

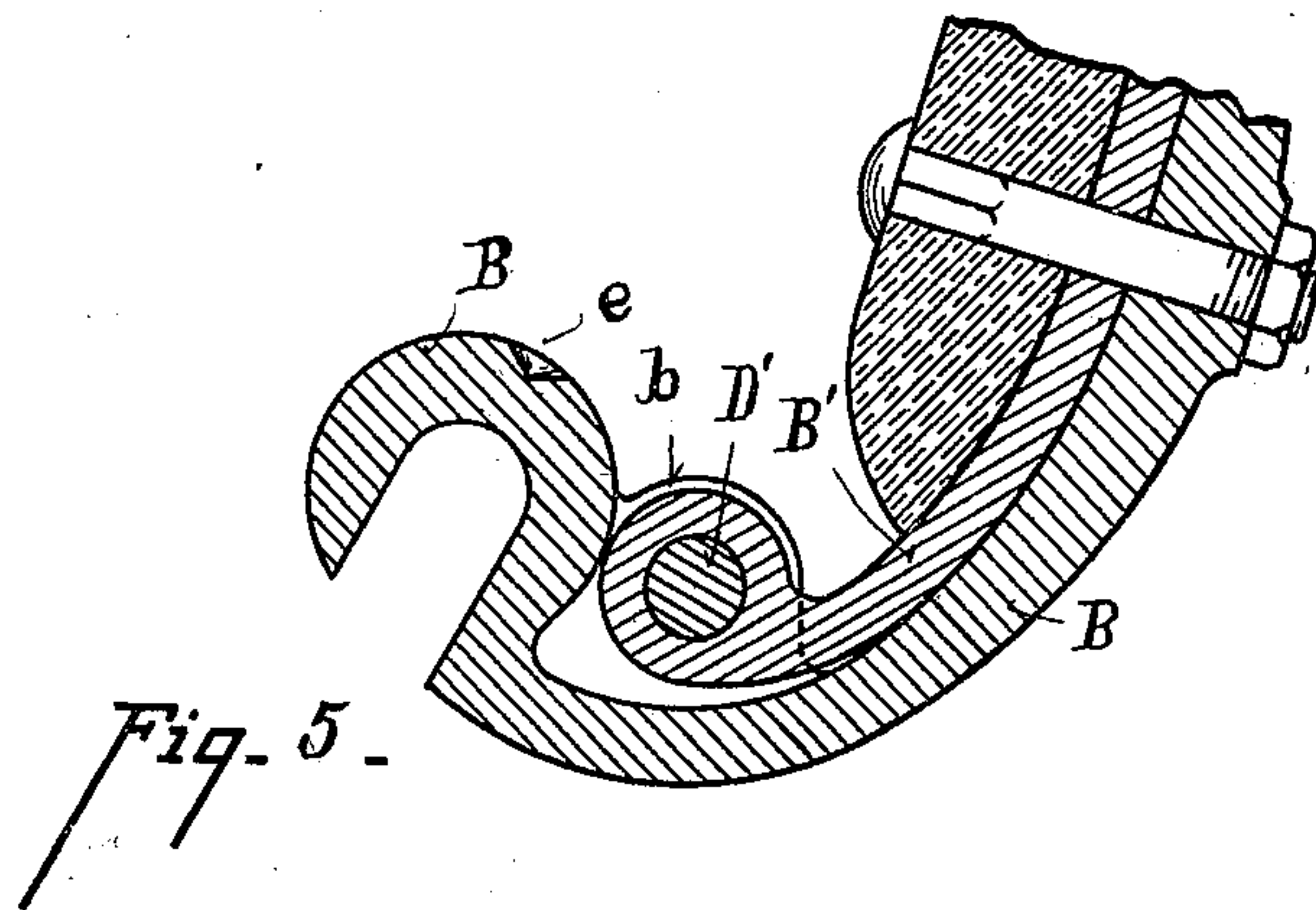
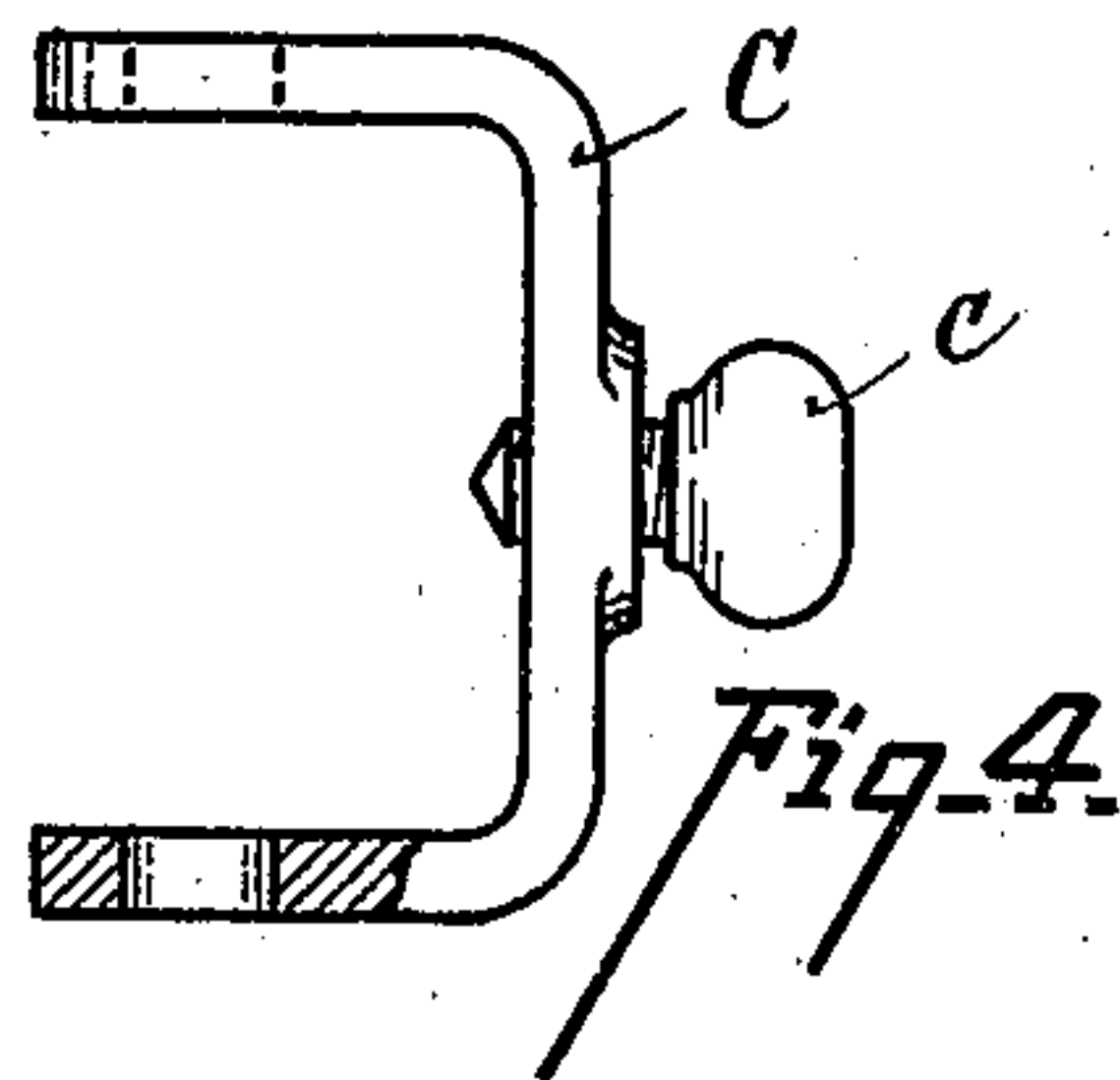
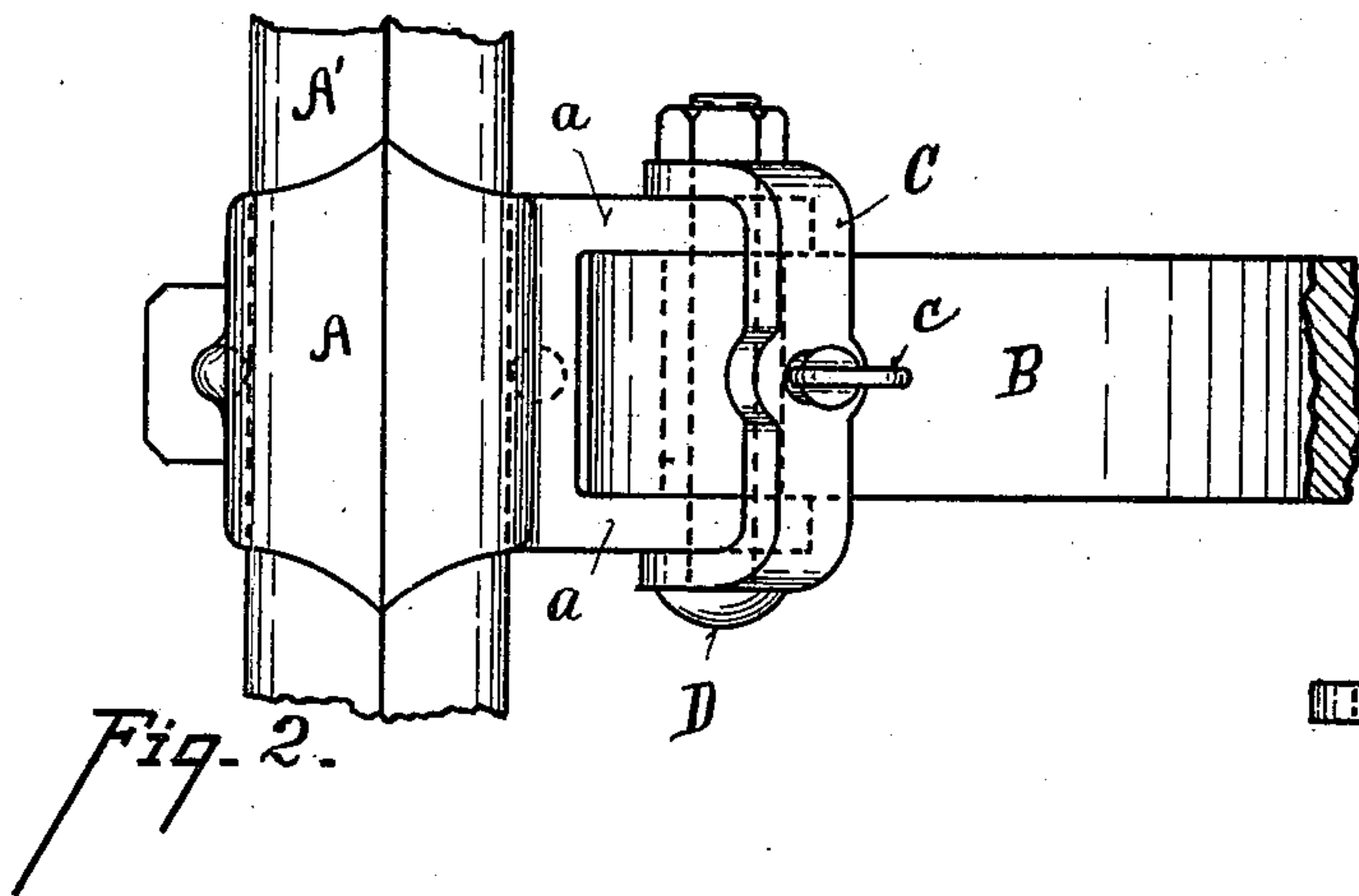
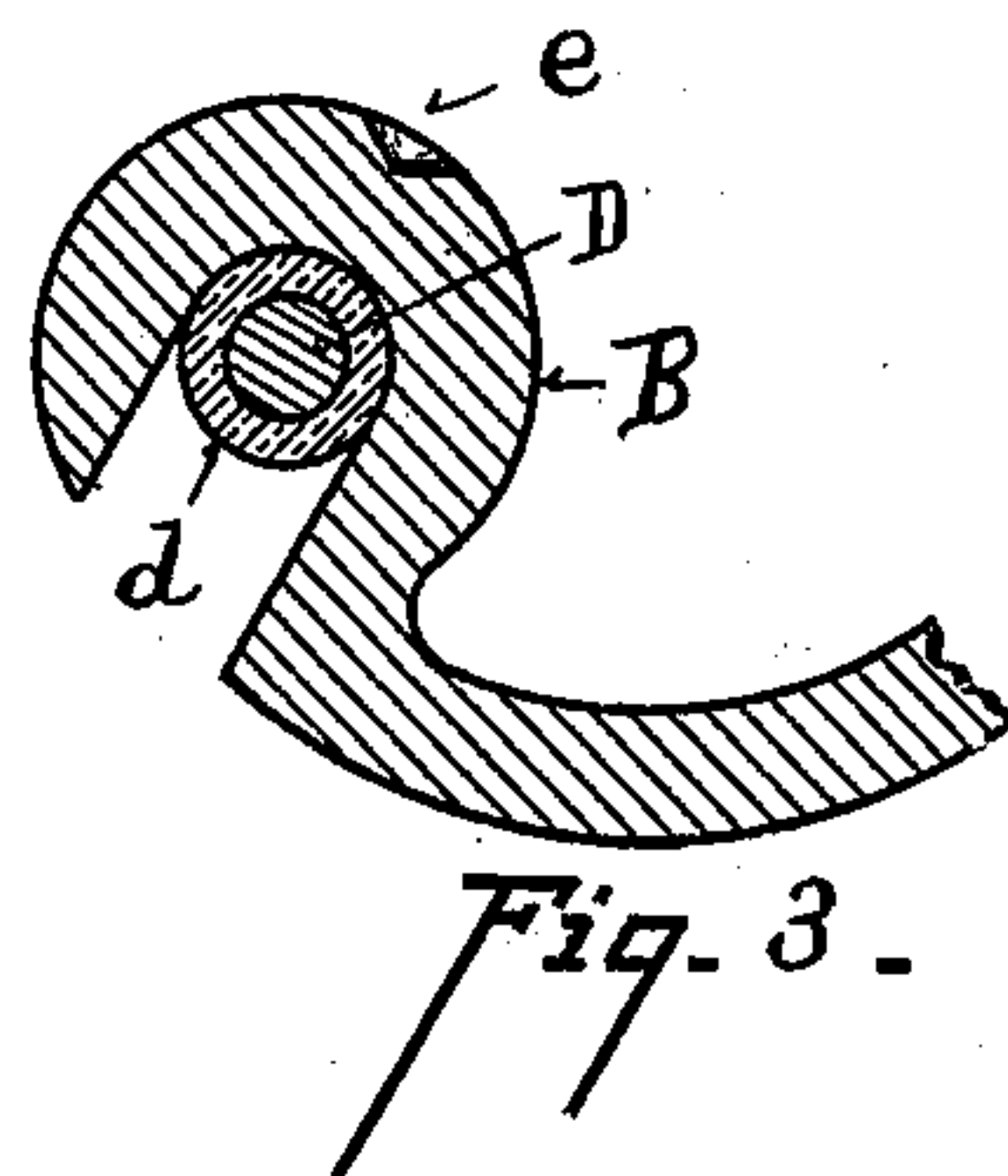
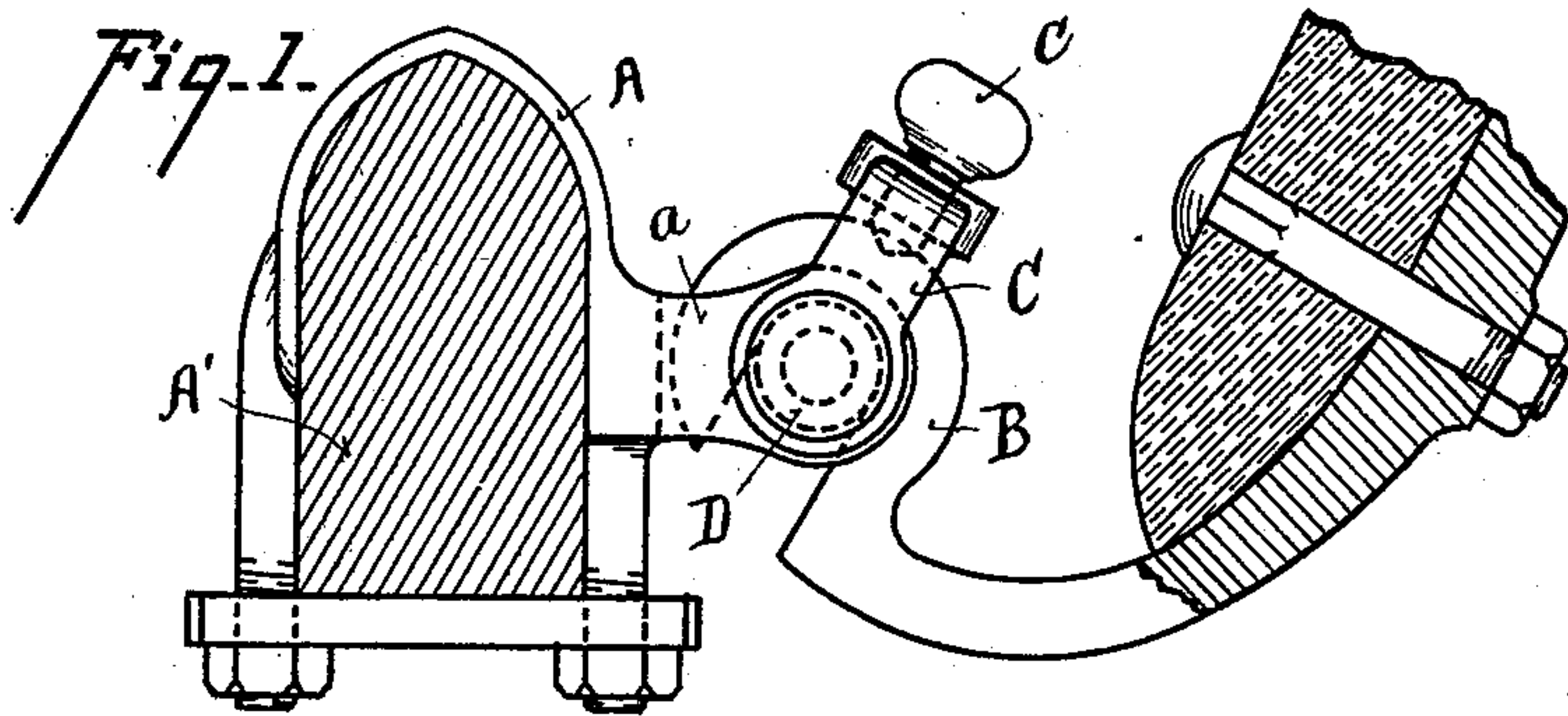
No. 621,596.

Patented Mar. 21, 1899.

C. A. BEHLEN.
THILL COUPLING.

(Application filed Jan. 14, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES A. BEHLEN, OF CINCINNATI, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 621,596, dated March 21, 1899.

Application filed January 14, 1899. Serial No. 702,120. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BEHLEN, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain
5 new and useful Improvements in Thill-Couplings, of which the following is a specification.

My invention relates to a thill-coupling.

10 The object of my invention is to provide a readily-detachable and antirattling coupling.

The features of my invention will be more fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

15 Figure 1 is a central elevation of my improvement attached to a carriage in position for use. Fig. 2 is a top plan view thereof. Fig. 3 is a detached sectional elevation of the coupling and journal-bolt. Fig. 4 is a plan
25 view, partly in section, of the journal-yoke. Fig. 5 is a modification of the method of attaching the coupling-iron to an ordinary thill.

A' represents the axle, and A the clip. It is provided with a bifurcated coupling-head, preferably formed integral with the clip-iron.
25 The jaws of the bifurcated arms *a* are pierced to form a journal for a revoluble bolt D. *d* represents a sleeve incasing said bolt, formed of vulcanized fiber or other antirattling material.
30

B represents a coupling-head, slotted so as to hook onto the journal-bolt D. It is rigidly attached to the thill, as shown in Fig. 1.

35 C represents a yoke the forks of which are pierced with and engage over the ends of the journal-bolt D, preferably upon the outside of the coupling-arms *a*. This yoke C is provided with a set-screw *c*, which is tapped through the central bow of said yoke.

40 *e* represents a recess pierced in the neck of the coupling D. The set-screw point is made conical and seats in said conical recess *e*. It is not absolutely essential that the bearing-point of the set-screw and the recess should
45 be conical; but this is the preferred form of construction.

It will be observed that when the set-screw is turned out of engagement with the coupling-head the yoke C will swing freely backward and allow the thills to be unhooked; 50 but when the yoke is brought into rigid engagement with the coupling-head all lost motion is taken up, the coupling is firmly secured in position, and rattling of the coupling is prevented.

I have shown in Fig. 5 a modification which allows my improved coupling-head to be attached to the ordinary thill outside of the ordinary eye-coupling without the necessity of removing the same, so that the ordinary thill 60 can be readily converted to receive my readily-detachable and antirattling coupling.

It will be observed that my thill member is curved upward and that the hook in the end of this upturned thill is open downward, 65 the recess for the thumb-screw being in the top. This enables the shaft member to be coupled by simply lifting the shaft from the floor high enough to allow the hook to readily pass over the journal-bolt. The weight of 70 the shaft thus helps to hold the coupling, the yoke is swung forward, and the screw turned, so that there is little manipulation required either of the shaft or locking parts.

Having described my invention, what I 75 claim is—

In a thill-coupling the combination of a coupling-head, a journal-bolt secured between the bifurcated arms, a yoke pivoted to said bolt outside of said arms, a thumb-screw tapping through said yoke, an upwardly-curved 80 thill-iron provided with a hook at its end opening downwardly, and a notch in the upper exterior surface of the hook, adapted to be engaged by the inner end of said thumb- 85 screw, substantially as specified.

In testimony whereof I have hereunto set my hand.

CHARLES A. BEHLEN.

Witnesses:

OLIVER B. KAISER,
W. R. WOOD.