

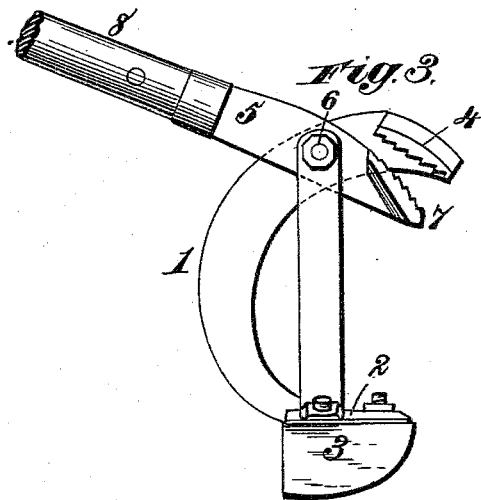
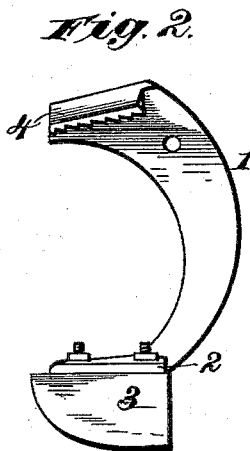
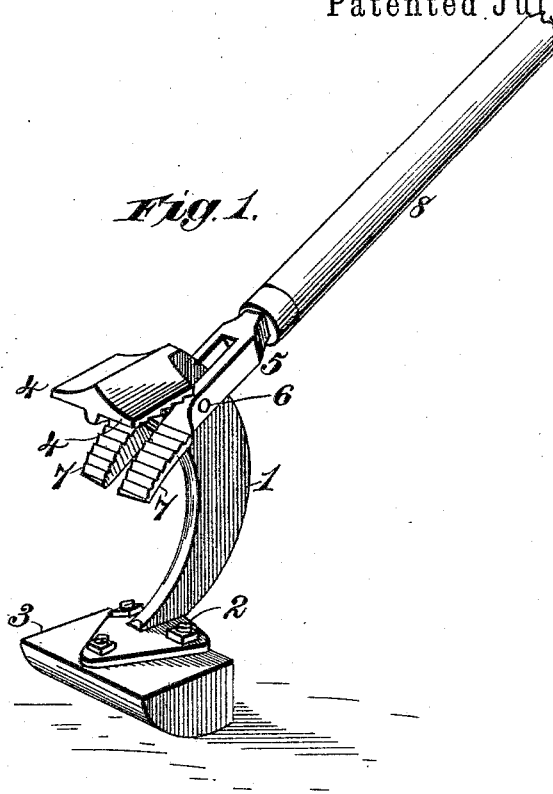
(No Model.)

W. M. SUMNERS & A. W. SMITH.

GRUB PULLER.

No. 301,772.

Patented July 8, 1884.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM M. SUMNERS AND ALFRED WINN SMITH, OF DELINA, TENNESSEE.

GRUB-PULLER.

SPECIFICATION forming part of Letters Patent No. 301,772, dated July 8, 1884.

Application filed May 26, 1884. (No model.)

To all whom it may concern.

Be it known that we, WILLIAM M. SUMNERS and ALFRED WINN SMITH, citizens of the United States, residing at Delina, Marshall county, Tennessee, have invented new and useful Improvements in Grub or Sprout Pullers or Extractors, of which the following is a specification.

Our invention has reference to that class of grub or sprout pullers or extractors which comprise a rocking base or fulcrum-block, and fixed and movable jaws supported thereon for raising or extracting any object seized between the jaws by pressure or force applied to a lever extension of the movable jaw of the implement.

The object of the invention is to furnish an implement which is simple and durable in construction, and can be manipulated with greater convenience and advantage than the devices heretofore known, special provision being made for obtaining a durable bearing or pivot-support for the movable jaw of the implement, so as to resist lateral strain or displacement, and the fixed and movable jaws of the implement having each two flanges or independent biting-surfaces, so that much more work can be performed with our implement than with one having jaws possessing a single flange or biting-surface only.

The invention will first be fully described in connection with the accompanying drawings, and then fully set forth in the claims.

In said drawings, Figure 1 is a perspective view of a grub-pulling implement having a bifurcated lever or movable jaw, which embraces a standard or arm terminating in a stationary jaw, both jaws having two separate biting-surfaces or flanges. Fig. 2 is a detail view of the standard of the stationary jaw and the fulcrum-block or base to which it is attached. Fig. 3 is a side elevation of an implement having its jaws provided with single biting-surfaces, the movable jaw being held between the standard of the stationary jaw, and an arm or lateral brace extending from the standard of the stationary jaw.

The numeral 1 designates a standard, which is made of cast or wrought iron, and is curved or made semicircular in form. On the lower

end of this standard is formed a base or foot plate, 2, to which is attached, by screws or otherwise, a wooden block or base-sill, 3. This block is dressed or rounded off in a curve from its upper front corner to its rear lower corner, as is clearly indicated in the drawings.

Referring to Figs. 1 and 2, it will be seen that jaws or flanges 4 project laterally from each side of the standard 1, said jaws or flanges being of any desired length and projecting at an angle of fifteen degrees (more or less) below a right angle of a perpendicular line drawn through the standard. A lever, 5, having bifurcations or branches, receives or straddles the standard 1, and is pivoted thereto by a fulcrum bolt or pin, 6, passing through said bifurcated lever and standard. The outer end of the lever 5 terminates in flanges or jaws 7, which correspond with the flanges or jaws on the upper end of the standard 1. The different jaws or flanges are corrugated or grooved on their meeting faces, so as to enable them to obtain a firm hold on the sprouts or grubs to be extracted, and prevent the latter from slipping through the jaws. The stock of the lever may terminate in a tang or plate, which presents a wooden handle-extension, 8, or a socket or ferrule may be formed on the stock of the lever for receiving said handle. The fulcrum-pin of the lever-jaw is placed at a proper distance from the jaws or flanges on the furcated lever and the intermediate standard, so as to admit of the jaws being opened sufficiently far to receive the sprouts or other objects when operating the implement.

In Fig. 3 is shown a construction similar in all particulars to that above described, except that only a single jaw is formed on the standard 1, which jaw operates in connection with a single jaw or flange on the lever 5, the latter being in this instance located entirely on one side of the standard 1, and made to turn with or on the fulcrum bolt or pin 6 on the outer side of the lever 5. It will thus be seen that said lever is braced or supported on both sides, and thus any strain to which it may be subjected will not cause it to be displaced laterally, there being, in fact, no liability whatever of said lever being thrown out of order or becoming bent or detached, since it is properly

supported in the manner indicated. The bifurcated lever also has such a double bearing for the object or purposes just mentioned as being possessed by the single jaw-lever.

- 5 In operating either form of implement the top of the curved standard is brought near the ground, and then the lever of the movable jaw is thrown forward to admit a sprout or other object between the two jaws. The jaws being
10 then closed by a rearward pull upon the lever, and the pressure of the latter being continued, so as to draw it in a downward direction, the rocking of the rounded base-block upon the ground is effected, and the proper upward
15 pressure is exerted upon the sprout or other object held between the jaws to lift the same out of the ground.

- The object of the double-flanged jaws is to enable sprouts or objects to be grasped without moving the implement bodily to the right or left of said sprout, since it is evident that the object to be extracted can be grasped by either the right or left hand flanges of the jaws. In this manner considerable time and labor is
25 saved in performing work with our implement, and the latter is also more conveniently manipulated than the devices heretofore resorted to for pulling grubs and other like objects.

Having thus described our invention, what we claim is—

30 1. An implement for pulling grubs and other like objects, consisting of a curved standard having a jaw at its upper end, and a base-plate, a lever-jaw pivoted to said standard, a
35 strut or brace arm extending from the base-plate of the standard to the outer side of the lever-jaw, and fitted on the fulcrum-pin thereof, and a rounded base or fulcrum block attached to the base-plate of the standard, substantially as described.

40 2. An implement for pulling grubs and other like objects, consisting of a curved standard having double jaws or flanges at its upper end, and a base-plate, the lever pivoted to said standard, also provided with double jaws or
45 flanges, and the rounded base or fulcrum block attached to the base-plate of the curved standard, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM M. SUMNERS.
ALFRED WINN SMITH.

Witnesses:

HENRY K. MOSS,
W. G. LOYD.