

No. 849,663.

PATENTED APR. 9, 1907.

L. W. CURTIS.
PUMP ROD BOLT.
APPLICATION FILED DEC. 7, 1906.

Fig. 1.

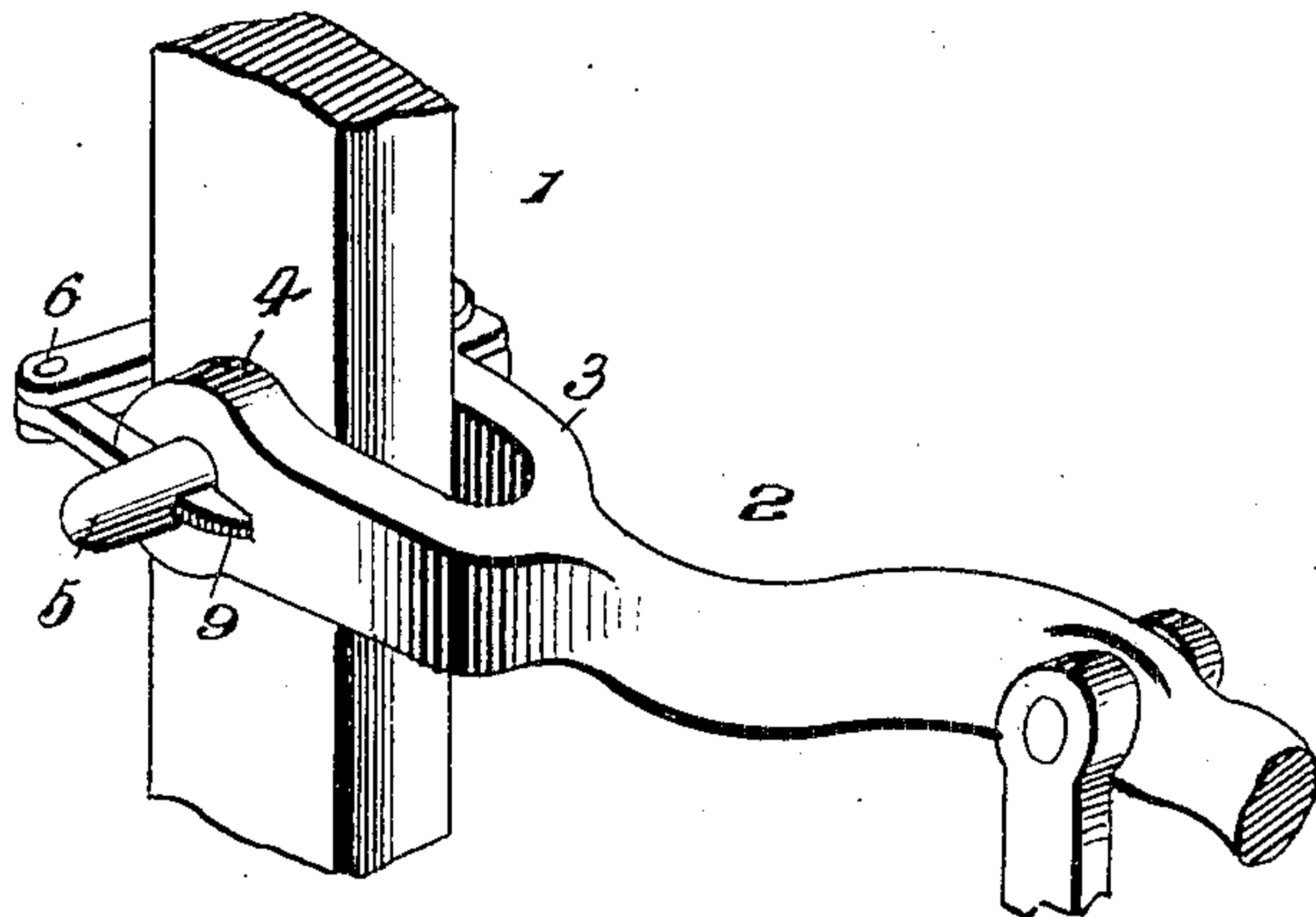


Fig. 4.

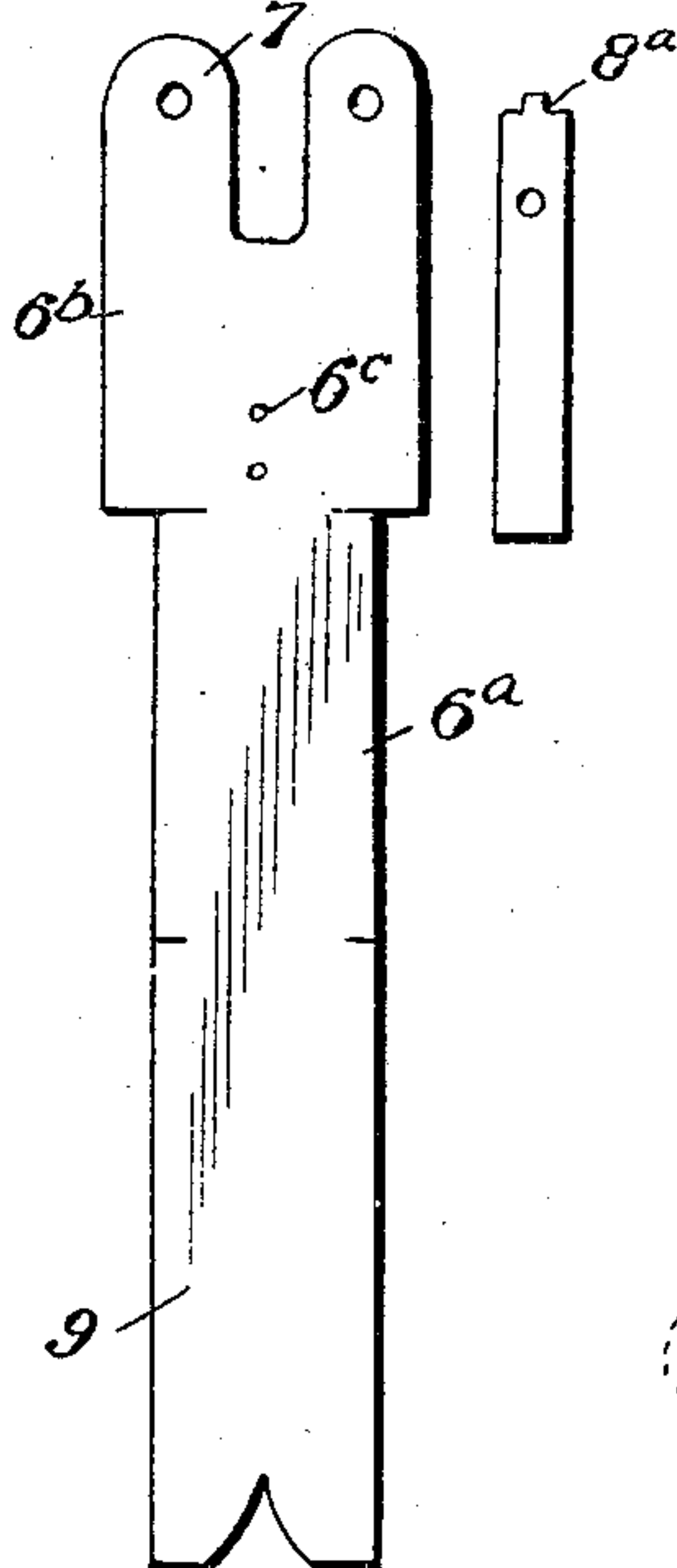


Fig. 2.

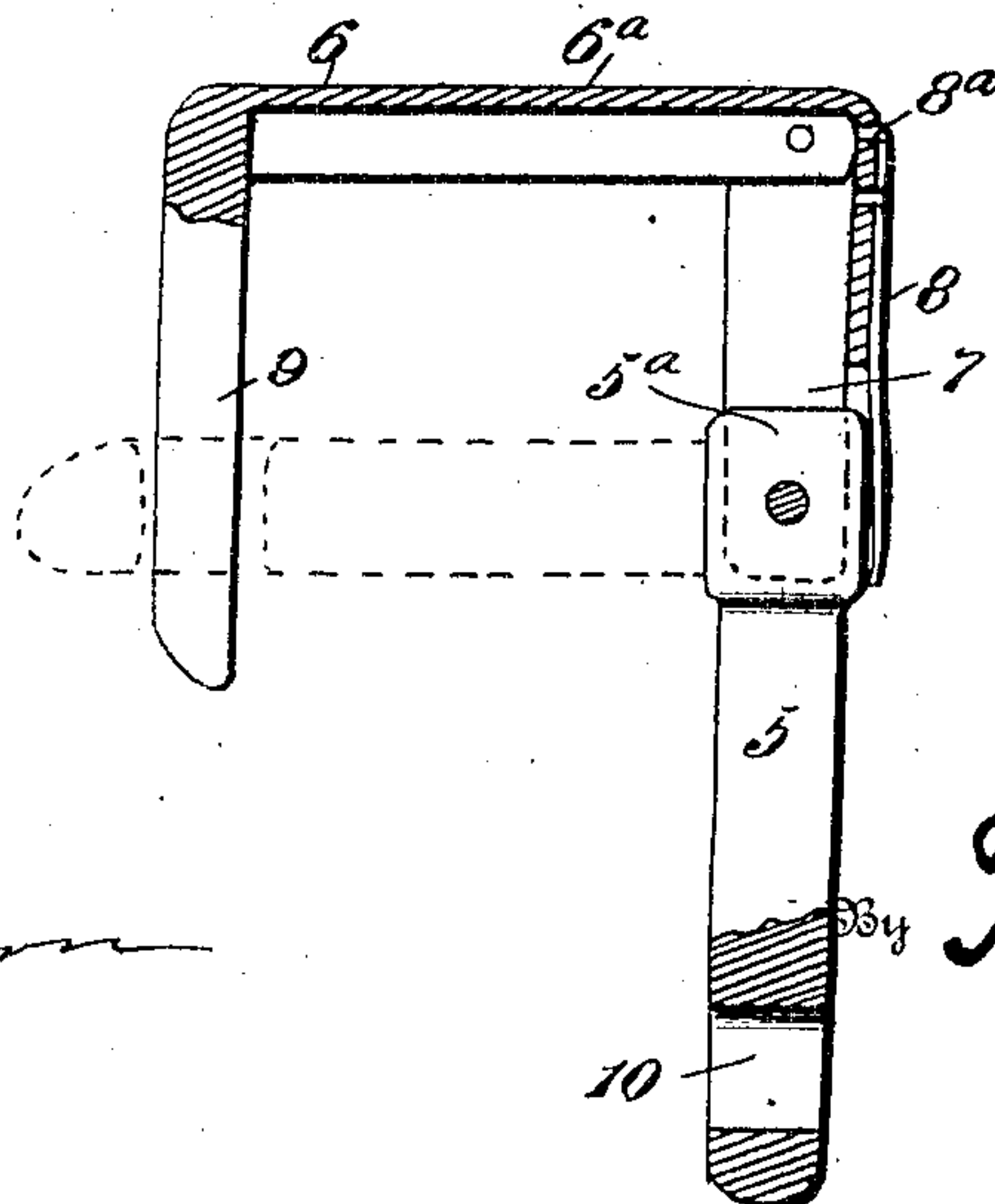
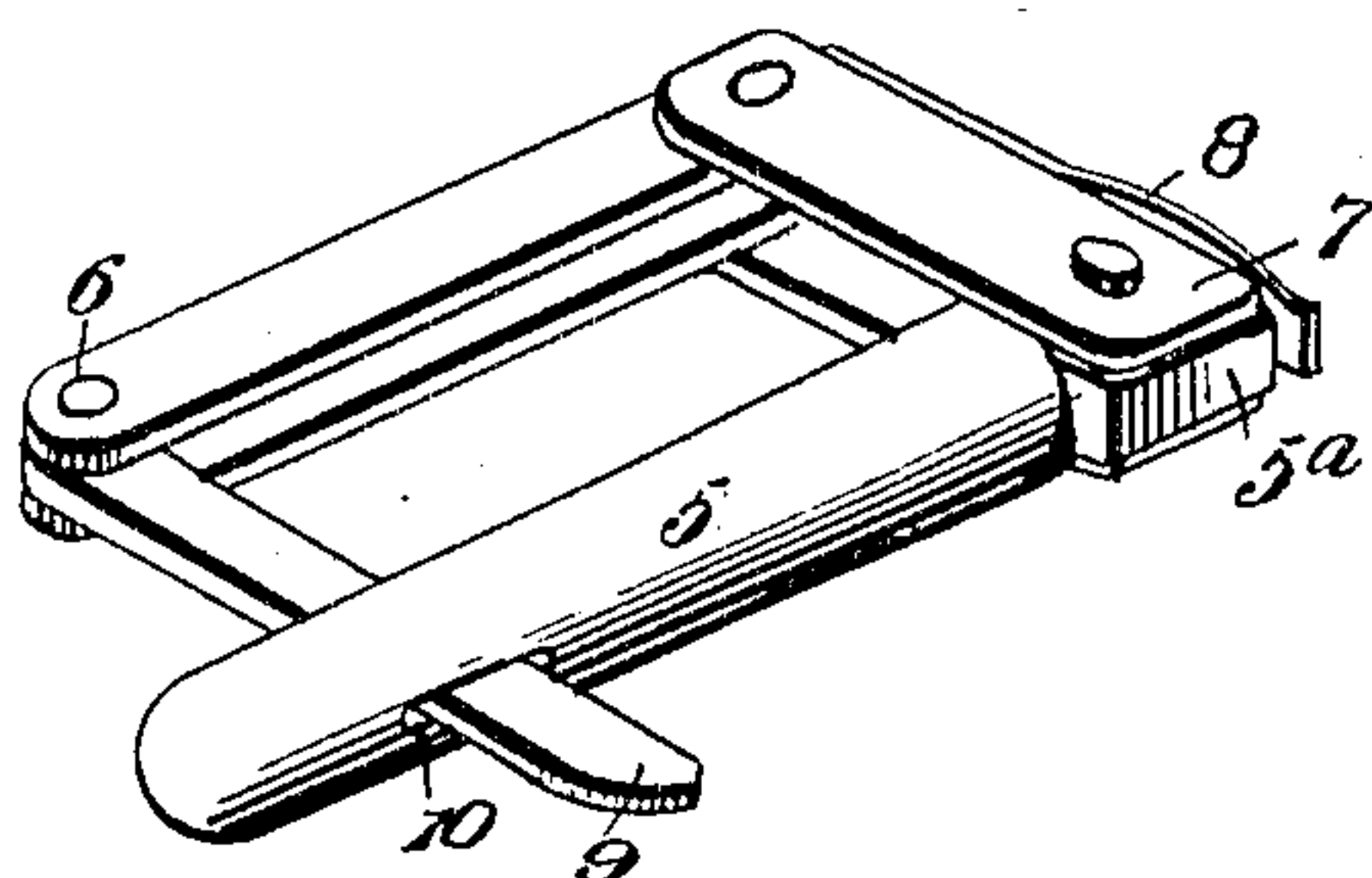


Fig. 3.

Witnesses

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PUMP-ROD BOLT.

No. 849,663.

Specification of Letters Patent.

Patented April 9, 1907.

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To all whom it may concern:

Be it known that I, LEO W. CURTIS, a citizen of the United States, residing at Breckenridge, in the county of Gratiot and State of Michigan, have invented certain new and useful Improvements in Pump-Rod Bolts, of which the following is a specification.

The object of my invention is to provide an improved construction of bolt for connecting a pump-handle to the pump rod or shaft when it is desired to pump by hand; and the invention consists in certain constructions and arrangements of the parts hereinafter described and claimed.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view illustrating a portion of a pump-handle and pump-rod with my invention applied thereto. Fig. 2 is a perspective view of my improved bolt detached and with the parts in closed position. Fig. 3 is a top plan view, partly in section, the parts being shown open. Fig. 4 is a detail view illustrating the blank from which the main portion of the locking-key is formed and the spring which coacts therewith.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates a pump-rod which is adapted to be operated mechanically by a windmill or other means, and 2 designates the pump-handle, which is intended to be disconnected from the pump-rod and swing free when the pump is being operated mechanically and which is also intended to be detachably connected to the pump-rod whenever it is desired to pump by hand. For this purpose the pump-handle 2 is provided with spaced-apart ears 3, designed to embrace the pump-rod 1, and each of said ears is provided with an aperture 4, adapted to register with the aperture in the pump-rod, so as to admit the ready insertion of a bolt through the registering apertures in order to connect the pump-handle and rod together.

My improved bolt comprises a shank 5, which is adapted to be inserted through the

said apertures, as clearly shown in Fig. 1; and to one end of said shank a key 6 is pivotally connected, the said end of the shank being received between ears 7, projecting from one end of the key, and the said end being provided with two or more angularly-disposed faces 5^a, as shown, against which a spring 8 bears. At the other end of the key 6 is a tongue 9, which is adapted to extend through an opening 10 in the shank 5, so as to lock the shank in place as against withdrawal.

In the manufacture of my improved bolt the key portion 6 is provided as formed out of sheet metal and stamped in the blank form, illustrated in Fig. 4. The ends are then bent at about right angles to the intermediate portion 6^a, which forms a connecting-bar between the two ends. The end constituting the tongue 9 is then doubled upon itself longitudinally and preferably strengthened at its juncture with an intermediate portion 6^a with one or more rivets, as shown, while the opposite end is also doubled upon itself, so as to form the two spaced-apart members 6^b and a recess whereby to produce the ears 7 for the reception of one end of the shank 5, as above stated. The spring 8 is formed at one end with a lug 8^a, which is adapted to be inserted through an opening 6^c in one end of the key 6, and a rivet is then passed through corresponding openings in the said end and in the spring, so as to securely hold the spring in place as against sidewise movement and with its free end in spring engagement with the angularly-formed end 5^a of the shank 5.

In the practical use of the device it is manifest that the shank 5 may be inserted through the ears 3 and the key rocked toward the free end of the shank, whereupon the action of the spring 8 will snap the tongue 9 through the opening 10 in the shank 5 and securely hold the pump handle and rod connected together. No bolts or taps are used, as manifest, and it is only necessary in order to disconnect the pump-handle and pump-rod that the key 6 be drawn outwardly, so as to withdraw the tongue 9 from the opening 10. The shank 5 may then be readily drawn out.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very

simple form of bolt for the purpose set forth and one that may be easily applied and as easily removed.

While I have shown and described my improved pump-rod bolt as connecting the pump-rod to a manually-operable handle, it is also manifest that it is within the purview of my invention to use the bolt for the purpose of connecting the pump-rod to a mechanically-actuated shaft as well as to the said handle.

Having thus described the invention, what is claimed as new is—

1. A device of the character described, comprising a shank provided at one end with an opening extending therethrough, a key pivotally connected to the other end of the bolt and provided at its free end with a tongue adapted to extend through the opening of the shank, and a spring connected to the said key and adapted to bear against the pivoted end of the shank and designed to press the key in a direction to snap the tongue through the opening in the shank.

2. A device of the character described, comprising a shank provided at one end with an opening extending therethrough and at its other end formed with angularly-disposed faces, a key provided with spaced-

apart ears between which the angular end of the shank is pivotally mounted, said key being provided with an angularly-disposed tongue adapted to extend through the opening in the shank, and a spring secured to the key and bearing against the angular end of the shank, as and for the purpose set forth.

3. A device of the character described, comprising a shank provided at one end with an opening extending therethrough and formed with angularly-disposed faces at its other end, a key provided with an intermediate portion and two ends extending laterally from the intermediate portion, one of said ends constituting a tongue adapted to be inserted through an opening in the shank, and the other end embodying spaced-apart members formed at one end with ears between which the angularly-formed end of the shank is pivotally mounted, and a spring secured to the last-named end of the key with its free end bearing upon the end of the shank, as and for the purpose set forth.

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

LEO W. CURTIS. [L. s.]

Witnesses:

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