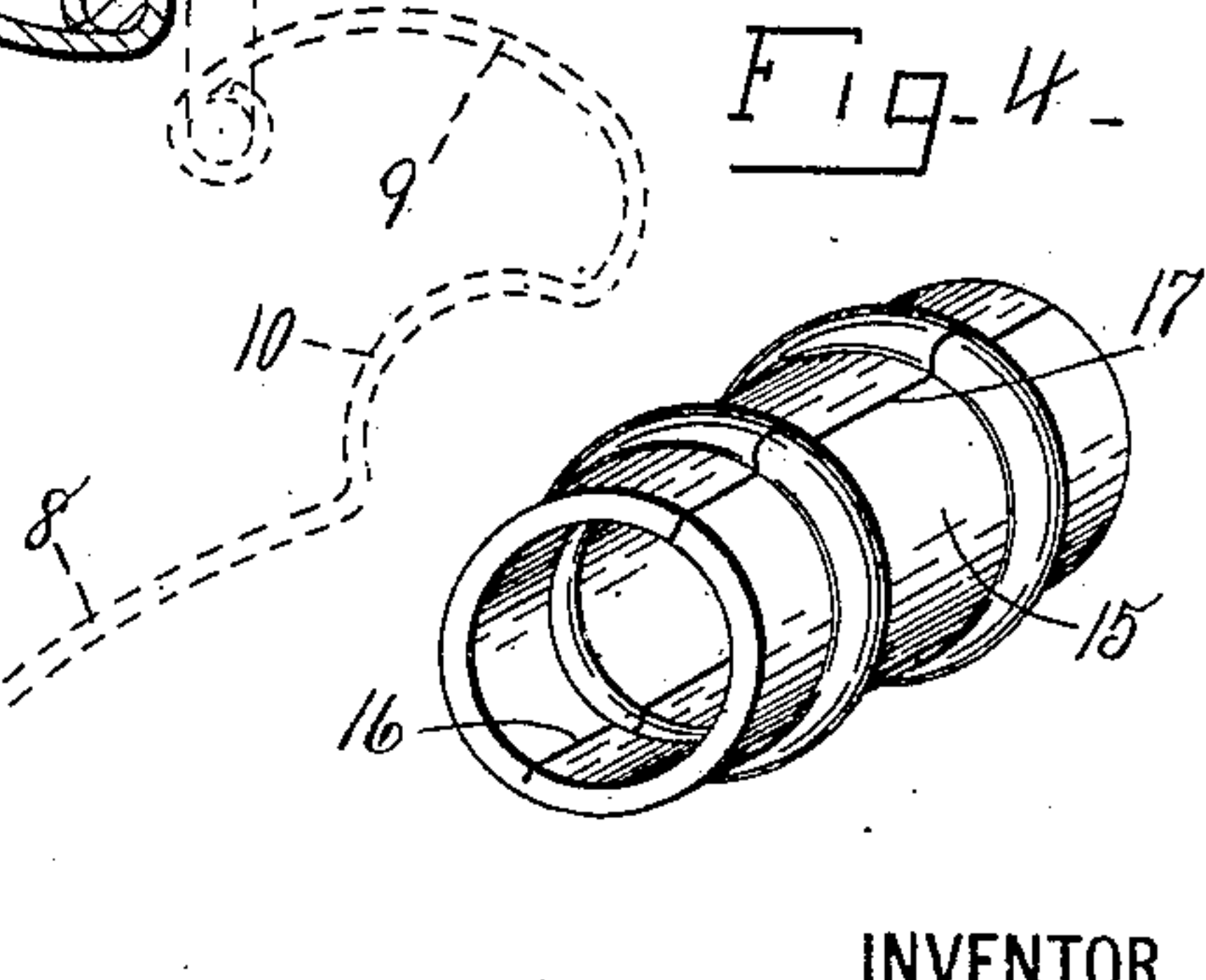
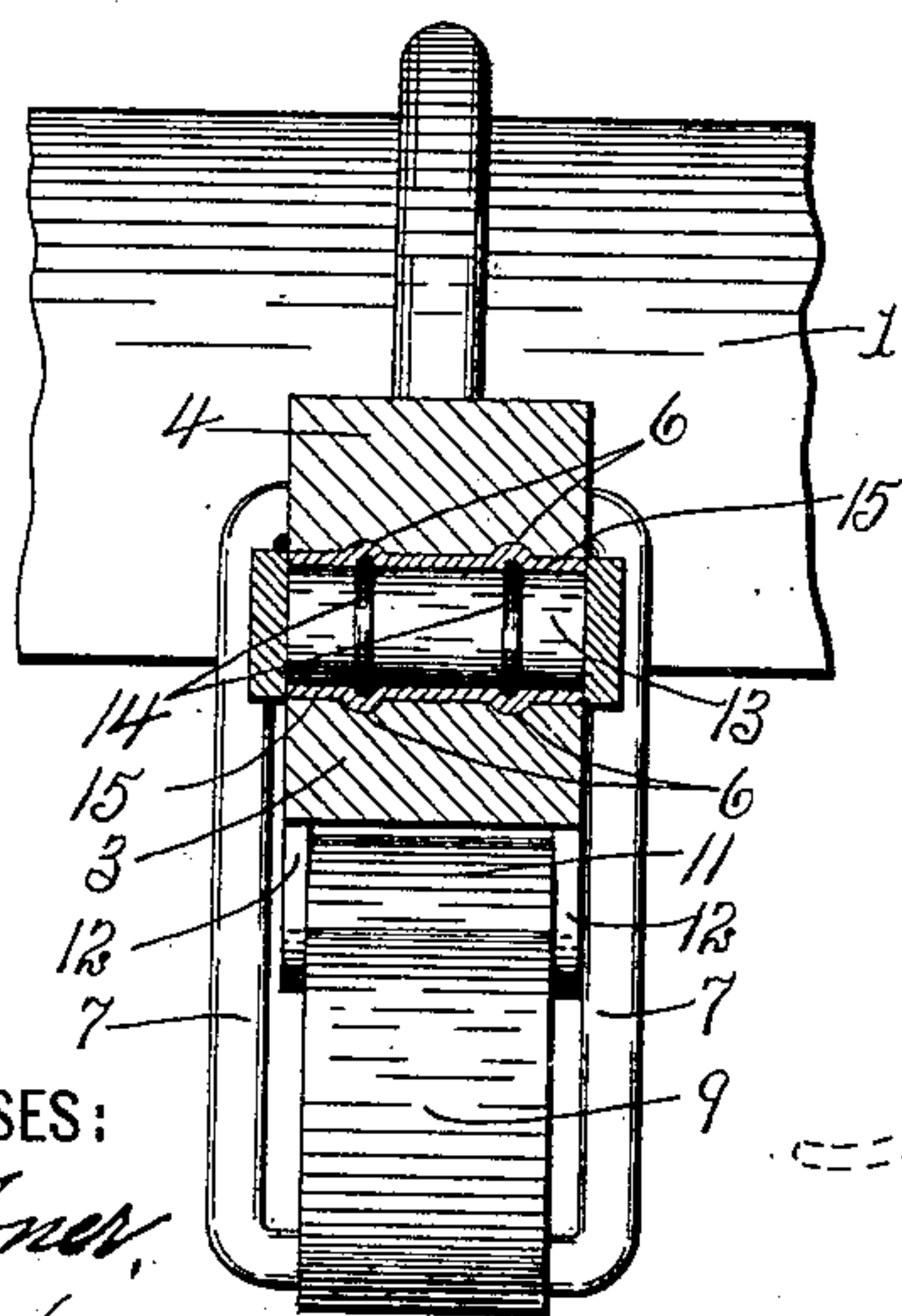
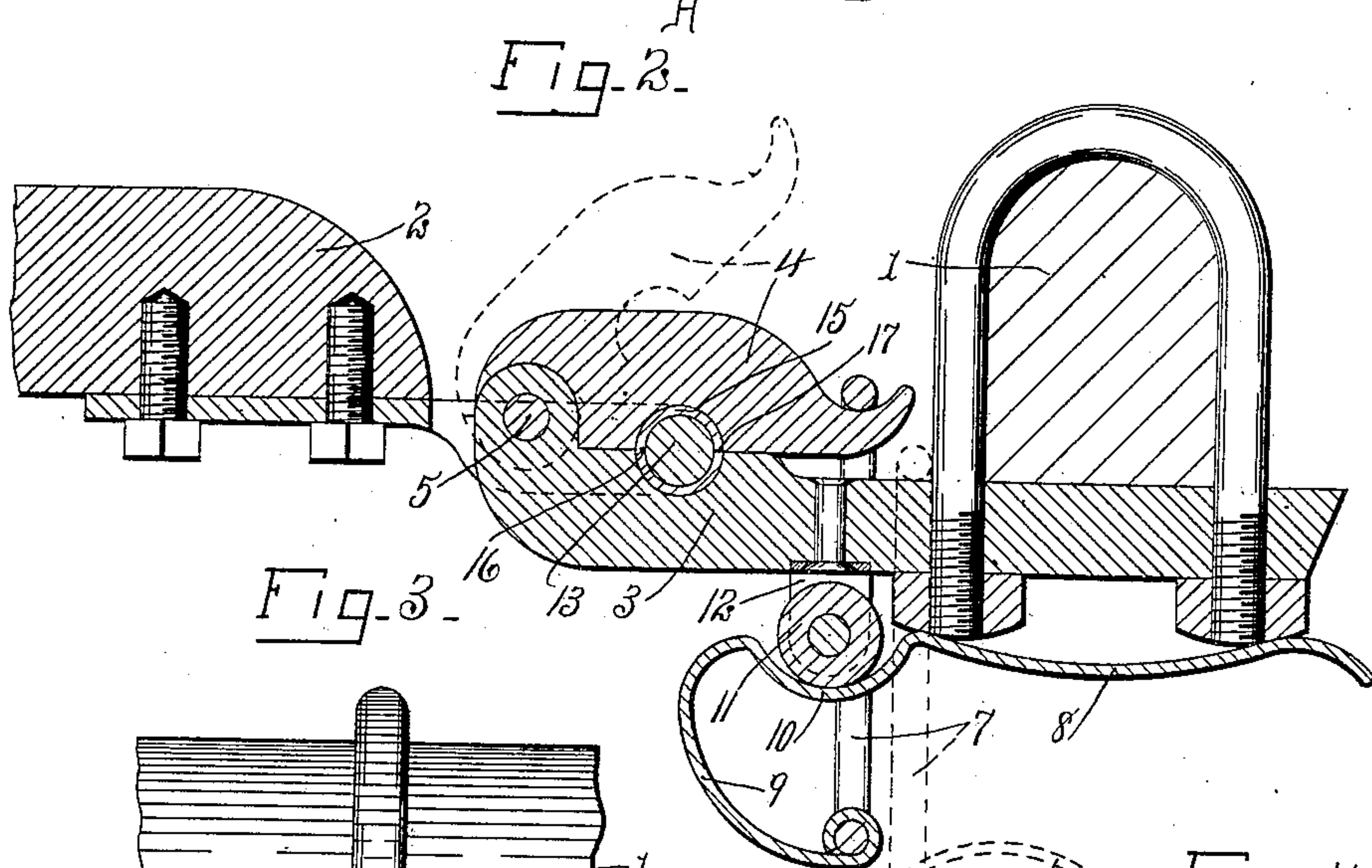
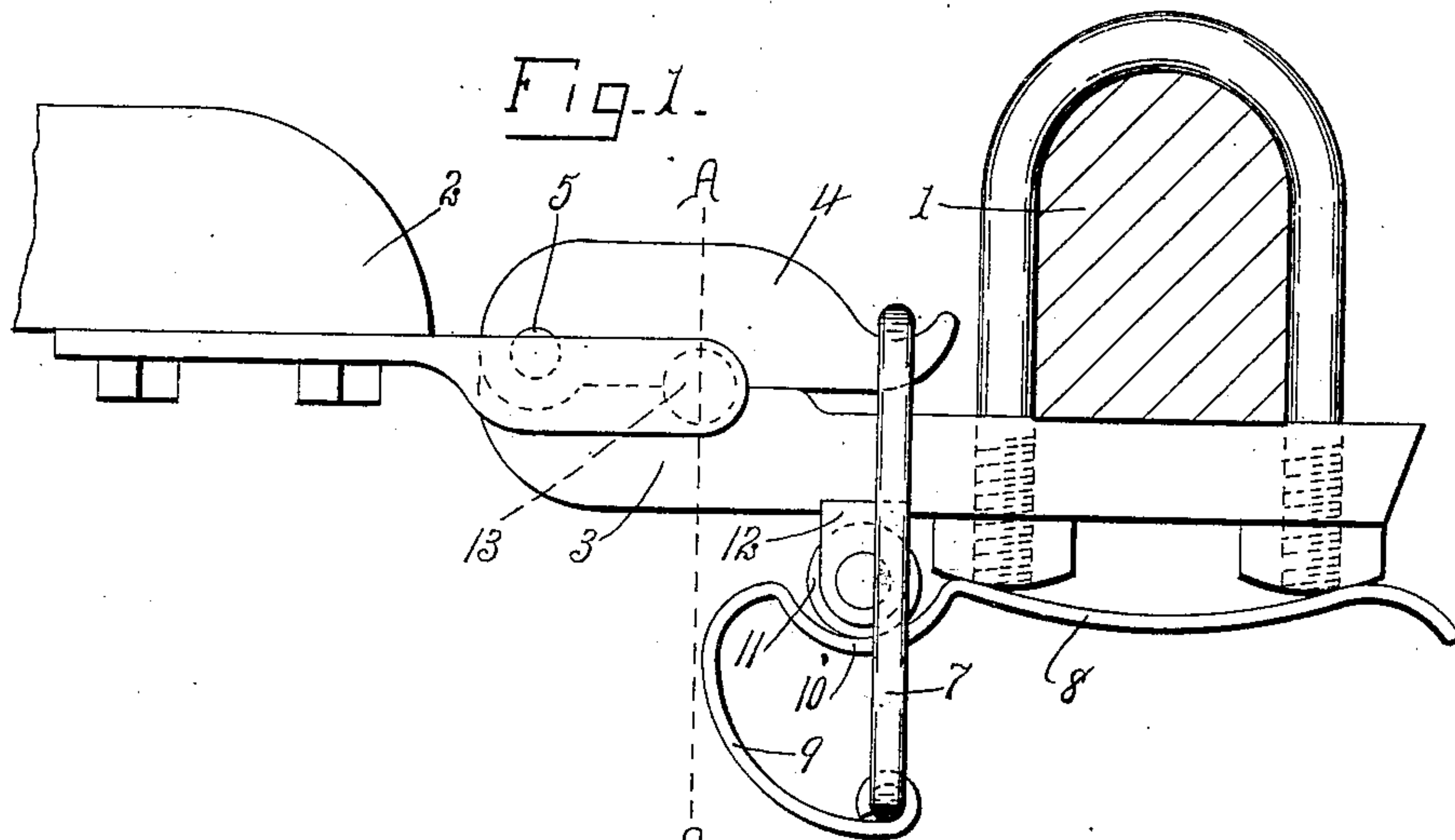


No. 829,767.

PATENTED AUG. 28, 1906.

D. W. COPELAND.
THILL COUPLING.

APPLICATION FILED SEPT. 23, 1905.



WITNESSES:
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DAVID W. COPELAND, OF SYRACUSE, NEW YORK.

THILL-COUPLING.

No. 829,767.

Specification of Letters Patent.

Patented Aug. 23, 1906.

Application filed September 23, 1905. Serial No. 279,760.

To all whom it may concern:

Be it known that I, DAVID W. COPELAND, of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Thill-Coupling, of which the following is a specification.

My invention has for its object the production of a thill-coupling which is particularly simple in construction and highly efficient in use; and to this end it consists in the novel combinations and constructions hereinafter set forth and claimed.

In describing this invention reference is had to the accompanying drawings, in which like characters designate corresponding parts in all the views.

Figure 1 is a side elevation of my thill-coupling and the adjacent parts. Fig. 2 is a longitudinal sectional view thereof, partly in elevation, the location of movable parts when in inoperative position being shown by dotted lines. Fig. 3 is a sectional view, partly in elevation, on line A A, Fig. 1. Fig. 4 is an isometric view of the elastic bushing which encircles the coupling-pin.

1 is the axle, and 2 the thill or pole, of a wagon.

3 and 4 are respectively the fixed and movable sections of a draft-eye, the fixed section 3 being rigid with and projecting forwardly from the axle 1 and the movable section 4 being hinged at 5 to the forward end of the section 3 and arranged on the upper side of said section. As seen in Fig. 3, the eye-sections 3 4 are preferably formed with internal annular grooves 6.

7 is an upright link extending crosswise of the eye-sections 3 4 and having its upper end detachably engaged with the free or rear end of the eye-section 4. Said link is preferably an oblong loop encircling the draft-eye and having its upper cross-piece detachably engaged with the movable eye-section 4 and its lower cross-piece separated from the lower face of the eye-section 3.

8 is a lever pivoted at one end to the lower cross-piece of the link 7, the forward end of the lever adjacent to its pivot being bent at 9 substantially arc-shaped and the rear portion of the lever being extended crosswise of the axle 1. Said lever 8 is also formed with a depressed or concave bearing-surface 10 at the rear of the arc-shaped portion 9 and above the pivoted end of the lever for engaging a rounding fulcrum 11, supported on the lower side of the fixed eye-section 3. This fulcrum

preferably comprises a roller carried by ears 12, depending from the fixed eye-section 3. The link 7 and the lever 8 form means for clamping the eye-sections 3 4 together, and when the lever is operated to clamp said eye-sections the depressed bearing-surface 10 locks said sections together and prevents accidental releasing of the lever.

13 is a coupling-pin provided on the thill or pole of the wagon and preferably formed with peripheral ridges 14, corresponding to the grooves 6 of the eye-sections. This coupling-pin is encircled by a split elastic bushing 15, usually a strip of leather or other suitable material which is pressed by the ridges 14 into the grooves 6 when the eye-sections are clamped together. The bushing 15 is formed in two sections corresponding to the eye-sections 3 4 by weakening said bushing at 16 along the line opposite to the split 17, forming a hinge, so that when the eye-sections 3 4 are opened the bushing may open correspondingly. Thus the bushing is not detached from the eye-section 3 during the removal of the thill.

The construction and operation of my thill-coupling will now be readily understood upon reference to the foregoing description and accompanying drawings.

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

1. In a thill-coupling, a draft-eye comprising a rigid section, and a movable section hinged to the rigid section, a lever for clamping the eye-sections together, said lever having a depressed bearing-surface, and a rounding fulcrum for engaging the depressed surface of the lever, substantially as and for the purpose described.

2. In a thill-coupling, a draft-eye comprising a rigid section, and a movable section hinged to the rigid section, a lever for clamping the eye-sections together, said lever having a depressed bearing-surface, a fulcrum comprising a roller carried by one of the eye-sections for engaging the depressed surface of the lever, substantially as and for the purpose specified.

3. In a thill-coupling, a draft-eye comprising a rigid section, and a movable section hinged to the rigid section, an upright link extending crosswise of the eye-sections and having one end detachably engaged with the movable eye-section, a lever pivoted to the other end of said link and having the portion

thereof adjacent to its pivot bent substantially arc-shaped, said lever being formed with a depressed bearing-surface, and a rounding fulcrum carried by the fixed eye-section for engaging the depressed surface of the lever, substantially as and for the purpose set forth.

4. In a thill-coupling, a draft-eye comprising a rigid section, and a movable section hinged to the rigid section, an upright link extending crosswise of the eye-sections and having one end detachably engaged with the movable eye-section, a lever pivoted to the other end of said link and having the portion thereof adjacent to its pivot bent substantially arc-shaped, said lever being formed with a depressed bearing-surface, and a fulcrum comprising a roller carried by the fixed eye-section for engaging the depressed surface of the lever, substantially as and for the purpose described.

5. The combination with an axle, of a thill-coupling comprising a forwardly-projecting eye-section fixed to the axle, a movable eye-section hinged to the front end of the fixed eye-section, an upright link extending crosswise of the eye-sections and having one end

detachably engaged with the rear end of the movable eye-section, a lever pivoted to the other end of the link, said lever having the front portion thereof adjacent to its pivot bent substantially arc-shaped and its rear portion extended crosswise of the axle, and a fulcrum for the lever provided on the fixed eye-section, substantially as and for the purpose specified.

6. In a thill-coupling, a draft-eye comprising a rigid section, and a movable section hinged to the rigid section, a lever for clamping the eye-sections together, said lever being formed intermediate of its ends with a depressed bearing-surface, and a rounding fulcrum for engaging said surface of the lever, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 21st day of September, 1905.

DAVID W. COPELAND.

Witnesses:

S. DAVIS,
R. ARONSON.