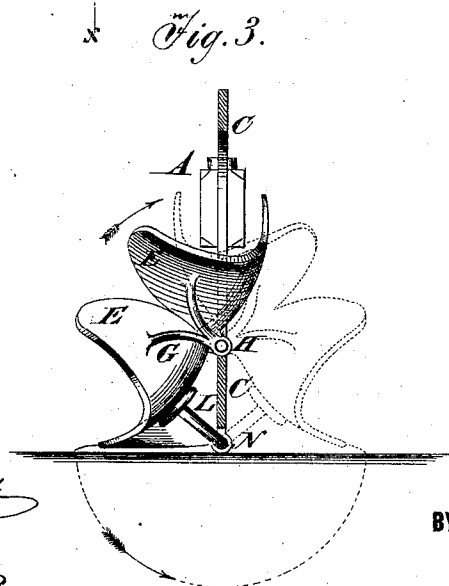
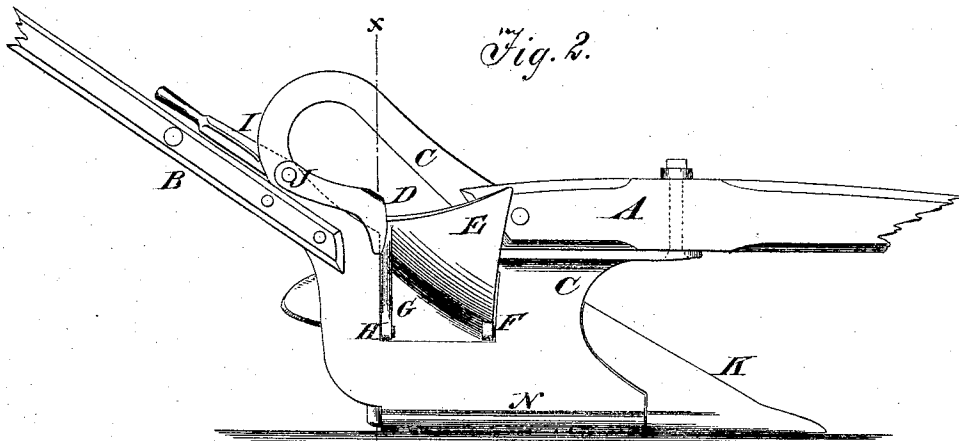
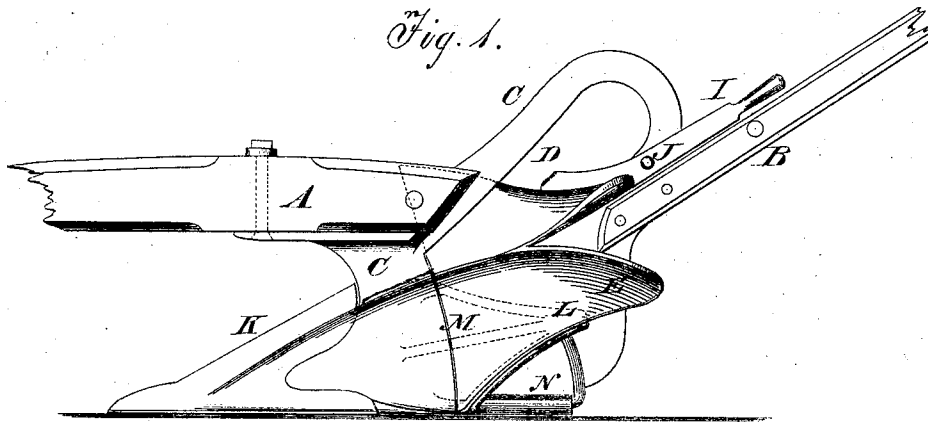


M. ELLIS.
Side-Hill Plows.

No. 157,200.

Patented Nov. 24, 1874.



WITNESSES:
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UNITED STATES PATENT OFFICE.

MINOT ELLIS, OF GREENFIELD, MASSACHUSETTS.

IMPROVEMENT IN SIDE-HILL PLOWS.

Specification forming part of Letters Patent No. **157,200**, dated November 24, 1874; application filed September 12, 1874.

To all whom it may concern:

Be it known that I, MINOT ELLIS, of Greenfield, in the county of Franklin and State of Massachusetts, have invented a new and useful Improvement in Side-Hill Plows, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

In the accompanying drawing, Figure 1 is a side view, showing the mold-board upon the left side of the plow. Fig. 2 is a view of the opposite side. Fig. 3 is a vertical section of Fig. 2, taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the beam; B, the handles. C is a casting that forms the standard and the land-side of the plow, to which the beam and the handles are attached. In the back portion of this casting is the opening D, in which the mold-board is hinged, and through which it is passed in changing it from one side to the other. The mold-board is made double, or with two curved wings, E E, united at the base and separated at their extremities, but made in one piece, preferably, and provided with a pivot-hole at the forward and riveted end, which hole engages with a pivot, F. G is a double brace, which is connected with both branches of the mold-board, and pivoted to the opening D, as seen at H. Arranged in this manner, the mold-board is made to swing through the opening from either side. I is a spring-lever, whose fulcrum is at the point J, the inner end of which is thrown by the spring behind the edge of the mold-board, which holds the latter in place. By raising the outer

end of the lever the mold-board is released, so that it is reversed. K is the point of the plow, to the rear end of which is attached the mold-board support L. (Seen in dotted lines in Fig. 1.) *m* represents the joint between the point and the end of the mold-board. The point K is pivoted or hinged to the land-side N, so that it readily swings from one side to the other beneath the plow, like the point and mold-board of the common side-hill plow.

By making the mold-board separate from the point, and reversing it by swinging it over instead of under the plow, and bisecting the back part, I am enabled to turn a furrow on level land, in any kind of soil, with the best and most perfect plows in use, while for plowing on a side hill the point and mold-board are reversed while the team is turning round, so that the furrows are all turned down the hill.

The advantages of this arrangement must be obvious to all who are acquainted with the subject.

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

1. The casting C, formed substantially as shown, and for the purposes described.

2. In a side-hill plow, the point K, having the mold-board support L, and revolving beneath the land-side, in combination with the mold-boards E E, revolving above land-side through the opening D in plate C, substantially as shown and described.

MINOT ELLIS.

Witnesses:

LYMAN FRINK,
JOSEPH H. SEARS.