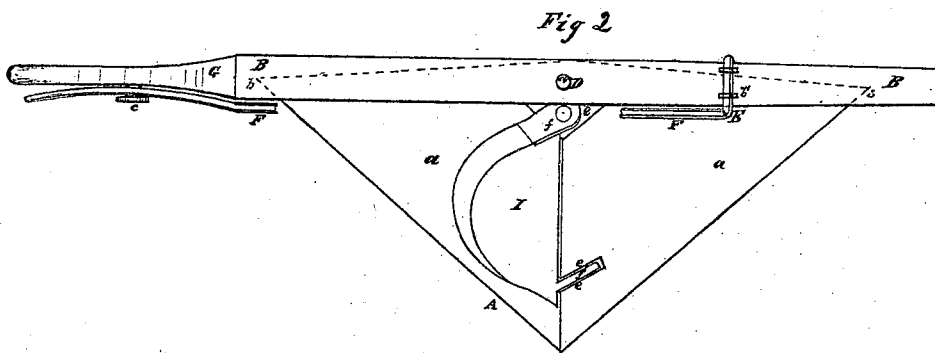
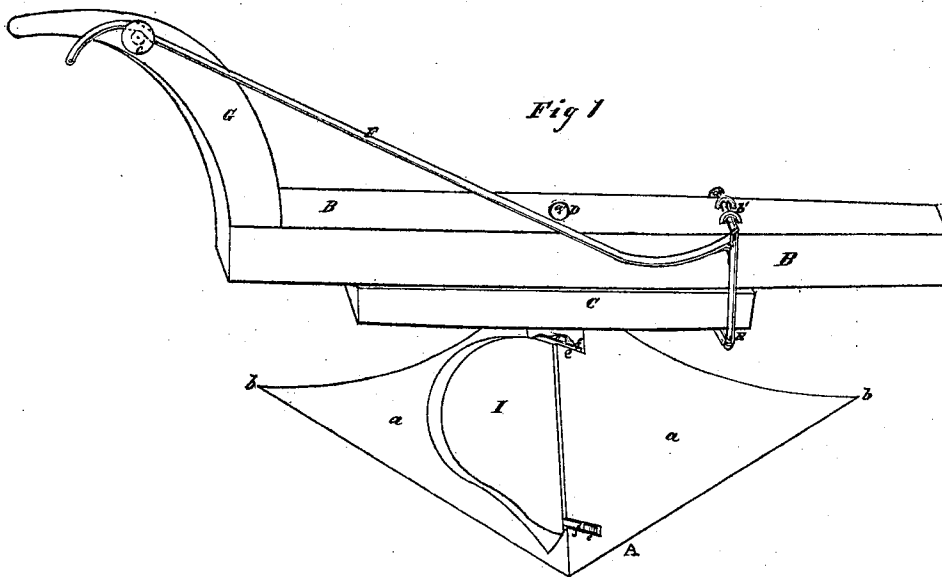


T. J. BURGESS.

Plows.

No. 133,517.

Patented Dec. 3, 1872.



Witnesses.

Belville E. Dayton
Gugersoll Lockwood.

Thomas J Burgess
per James A Whitney
Atty

UNITED STATES PATENT OFFICE.

THOMAS J. BURGESS, OF KINGSTON, NEW YORK.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 133,517, dated December 3, 1872.

To all whom it may concern:

Be it known that I, THOMAS J. BURGESS, of Kingston, in the county of Ulster and State of New York, have invented certain Improvements in Plows, of which the following is a specification:

This invention consists in a novel construction of a reversible plow, whereby the inconvenience, labor, and loss of time experienced in turning the mold-board of the ordinary reversible plow are almost wholly avoided.

Figure 1 is a perspective view of a plow constructed according to my invention. Fig. 2 is a plan view of the same.

A is the mold-board of the plow, made double-faced—that is to say, with two furrowing-surfaces, *a*, each corresponding in contour with the forward portion of an ordinary mold-board. These sloping furrowing-surfaces slope in opposite directions, the land-side of the mold-board being straight, and in a vertical plane more or less coincident with the line of the beam B. The points *b* of the furrowing-surfaces are preferably formed by attached shares of the usual or any suitable shape. Fixed upon the top of the mold-board, and longitudinal therewith, is the bar C. Extending vertically through this bar, through the land-side portion of the mold-board and through the beam at *a'*, is the pivotal bolt D. The two ends of the bar C project equally beyond the upper and central portion of the mold-board, and when the latter is in position with either point toward the front or whiffletree end of the beam, the bar will be underneath and parallel with the beam. Having a horizontal pivot upon the upper side of the beam at *b'*, and passing around and below the latter, is a rectangular metal loop, E, so arranged that it may be swung back upon and around the forward end of the bar C, as shown in Fig. 1, to confine the bar in a fixed position with reference to the beam, or be swung forward to release the same. In order to provide for this movement of the loop it is furnished with a rearwardly-projecting lever-arm, F, which, being brought upward and placed with its rear extremity resting upon a stud or button, *c*, on the handle G, attached to the rear end of the beam, will cause the bar C to be securely held in place; whereas by releasing the lever-arm from the stud and depressing

the same, the loop will be moved forward, releasing the bar C. That portion of the mold-board where are joined the two furrow-surfaces *a* has two recessed bearings, *e*, which receive tongues *f* formed on the wing I, the opposite sides of which wing are shaped to approximately correspond with the face of the rearmost portion of an ordinary mold-board. The tongues *f* are pivoted in their bearings by suitable bolts, the axial line of which is nearly or with that described at or by the junction of the surfaces *a* at the middle of the mold-board. By turning the wing back from one or the other of the surfaces *a* it will be brought to such a position with reference to the said surface as to form a continuation thereof, answering in its function to the wing of an ordinary mold-board. By turning the wing one way or the other, therefore, the mold-board may be run for plowing in either direction with equal facility.

In order to use the plow the bar C is made fast to the beam by means of the loop E, and the earth, mounting the foremost of the surfaces *a*, crowds back the wing I to form a continuation of such surface, as just hereinbefore set forth; the foremost surface *a*, together with the wing, operating together to turn the furrow. Meanwhile, the earth at the bottom of the furrow, abrading the under side of the rearmost point or share *b* in a direction opposite to that experienced when the said point is in advance, tends to sharpen the same, and thereby causes it to remain in a condition for use during a longer period than would otherwise be the case. When the end of the furrow is reached the loop E is operated to release the bar C, and the team is turned around, reversing the beam B upon the bolt D and bringing foremost that surface *a* of the mold-board which previously was behind. This done the loop E is brought over the adjacent end of the bar C to retain the mold-board in its new position. The pressure in front of the dirt or earth during the advance movement of the plow turns back the wing I to the same position with reference to the now forward surface *a* that it previously occupied with reference to the other. By this means all tilting and turning of the mold-board itself is avoided, as well as the stooping forward and downward necessary in manipulating the hook by which

the ordinary reversible mold-board is held in place.

The plow as thus constructed may be used not only on hill-sides, usually tilled with the common reversible mold-board plow, but also on flat lands where the land-side plow, so called, has hitherto ordinarily been employed. On flat lands the furrows, by my improved plow, being turned all one way, the "dead furrows," which, on thin soils, expose a strip of subsoil, and thereby render useless a material area of otherwise available land, are wholly avoided. Furthermore, by simply removing the wing I the plow may be employed to advantage in subsoiling in a manner analogous to the use of the ordi-

nary subsoil-plow. It should also be mentioned that by the use of my improved plow I save the time occupied in "turning the lands" at the ends of the furrows incident to the employment of the ordinary plow.

What I claim as my invention is—

The arrangement of the reversible bar C, the loop E, the rod F, and the stud *e* provided on the handle G, all arranged with reference to each other and to the beam B, substantially as and for the purpose specified.

THOMAS J. BURGESS.

Witnesses:

A. WHARTON BUKLEY,
E. W. KNAPP.