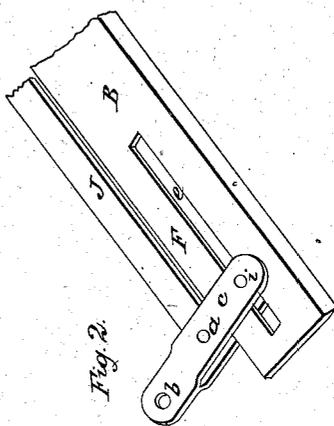
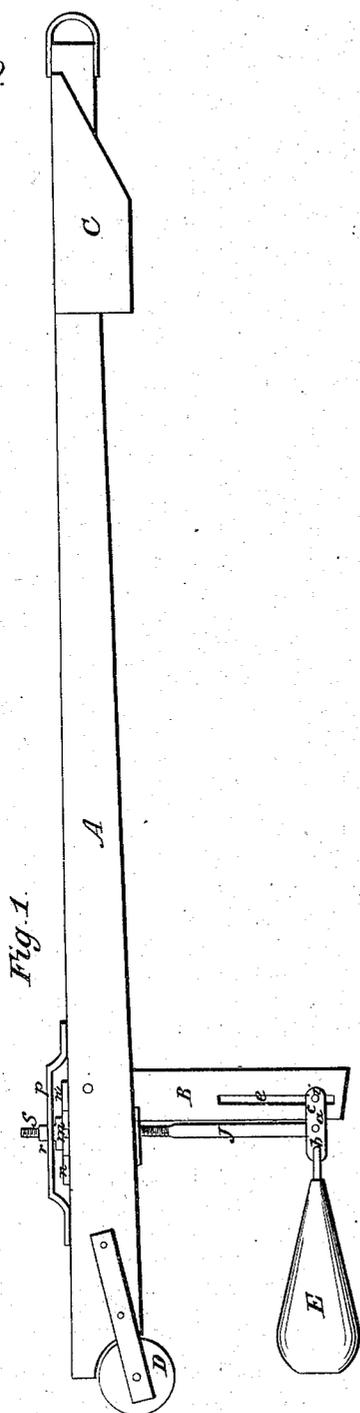


S. F. Jones.

Mole Plow.

Patented Aug. 27, 1861.

No.
33,149.



Witnesses.

Charles A. Woodward.
E. L. Lloyd.

Inventor

Samuel F. Jones.

UNITED STATES PATENT OFFICE.

SAMUEL F. JONES, OF ST. PAUL, INDIANA.

IMPROVEMENT IN MOLE-PLOWS.

Specification forming part of Letters Patent No. 33,149, dated August 7, 1861.

To all whom it may concern:

Be it known that I, SAMUEL F. JONES, of St. Paul, in the county of Decatur and State of Indiana, have invented certain new and useful Improvements in Mole-Plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing and arranging the several parts of a mole-plow substantially in the manner hereinafter described.

In the drawings, Figure 1 is a side elevation. Fig. 2 is an enlarged detached section of the slot and clevis.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe its construction and operation.

The beam A is supported at its forward end by the slide c. The cutter B is secured to the beam near its rear end. Said cutter is provided with a slot, e. This slot is commenced about two inches from the lower end of the cutter and two inches from the back edge of the cutter, one inch wide, and is extended upward as far as may be desired. The clevis c is formed of two straps of iron of equal length, width, and thickness, with the rear end of each bent in such a manner as to bring them close together, where they are perforated to receive the connecting-link from the mole; or it may be formed by bending a strap of iron and beating it together at the rear end, as described, leaving the clevis wide enough to slip loosely on the cutter. The bolt i passes through the front ends of the clevis c and through the slot e. The clevis is bolted loosely to admit of its being slid up or down on the back part, F, of the cutter B. (Shown in Fig. 2.) The mole E in Fig. 1 is of an oblong oval shape, and is loosely connected to the clevis c at b, for the double purpose of allowing the plow to be turned to the right or left without breaking or in any way injuring the drain, and to admit of either end of the clevis c being tipped up or down, the bolt a forming a fulcrum. The screw-rod J passes down through the beam in the rear of the cutter, and is provided with a screw, S, at its top. This screw should be cut the same length of the slot e in the cutter B, to allow the clevis c to be raised or lowered from one end

of the slot to the other. The lower end of the screw-rod J is secured to the clevis c by the bolt a. The nut m is put on the screw-rod J between the beam A and guard P, and is held in place by said guard. The upper end of the nut m is diminished, and is passed up through the guard P at r to protect the screw from injury by coming in contact with the guard. The nut m is provided with arms n n', by which it can be easily turned. The stationary roller D supports the rear end of the beam and closes the opening made by the cutter on the surface of the ground.

The operation of the machine is as follows: The object is to adjust the mole only when the machine is in motion. Thus, as the plow is drawn forward, the operator, by means of the armed nut m, raises or lowers the screw-rod J, the lower end of which is loosely connected to the clevis c by the bolt a. Now, the raising or lowering of the screw-rod J produces a fulcrum motion in the clevis c between the bearings at i and b, thus admitting the clevis to be gradually slid up or down on the back piece, F, of the cutter B from one end of slot e to the other, or hold it at any point along said line of travel. The mole E, being loosely connected to the rear end of the clevis, must of necessity follow the elevation or depression of the clevis c, thus enabling the operator to run the drain level independent of the unevenness of the ground. Thus while the plow is passing over a low spot of ground the mold can be raised to the top of the slot in the cutter, and, notwithstanding the cutter is as deep in the ground as when on high land, the mole is elevated nearer the surface of the ground and is running on a level with the drain made in higher land. The mole following entirely in the rear of the cutter, and not forming the drain until after the cutter has passed, cannot fail to effectually close the opening made by the cutter, leaving the earth around the drain as firm and compact as if the cutter had not passed through. The plow should always be started at the outlet, where the drain empties, and as it nears the termination of the drain the mole is gradually raised to the top of the slot. Then the plow is easily taken from the ground and moved to another place.

From the above-described arrangement of the several parts it will be seen that a very cheap and effective mole-plow is produced, one which can be easily regulated and is not

easily impaired, and one which forms a better and more durable drain than any of its kind, requiring less power to draw it through the ground.

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

1. The method of connecting the mole E to the cutter B by means of the slot *e* and clevis *c*, when constructed and operated substantially as shown and described, for the purpose set forth.

2. In combination with the slot *e* and clevis *c*, the mole E, screw-rod J, and armed nut *m*, when combined and arranged to act conjointly and used as shown and described, for the purpose set forth.

SAMUEL F. JONES.

Witnesses:

CHARLES A. WOODWARD,
E. L. FLOYD.