

(No Model.)

2 Sheets—Sheet 1.

H. HEER, Jr.
DITCHING JACK.

No. 597,849.

Patented Jan. 25, 1898.

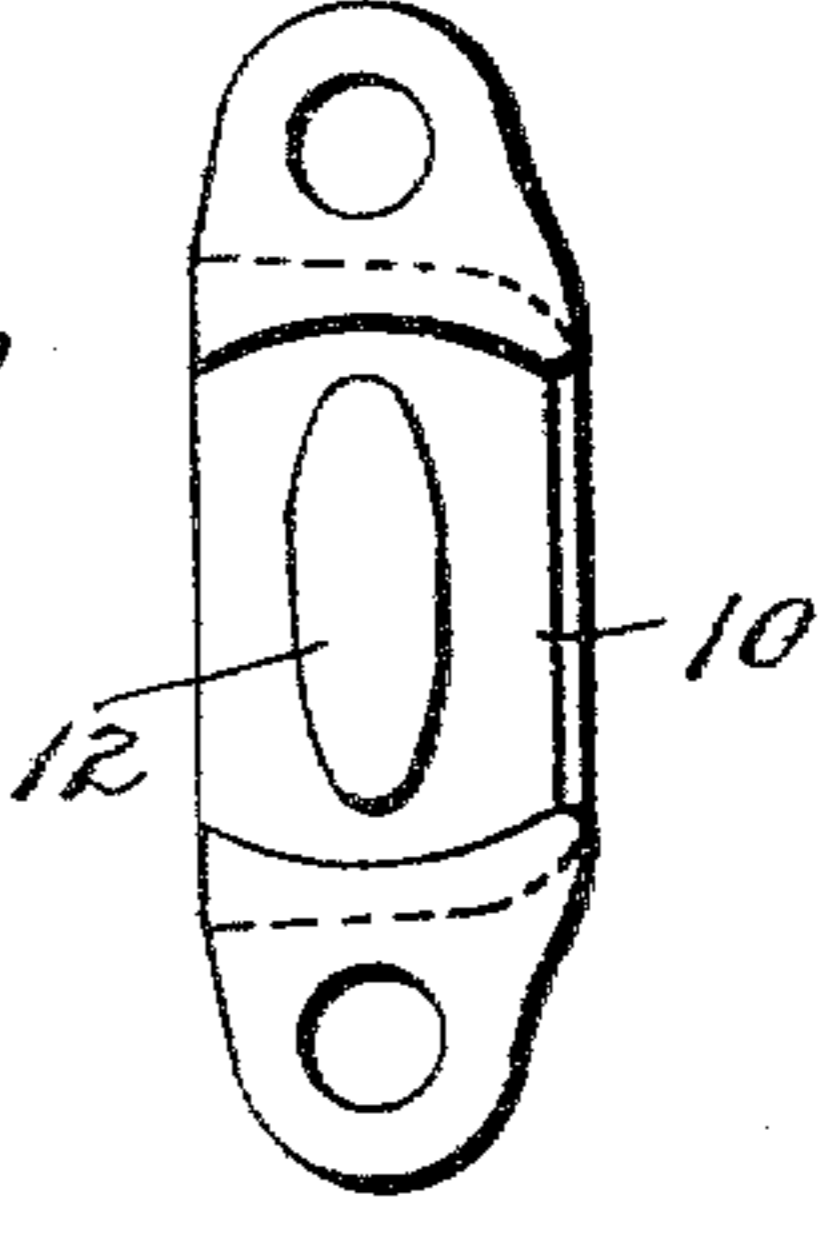
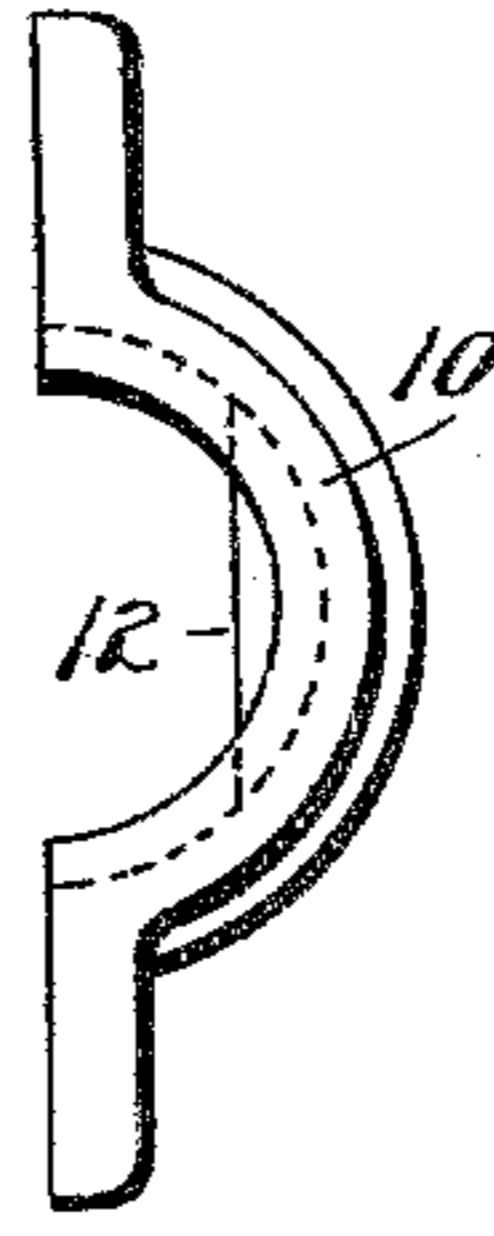
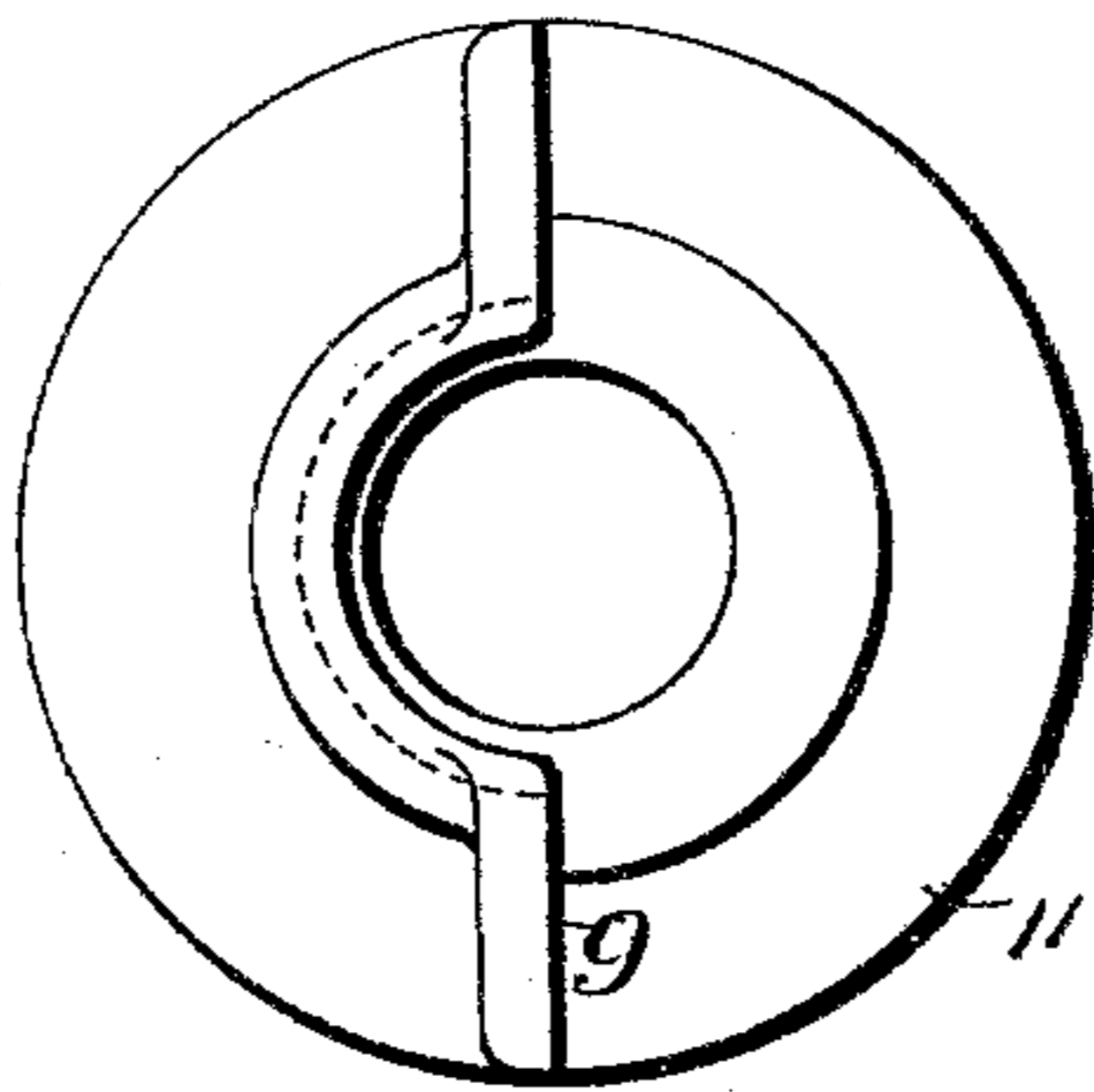
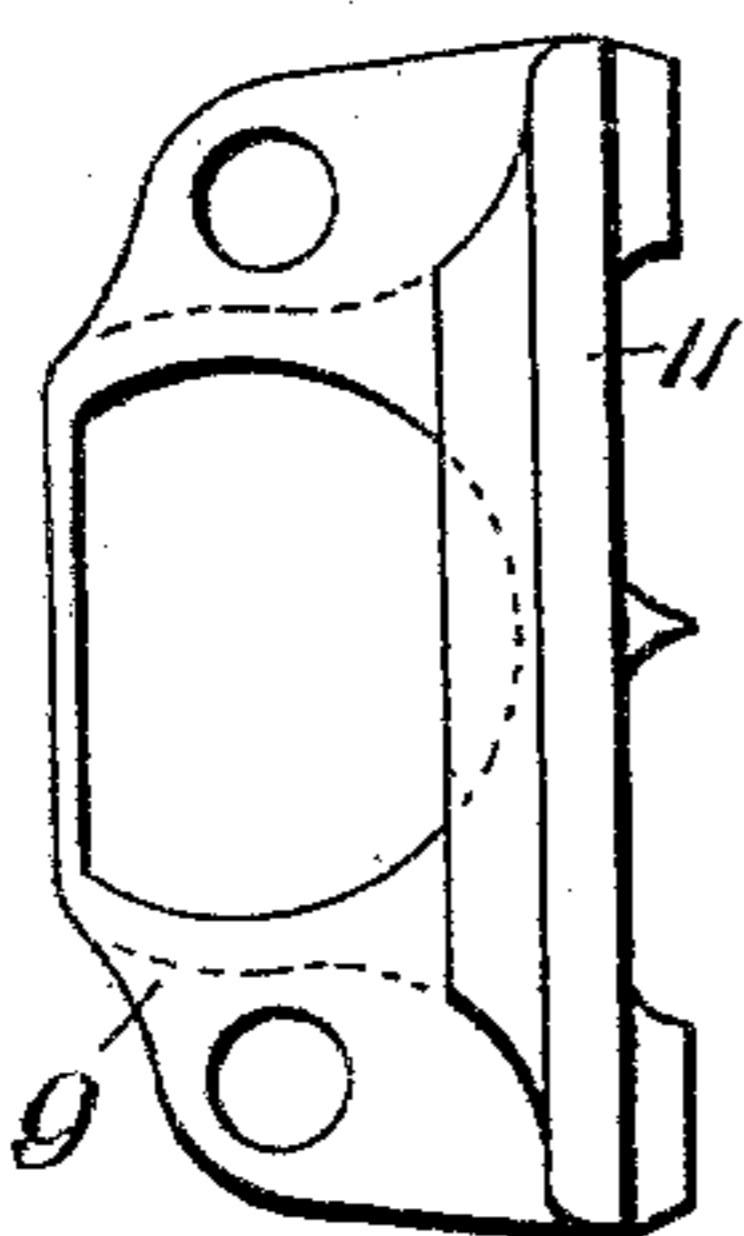
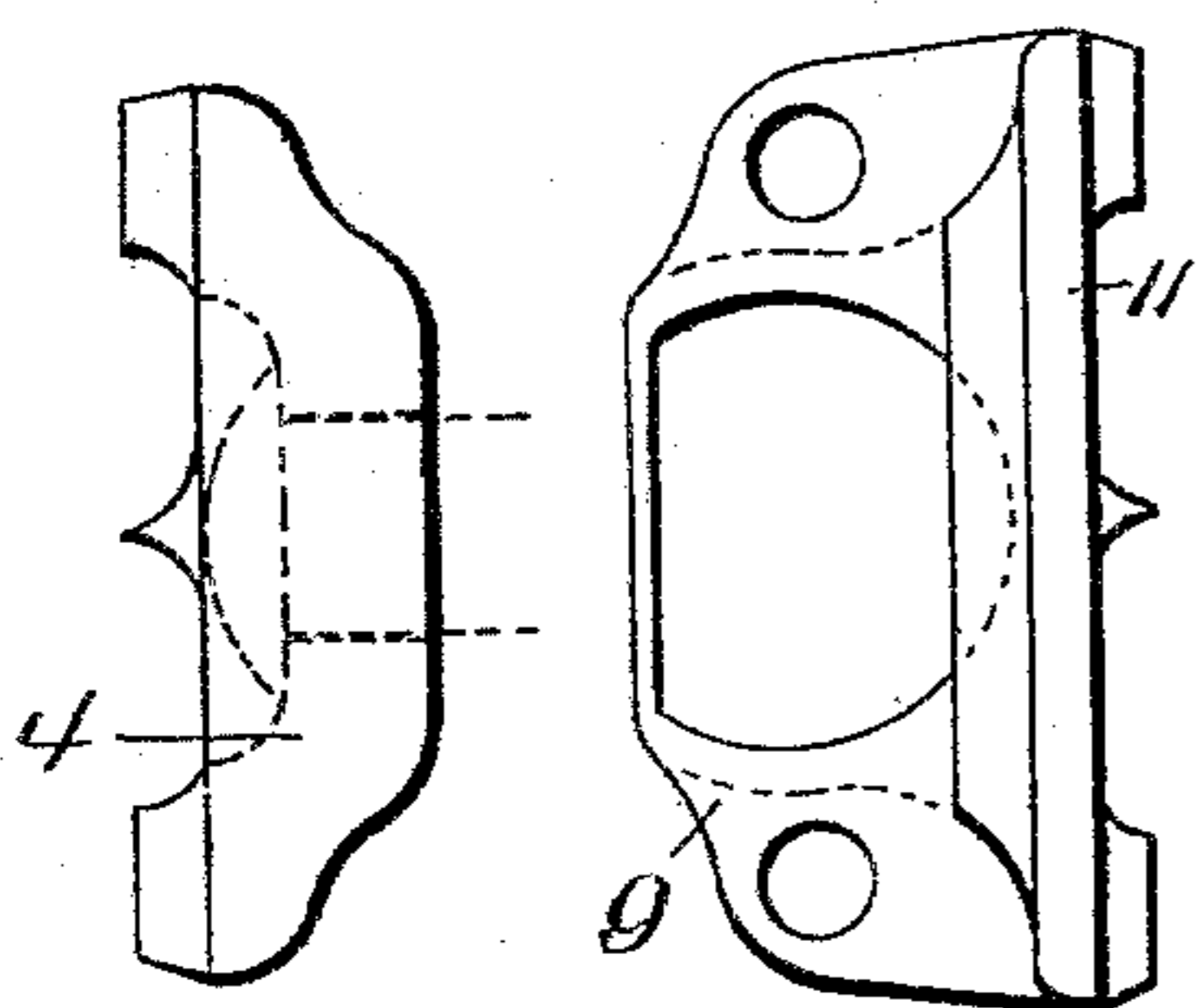
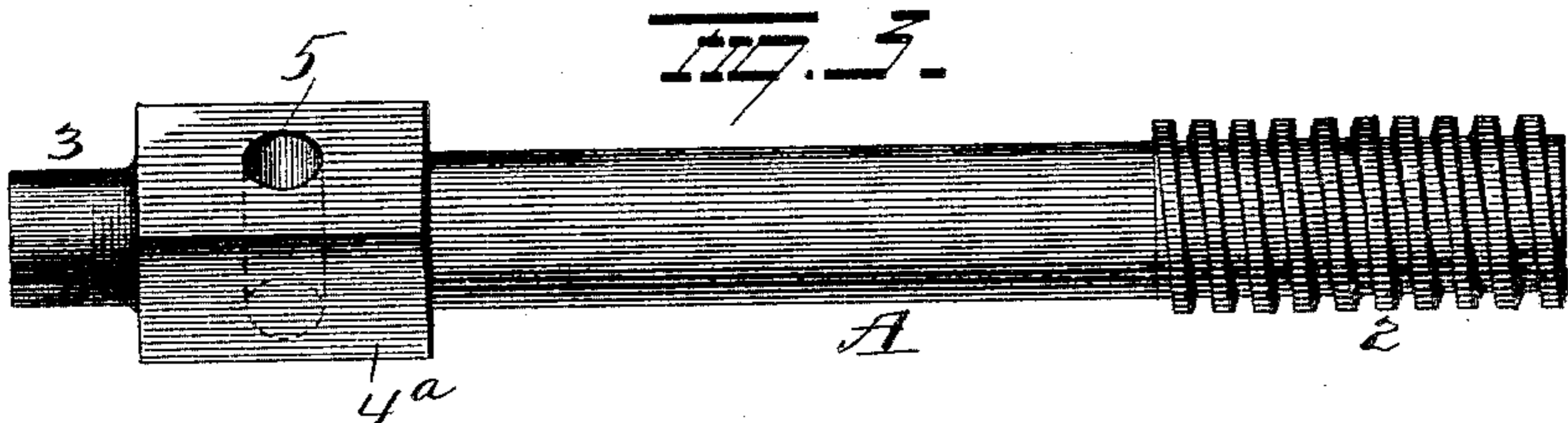
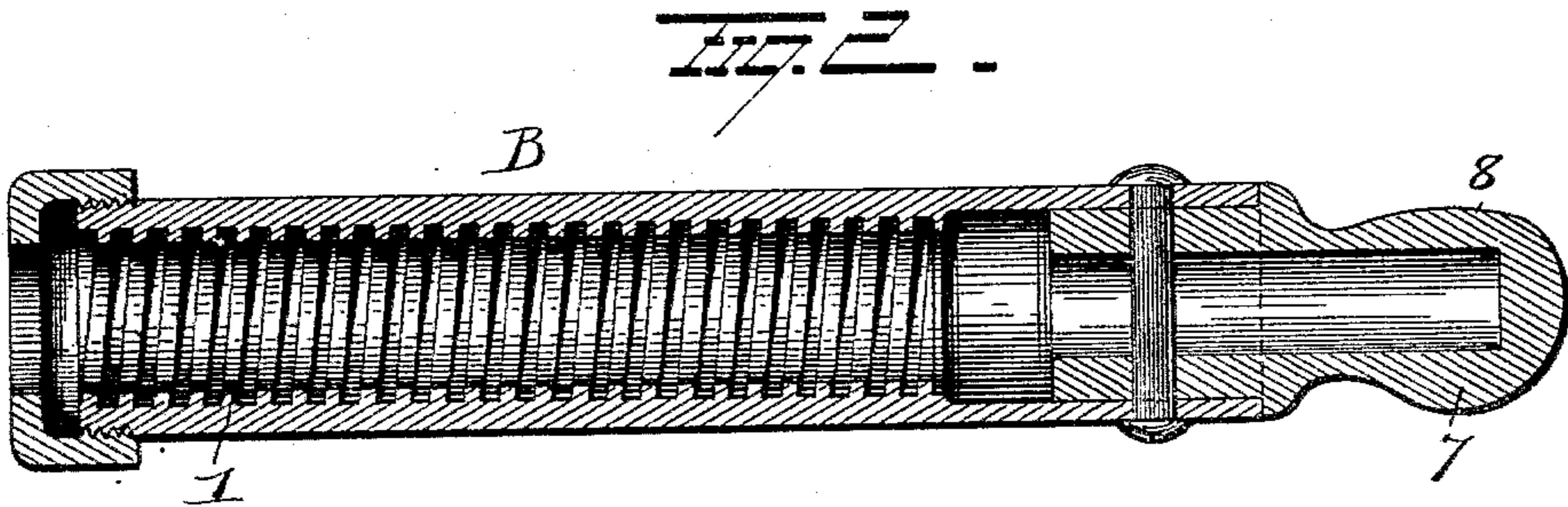
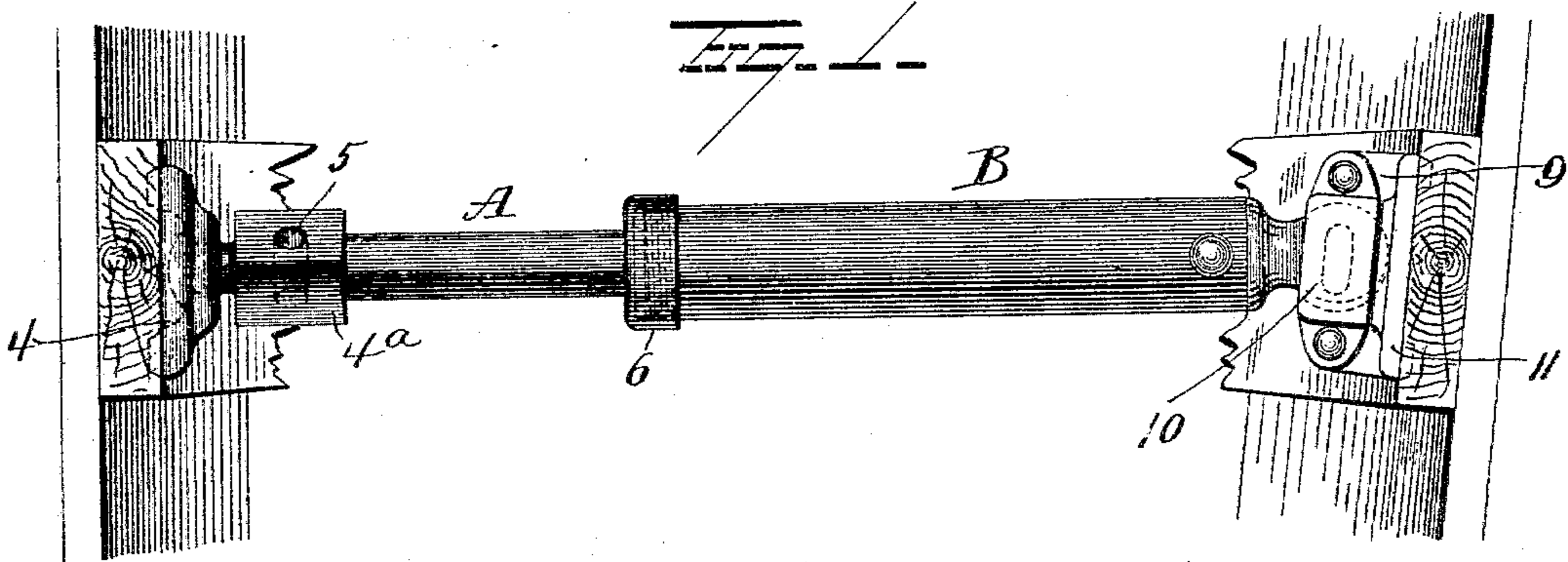


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Witnesses
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G. F. Downing.

Inventor
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By H. A. Seymour
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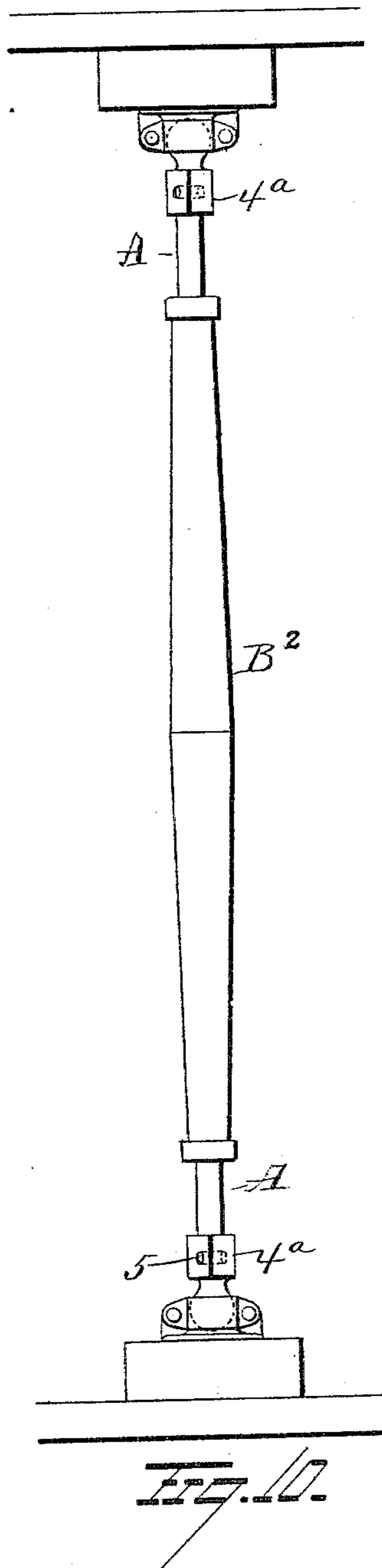
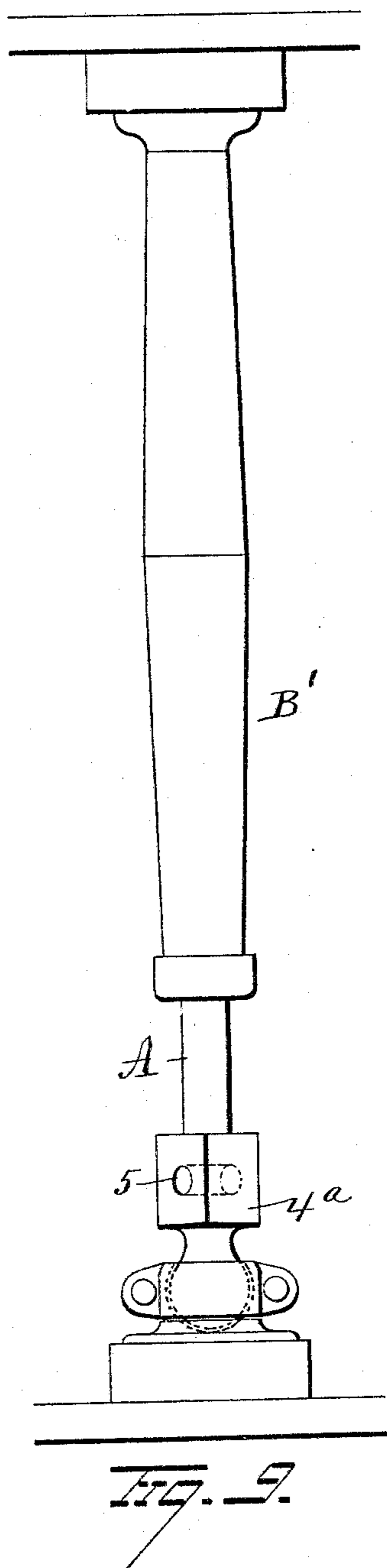
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UNITED STATES PATENT OFFICE.

HENRY HEER, JR., OF ALLIANCE, OHIO.

DITCHING-JACK.

SPECIFICATION forming part of Letters Patent No. 597,849, dated January 25, 1898.

Application filed March 10, 1897. Serial No. 626,876. (No model.)

To all whom it may concern:

Be it known that I, HENRY HEER, JR., of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful
5 Improvements in Ditching-Jacks; 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.

10 My invention relates to an improvement in ditching-jacks, the object being to provide a jack which will be longer lived and more durable than others hitherto constructed.

A further object is to provide a jack having
15 adequate strength and freedom of movement for the purposes to which it is to be applied.

The invention therefore consists in certain novel features of construction and combinations of parts which will be hereinafter de-
20 scribed, and pointed out in the claim.

In the accompanying drawings, Figure 1 represents a view of my improvement in which it is represented as supporting the side walls of a ditch. Fig. 2 is a sectional view of the
25 body portion or casing and its attached parts. Fig. 3 is a view in elevation of the adjusting-screw. Fig. 4 is a detached view of the swivel-head. Figs. 5 and 6 are views of the socket-plate. Figs. 7 and 8 are views of the socket-
30 plate cup. Fig. 9 is a view of my improvement, the body portion or casing of which is enlarged or strengthened at its center; and Fig. 10 represents a jack provided with an adjusting-screw working in each end of the
35 body portion or casing.

A and B represent the two main portions of the jack. One comprises a sleeve or socket having a long coarse internal thread 1 and the other a rod or stem having a thread 2 cor-
40 responding in pitch to and adapted to screw into the threads 1 of sleeve or socket B, but of a length considerably less than the length of threads 1.

Shank A has an end 3, which enters a foot
45 4, in which it is swiveled, and the extreme end of this portion 3 is upset to hold these parts permanently together; also, the shank is provided with the angular enlargement 4^a, which may be forged, cast, or riveted on the
50 shank, its purpose being to receive a wrench on the exterior or a pin through the hole 5 to effect the turning of the shank. This shank is held in the barrel B by means of a remov-
55 able screw-cap 6, and this cap may be placed on the shank before the enlargement is

formed. At the outer end of the barrel B is provided a ball 7, as shown in Fig. 2. This ball has a flattened portion 8. This ball enters a sectional socket 9 10, section 9 of which is integral with the foot 11, and the
60 other section 10 is adapted to be removably secured to section 9. Section 10 is provided with an offset 12, the object of which is to engage the flattened portion 8 of the ball and prevent the latter from rotating with relation
65 to the body of the jack. While this flattened and offset construction in the ball and socket is quite desirable, yet it is very necessary when adjustment is used at both ends, as in
70 Fig. 8. It might, however, be omitted in a jack having an adjustment at one end only.

Fig. 9 represents a barrel B', thickened at its center and gradually tapering toward its opposite ends, while Fig. 10 represents a bar-
75 rel B², thickened at its center and provided with an adjusting-screw at each of its ends.

It may be mentioned in conclusion that the ball 7 is usually fastened to an end of the barrel by means of a rivet, so that it may be removed if necessary to renew a worn-out
80 one; also, it may be stated that the wrench or turning instrument might be applied to the barrel instead of to the shank, if so desired, by simply reversing the parts.

Other slight changes might be made like-
85 wise in the various parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the precise construction herein set forth; but,
90

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

In a jack, the combination with a body por-
95 tion, one end of which is in the general form of a ball with a flattened side, of a foot connected with this ball-shaped end and having an offset formed therein which engages the flattened side of the ball, said foot capable of tilting with relation to the end of the body
100 portion on which it is mounted but incapable of turning axially thereon.

In testimony whereof I have signed this specification in the presence of two subscrib-
ing witnesses.

HENRY HEER, JR.

Witnesses:

JOHN BRACHER,
JOHN KOLB.