2 Sheets--Sheet 1.

JOHN D. TROYER.

Improvement in Stump Extractors.

No. 121,436. Patented Nov. 28, 1871.

Fig 1

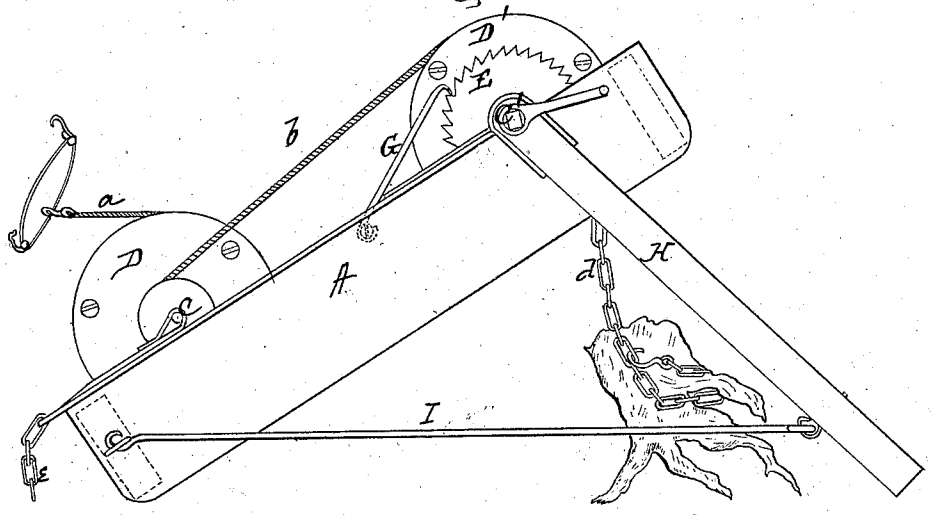
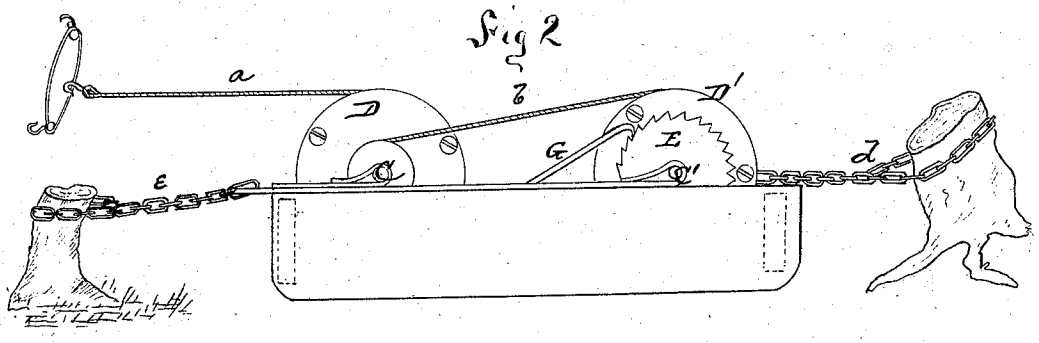


Fig 2



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2 Sheets--Sheet 2.

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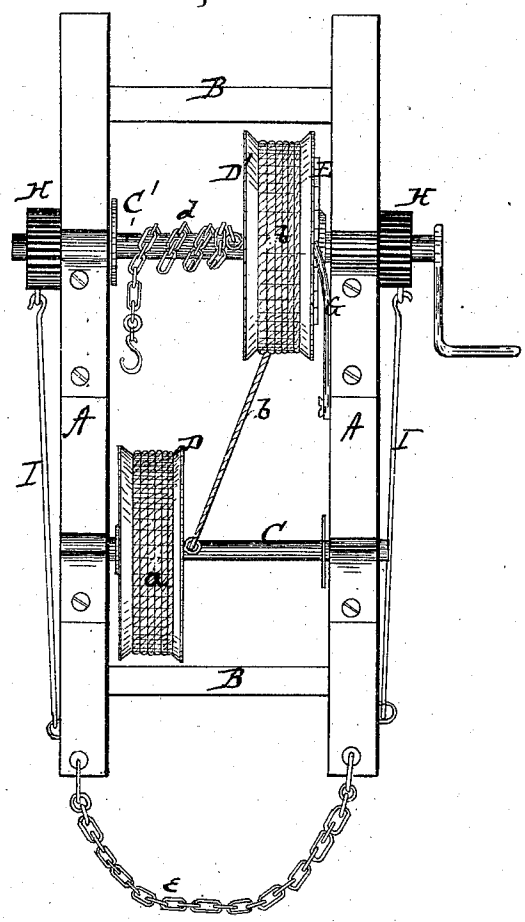
Fig 3



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UNITED STATES PATENT OFFICE.

JOHN D. TROYER, OF GOSHEN, INDIANA.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 121,436, dated November 28, 1871.

To all whom it may concern:

Be it known that I, JOHN D. TROYER, of Goshen, in the county of Elkhart and in the State of Indiana, have invented certain new and useful Improvements in Stump-Puller; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a stump and grub-extractor, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figures 1 and 2 are side views of my machine, showing how it is applied for use; and Fig. 3 is a plan view.

A A represent two parallel beams or side pieces connected by means of the end pieces B B, and thus forming the frame of my machine. In suitable journal-boxes on the side pieces A A are placed two shafts, C C′, provided with pulleys D D′, respectively, said pulleys being placed at opposite sides of the frame, as shown in Fig. 3. On the side of the pulley D′ is a ratchet-wheel, E, and pawl G, engaging in said ratchet-wheel. Around the pulley D is wound a rope, *a*, to the end of which the horse is to be attached. To the side of this pulley is attached another rope, *b*, which is wound around the other pulley D′, and to the side of this pulley is attached a chain, *d*, which is to be fastened to the stump to be pulled. When there is another stump or other stationary object to which my machine may be secured, it is to be used flat on the ground, as represented in Fig. 2. A chain, *e*, fastened to the end of the frame, is made fast to the stationary object, and the chain *d* fastened to the stump to be pulled. The horse attached to the rope *a* is now put in motion, turning the pulley D, which causes the rope *b* to be wound up on the shaft C, and unwinding from the pulley D′. This in turn causes the chain *d* to be wound up on the shaft C′, pulling up the stump. When there is no stationary object at hand, or when the last stump is to be pulled, the machine is to be used as represented in Fig. 1. Supports H H are applied under the projecting ends of the shaft C′, and attached by means of metal caps on their upper ends, said supports being then braced by rods I I attached to the lower ends of the supports and to the opposite ends of the frame. The stump is then pulled in the same manner as above described.

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

1. The combination of the frame A B, shafts C C′, pulleys D D′, ratchet-wheel E, pawl G, ropes *a b*, and chains *d e*, all constructed and arranged substantially as and for the purposes herein set forth.

2. In combination with the above, the supports H H and brace-rods I I, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of August, 1870.

JOHN D. TROYER.

Witnesses:
JOHN H. BAKER,
F. A. HERRING.