

No. 822,483.

PATENTED JUNE 5, 1906.

C. SCHLARED.
CAR COUPLING.

APPLICATION FILED JAN. 27, 1906.

Fig. 1.

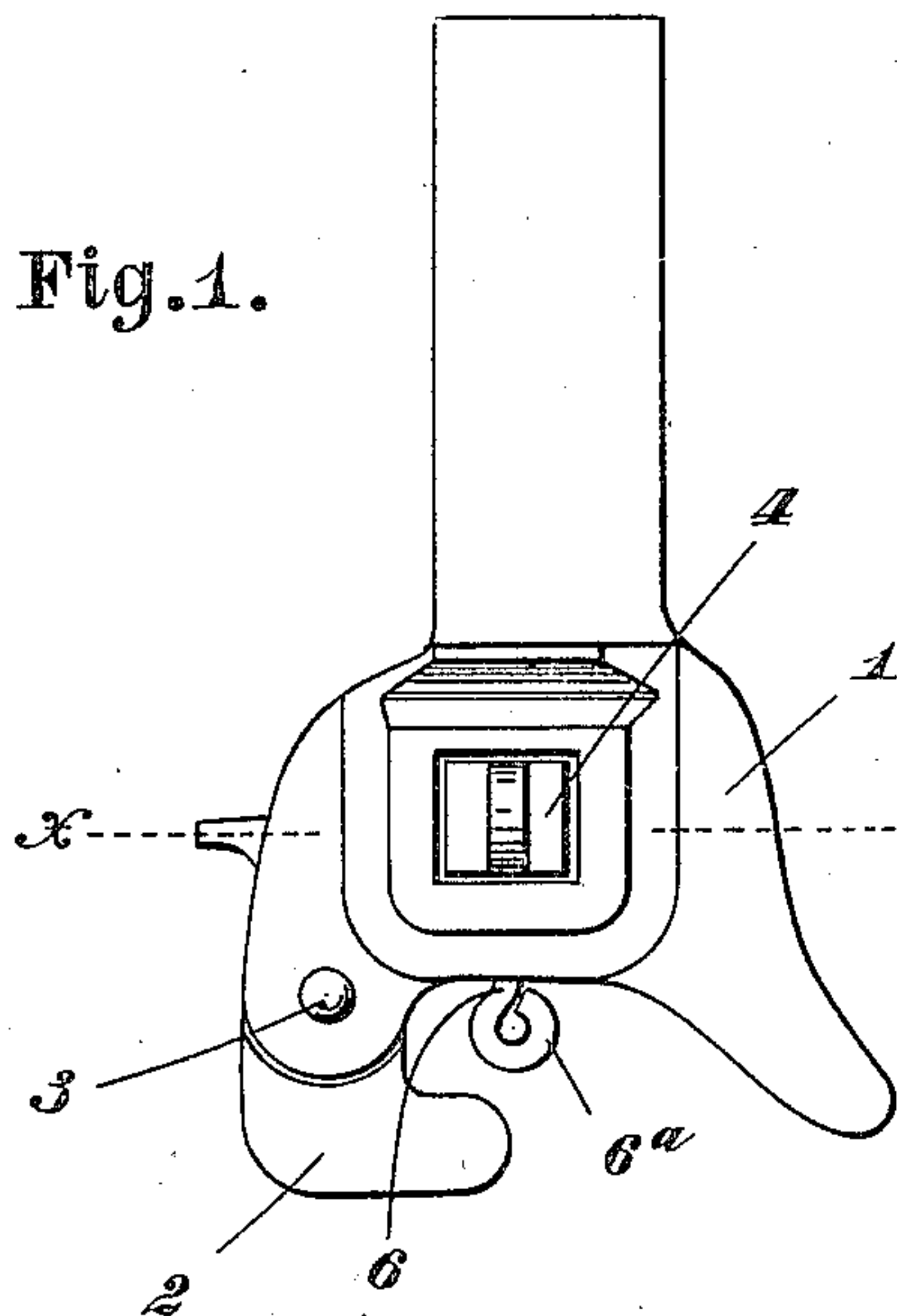


Fig. 2.

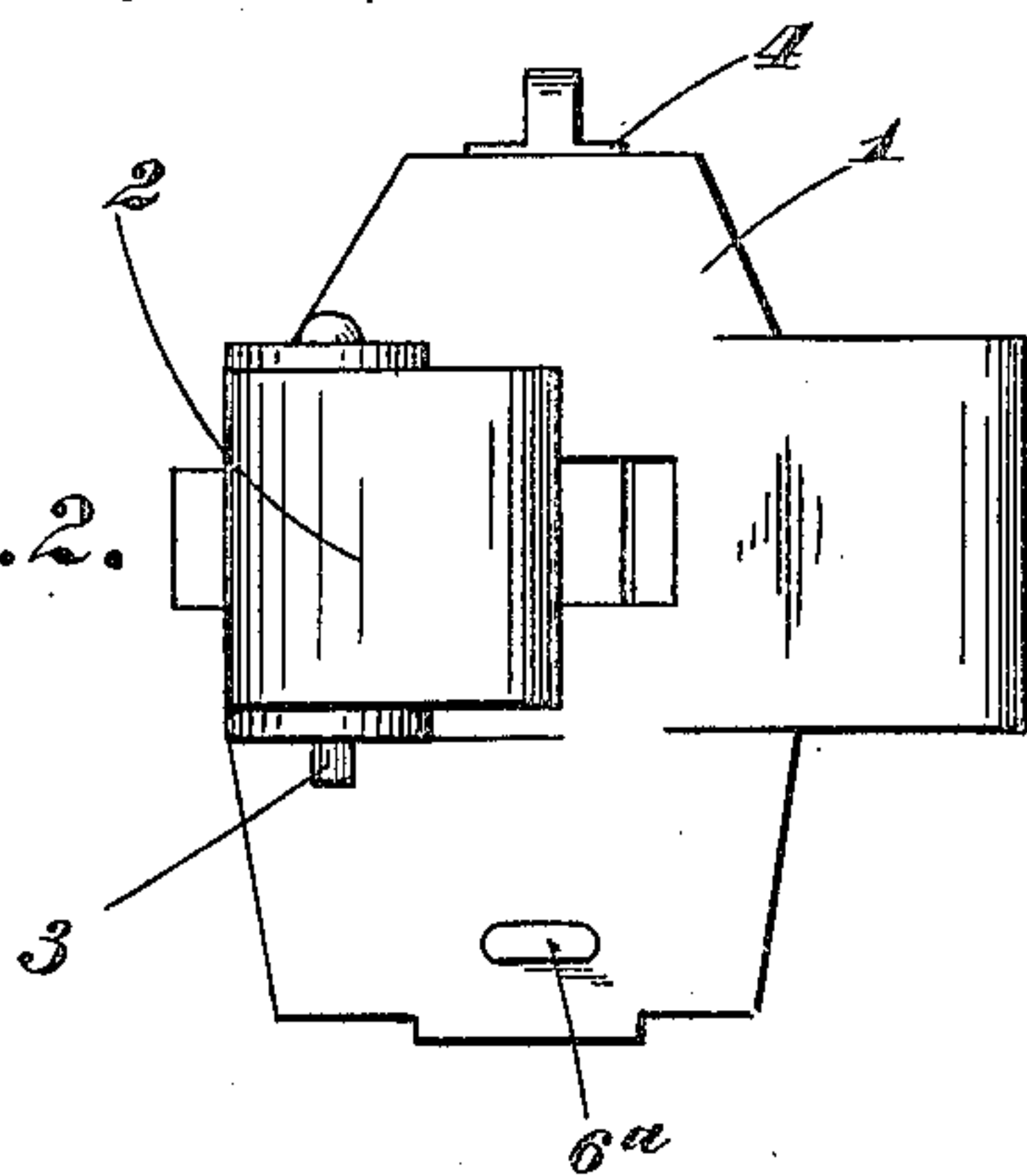


Fig. 5.

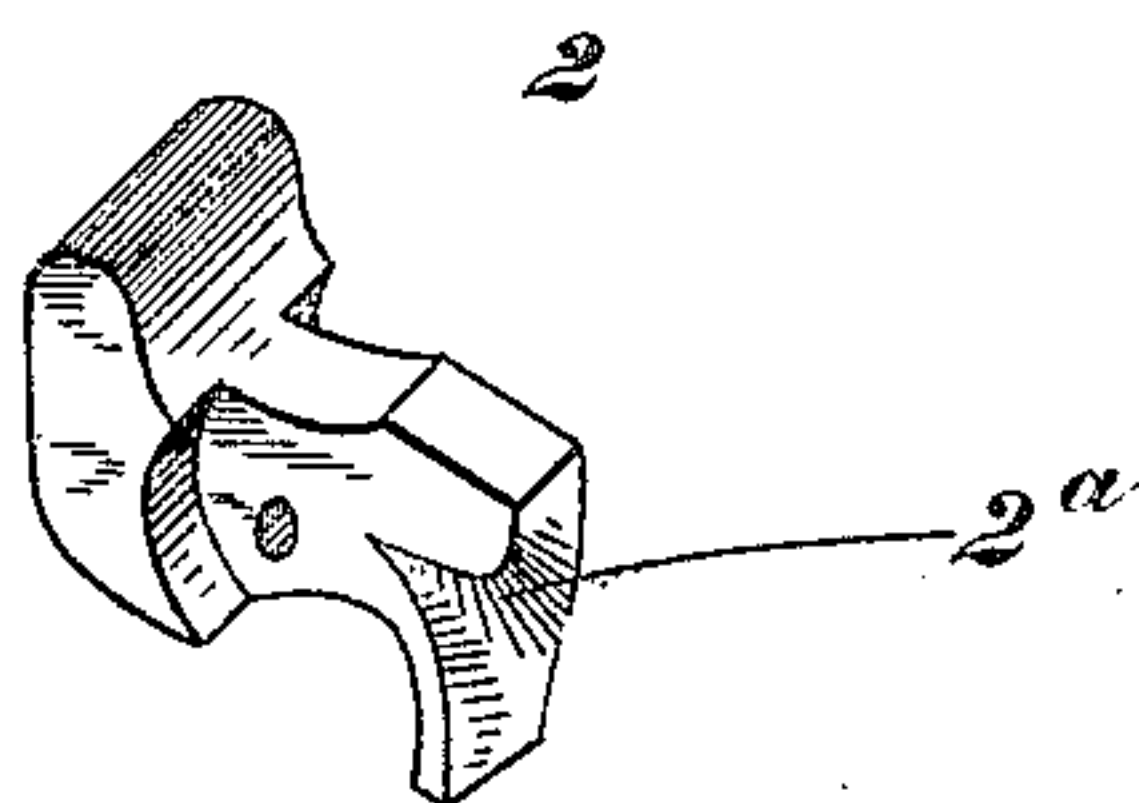


Fig. 3.

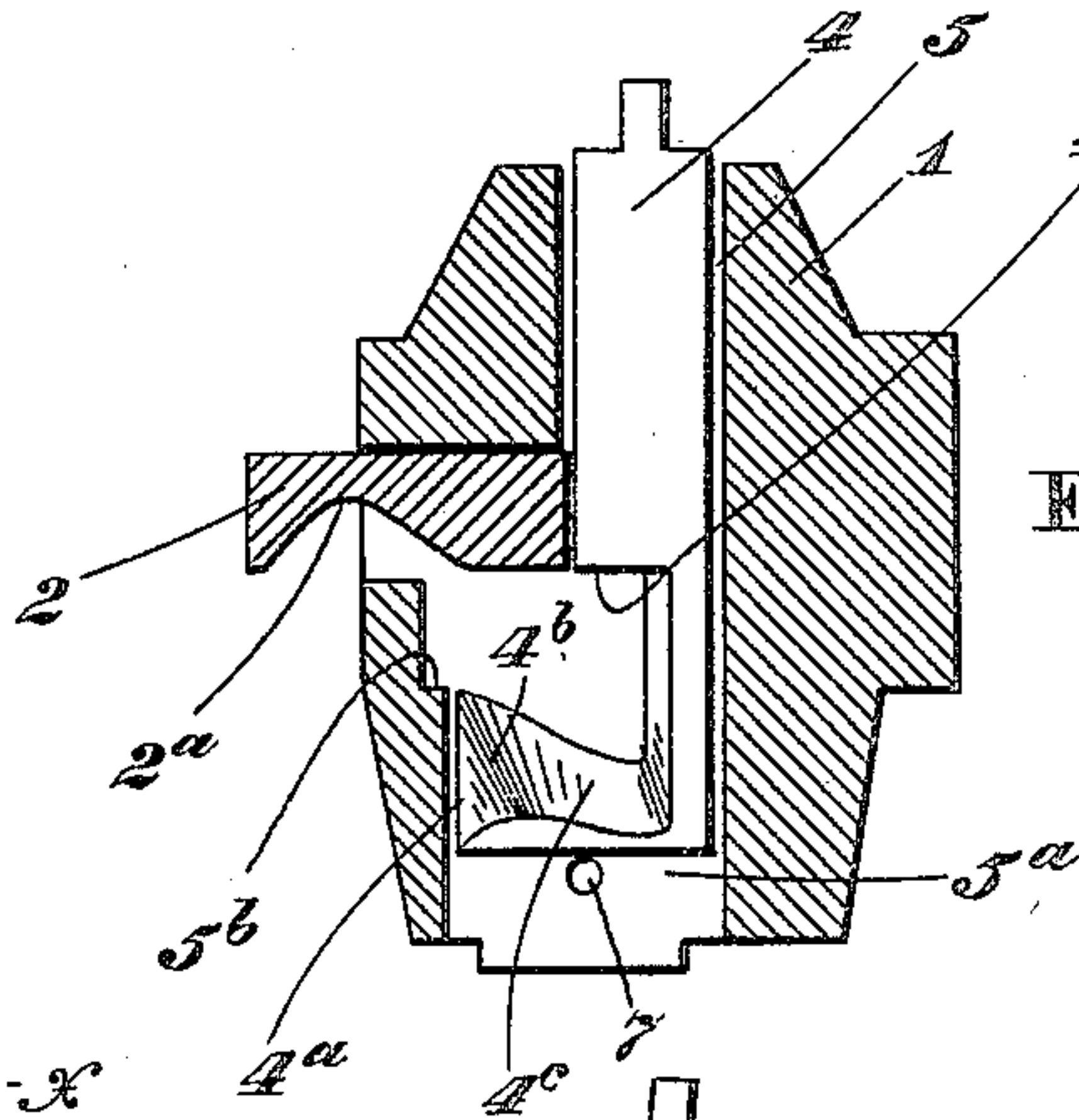


Fig. 4.

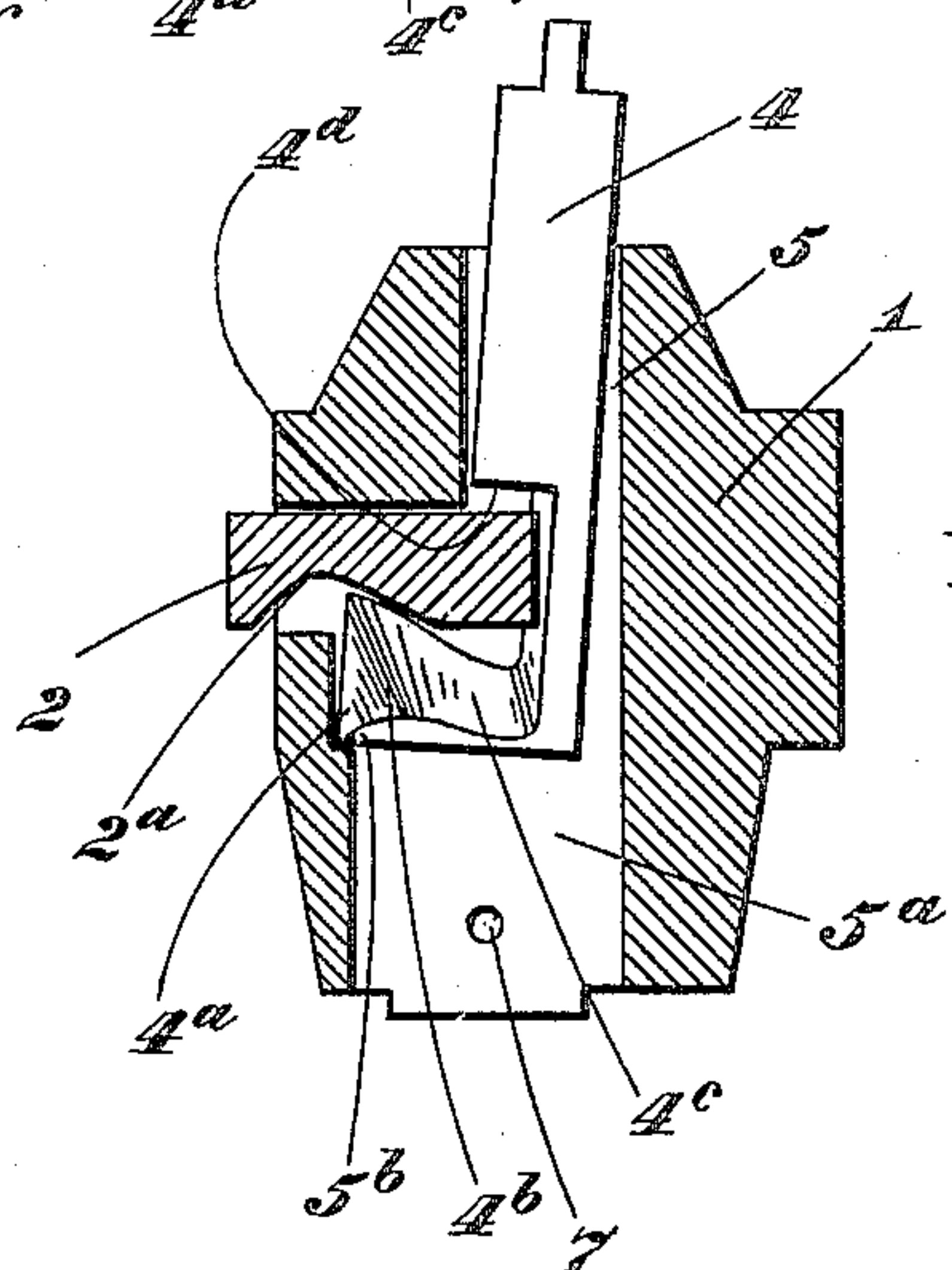
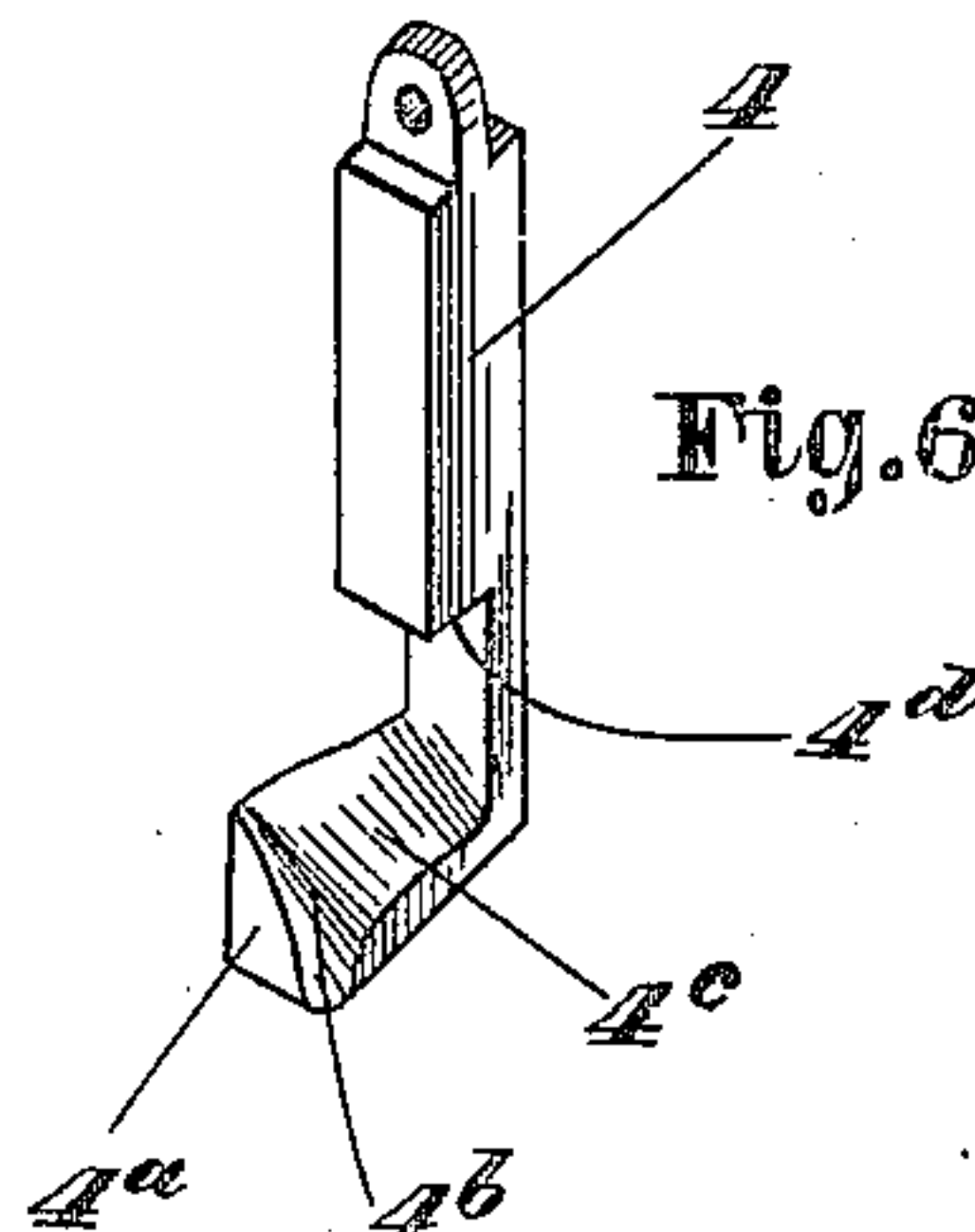


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES SCHLARED, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO
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CAR-COUPLING.

No. 822,483.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed January 27, 1906. Serial No. 298,168.

To all whom it may concern:

Be it known that I, CHARLES SCHLARED, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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

The object of this invention is to provide an improved coupling in which the parts shall be few in number and of simple and economical construction, and in which the uncoupling of the cars is effected after the pin is properly set, and in which the coupling of the cars is effected automatically and without further manipulation of the pin after the knuckle has been moved to uncoupling position.

The invention is embodied in the construction hereinafter described and claimed.

In the accompanying drawings, illustrating one exemplification of the invention, Figure 1 is a top plan view. Fig. 2 is a view in front elevation. Fig. 3 is a vertical sectional view of the draw-head on the line *x x*, showing the pin in knuckle-locking position. Fig. 4 is a similar sectional view showing the pin in raised position and set for uncoupling or coupling. Fig. 5 is a perspective view of the knuckle, and Fig. 6 is a perspective view of the pin.

In the several views, 1 designates the draw-head, and 2 the knuckle, pivoted in the draw-head by means of a pin 3, as usual in this type of coupling. The inner arm of the knuckle has at its under side a recess with an inclined surface 2^a.

The pin comprises a shank portion 4 and a foot 4^a. The foot 4^a is thicker at its outer extremity, and its upper side is inclined from its rear edge downward toward the shank and toward the front edge, as seen at 4^b. It is also rounded from the inclined surface 4^b toward the corner at the front side, as seen at 4^c, thus providing a sort of wedging-toe at the rear outer corner of the foot. The foot extends considerably laterally beyond the plane of the side of shank, as indicated in Figs. 3, 4, and 6.

The shank of the pin is reduced or cut away above the foot to provide a shoulder 4^d.

The hole in the draw-head for the recep-

tion of the pin is narrow at the upper end, as seen at 5, and wide at the lower end, as seen at 5^a, and the vertical wall of the opening at the lower end is made with a shoulder 5^b.

The pin-hole 5 5^a is made wide enough to permit oscillation of the pin, so that the foot can be lifted and swung to rest on the shoulder 5^b, as seen in Fig. 4; but the upper portion of the pin-opening is preferably made so that to put the pin in place it must be inserted from the lower side of the coupling. The advantage of this particular feature of construction is that foreign things can seldom fall into the interior of the mechanism, and thus interfere with its operation, and such foreign matter as does get into the upper end of the opening will work down and fall through and not accumulate in the lower portion to interfere with the operation of the parts.

The pin is retained in its hole and prevented from dropping out by means of a pin 6, passed horizontally through a suitable hole, as indicated at 7, made in the draw-head. This pin 6 has a rather larger head 6^a, projecting under the space between the ouert portion of the knuckle and the front end of the draw-head.

The operation is as follows: When the cars bearing the parts described are coupled, the locking-pin is in the position indicated in Fig. 3. When it is desired that the cars shall be uncoupled, the locking-pin is lifted to the position seen in Fig. 4. When the coupling-pin is lifted, the wedging-toe is brought into contact with the inclined surface 2^a of the inner arm of the knuckle, said toe and surface coöperating to automatically draw the foot toward the shoulder 5^b, and the pin when released naturally falls toward and rests upon said shoulder. In this position the knuckle can be pulled out and its inner arm swung inward around under the shoulder 4^d. This inward swinging of the inner arm of the knuckle throws the pin off the seat or shoulder 5^b; but the pin is sustained in elevated position until the outer portion of the knuckle is again thrown toward the front end of the draw-head by the contact of an approaching draw-head of another car to effect a coupling. When the outer portion of the knuckle is thus thrown in, the inner arm is of course swung outward and the pin released

in such wise as to drop again to the locking position. (Seen in Fig. 3.)

What I claim, and desire to secure by Letters Patent, is—

5 1. In a car-coupling, the combination of a draw-head having a locking-pin hole provided with a seat in its side, a knuckle pivoted in said draw-head and having an inner arm, and a locking-pin adapted to be raised
10 and coöperate with the knuckle while in locked position to be moved laterally to rest on said seat, said pin also constructed to permit the inner arm of the knuckle to swing against it to unseat it from said seat, and
15 also provided with a shoulder to rest on said inner arm to sustain the pin in elevated position while the knuckle is in its open or uncoupled position.

20 2. In a car-coupling, the combination of a draw-head having a locking-pin hole pro-

vided with a shoulder or seat, a knuckle pivoted in said draw-head and having an inner arm, a locking-pin having a laterally-projecting foot adapted to coöperate with the inner arm of the knuckle in coupled position when
25 the pin is raised to be drawn toward said seat, said pin having a recessed shank forming a seat to rest on the inner arm of the knuckle when the latter is turned to uncoupled position, said pin being adapted to
30 be moved laterally off the said seat by the knuckle when the latter is turned toward uncoupling position.

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

CHARLES SCHLARED.

Witnesses:

BENJ. FINCKEL,
SAMUEL W. LATHAM.