a draw-head having a knuckle pivoted to it, at one side thereof, by a knuckle-pin 3, and the said knuckle is locked in its closed position by a pivoted catch 4, mounted within the draw-head and arranged to engage the arm 5 of the knuckle. The catch 4, which consists of a substantially triangular block, is provided at its top or apex with a transverse perforation or eye 6, through which passes a horizontal pin 7, which pivots the catch to the sides of the draw-heads and which is suitably secured in perforations thereof. The triangular catch, which engages the arm of the knuckle, has a weighted lower portion, which is sufficiently heavy to prevent the catch from being jarred out of engagement with the arm of the knuckle by the vibration incident to the passage of a train over a rough

road-bed. The front face 8 of the catch is beveled transversely and is adapted to be engaged by the arm of the knuckle when the latter closes, whereby the catch is swung rearward and upward to permit the said arm of the knuckle to pass it, and as soon as the arm swings beyond the catch the latter falls and locks the knuckle in its closed position. The knuckle is provided at its engaging side with a recess 9, which receives the arm of the knuckle, as clearly illustrated in Fig. 3 of the accompanying drawings. The catch is mounted in the throat of the draw-head, and it is supported by one side thereof, as shown in Fig. 3, and the bottom of the draw-head is provided with a longitudinal recess 11, which forms a shoulder 12 to provide a stop to limit the forward or outward swing of the pivoted catch. The catch is provided at its inclined rear or inner face with a recess or socket 14, and it has overhanging side flanges 13 at the upper portion thereof, the lower portion being open to provide an entrance to permit the lower end of a vertically-movable operating bar or pin 15 to be engaged by the flanges of the recess or socket. The lifting bar or pin 15, which is angular in cross-section in its upper portion and extends through an angular opening 16 of the top of the draw-head, is provided at its upper end with a head 17, and its lower portion is reduced, as clearly shown in Fig. 5 of the accompanying drawings. The lower end of the lifting-bar is provided with laterally-extending projections or lugs 18, which engage beneath the overhanging side flanges of the rear face of the catch, whereby the lifting bar or pin is slidingly connected with the same and is adapted, when raised, to swing the catch upward to release the arm of the knuckle in order that the latter may open.

The transverse pin, which forms the pivot for the catch, is removable, and when it is withdrawn the catch may be readily detached, and as it is drawn outward it will disengage itself from the lateral projections of the lower end of the lifting-bar. This construction also enables the parts to be readily assembled. The upper end or head of the lifting-bar is enlarged to form a flange or shoulder, which rests upon the top of the draw-head and forms a shield to prevent dust and wa-

ter from entering the draw-head. The head of the lifting-bar is also perforated and is adapted to be connected with any suitable uncoupling mechanism.

- 5 By locating the pivotal point of the catch at the apex when the cars are being coupled the movement of the knuckle below the pivot will cause the rear end of the catch to swing upward as far as necessary, thereby avoid-
 10 ing the strain upon the pivot which would be placed upon it if the pivotal point were located at the rear of the point of engagement between the knuckle and the latch, and by providing the rear portion of the catch with
 15 a flanged recess the catch can be removed or inserted by simply removing or replacing the pin 7, thereby avoiding the use of any bolts or other connections between the catch and the lifting-bar.
- 20 As it is necessary to have the arms 18 always arranged in position to engage the flanges of the catch, it is necessary that the upper portion of the bearing be angular in cross-section and fit within the angularly-
 25 formed opening in the draw-head. It is also necessary that this opening be wide enough to admit the passage of the arms or lugs, and it is further necessary that the rear ends of the flanges extend back beyond the projec-
 30 tions of the catch to prevent removal of the draw-bar after the parts have been assembled and secured in their operative position by means of the pin through the catch.

- 35 The invention has the following advantages: The catch, which is simple and comparatively inexpensive in construction, possesses great strength and durability and has sufficient weight to prevent it from being ac-
 40 cidentally thrown upward by the jar and vibration of a train. The lower end of the lifting-bar is detachably interlocked with the inclined rear face of the pivoted catch, and the parts may be readily engaged with and

disengaged from each other as the catch is introduced into and removed from the draw- 45 head.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacri- 50 ficing any of the advantages of this invention.

What is claimed is—

In a car-coupling, the combination of a draw-head provided at the top with an open- 55 ing and having a longitudinal recess 11 at its bottom forming a shoulder 12, a knuckle pivoted to the draw-head, the substantially triangular catch extending entirely across the throat of the draw-head and supported by the side walls thereof and having an inclined 60 rear face extending from the top of the front face to the rear end of the bottom, said catch being provided at its back with a recess and having oppositely-inclined flanges extending downward from the top and terminating 65 short of the bottom of the recess and located a considerable distance above the said bottom, a transverse pivot arranged at the top of the catch, and the vertically-movable lifting-bar arranged in the opening at the top of 70 the draw-head and located at a point in rear of the said pivot and extending into the recess and adapted to engage the flanges thereof, said bar terminating at a point adjacent 75 to the flanges, whereby the catch is adapted to swing upward independently of the lifting-bar when the knuckle closes, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 80 the presence of two witnesses.

FRED H. WENDT.

Witnesses:

W. A. PORS,
 W. H. BUDGE.