

No. 837,155.

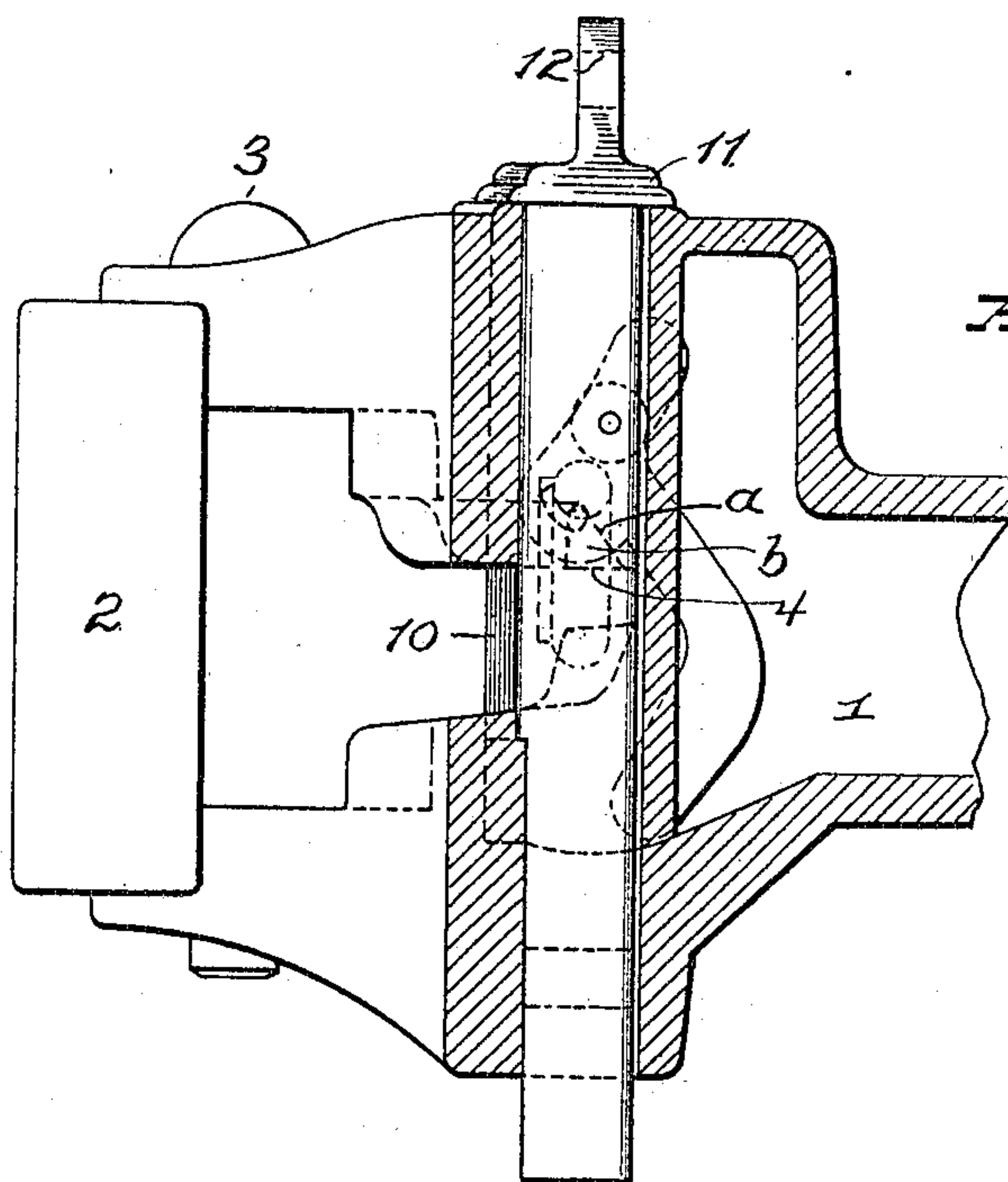
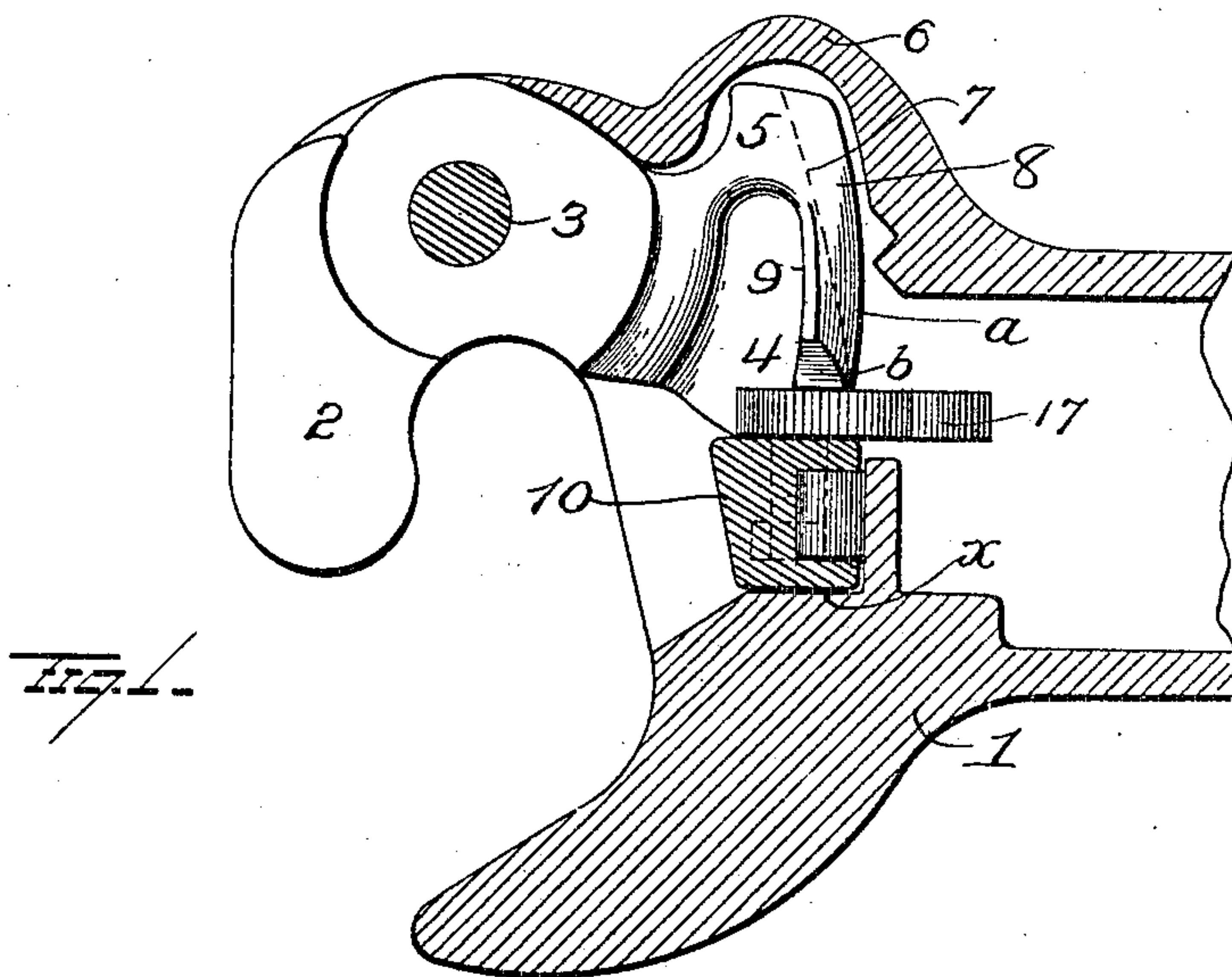
PATENTED NOV. 27, 1906.

J. & J. O. TIMMS.

CAR COUPLING.

APPLICATION FILED JUNE 28, 1906.

2 SHEETS—SHEET 1.



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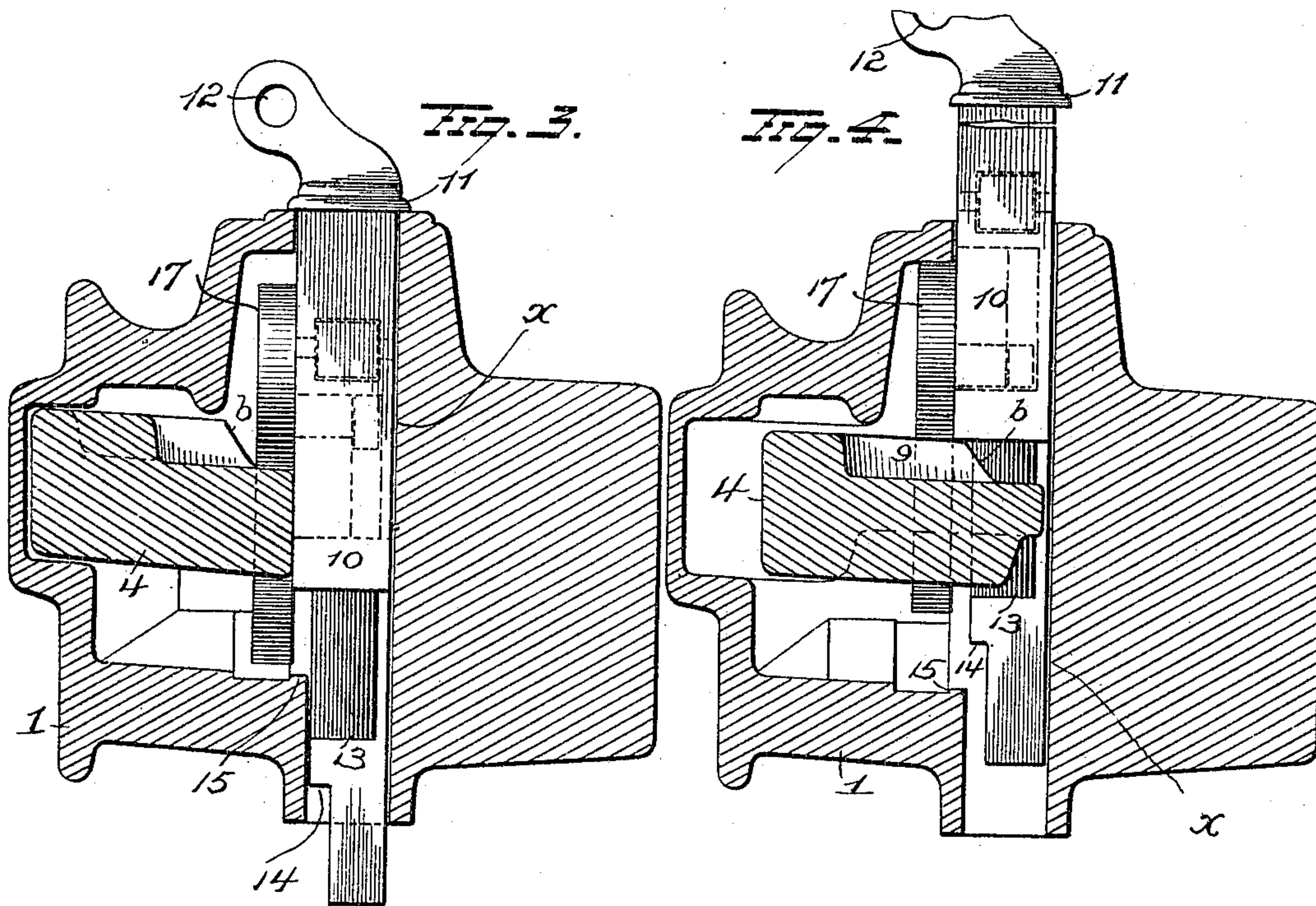
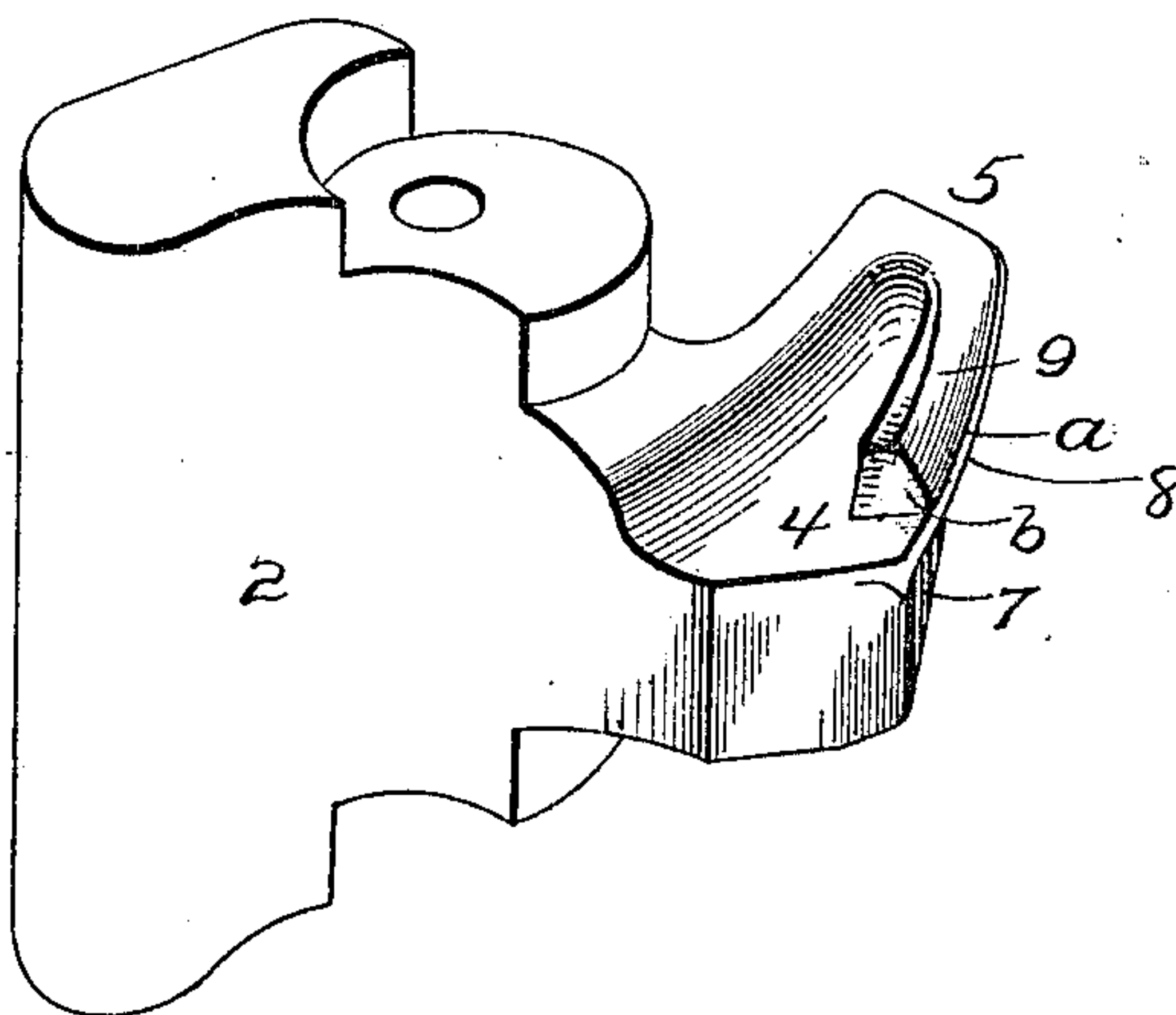


FIG. 5.



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UNITED STATES PATENT OFFICE.

JAMES TIMMS AND JAMES O. TIMMS, OF COLUMBUS, OHIO.

CAR-COUPLING.

No. 837,155.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed June 28, 1906. Serial No. 323,881.

To all whom it may concern:

Be it known that we, JAMES TIMMS and JAMES O. TIMMS, residents of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and we 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.

Our invention relates to improvements in car-couplings, and more particularly to an improved knuckle especially adapted for use in our coupler disclosed in Patent No. 780,076, granted to us January 17, 1905, the object of the invention being to provide an improved construction of knuckle-tail to dislodge the locking device from lock-set position.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in horizontal section, illustrating our improvements. Fig. 2 is a view in vertical longitudinal section. Fig. 3 is a view in vertical cross-section, showing the parts in locked position. Fig. 4 is a view similar to Fig. 3, showing the mechanism lock-set; and Fig. 5 is a perspective view of the knuckle.

1 represents a coupling-head, and 2 our improved knuckle, mounted to turn on a pivot-pin 3. The knuckle 2 is made with a tail 4, the rear end 5 of which is adapted to enter a pocket or extension 6, formed in the wall of the coupling-head. The rear edge or wall 7 of the knuckle-tail is straight or practically straight and cuts under the upper portion of the tail, leaving an overhanging ledge 8, in the particular contour or shape of the upper surface of which resides the essential features of our invention and will be fully hereinafter described.

10 represents the locking block or pin, which projects up through an angular opening in the top of coupling-head 1 and is made with a flanged enlargement 11 to cover said opening and an eye 12, projecting to one side for the attachment of the operating-chain. The block or pin 10 is of rectangular shape throughout its upper portion and is made with a recess 13, having a diagonal or curved wall of such size as to permit the tail

of the knuckle to pass the block or pin without engaging it until the beveled enlargement 9 on the upper face of the knuckle-tail in opening forces the locking block or pin from its lock-set position, as will be hereinafter pointed out. The lower end of the block or pin 10 when in locked position projects through an opening in the bottom of head 1 and is recessed at one side, forming a shoulder 14, adapted to rest on a seat or platform 15, to hold the block or pin in lock-set position, and it will be seen that as the eye 12 is at one side of the center of the block or pin the latter will be tilted to one side when drawn up and compel the shoulder 14 to swing over seat or platform 15 and support the block in such position. The locking block or pin 10 is movable against a straight wall X of the head 1 and when in locked position approximately fills the space between the end of the knuckle-tail and this wall X to securely lock the knuckle in closed position. The enlargement 9 on the top of the knuckle-tail 4 extends from a point a short distance removed from the forward end of the knuckle-tail to its rear or inner end, and this enlargement is beveled longitudinally, as shown at *a*, and at its forward edge, as shown at *b*, (clearly illustrated in Fig. 5,) said beveled surfaces *a* and *b* merging smoothly into each other.

The operation of our improvements is as follows: When the locking pin or block is moved to lock-set position, with its shoulder 14 resting on platform 15 on lower wall of coupling-head, and the knuckle is swung open, the beveled end *b* of enlargement 9 will ride beneath the top wall of recess 13 in said pin and push the pin from its set position and support it on the enlargement 9 of the knuckle-tail 4. As the knuckle continues to open, the support of pin 10 will be transferred from bevel *b* to bevel *a*, and the latter by reason of the weight of pin 10 on its downwardly-inclined surface will compel the pin to move back against locking-wall X and remain in that position throughout the movement of the knuckle, so that when the knuckle-tail is forced inward and moves out of recess 13 the pin will be in position to fall without its shoulder 14 striking platform 15. The beveled or inclined surfaces *a* and *b* of enlargement 9 are located substantially in horizontal planes at right angles to each other, and the particular angles of inclinations may be varied at will.

17 represents the unlocking-lever pivot-

ally connected to pin or block 10, and the construction and operation of this lever are fully set forth in our patent above referred to and need not here be described.

5 A great many changes might be made in the general form and arrangement of the parts described without departing from our invention, and hence we would have it understood that we do not restrict ourselves to the
10 precise details set forth, but consider ourselves at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of our invention.

15 Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A coupling-knuckle having a tail, said tail having on its top side, two surfaces disposed in different planes, one of said surfaces
20 being approximately flat and the other of said surfaces being beveled toward the rear edge of the tail, one end of said beveled surface terminating at a point removed from one end of the tail in a short inclined face.

25 2. A coupling-knuckle having a tail provided on its upper face in close proximity to its rear edge, with an elongated enlargement having a rearwardly-inclined face terminating approximately coincident with the
30 rear edge of the knuckle, one end of said enlargement terminating a distance from the inner end of the tail, in a short inclined face which extends from the top face of the tail to the top of said elongated enlargement.

35 3. A coupling-knuckle provided with a tail

having a horizontal upper face, an elongated enlargement beveled rearwardly approximately coincident with the rear edge of the knuckle-tail and having its upper edge in a plane substantially parallel with the plane of
40 the upper horizontal face of the tail, one end of said elongated enlargement terminating in a shoulder some distance from the inner end of the tail.

4. A coupling-knuckle provided with a
45 horizontal upper face, and an elongated rearwardly-beveled face rising above the horizontal face of the tail at the rear end thereof and terminating at point a short distance from the inner end of the tail.

50 5. In a coupling, a knuckle having a tail, the upper face of the tail constructed with two surfaces, one being horizontal and the other an elongated surface beveled toward the rear edge of the tail, the beveled surface
55 beginning a short distance from the front face of the knuckle-arm and said tail also having a beveled surface substantially at right angles to the first-mentioned beveled surface and intersecting the latter and the
60 horizontal surface.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JAMES TIMMS.
JAMES O. TIMMS.

Witnesses:

L. BENTON TUSSING,
ADA G. GAMBS.