

(No Model.)

B. EDDY & D. PHILLIPS.
STUMP EXTRACTOR.

No. 574,406.

Patented Jan. 5, 1897.

Fig. 1

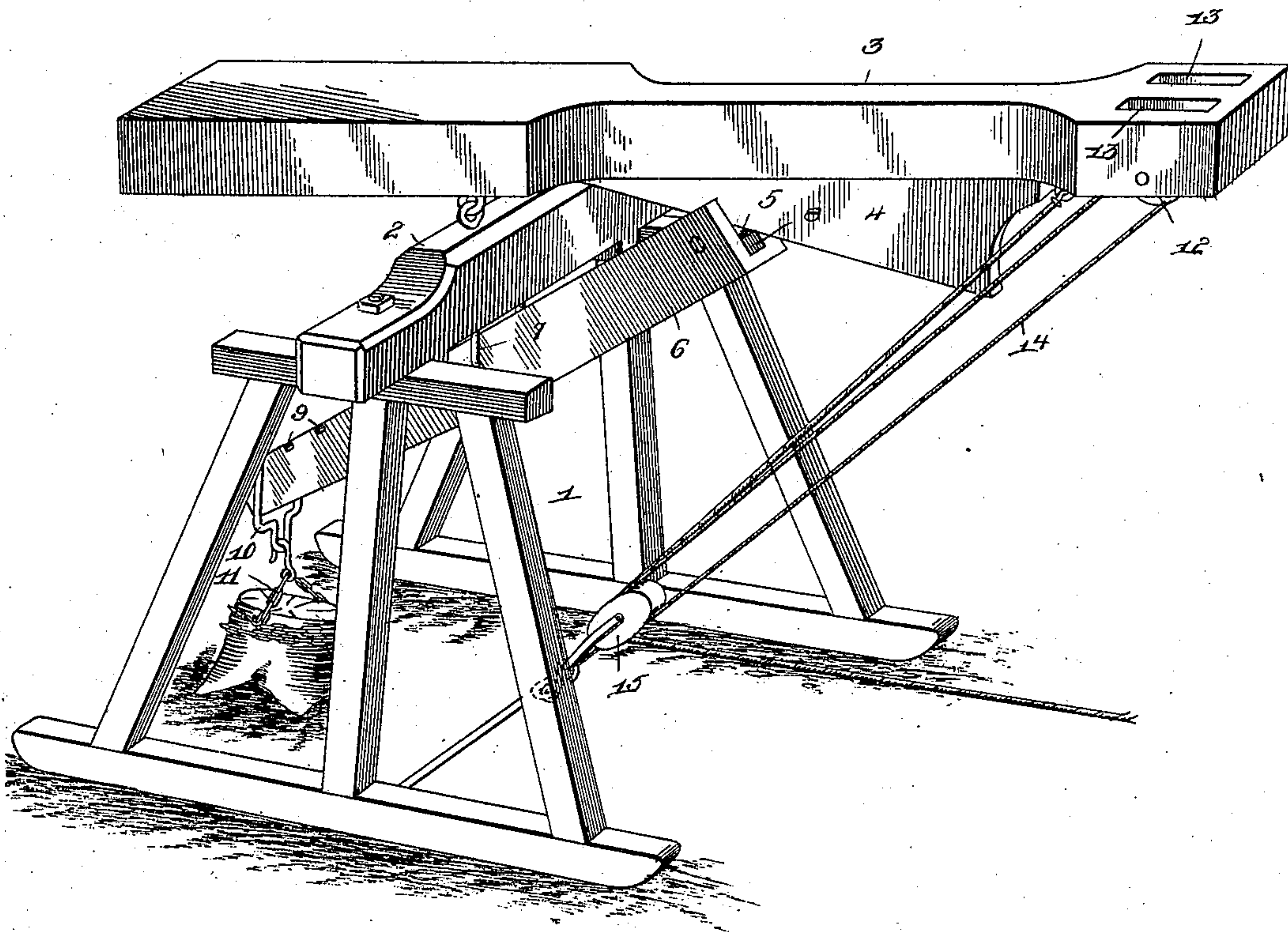
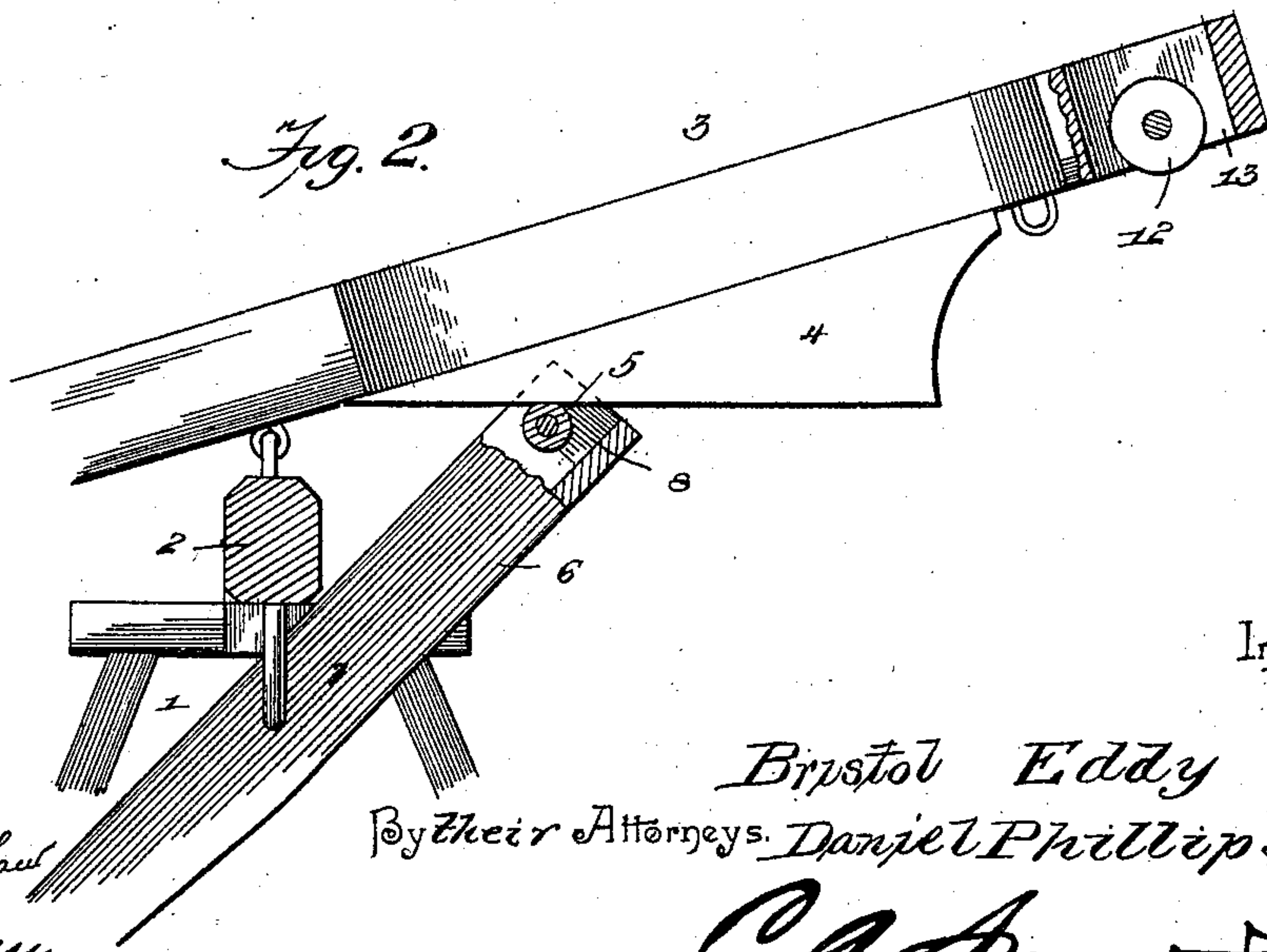


Fig. 2



Inventors

Witnesses

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UNITED STATES PATENT OFFICE.

BRISTOL EDDY AND DANIEL PHILLIPS, OF VERNDALE, MINNESOTA.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 574,406, dated January 5, 1897.

Application filed April 23, 1896. Serial No. 588,816. (No model.)

To all whom it may concern:

Be it known that we, BRISTOL EDDY and DANIEL PHILLIPS, citizens of the United States, residing at Verndale, in the county of Wadena and State of Minnesota, have invented a new and useful Stump-Extractor, of which the following is a specification.

The invention relates to improvements in stump-extractors.

10 The object of the present invention is to improve the construction of stump-extractors and to provide one which will possess great power and which will enable a stump to be extracted with great rapidity.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is a perspective view of a stump-extractor constructed in accordance with this invention. Fig. 2 is a detail sectional view of the engaging portions of the levers.

25 Like numerals of reference indicate corresponding parts in both figures of the drawings.

1 designates a supporting-frame composed of opposite sides and a cross beam or bar 2, 30 connecting the sides and arranged at the top of the supporting-frame and forming a fulcrum for an operating-lever 3, which is journaled on or hingedly connected to the top cross piece or beam of the supporting-frame. 35 The main operating-lever 3 is provided at its lower face with a wedge-shaped flange or web 4, and the latter engages an antifriction-roller 5 on a lower extracting-lever 6, which is journaled in a suitable hanger 7 of the sup- 40 porting-frame.

The extracting-lever is located beneath the sides of the frame, and is fulcrumed intermediate of its ends, and is provided at its rear end with a groove 8, in which is arranged 45 the antifriction-roller 5. The antifriction-roller 5 is located at the rear end of the lever, and is engaged by the inclined edge of the wedge-shaped flange or web 4, and as the rear portion of the operating-lever 3 is swung 50 downward the rear end of the extracting-lever slides on the web or flange 4, changing the point of fulcrum, the greatest power be-

ing exerted at the commencement of the downward movement of the operating-lever and the power gradually decreasing as the stump is loosened and lifted out of the ground. 55

The front portion of the extracting-lever is provided with a series of transverse grooves 9, located at the upper face of the lever and adapted to receive a link or bail 10, to which 60 is connected a chain 11, adapted to be fastened around a stump. The link or bail 10 is adapted to be adjusted to vary the leverage according to the degree of force required for extracting a stump. 65

The rear end of the operating-lever is provided with a pair of pulleys 12, mounted in slots 13 and receiving a rope 14, which also passes over pulleys of a triple block 15. The triple block is connected with a base of the 70 supporting-frame by a transverse rod or the like. One end of the rope is attached to the operating-lever and the other end is designed to be connected with a team or the like.

The stump-extractor possesses great 75 strength and is simple in its construction and is capable of exerting great power in extracting a stump, and it will be seen that it will enable a stump to be rapidly extracted and that the power employed in extracting it is 80 distributed to the greatest advantage, as the greatest amount is expended at the commencement of the operation and as the power is gradually lessened as the necessity for the same decreases. 85

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 90

What we claim is—

1. In a stump-extractor, the combination of a supporting-frame, an operating-lever fulcrumed on the supporting-frame, a lower extracting-lever fulcrumed intermediate of 95 its ends on the supporting-frame, and provided at one end with stump-engaging devices, and having its other end bearing against and located beneath, and adapted to slide on, the operating-lever, substantially as and for 100 the purpose described.

2. In a stump-extractor, the combination of a supporting-frame, an operating-lever fulcrumed on the supporting-frame, and pro-

- vided at its lower face with a depending wedge-shaped portion forming an inclined lower edge, and a lower extracting-lever fulcrumed intermediate of its ends on the supporting-frame and provided at one end with stump-engaging devices, and having its other end engaged by, and adapted to slide on, the wedge-shaped portion of the operating-lever, substantially as described.
- 10 3. In a stump-extractor, the combination of a supporting-frame, an operating-lever fulcrumed on the supporting-frame, and provided at its rear end with pulleys, and having intermediate of its ends a depending wedge-shaped portion, an extracting-lever fulcrumed
15 intermediate of its ends on the supporting-frame, and provided at its rear end with an antifriction-roller engaged by the wedge-shaped portion of the operating-lever, stump-engaging devices located at the front end of the extracting-lever, pulleys located at the base of the frame, and a rope passing over the said pulleys, substantially as described. 20
- In testimony that we claim the foregoing as our own we have hereto affixed our signatures 25 in the presence of two witnesses.

BRISTOL EDDY.
DANIEL PHILLIPS.

Witnesses:
GEO. W. EMPEY,
S. L. FRAZIER.