(No Model.) 2 Sheets—Sheet 1.

W. F. SWEET.

REVERSIBLE PLOW.

No. 470,019. Patented Mar. 1, 1892.

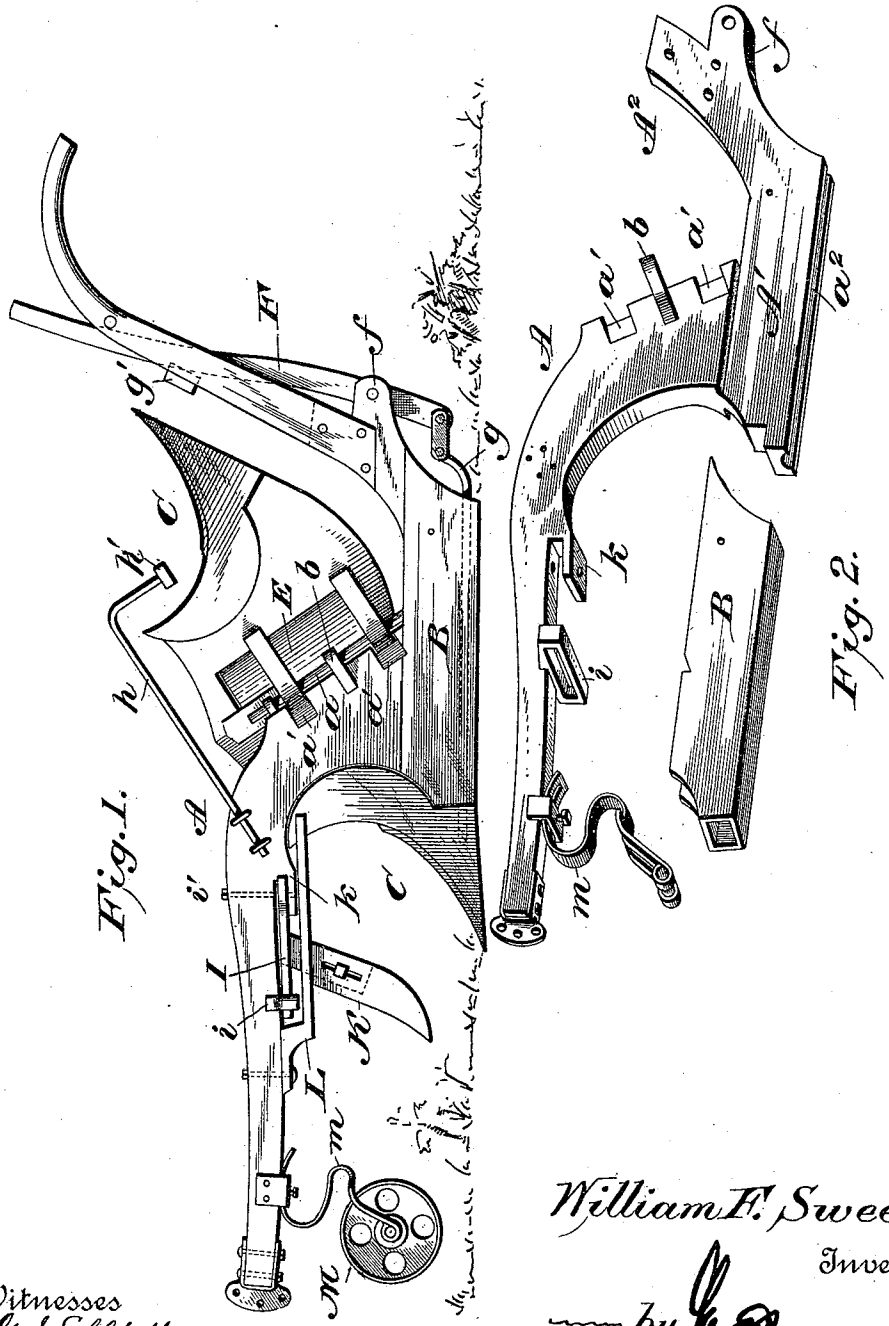

Fig. 1.

Fig. 2.

Witnesses
G. S. Elliott.
E. M. Johnson

William F. Sweet.
Inventor
by [illegible]
Attorney

(No Model.) 2 Sheets—Sheet 2.

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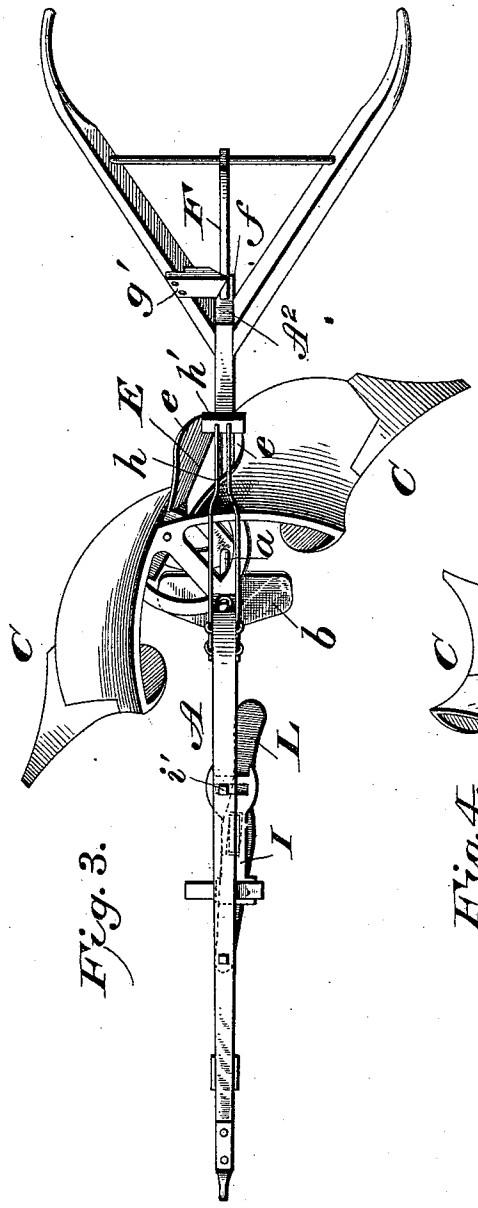

Fig. 3.

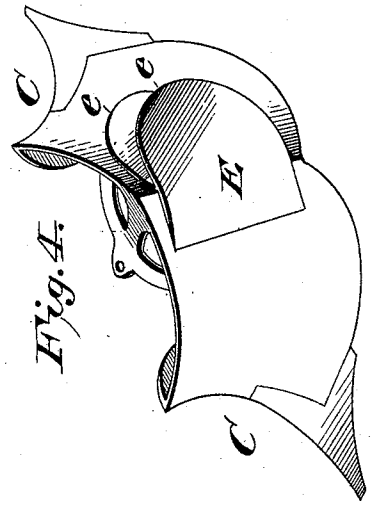

Fig. 4.

Witnesses L. D. Elliott
W. Johnson

William F. Sweet.
Inventor
by [signature]
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM F. SWEET, OF WEBB'S MILLS, NEW YORK, ASSIGNOR OF FIFTY-ONE ONE-HUNDREDTHS TO MILES T. CASSADA, OF SAME PLACE, AND JOHN B. STANCHFIELD, OF ELMIRA, NEW YORK.

REVERSIBLE PLOW.

SPECIFICATION forming part of Letters Patent No. 470,019, dated March 1, 1892.

Application filed October 17, 1891. Serial No. 408,978. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. SWEET, a citizen of the United States of America, residing at Webb's Mills, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Reversible Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in reversible plows.

The object of the invention is to provide a plow of improved construction the double mold-board and points of which are reversible, said parts being pivoted at an angle, so that when one of the points and mold-board are in use the others will not contact with the ground.

The invention consists in providing the plow with a colter, which is shifted from side to side, so as to be in line with the point when either of the plows are used.

The invention further consists in providing the plow with a removable shoe, which can be readily detached from the frame; also, in the details of construction, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved reversible plow. Fig. 2 is a perspective view of the main frame, showing the removable shoe detached therefrom. Fig. 3 is a plan view. Fig. 4 is a perspective view of the reversible plow detached from the beam.

A refers to the main frame of the plow, which is preferably made of a single piece and shaped as shown. The rear end of the frame or beam is cut at an acute angle with the base (of between fifty and sixty degrees) and has means for securing a bar *a* thereto, which forms a pivoted connection between the plows and beam, recesses *a'* being provided, in which will lie projections formed on the plows. Between the recesses *a'* is a projecting plate *b*, through which passes the pivot-rod *a*, and the outer ends of said plate bear against the inner end of the pivoted wing to hold the same in line when one of the plows is placed in an operative position.

The lower portion A' of the frame A is reduced in thickness and has a groove a^2 in its under side, and this reduced portion of the plow-frame is adapted to receive a removable shoe B, which is retained in place by a bolt. This shoe is the part of the plow which usually receives the most wear, and by the construction shown it can be detached when it is worn out and a new one substituted. The rear end of the reduced portion A' is extended upward, as shown at A^2, to provide means for attaching the handles thereto and also a fulcrum *f* for a lever F, said lever being connected to and operating a rod *g*, which extends through the shoe to the forward end of the same and enters a perforation in the rear end of the plow to hold it in position, the lever being locked by engaging the catch *g'*.

The plows C C are made up of correspondingly-shaped parts as to mold-boards, points, and braces, being similar on each side of a center line. Centrally this double plow is cut away to receive a pivoted wing E, having extensions *e e*, as shown. The landside of each plow is similar in construction and is adapted to lap the front edge of the downwardly-extended portion of the beam, as shown in Fig. 1, while the points lie in front of the shoe B and slightly below and to one side of the same.

To the frame or beam A is secured a rod or rods *h*, the rear end of which is bent downwardly, as shown, and carries a block *h'*, which lies in the path of the pivoted wing E, so that when the plows are reversed it will hit said wing and throw it over, so that the inner end thereof will be properly engaged by the plate *b* to position it relative to the mold-board.

By the construction so far described I provide a beam which has a removable shoe and a reversible double plow which is so pivoted to the beam that when reversed the wing or extension will be automatically placed in position and retained, the reversing mechanism being simple and not liable to get out of order.

On the under side of the forward portion

of the beam is a guide *i*, having a slot, within which lies the forward end of a bar I, to which the upper end of a colter K is rigidly attached. The rear end of this bar is extended and provided with a transverse slot, through which passes a vertical bolt *i'*. The rear end of the bar I lies above a projecting tongue *k*, formed on the under side of the beam. A lever L is pivoted at its forward end to the under side of the beam A in front of the guide *i* and is provided with a slot, through which the colter passes, the rear end thereof extending to near the front edge of the downwardly-extending portion of the beam, so that it will be struck by the landside of the plow and moved to shift the colter to one side and on a line with the plow-point. By this construction I provide a colter which is adjustable and which is automatically swung from one side of the beam to the other as the plows are reversed, so that the colter will always be positioned on a line with the point of the plow, no matter which one is in position for use. The forward end of the beam is provided with a gage-wheel M, which is supported upon a curved standard *m*, the upper portion of which is slotted and secured within a clip by a bolt; and it will be obvious that by loosening this securing-bolt the gage-wheel can be adjusted to the extent of the curve of the upper portion of the support.

I am aware that prior to my invention it has been proposed to provide hillside or double plows with two mold-boards connected to each other and to connect said mold-boards to the beam by an inclined pivot, and I do not claim such construction, broadly.

I am also aware that it has been proposed to provide a reversible plow with an adjustable wing or extension for the mold-board; but my improvements will be readily distinguished from such construction by the fact that the plows or double mold-boards are pivoted to a specially-constructed frame, so that the plows, when reversed, will swing upon their pivots rearwardly and toward the handles, and while being swung the wings are placed in proper position and locked, together with the plow by means of the rod *g*, operated by the lever F.

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

1. The combination, with the beam or frame A, having an inclined portion to which is pivotally secured a reversible plow, of a laterally-extending portion or plate carried by the frame, a wing pivoted to the plow at the junction of the mold-boards, said wing having an inwardly-projecting portion which contacts with the projecting portion *b* of the frame to automatically lock the wing into position when one of the plows is placed and locked in a position for use, substantially as shown, and for the purpose set forth.

2. The combination, with a reversible plow constructed substantially as shown and provided with a wing E, having extensions *e e*, of a rod or bar carrying a block, located in the path of the extensions *e e* to strike and throw said wing when the plow is turned upon its pivot, substantially as set forth.

3. In a reversible plow constructed substantially as shown, a frame having a laterally-projecting plate *b*, extending on each side of the beam, a rod or bar *h*, having a bent end, and a wing pivoted at the junction of the mold-boards and adapted to be turned upon its pivot by striking the end of the rod, the inner end of said wing being engaged by the plate *b* to retain said wing in a locked position, substantially as set forth.

4. In a reversible plow, the combination of the frame A, having an inclined portion to which the reversible double plow is pivotally attached and a rearwardly-extended portion to which the handles are secured, and a reversible double plow pivoted to said frame so as to swing upon the pivot between the handle and beam, the landsides of the plows being adapted to overlap the front edge of the beam, substantially as set forth.

5. In combination with a reversible plow constructed substantially as shown and provided with a landside which when shifted to a position for use lies in front and under the beam, a lever L, pivoted to the plow and apertured for the passage of the colter, and a bar I, pivoted to the beam and supported at its forward end by a loop, the colter being rigidly attached to said bar, the free end of the lever being adapted to be struck by the landside of the plow to shift the colter, substantially as shown, and for the purpose set forth.

6. The combination, with a plow-beam and reversible double plow, of a colter secured to a laterally-movable bar I, having rearwardly-extending portions or stops which engage with the plow-beam and in front of said stops a transverse aperture through which a securing-bolt passes, and a lever L, pivoted to the plow-beam and provided with an aperture through which the colter passes, the rearwardly-extended end of the pivoted lever lying within the path of the upper end of the landside of the plow, substantially as shown.

7. In a reversible plow, the combination of a beam having a slotted guide *i* and forwardly-projecting tongue or lip *k*, a bar I, loosely secured therein, a colter rigidly attached to said bar, and a pivoted lever L, having an aperture through which the colter passes and a rearwardly-extended end which lies in the path of the plow and is adapted to be struck and shift the colter on a line with the point of the plow, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM F. SWEET.

Witnesses:
RICHARD H. THURSTON,
FREDERICK COLLIER.