

No. 868,431.

PATENTED OCT. 15, 1907.

B. L. GROTH.
STUMP PULLER.
APPLICATION FILED DEC. 8, 1906.

Fig. 2.

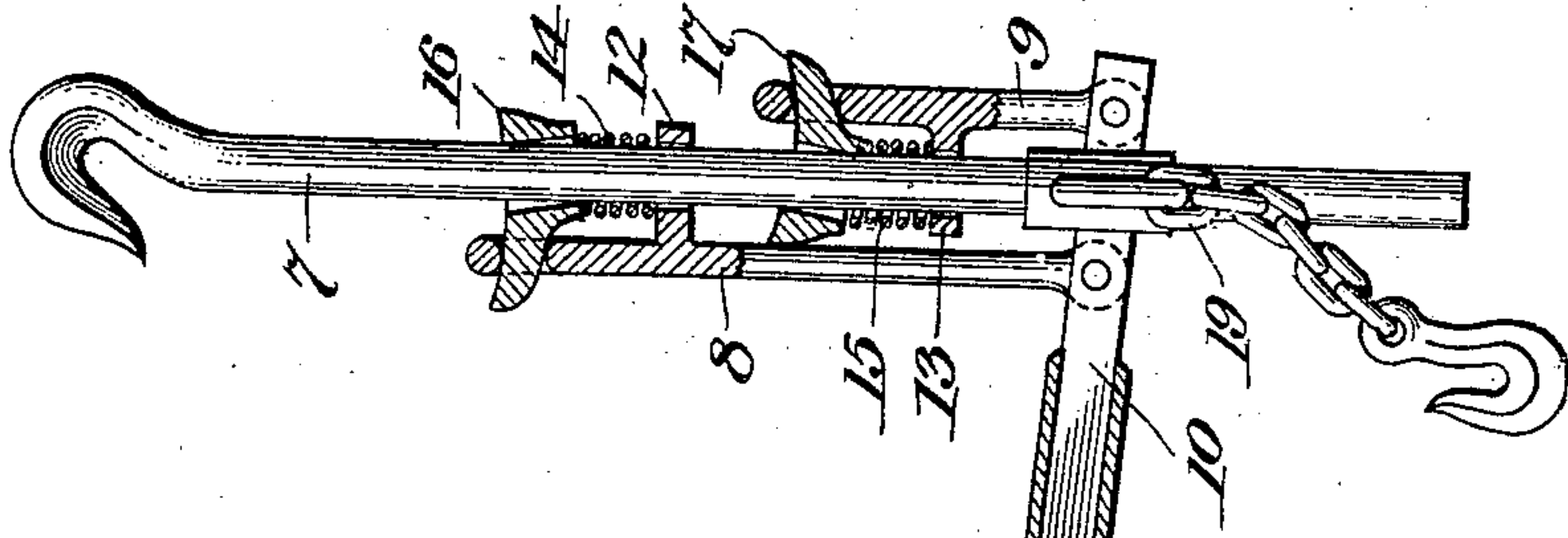


Fig. 3.

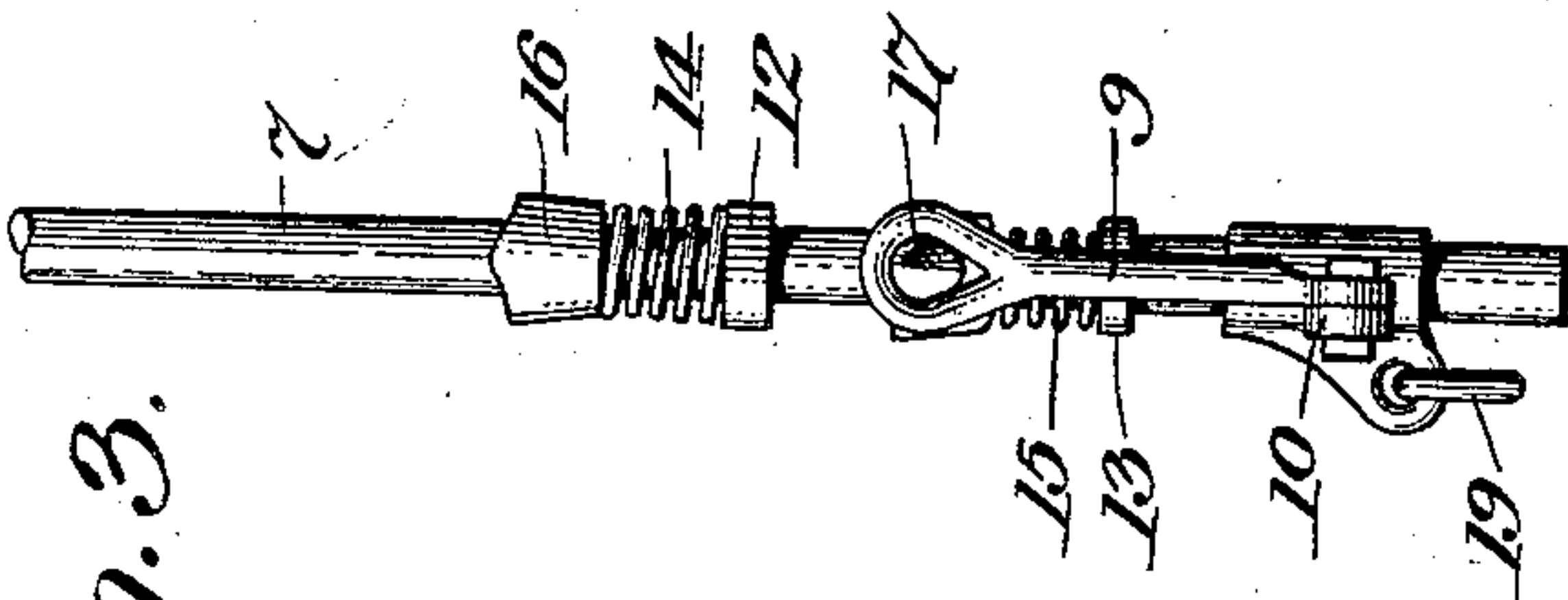
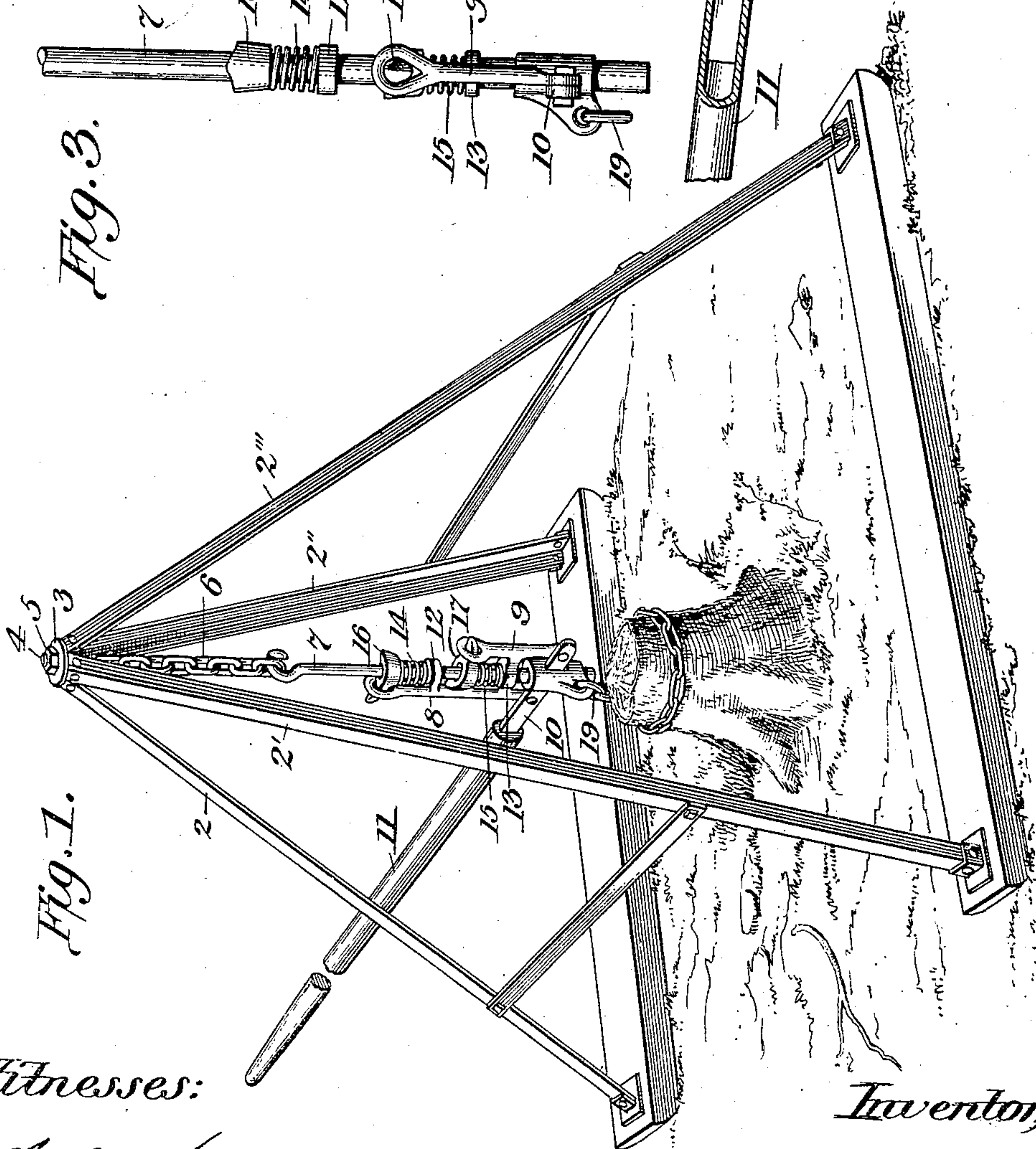


Fig. 1.



Witnesses:

H. C. Miller
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Inventor,

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STUMP-PULLER.

No. 868,431.

Specification of Letters Patent.

Patented Oct. 15, 1907.

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To all whom it may concern:

Be it known that I, BERNHARD L. GROTH, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Stump-Pullers, of which the following is a full and clear description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in stump pullers, and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a perspective view, showing my improved stump puller in position to extract a stump. Fig. 2 is an enlarged detail view of the lifting arrangement, parts being broken away to show the gripping rings and the interposed springs. Fig. 3 is a detail or front end view of the lifting arrangements.

The object of my invention is to provide a stump puller of simple and durable construction; one of great strength and capacity for pulling stumps, and one which may be sledged about, and be adapted to work equally well upon rough as upon smooth or level land.

Referring to the drawing, 1, 1' represent skids upon which are suitably bolted the frame members 2, 2' 2'', 2''' made preferably of angle iron, and at the apex of the frame is a metal cap 3, and suspended therefrom on an eye-bolt 4 passed through an opening in the center of the cap 3, and retained by a nut 5, is a short chain 6 from which is suspended a guide rod 7 upon which the lifting mechanism operates.

On one side of the rod 7, and parallel with it, is a long auxiliary lever 8, and on the other or opposite side is a short auxiliary lever 9, each of which auxiliary levers are pivoted to a main lever bar 10 which is provided with a lever-handle 11 which may be of any desired length.

Each of the auxiliary levers 8, and 9, are provided with a ring extension 12, and 13, respectively, through which the rod 7 passes, and upon these said extensions are the interposed springs 14, and 15, and the friction gripping rings 16, and 17, adapted to bear in an eye formed on the upper end of their respective auxiliary levers 8, and 9, as shown in Fig. 2.

The main lever bar 10 passes through a slot formed through the sleeve 18 on the rod 7, and connecting with this sleeve is a hook and chain 19 of sufficient length to be fastened about a stump, as shown in Fig. 1.

In operation, when the lever-handle 11 is raised, the short auxiliary lever 9 will draw upon the friction gripping ring 17 until it binds upon the rod 7, and simultaneously with this movement the long auxiliary lever 8 acting upon the upper gripping ring 16 raises the same to a higher point upon the rod 7. The said rings 16 and 17 grip alternately on the rod 7 as the lever-handle 11 is raised up and down, and accordingly the sleeve 11 is elevated upon the rod 7 drawing upon the chain 19 to raise the stump from the ground.

Having described my invention what I claim is—

The combination, in a stump puller, of a frame the members of which are bolted to skids, and are inclined to the center, and are provided with a metal cap 3 from which is suspended a guide rod 7 upon which friction gripping rings 16 and 17 are adapted to raise alternately by means of auxiliary levers pivoted to a main lever; the said lever carrying a sleeve 18 designed to draw upon the chain 19, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERNHARD L. GROTH.

Witnesses:

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