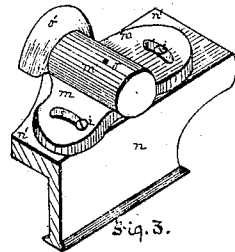
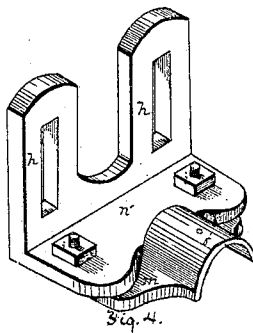
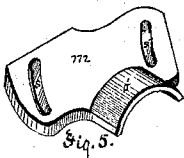
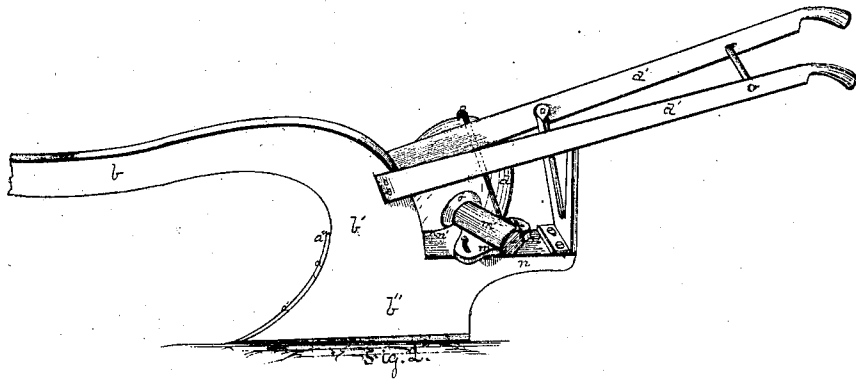
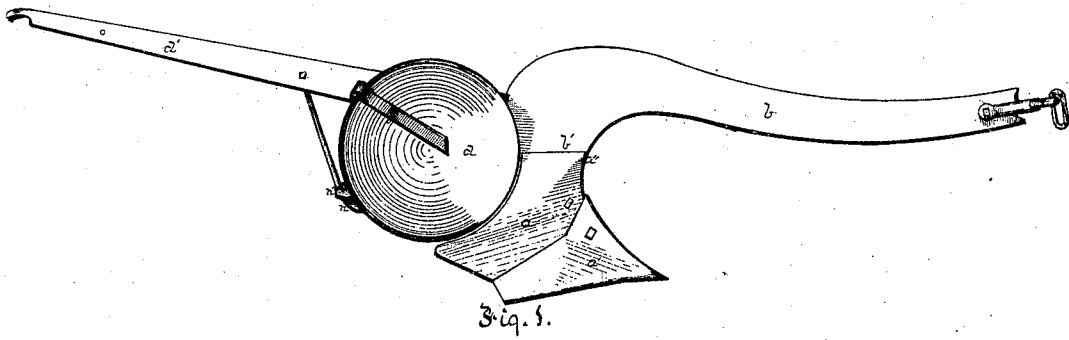


J. S. GODFREY.

Plow.

No. 101,256.

Patented March 29, 1870.



Witnesses:

R. Wrenshaw

John Wrenshaw

Inventor:

*Joseph S. Godfrey,
by Bakewell Johnston,
his Atty's.*

UNITED STATES PATENT OFFICE.

JOSEPH S. GODFREY, OF LESLIE, MICHIGAN, ASSIGNOR TO HIMSELF AND SEARS M. LOVERIDGE, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 101,256, dated March 29, 1870.

To all whom it may concern:

Be it known that I, JOSEPH S. GODFREY, of Leslie, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Plows; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation on the mold-board side of my improved revolving mold-board plow. Fig. 2 is a perspective view of the opposite side. Fig. 3 is an enlarged perspective view of the devices by which the mold-board is made adjustable. Fig. 4 is a like view of like devices for a like use in connection with wooden-beam plows, and Fig. 5 is a like view of the adjusting-plate of Fig. 4.

Like letters of reference indicate like parts in each.

My invention relates to an improvement in revolving-disk mold-board plows; and it consists in an improved construction whereby the mold-board is rendered more serviceable and of greater utility.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

As shown in the drawings, the beam *b*, standard *b'*, and landside *b''* are cast in one piece. The point *a'* is of the usual or any known form, as also are the handles *d'*. The shin-piece *a* is made with a forward edge, to fit neatly onto the rear edge of the point *a'*, and so that their working-faces at the joint of the two shall be flush with each other. The rear edge of the shin-piece *a* is of circular form, the curvature of such rear edge corresponding nearly or exactly with the curvature of the periphery of the revolving mold-board *d*, so that, while they do not create frictional resistance by contact with each other, they afford as little resistance as possible to the earth as it passes from one to the other. The rear end of the beam *b* is made with an extension, *n*, and onto such extension, so as to form part thereof, I cast a horizontal flange, *n'*, of any desired size, though it need not be very large. On or against one face of this flange *n'*, I fasten, by bolts and nuts *i* or in other convenient way, a box-plate, *m*, which carries the box *m'*. The

box-plate *m* and box *m'* may be cast in one piece, as shown, or separately, and be bolted together. The box *m'* receives the shaft or axle of the mold-board *d*, and is made close all around, except at its forward end, at an oiling-opening, *o*. A cap, *o'*, on the forward or open end of the box *m'*, fits close up against the rear face of the mold-board *d*, on the upper side of the axle, so as to exclude sand or earth as perfectly as possible from the bearings of the axle. The oil cup or passage *o* should also be closed by a cap, screw, or plug for the same reason. The revolving mold-board *d* is made of a disk form, with an outer or operative face slightly concave or dish-shaped. It is made of cast, sheet, or hammered iron or steel, or other metal or mixture of metals. It is hung by its axle in about the position of the ordinary mold-board and at any desired angle to the line of draft. For the purpose of varying this angle and adjusting the pitch of the mold-board to the character of the soil to be plowed, I make the box-plate *m* adjustable on the flange *n'* by means of curved slots *s s'*, the center of the curvature of such slots being at or near the forward edge of the mold-board *d*. Then, by loosening the nuts and bolts *i*, the box-plate *m* may be swung around either way, and with it the mold-board, so as to adjust the latter to any desired pitch or angle without lessening to any material degree the perfectness of the joint made by the mold-board *d* and shin-piece *a*.

In order to keep the working-face of the mold-board clean, and also prevent the axle *c* from leaving the box *m*, I bolt or otherwise secure to the box-plate *m* a scraper, *g*, which passes up over the edge of the mold-board, and presents to the face of the latter a scraping-edge. This scraper, being fastened to the box-plate *m*, is adjustable along with it, so as always to preserve the same position with reference to the working-face of the mold-board. Its shank end may be slotted, by which to adjust its scraping-edge to or from the face of the mold-board.

The slots *ss'*, instead of being made of a width equal to the thickness of the shanks of the bolts *i* and with curved edges, may be made wider and of rectangular form, and thereby give room for the circular adjustment described; also,

such slots may be made in the flange *n'* instead of in the box-plate *m*. The shin-piece *a*, I extend up in front of the standard *b'*, as shown at *a''*, to a height at least equal to the running depth of the plow, by which means I protect the standard *b'* from wearing out. The shin-piece is usually made of material more durable under frictional wear than the standard, and, also, when it is worn out, it can be renewed at less cost.

In order to apply the devices described to a plow having a wooden beam, I make the flange *n'* separate from the beam, as shown in Fig. 4, and cast with it one or more hangers, *h h*, slotted, as shown, or with other like device for effecting an attachment to the rear end or extension of the beam. In such case I find it best to make the box-plate *m* of the form shown in Fig. 5, and bolt it onto the lower face of the flange *n*, and such modification of form I include in my invention.

I have described my invention thus far with particular reference to its application to a single plow. It may in like manner be applied to each or all of a gang of plows, to cultivators, or any other like implement designed for or adapted to turning over the soil.

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

1. In a plow or cultivator, a horizontal flange, *n'*, to which to attach the box-plate of a revolving mold-board, substantially as described.

2. Making in the flange or box-plate two or more slots, such that, forming a point at or near the forward edge of the revolving mold-board as a center, such mold-board can be adjusted to any desired angle or pitch, substantially as described.

3. In combination with such mold-board and box-plate, a sand-tight box as a bearing for the mold-board shaft, substantially as described.

4. In combination with a revolving mold-board, a scraper, *g*, attached to the box-plate, so as to be adjustable with it, substantially as described.

In testimony whereof I, the said JOSEPH S. GODFREY, have hereunto set my hand.

JOSEPH S. GODFREY.

Witnesses:

JOHN GLENN,
G. H. CHRISTY.