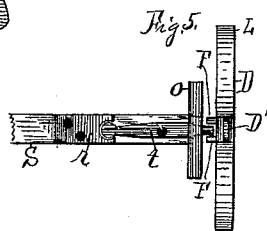
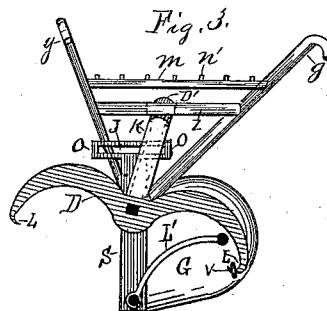
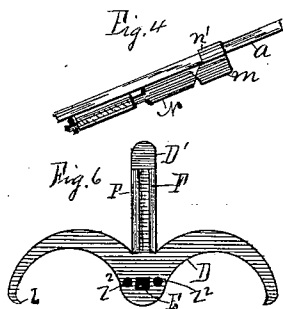
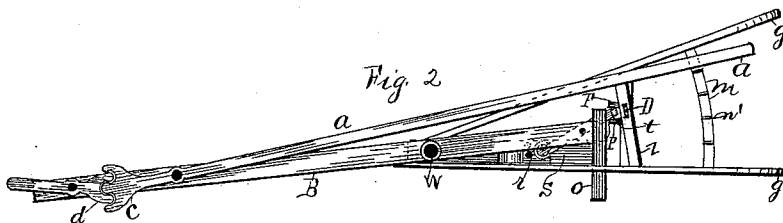
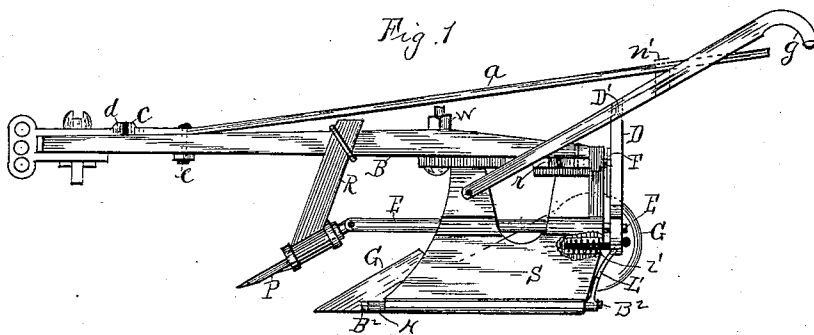


(No Model.)

G. C. WESTERVELT.
SIDE HILL PLOW.

No. 484,128.

Patented Oct. 11, 1892.



Witnesses
P. A. Malberg
H. C. Hutchins

Inventor
George C. Westervelt By
Thos H Hutchins his atty

UNITED STATES PATENT OFFICE.

GEORGE C. WESTERVELT, OF SOUTH BEND, INDIANA.

SIDE-HILL PLOW.

SPECIFICATION forming part of Letters Patent No. 484,128, dated October 11, 1892.

Application filed April 21, 1892. Serial No. 430,011. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. WESTERVELT, a citizen of the United States of America, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Reversible-Mold-Board Side-Hill Plows, of which the following is a specification, reference being had therein to the accompanying drawings and the letters of reference thereon, forming a part of this specification, in which—

Figure 1 is a side elevation of the plow. Fig. 2 is a top plan view. Fig. 3 is a rear elevation, and Figs. 4, 5, and 6 are detail views of parts of the plow.

This invention relates to certain improvements in reversible-mold-board side-hill plows, which improvements are fully set forth and explained in the following specification and claims.

Referring to the drawings, S represents the plow-standard, and B the plow-beam, pivotally attached to the standard S at W.

a is a lever pivotally attached near its forward end at e to the top of the plow-beam, and is provided on its forward end with a cogged segment C for meshing with a corresponding cogged segment on the inner end of the plow-clevis d, for the purpose of turning the outer end of the clevis in either direction by means of moving the rear end of lever a laterally in either direction. The rear end of the lever a rests on the cross-bar m, which has notches n' on its upper side for securing said lever between any of its notches, where it may be detachably secured by means of the spring-bolt N, secured to said lever on its under side near said cross-bar, as shown in Fig. 4.

g g are the plow-handles, which are attached at their inner ends to the sides of the standard S, but are attached loosely, so that the outer ends of the said handles may be moved laterally in either direction. A cross-bar Z connects said handles g near their central part directly above the latch D. Said cross-bar is provided at about its center with an aperture, through which passes the upper end D' of the arm K of the oscillating latch D, upon which arm K the cross-bar Z and handles g are supported in such manner that said latch may be oscillated from side to side by means of the said handles as they are

moved laterally in either direction. The rear end of the plow-beam B enters into the cross-slot J of the frame O, which is attached to the rear part of the standard S, and the rear end of the plow-beam can move laterally within the limits of said slot for the purpose of moving the outer end of the plow-beam laterally in either direction.

The rear end of the plow-beam has pivotally attached to its underside the lever t, the outer end of which extends out between the guides F F on the forward side of the latch D, as shown particularly in Figs. 2, 3, 4, and 5, and said guides are shown particularly in Figs. 5 and 6. The forward end of said lever t enters between a pair of lugs or into a jaw r, secured on the upper part or top of standard S, (shown in Figs. 1, 2, and 5,) so that when the handles g are moved laterally, and with them the latch D and its guides F, the rear end of lever t will be moved laterally and with it the plow-beam, it being necessary to turn the outer end of the beam to either side as the mold-board is placed alternately on one side or the other of the standard S. In order to lock the latch D when it is turned in either direction, the standard S is provided on either side with a spring-bolt Z', which is intended to move out and enter the holes Z² (shown in Fig. 6) in said latch.

The mold-board G is intended to be reversible, so as to be placed alternately on either side of the plow-beam and is held in proper position by means of the pivoted brace L' and the hooks L L on the latch D being hooked into the eyes V, secured on said mold-board. It is by means of said hooks and said spring-bolts that said latch D is held turned to either one side or the other and through the medium of its arm K holds the handles g turned in either direction.

P is a colter secured rotatably in the box of the shank R, and is connected by means of a knuckle-joint with the shaft E, which is boxed in the standard S and has its square rear end pass through and support the latch D, by means of which latch said shaft and colter are partially rotated so as to turn the colter in the direction of the furrow when the plow is in operation.

In operation it is desirable for the operator to walk in the furrow behind the mold-board

of the plow. This is permitted by means of turning the handles *g* to one side, as shown in Figs. 2 and 3, which through the medium of their connection with latch D and arm K of said latch turns said latch so its hooks L may alternately hook into the eye V of the mold-board to hold it in place and to hold the handles *g* turned in either direction and simultaneously turn the outer end of the plow-beam to one side or the other by reason of its inner end being connected with said latch through the medium of the lever *t* and also turn the colter toward the furrow. The lever *a* is then used to turn the outer end of the plow-clevis *d* to the position it may be found necessary considering the character of soil, and the said lever *a* is held turned in either direction by means of the notches *n'* along on the top of the cross-bar *m*, connecting the handles *g*, as shown in Figs. 2 and 3.

The means for pivotally attaching the mold-board G to the standard S is ordinary, and is shown in Fig. 1.

H is a lug secured to the under side of point of the mold-board, and B² is a rod that passes through said lug and through the foot of standard S longitudinally through a suitable box, and has pivotally connected to its rear end the brace L', that connects it with the rear part of the mold-board in such manner that the mold-board may swing on said rod under the standard and adjusted to either side of the standard to turn the soil in either direction.

When the handles are turned in either direction, they are held in place by means of the hooks L hooking alternately in the eye V on the back of the mold-board.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination of the standard S, having segment *r*, plow-beam B, pivotally connected thereto and having the lever *t*, slotted frame *o*, handles *g*, notched cross-bar *m*, cross-bar Z, having a mortise for receiving the upper end of arm K of latch D, mold-board G, rod B², brace H, latch D, having the standard S, shaft E, guides F, located parallel with each other on the inner side of standard K for receiving between them the outer end of lever *t*, hooks L, spring-bolt Z', lever *a*, having segment-cogs C, clevis *d*, having the segment-cogs for meshing with cogs C, and spring-latch N, all arranged to operate substantially as and for the purpose set forth.

2. In a reversible side-hill plow, the combination of the standard S, mold-board G, shaft E, hooked latch D, having the guides F and bolt-holes Z², slotted frame *o*, standard K, spring-latch Z', beam B, having lever *t*, having segment *c*, colter P, handles *g*, having the cross-bars *m* and Z, brace L', and clevis *d*, having a segment for meshing with segment *c*, all arranged to operate substantially as and for the purpose set forth.

3. In a reversible side-hill plow, the combination of standard S, latch D, pivoted thereto at its rear end and having the standard K, and the handles *g*, having the cross-bars *m* and Z, all arranged to operate substantially as and for the purpose set forth.

GEORGE C. WESTERVELT.

Witnesses:

JACOB D. HENDERSON,
FRANK M. BOONE.