J. L. & G. L. WOODBURY.
Reversible-Plow.

No. 225,452. Patented Mar. 9, 1880.

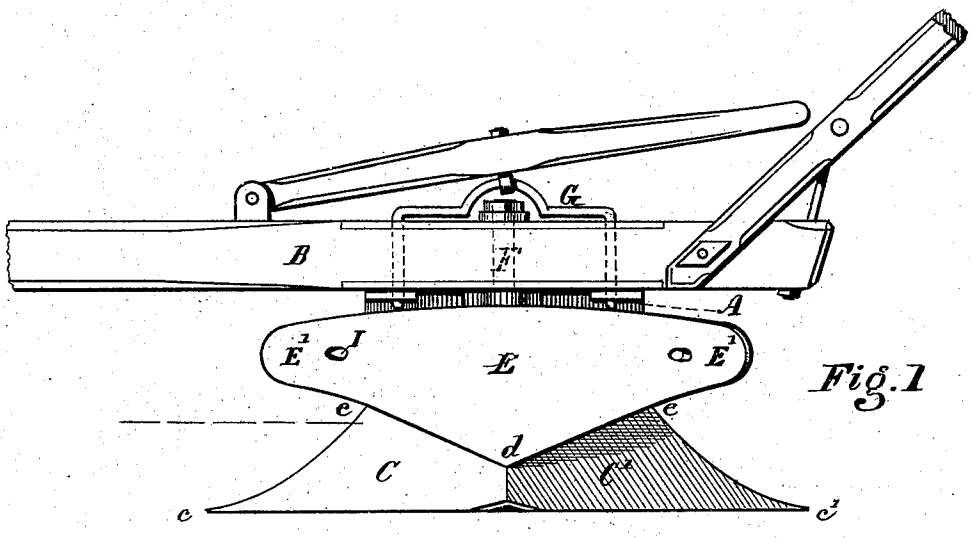

Fig. 1

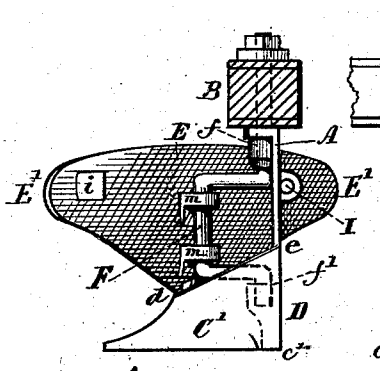

Fig. 4

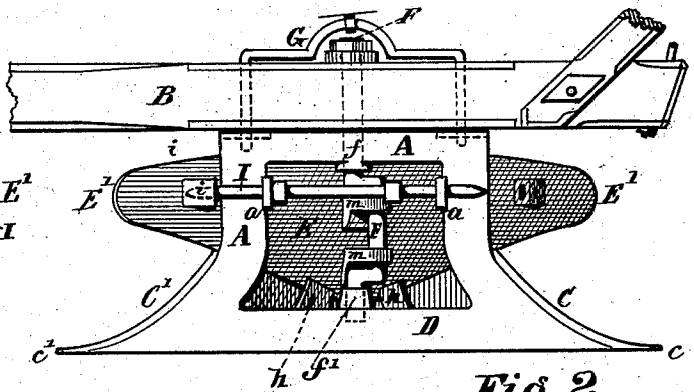

Fig. 2

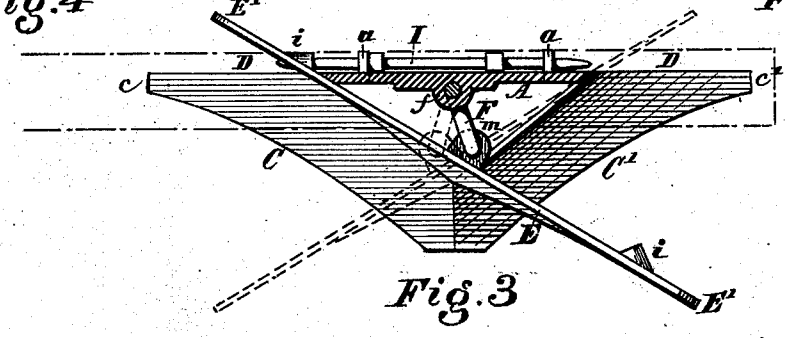

Fig. 3

Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH L. WOODBURY AND GEORGE L. WOODBURY, OF OXFORD, MASS.

REVERSIBLE PLOW.

SPECIFICATION forming part of Letters Patent No. 225,452, dated March 9, 1880.

Application filed January 24, 1880.

To all whom it may concern:

Be it known that we, JOSEPH L. WOODBURY and GEORGE L. WOODBURY, both of Oxford, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Reversible Plows; and we declare the following to be a description of our said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side view of such parts of a reversible plow as are necessary to illustrate our invention, showing the mold-board side of the plow. Fig. 2 represents a side view of the same, showing the land side. Fig. 3 represents a horizontal sectional view below the beam, and Fig. 4 represents a vertical view from the rear.

Our invention relates to that class of reversible plows in which two points or shares are employed, arranged back to back, with a single or continuous land-side and a pivoted or swinging mold-board adjustable to either of the shares at pleasure; and our invention consists, first, in a mold-board with extended wings adapted to swing past the plane of the land-side and forward of the cutting-edge of the shares, as hereinafter described; second, in combination with the mold-board and frame, of a cranked shaft or hinge-standard for supporting and pivoting the mold-board, as hereinafter explained; and, third, in the combination, with the mold-board and frame, of a peculiar lock-bar for retaining the mold-board in adjusted position, as hereinafter set forth.

In the drawings, A denotes the standard-frame; B, the beam; C C′, the shares with their points *c c′* in opposite directions; D, the land-side, and E the swinging mold-board. The lower edges of the mold-board E and upper edges of the shares are made to correspond and match each other along their lines of junction *e d*. The cranked shaft or hinge-standard F is supported in vertical bearings *f f′* in the upper part of the frame A and land-side D, in the manner shown, and to the crank or offset portion of said shaft F the central part of the mold-board E is attached by hinges or ears *m*, as illustrated. The top end of the shaft F projects above the frame and forms the pivot or center on which the beam B swings when reversing its position. The beam B is retained in position parallel with the direction of draft by a locking-bar, G, the ends of which pass down through the beam and enter holes formed for their reception in the top of the frame A, or the parts can be secured in any other suitable manner desired.

The mold-board E is made with long extended wings E′, and so arranged that said wings at their forward adjustment pass over and beyond the plane of the land-side D, and also project forward of the cutting line of the share C, as illustrated, the portion of the mold-board which is thus set forward of the cutting line being at such height that it runs above the surface of the soil (see dotted line, Fig. 1) when the plow is in use. The mold-board thus arranged may be made of such length and with such curvature of its wings E′ that it will turn a furrow as perfectly as an ordinary land-side plow.

The wings E′ of the mold-board are provided at their rear sides with lugs *i*, in which are formed openings to receive the locking-bar I, which is arranged, through ears *a a* on the frame A, in horizontal position, and so that it can be moved back and forward longitudinally. Said bar I is moved forward so as to enter the opening in the part of the mold-board which swings forward of the frame-standard, and thereby securely locks the mold-board from movement in any direction, either vertically or horizontally. The opposite end of the bar I serves to lock the opposite end of the mold-board in like manner when the plow is reversed or adjusted for work in the opposite direction.

The cranked shaft F forms a firm brace for the mold-board, and also, by its swinging action, permits of easy adjustment from one direction to the other, (see dotted lines, Fig. 3,) as it allows the edges *d e* to swing over each other at a short distance back from their seating position, and then to be brought tightly against each other by the horizontal movement or strain as the locking-bar I is forced into place.

Flanges or lugs *h* may be fixed on the back

edges of the shares to support the edge of the mold-board at their junction, and collars or equivalent devices may be used on the locking-bar I, to prevent its sliding too far back.

The extended mold-board E E′ and cranked-shaft support could be employed with other locking devices than those described, if desired; but we prefer the construction shown.

The plow constructed as shown can be used with a beam, B, for its draft, or, in lieu of the beam, it may be employed with a sulky-frame, if preferred.

The parts thus constructed are simple, strong, and durable, and the adjustments can be conveniently effected.

We are aware that reversible plows having double shares and a swinging mold-board have heretofore been made, and we do not therefore herein make claim, broadly, to such features.

What we claim as of our invention, and desire to secure by Letters Patent, is—

1. The swinging mold-board constructed with long extended wings, substantially as described, and adapted to adjust to right or left working positions, with its advanced wing projecting diagonally across and beyond the plane of the land-side above the soil-cutting edge of the share, in the manner set forth.

2. The cranked shaft F, in combination with the standard-frame, which carries shares C C′, and the swinging mold-board provided with ears or hinges *m*, connecting it to the offset portion of said shaft, substantially as set forth.

3. The locking-bar I, arranged and operating substantially as described, in combination with the standard-frame A, carrying shares C C′, and the swinging mold-board E, provided with openings or lugs *i*, to receive the end of said bar, as set forth.

4. The combination, substantially as herein-before described, of the standard-frame A, with right and left shares C C′, the horizontally-swinging mold-board E and draft-beam B, the cranked shaft F, forming the pivot or hinging-standard of both beam and mold-board, and the locking devices I and G, as set forth.

Witness our hands this 19th day of January, A. D. 1880.

JOSEPH L. WOODBURY.
GEORGE L. WOODBURY.

Witnesses:
CHAS. H. BURLEIGH,
GEO. M. RICE.