W. STRAIT.
Plow.

No. 208,048. Patented Sept. 17, 1878.

Fig. 1.

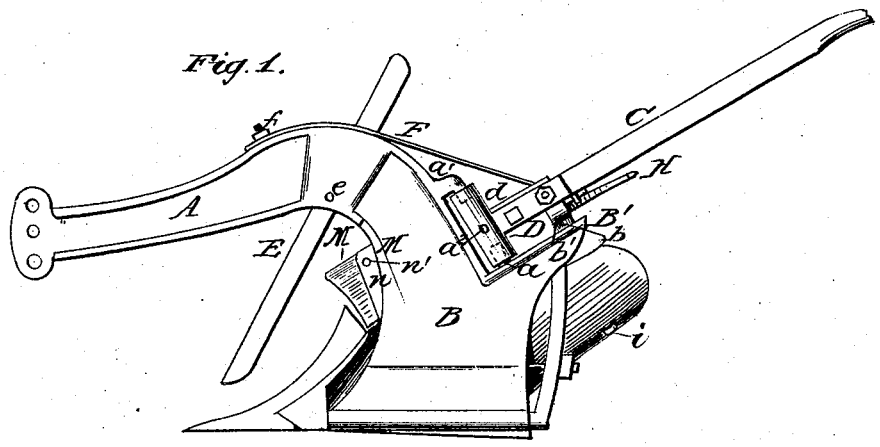


Fig. 2.

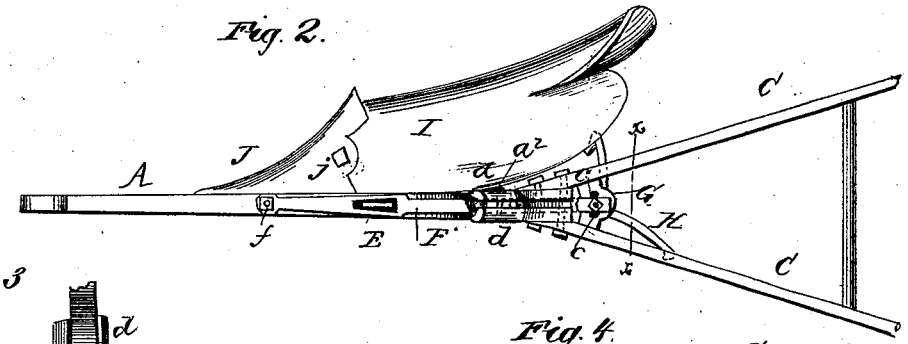


Fig. 3

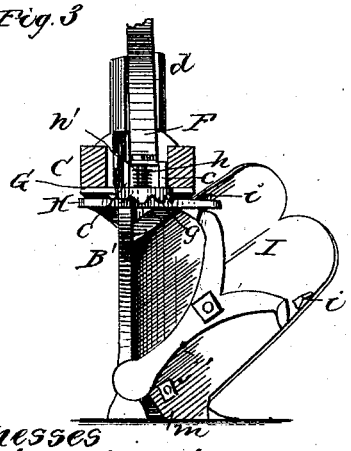
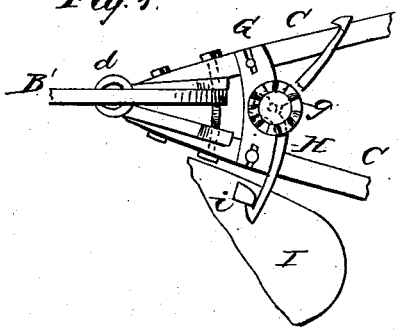


Fig. 4.



Witnesses
Fred G. Dieterich
Daniel Breed

Inventor
Wm Strait
by De Witt C. Allen
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM STRAIT, OF ONEONTA, NEW YORK, ASSIGNOR TO CELESTIA L. STRAIT, OF SAME PLACE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **208,048**, dated September 17, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, WILLIAM STRAIT, of Oneonta, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being made to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a side view. Fig. 2 is a top view. Fig. 3 is a rear sectional view on the line *x x*, Fig. 2; and Fig. 4 is a detached bottom view of the metallic pieces D.

This invention relates to improvements in the class of plows in which the operator is enabled to walk directly in the furrow and in either direction the furrow may be turned; and it relates more particularly to the side-hill plow patented by me November 14, 1876, No. 184,440; and the invention consists, essentially, in the mechanism for securing the mold-board and shifting-handles in position when changed from one side to the other of the beam.

It also consists in other minor details of construction, as hereinafter fully described, and pointed out in the claims.

In the drawing, A represents the beam, and B the standard, of a plow, which in the present case are formed or cast in one piece.

a a^1 represent two lugs, formed respectively upon the rear of the beam A and on top of the extension B′ of the standard, and to which the handles C are pivoted by means of the angular metallic pieces D, having semicircular portions *d* adapted to fit loosely around the lugs *a* a^1, and secured thereon by a screw, a^2, all as fully set forth in my former patent, before referred to. The extension B′ is also provided with a lug or stop, *b*, against which the downwardly-projecting lugs *b′ b′* on the metallic pieces D strike, thus limiting the movement of the handles to the right or left.

E represents a laterally-vibrating colter fitted loosely upon the bolt *e* within the vertical slot in the beam. The upper end of the colter passes up through a slotted shifting-lever, F, pivoted at *f* to the beam, and through the medium of which the colter is vibrated.

G represents a transverse plate or cross-piece secured to the under side of the handles C and just in rear of the metallic pieces D. This transverse plate or cross-piece is provided on its under side with a series of notches, *g*, arranged in a circle, as clearly shown in Fig. 4.

H represents a double hook or latch, centrally pivoted to the under side of the plate G by means of a bolt, *h*, passing up through said plate, and to the upper end of which is pivoted the free or rear end of the shifting-lever F. A spiral or other spring, *h′*, is arranged around the bolt *h* and between the plate G and the shifting-lever F.

The object of the spring *h′*, in connection with the shifting-lever, which also acts as a spring, is to draw the double lock or latch up into the notches *g* on the plate G, thus securely holding or locking the hook or latch in any desired position.

I represents the pivoted mold-board, which is provided on its under side with lugs *i i*, with which one of the hooks or latches of the double hook or latch engages, thus securing the mold-board in position when turned from one side to the other of the beam, and also securing the handles in position when shifted relatively thereto.

The plate G is provided on its upper side with two lugs or pins, *c c*, between which the pivoted end of the shifting-lever fits, and is thus secured in position.

J represents the point of the plow, which is secured to the mold-board by the bolt *j*, passing through the center of the upper end of the point and through the mold-board just in rear of the front piece *m*. By this arrangement the bolt is out of the way, so that the nut *j′* has no chance of wearing or working off.

M represents a colter-shank, consisting of the projecting lips *n n*, cast on the front of the standard and just in rear of the point J, the colter M′ being secured therein by means of a pin or bolt, *n′*, passing through the colter and lips *n n*. This colter is intended more for rough land, where the vibrating colter cannot be well used, and which can be readily removed and replaced by a new one when worn out by simply removing the pin or bolt *n′*.

The operation of my improved plow may be described as follows: When it is desired to

turn the mold-board the operator pushes forward with his foot the hook or latch not engaged with the lug on mold-board, by means of which the other hook or latch is disengaged from the other lug on mold-board, so that the mold-board is free to be turned on the other side of the beam, and the handles shifted to correspond therewith. The shifting-lever, being pivoted to the handles and resting between the lugs or pins *c c*, will also be vibrated so as to move the colter laterally to bring its cutting-edge coincident with the line or cut of the upright share of the plow. The hook or lever on the same side of the beam as the mold-board is then pushed forward by the foot, so as to engage with the upper lug on the mold-board, thus securing the mold-board and handles in position, while the hook or latch is at the same time secured in position by being drawn into the notches *g* of the plate G by the spring *h'*.

It will therefore be perceived that the double hook or latch is readily operated by the foot of the operator without taking his hands from the handles.

I claim as my invention—

1. The combination, with the pivoted mold-board having the lugs *i i* and the pivoted handles, of a vibrating double hook or latch for securing the mold-board and handles in position, said hook moving with the handles and arranged relatively therewith to be operated by the foot of the operator, substantially as specified.

2. The combination, with the double hook or latch, of the notched plate G *g* and bolt and spring *h h'*, substantially as and for the purpose specified.

3. The combination, with the pivoted shifting-lever, of the pivoted handles C, having the plate G, provided with the lugs or pins *c c*, substantially as and for the purpose specified.

4. The herein-described colter-shank, consisting of the parallel projecting lips *n n* cast on the front of the standard, substantially as specified.

WM. STRAIT.

Witnesses:
A. G. SHAW,
CHAS. E. VAN DUSEN.