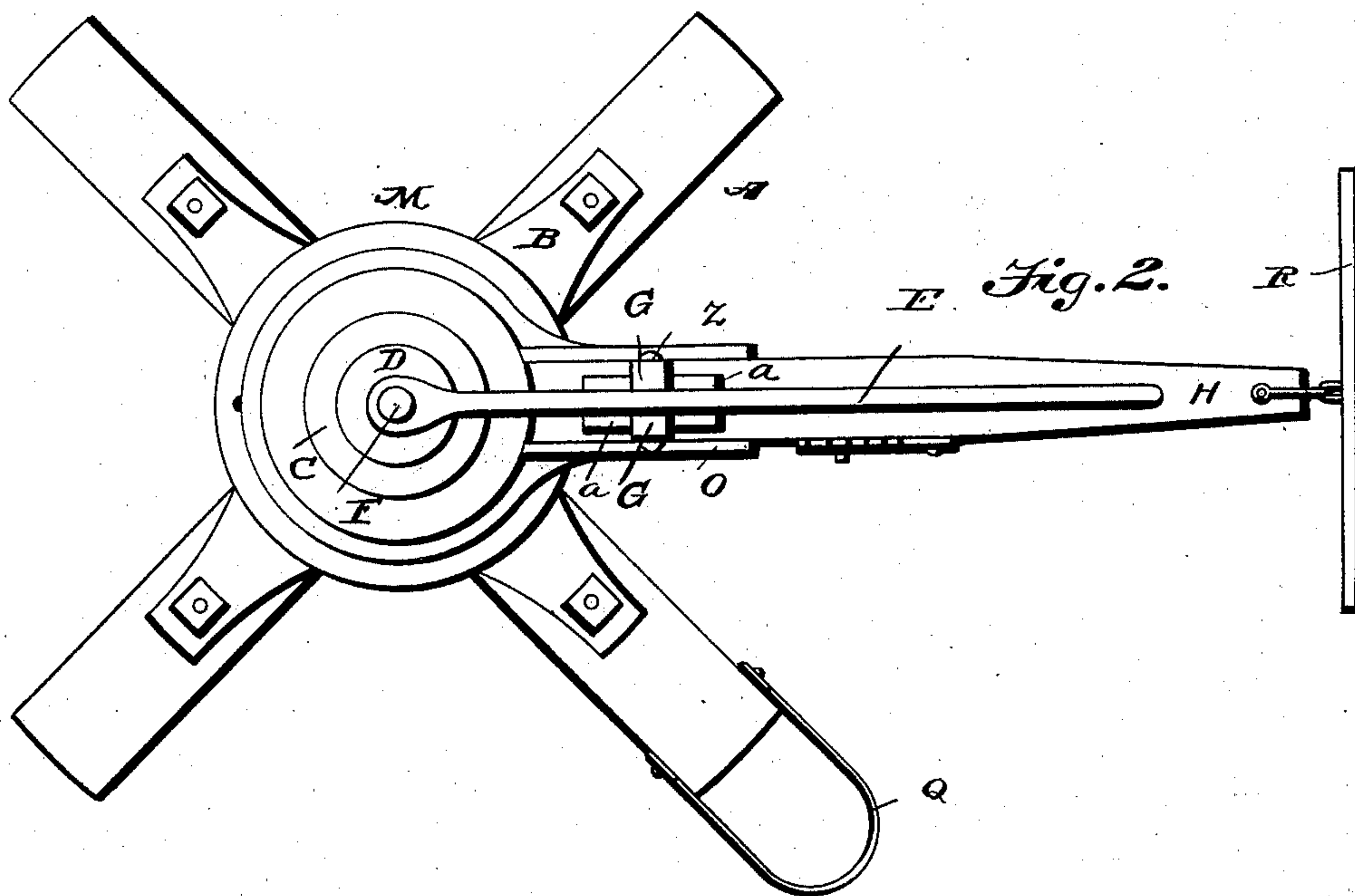
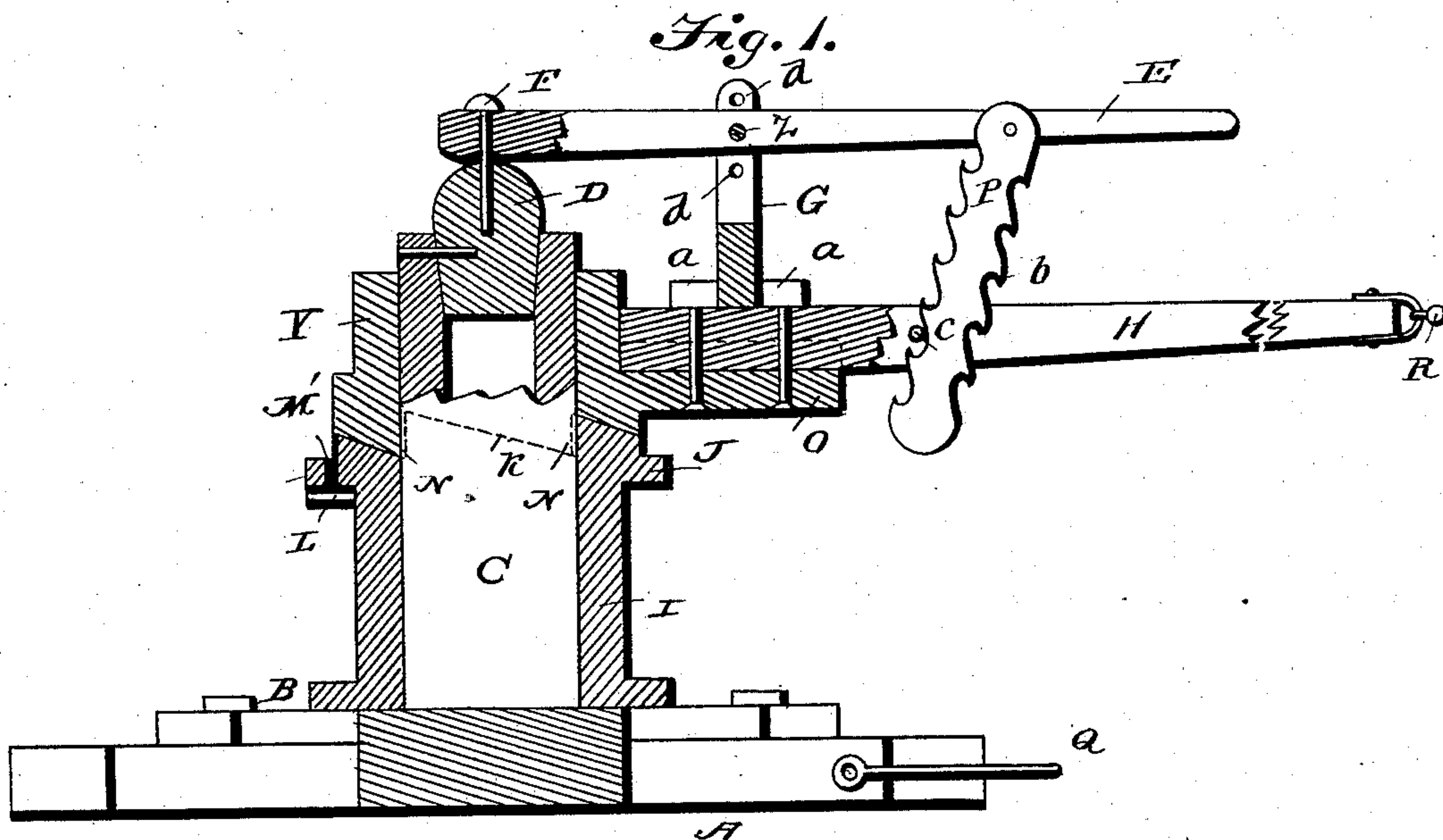


(No Model.)

O. A. KLEITZ.
STUMP PULLER.

No. 407,667.

Patented July 23, 1889.



Witnesses

J. H. Ashbell
J. E. Dunsin

Inventor

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UNITED STATES PATENT OFFICE.

OSCAR A. KLEITZ, OF SIGOURNEY, IOWA.

STUMP-PULLER.

SPECIFICATION forming part of Letters Patent No. 407,667, dated July 23, 1889.

Application filed April 26, 1889. Serial No. 308,676. (No model.)

To all whom it may concern:

Be it known that I, OSCAR A. KLEITZ, a citizen of the United States, residing at Sigourney, in the county of Keokuk, State of Iowa, have invented certain new and useful Improvements in Capstan Stump-Pullers, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to that class of devices known as "stump-extractors," and the novelty will be fully understood from the following description and claims, when taken in connection with the annexed drawings, in which—

15 Figure 1 is a vertical sectional view of my improved stump-extractor, showing parts in elevation; and Fig. 2 is a plan view of the same.

20 Referring to the annexed drawings by letter, A indicates the base-frame of my improved device, which is of cruciform configuration, and may be made of any suitable material.

25 B indicates an auxiliary cruciform frame which should be firmly secured to the base-frame, so as to strengthen the same.

30 C indicates a spindle or hollow post, which should also be rigidly secured to and extend upwardly from said base-frame. This spindle or post C is adapted to afford in its top portion a seat for the bearing-block D, which is connected with the fulcrum end of the adjusting-lever, which will be presently explained.

35 D indicates the bearing-block, which is seated in top of spindle or post C, and affords a bearing for the fulcrum end of adjusting-lever E, which is secured thereto by means of a pin or bolt F, which allows said lever 40 both a vertical and rotary play to move in unison with the draft-beam and upper cylinder. This lever E is of the class known as "levers of the third degree," the weight being applied between the fulcrum-point and the 45 handle portion, and is suitably journaled in standards G, which are fixed to the draft or hitch beam H at a point adjacent to the cylinder Y, and may be adjusted vertically by means of perforations *d* and a pin or bolt Z.

50 About midway between the point at which the weight is applied and handle portion of the lever E, I attach depending arm P, which

is provided on its sides with oppositely-directed teeth *b*, the functions of which are to hold the lever, when elevated or depressed, by engaging with pin *c*, secured to the draft-beam, and fix the position of said lever with respect to said draft or hitch beam. Thus it will be seen that when it is desired to wind a cable upon the drum I the lever is depressed 60 and held in that position by the upwardly-extending teeth on the bar or arm P engaging with pin *c* on the draft-beam; but when it is required to unwind or slacken the cable the lever E is elevated, and the teeth on the opposite side of the bar, engaging the said pin *c*, hold the lever E in that position, thus allowing a free rotation of the drum I.

I indicates the winding-drum of my machine, which is provided with flanges or collars J, for the purpose of retaining the cable thereon. 70

L indicates a recess and M' a perforation, both formed in the upper flange of the winding-drum, which is adapted for the attachment of the hauling-cable. 75

K indicates the clutch-face of the winding-drum, which is provided with any suitable number of uniform-inclined teeth, which are adapted to engage and operate in conjunction 80 with the teeth of the clutch-face of upper cylinder, as will be now described.

Y indicates a cylinder or collar, which is provided on its under face with a series of inclined clutch-teeth N, of corresponding number and size with those of the winding-drum and adapted to operate in conjunction therewith. This cylinder Y is also provided with a radial arm O, whereby an attachment is effected between said cylinder Y and draft-beam H by means of bolts *a*. (Better illustrated in Fig. 1 of the drawings.) 90

Q indicates a clevis, which is adapted to be attached to a stake or tree and hold the machine stationary when pressure is brought to bear upon the same, and it is also adapted for attaching a draft-animal for transporting the extractor from place to place. 95

R indicates a singletree for the attachment of the draft-animal while in operation. 100

By having the base-frame of a cruciform shape I provide a convenient means for securing or staking the device in position during operation, as it is obvious that each

branch may have a vertical aperture through which a stake may be driven.

Having described my invention, what I claim is—

5 1. In a stump-puller, the combination, with the cruciform base, of the hollow post arranged thereon, the toothed drum arranged on said post and adapted to receive a winding-rope, the cylinder Y, having an arm for the
10 attachment of the hitch-beam and provided on its under side with a toothed face, the bearing-block arranged in the upper end of the hollow post and beveled, as shown, the
15 hitch-beam secured to the arm of the upper drum-section, the standards secured to said beam, the adjusting-lever journaled in said standards and having one end connected with the bearing-block in the post, and the de-
20 pendently pivoted to the lever and having oppositely-directed teeth, and adapted to en-

gage a pin on the hitch-beam, substantially as specified.

2. In a stump-puller, substantially as described, the combination, with the cylinder, of the hitch-beam secured thereto and hav- 25 ing a stud or pin, the adjusting-lever fulcrumed in standards rising from the hitch-beam and having one end journaled on a block arranged in the top of the hollow post, and the depending arm pivoted to the adjust- 30 ing-lever and having its opposite sides provided with oppositely-directed teeth and adapted to engage the stud or pin in the hitch-beam, substantially as specified.

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

OSCAR A. KLEITZ.

Witnesses:

W. D. HOWARD,

WM. A. BELL.