

No. 633,084.

Patented Sept. 12, 1899.

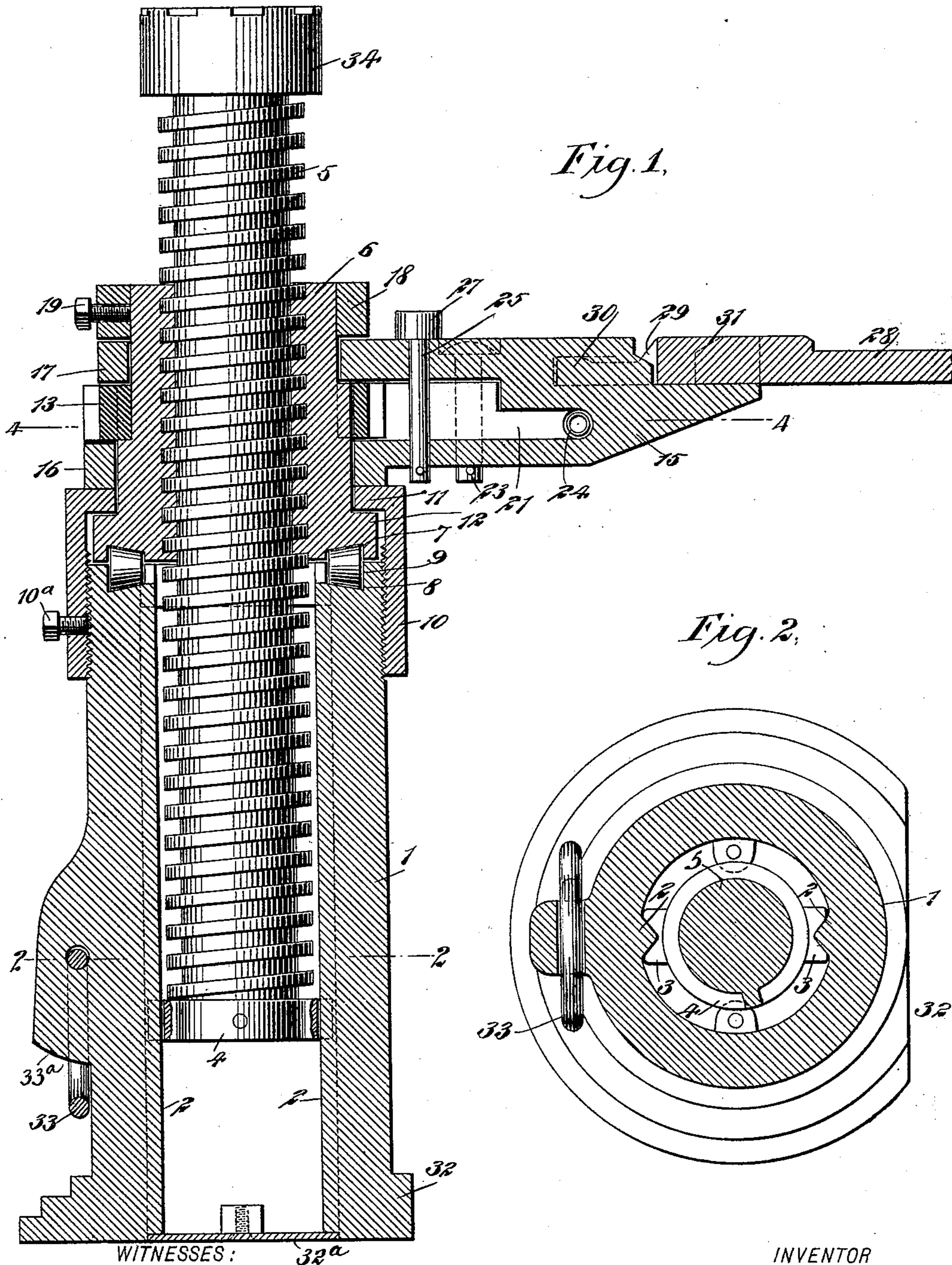
C. W. DOANE.

JACK.

(Application filed Dec. 23, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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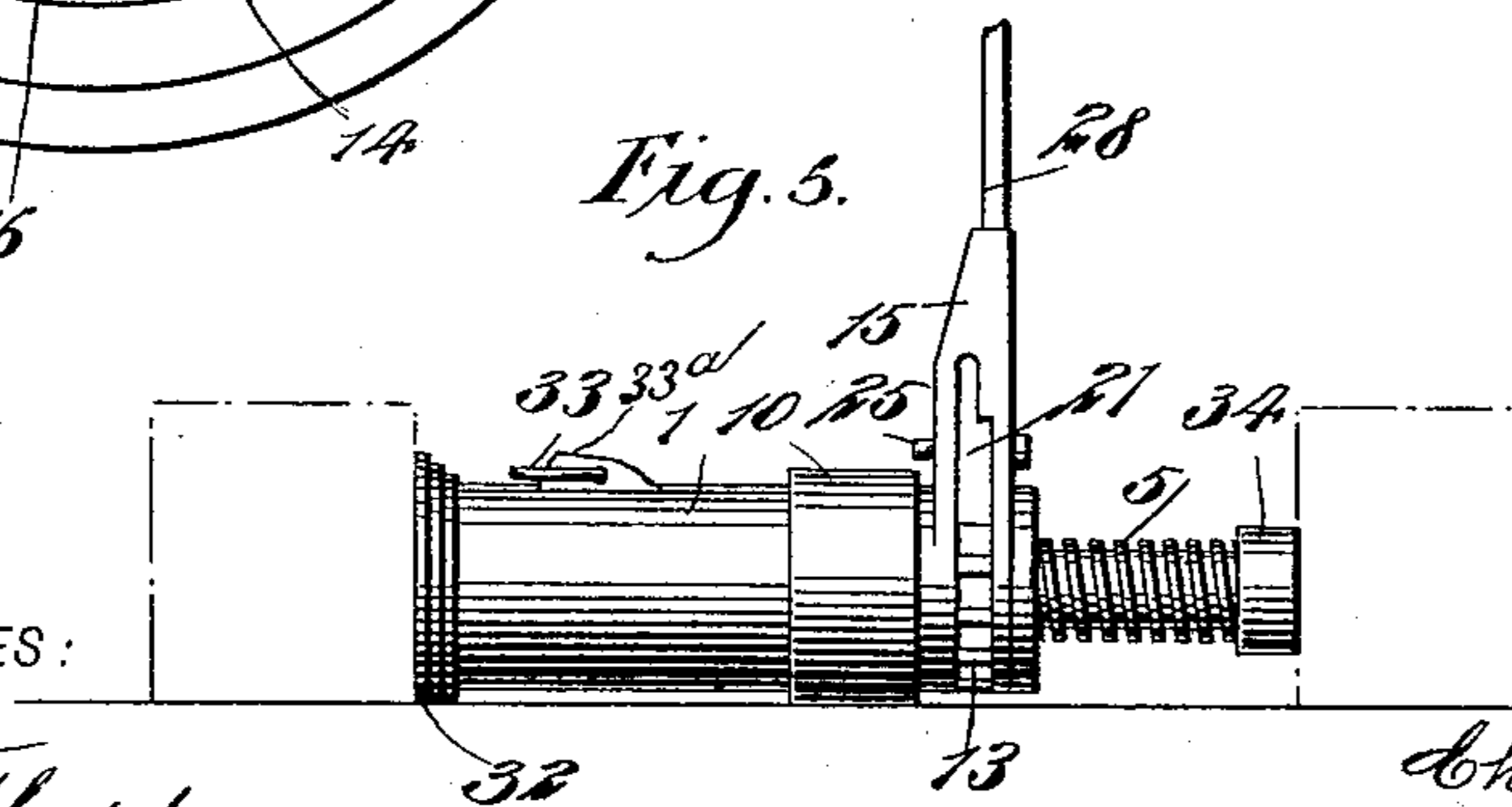
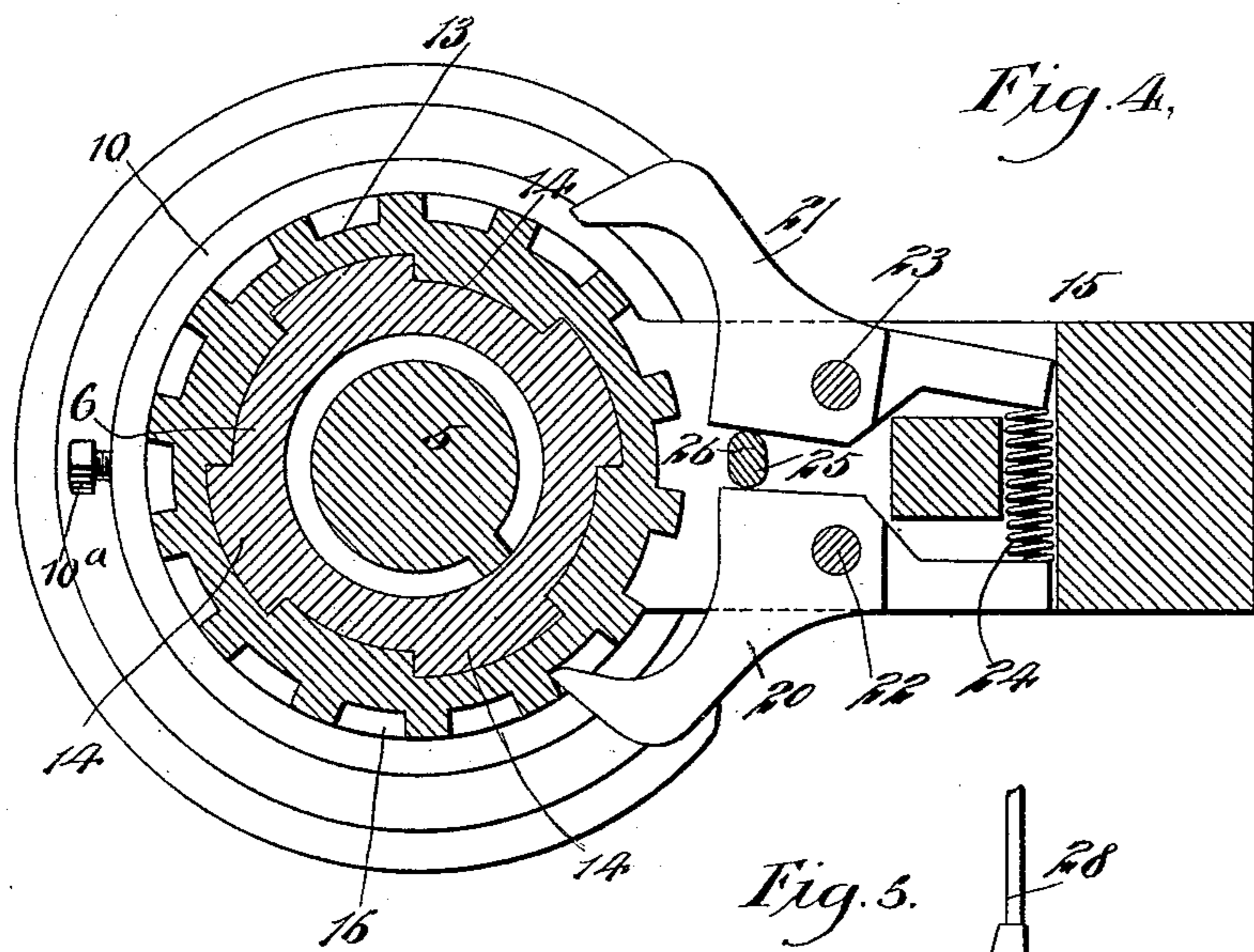
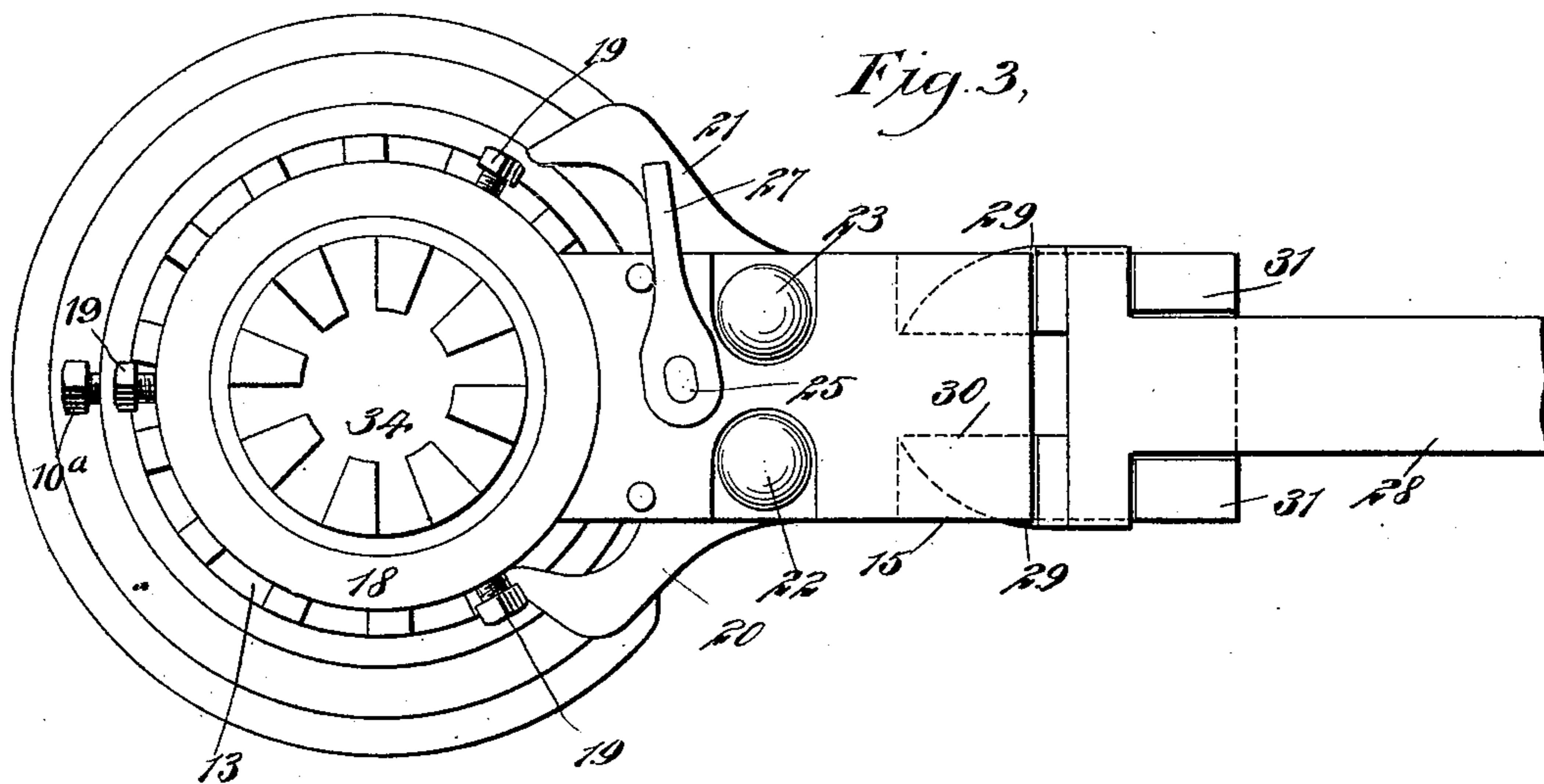
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WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES WESTON DOANE, OF WEST LAKE, LOUISIANA.

JACK.

SPECIFICATION forming part of Letters Patent No. 633,084, dated September 12, 1899.

Application filed December 23, 1898. Serial No. 700,133. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WESTON DOANE, of West Lake, in the parish of Calcasieu and State of Louisiana, have invented
5 new and useful Improvements in Jacks, of which the following is a full, clear, and exact description.

This invention relates to improvements in lifting-jacks; and the object is to provide a
10 lifting-jack of comparatively simple construction that may be easily and conveniently operated either in an upward or downward direction.

I will describe a jack embodying my invention, and then point out the novel features
15 in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indi-
20 cate corresponding parts in all the views.

Figure 1 is a vertical section of a jack embodying my invention. Fig. 2 is a horizontal section on the line 2 2 in Fig. 1. Fig. 3 is a top plan view of the jack. Fig. 4 is a horizontal section on the line 4 4 in Fig. 1, and
25 Fig. 5 shows the jack as arranged in a horizontal position for moving material along the ground or the like.

The jack comprises a tubular body portion
30 1, having on its inner sides opposite guide-strips 2, with which notched lugs 3, extended from a ring 4 on a screw 5, engage. This construction obviously will permit the screw to be moved vertically, but will prevent its
35 rotation relatively to the body portion 1. The screw 5 extends through an interiorly-threaded sleeve or nut 6, the lower end of which is provided with an annular channel 7, registering with a channel 8 in the upper end
40 of the body portion 1, and in these channels conical bearing-rollers 9 are seated. The sleeve or nut 6 is held in place by means of a collar 10, having screw-thread engagement with the body portion 1 and having at its up-
45 per end an inwardly-extended annular flange 11, engaging on the upperside of an upwardly-extending annular flange 12 on the sleeve or nut 6. The collar may be locked by a set-screw 10^a.

50 A ratchet-ring 13 is removably seated on the sleeve or nut 6. As here shown, it is provided with interior projections 14, which en-

gage in corresponding notches in the sleeve or nut. An operating-lever 15 has a ring-shaped portion 16 engaging around the sleeve
55 or nut 6 below the ratchet-ring 13, and it also has a ring portion 17 engaging around the sleeve or nut above said ratchet-ring, and these parts are held relatively from upward movement on the sleeve or nut by means of
60 a ring 18, attached to the sleeve or nut 6, above the ring portion 17, by set-screws 19.

Arranged within the lever 15 are oppositely-extended dogs 20 21, either one of which is designed to be placed in engagement with the
65 ratchet-ring 13. The dog 20 is mounted to swing on a pin 22, and the dog 21 is mounted to swing on a pin 23, and arranged between outwardly-extended stem portions of these dogs is a spring 24, designed to hold the dogs
70 in yielding engagement with the ratchet-ring. Extended through the lever 15 and between the inner or adjacent faces of the dogs 20 21 is a shaft 25, having a cam portion 26, adapted to engage with either one of the dogs as occa-
75 sion may require. The upper end of this shaft 25 is provided with an operating-handle 27. Adapted to be used in connection with the lever 15 is an extension handle 28, having fingers 29, adapted to engage upon oppo-
80 sites sides of a block 30 on the lever 15, and said lever 15 is provided at its outer end with upwardly-extending lugs 31, between which the extension-handle 28 is designed to rest,
85 as plainly shown in Fig. 3.

In operation when it is desired to move the screw 5 upward or outward the shaft 25 is to be turned, so that the cam portion 26 will move the dog 21 out of the line of movement of the ratchet-ring 13 and allow the dog 20
90 to engage the said ratchet-ring. Then by moving the lever 15 back and forth the sleeve or nut 6 will be rotated to cause the screw to move outward. When it is desired to move the screw in the reverse direction, the shaft
95 25 is to be rotated to throw the dog 20 out of connection with the ratchet-ring, allowing the dog 21 to engage with said ratchet-ring.

It may be necessary at times to place the jack horizontally for the purpose of moving
100 heavy weights along a floor or along the ground. Therefore to prevent its rolling over or turning I cut away a portion of the base, as indicated at 32, which will allow the jack-

body to lie straight or in a substantially horizontal position. It may also at times be desired to secure the jack to a support—such, for instance, as to a post or tree or a mast. I
 5 therefore provide the jack-body with a ring 33, through which a chain or other fastening device may be passed before passing it around a post or the like and the jack raised to any
 10 desired height, or the chain may be turned around a projection 33^a on the body. The lower side of the foot on the hollow jack-body may be closed by a plate 32^a, secured by screws or the like.

With this jack a telegraph-post or the like
 15 may be lifted from the ground by inverting the jack, so that its head 34 will bear on the ground or upon a suitable platform to prevent its sinking into the ground and securing the jack to the post to be lifted by means
 20 of a chain or otherwise.

A jack constructed in accordance with my invention may be easily separated in its parts when it is desired to clean or repair the same.

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

A jack, comprising a body portion, a lifting-screw adjustable therein, and ratchet mechanism for operating the lifting-screw, said
 30 ratchet mechanism including a lever provided at its outer end with spaced lugs, and with a block arranged approximately centrally, and an extension handle adapted to be received between said lugs and provided with fingers ranged to embrace said block.

CHARLES WESTON DOANE.

Witnesses:

SAM SMART,

WILL A. STEIDLEY.