H. S. AKINS.

Side-Hill Plow.

No. 17,547. Patented June 16, 1857

Fig. 1.

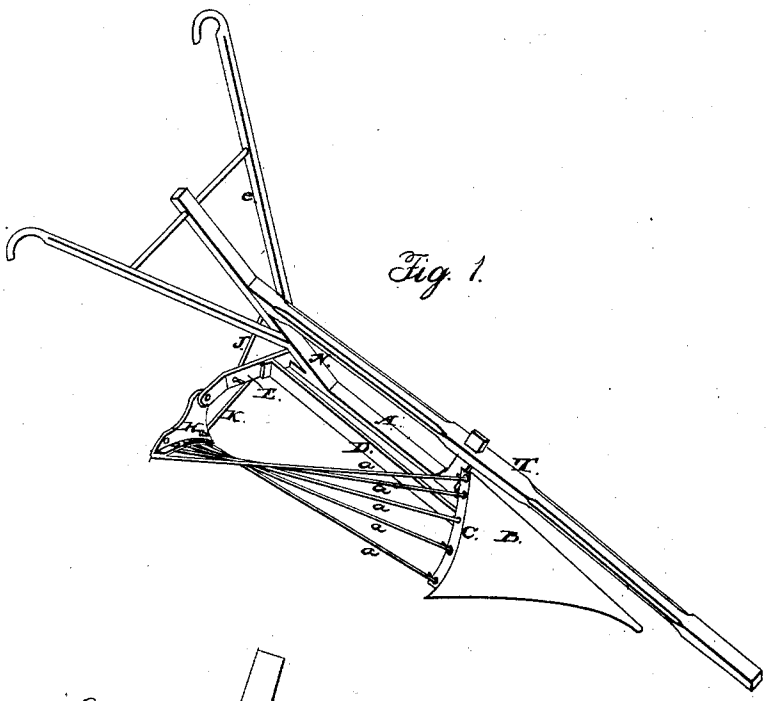


Fig. 2.

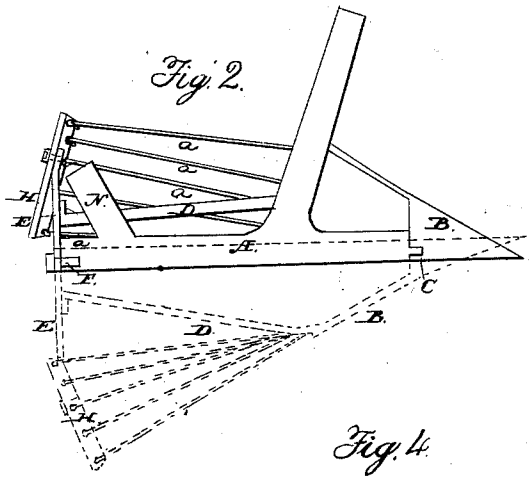


Fig. 6.

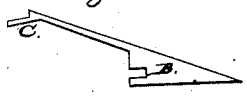


Fig. 5



Fig. 4.

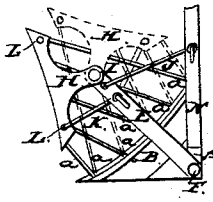
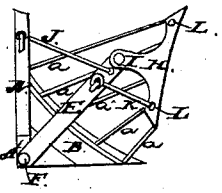


Fig. 3.



Inventor.

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UNITED STATES PATENT OFFICE.

HENRY S. AKINS, OF BERKSHIRE, NEW YORK.

IMPROVEMENT IN MOLD-BOARDS FOR REVERSIBLE PLOWS.

Specification forming part of Letters Patent No. **17,547**, dated June 16, 1857.

To all whom it may concern:

Be it known that I, HENRY S. AKINS, of Berkshire, in the county of Tioga, in the State of New York, have invented a new and useful Improvement on a Mold-Board for Reversible Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the mold-board attached to a reversible plow. Fig. 2 is a longitudinal elevation, in which the beam T and handles *e e* are not shown. Figs. 3 and 4 are both rear end elevations, in which the beam and handles are not shown. Fig. 5 is a view of one of the rods *a* which constitute the mold-board, showing the hooks on its ends at *d d*. Fig. 6 is a longitudinal section through the share B.

A is the landside.

B is the share, having a flange, C, projecting from it, as shown in the sectional drawing at Fig. 6. The flange C recedes from the face of the share sufficiently to allow the rods *a* to be attached thereon without projecting beyond the face of the share.

E is a brace, which swings on a pivot, F, inserted in the rear end of the landside.

D is an arm extending from the flange C to the brace E, and firmly fastened to each, for the purpose of holding the flange C and the share continually in the same relative position to the brace.

G is a gudgeon made on the fore end of the landside and inserted in the share.

H is a swivel attached to the brace by a pivot, I, so that it can vibrate freely on the pivot.

J is a hook fastened by a universal joint to the standard N, and hooking into the brace.

K is a hook fastened by a universal joint to the brace and hooking into the swivel alternately in the holes L and L′.

a a a a a are rods, which together constitute the mold-board. The rods *a* have hooks on each end, as shown at *d d*, Fig. 5, which hook one end into holes through the flange C, and the other ends hook into corresponding holes through the swivel. The hooks on the ends of the rods *a* should be fitted so loosely in the flange and in the swivel that they will not cramp or bind when the swivel is turned to the different relative positions to the flange which are required. The brace E should be bent toward the flange, as shown in Fig. 2, in order that the distance between the corresponding parts of the flange and the swivel should not vary too much when the swivel changes its relative position to the flange. Then, if the rods are sufficiently loose in the flange and in the swivel, the swivel will turn to the different positions required without difficulty.

It is not necessary that the rods *a* should be bent or twisted. However, they may be bent and twisted provided they are made of elastic metal; but the rods *a* should lie in such different positions and directions, as shown in the drawings, when the swivel and the flange are placed in their proper relative positions for use on either side of the landside, that the outlines or the contour of the mold-board, which is formed of the mass of rods together, will be properly twisted for turning furrows.

The operation of reversing the plow is as follows: To reverse the plow from the position required to turn a right-hand furrow, as represented in Figs. 1 and 3, into the position required for turning left-hand furrows, the hook J should be unhooked from the brace E and the brace turned down, swinging on the pivot F and the gudgeon G, carrying with it the share, the swivel, and the mold-board to the position represented by the dotted lines in Fig. 2, and raised up on the opposite side of the landside. Then the brace and the share will be in the position represented in Fig. 4, and the swivel and mold-board will be in the position represented by the dotted lines in Fig. 4. The hook K should be unhooked from the swivel and the swivel turned down, carrying with it the rear end of the mold-board to the position represented by full lines in Fig. 4, and the hook K hooked into the swivel in the place indicated by the arrow from L′. The hook J should be hooked into the brace in the same place it occupied before. The plow will then be in the proper position to turn a left-hand furrow.

To reverse the plow in the opposite direction from that just described the hook J is to be unhooked, and the same parts that were turned to the left of the landside are to be turned back to the right of the landside, the

hook K hooked into the swivel at the place indicated by the arrow from L, and the hook J hooked into the brace.

I do not make an unqualified claim to a mold-board composed of rods, for that has been known and used before in plows to turn furrows one way. Neither do I claim turning the share and mold-board of a plow to both sides of the land-side, as that is a well-known operation.

What I claim as my invention, and desire to secure by Letters Patent, is—

Providing a reversible plow with a mold-board susceptible of torsion, or of being twisted to the right and left by means of being composed of a series of rods or bars of any desired number, so constructed and arranged with the other parts of the plow that they can be placed and held alternately in the different positions and directions required for turning alternate right and left furrows.

HENRY S. AKINS.

Witnesses:
D. B. GILBERT,
S. F. LEGG.