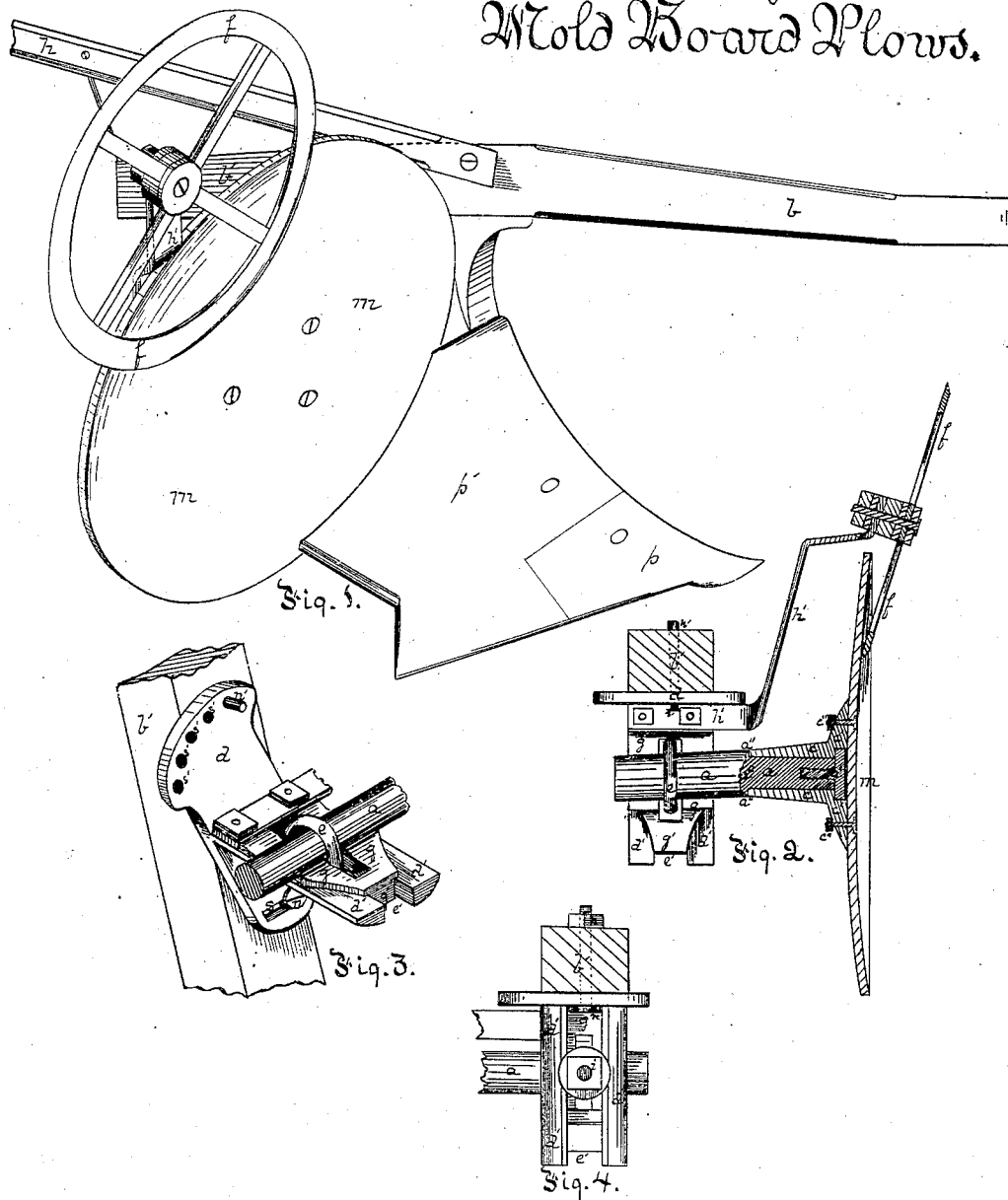


Joseph S. Godfrey:
 114002 Attachments for Revolving
 Mold Board Plows.

PATENTED APR 25 1871



Witnesses:
 R. Henshall
 James A. Kay.

Inventor:
 Joseph S. Godfrey,
 by Bakewell, Christy & Kerr,
 his Attys.

United States Patent Office.

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

Letters Patent No. 114,002, dated April 25, 1871.

IMPROVEMENT IN ATTACHMENTS OF REVOLVING MOLD-BOARDS TO PLOWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JOSEPH S. GODFREY, of Rochester, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Attachments for Revolving Mold-Board Plows; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation of a revolving mold-board plow illustrative, in part, of my improvement;

Figure 2 is a vertical sectional view of the mold-board, circular scraper, and showing, in part, the devices by which they are connected to the plow-beam;

Figure 3 is a perspective view of the same devices; and

Figure 4 is a front elevation of the devices of fig. 3. Like letters of reference indicate like parts in each.

My improvement relates to that class of plows commonly known as revolving mold-board plows, and consists in the construction of an improved scraper to operate in connection therewith, and of improved devices by which the revolving mold-board is adjustably connected with the fixed parts of the plow.

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

The plow-beam *b*, handles *h*, point *p*, shin-piece *p'*, and revolving mold-board *m* are of the usual or any known construction.

The mold-board may either be flat or have a concave working-face.

The spindle *a*, by which the mold-board *m* is carried, fits with its forward end neatly into a cylindrical socket, *c*, and is held therein by means of a headed screw-bolt, *a'*, which screws into the end of the spindle *a*, and the head of which overlaps the end of the spindle and plays in a recess in the end of the socket *c*, as shown.

The socket *c* is flanged out at its forward end, as at *c'*, so as to give a body into which to insert the screws *c''*, by which the mold-board *m* is fastened. It will now be seen that the mold-board will be at liberty, along with the socket *c*, to which it is attached, to turn freely, and, at the same time, it is, by the head of the bolt *a'*, prevented from coming off. In this way the bearing end or surface is kept free from dirt.

In practical use it is often desirable to be able to adjust the mold-board *m* in and out, up and down, and also angularly, so that its working-face may, in any desired part, make any desired angle with the direction of the furrow-slice when it strikes or leaves the mold-board. As one means for providing for such angular adjustment I make a slight crook or bend, as at *a''*, in the spindle *a*, at any desired point at the base

end of the socket *c*, or between it and the eye *e*, or other device by which a connection is made to some fixed part of the plow. The angle at this bend need not be large, and for most purposes need not exceed one or two degrees, though in this respect I do not confine myself to any fixed limit.

A plate, *d*, made as presently to be described, is attached to the extension *b'* of the plow-beam *b*, and from it a post, *d'*, extends down any desired distance. This post has a vertical slot, *e'*. On either, but preferably its rear face is a saddle-piece, having a seat, of curved or other appropriate shape, for seating the spindle *a*, where it is secured by means of an eye, *e*, the stem of which projects through an aperture in the saddle *g*, through the slot *e'*, and is secured as tightly as may be necessary by means of a nut, *i*.

On loosening this nut *i* the stem of the eye *e* may be moved up and down in the slot *e'* and the mold-board *m* be adjusted at pleasure not only up and down along with the eye *e*, but also in and out, by its spindle *a* passing through the eye *e*.

The better to keep the saddle-piece *g* in place a lug, *g'*, on each end, may project into the slot *e'*.

The plate *d* is so constructed as to provide for the angular adjustment in a horizontal plane of the mold-board *m*. For this purpose it has a curved slot, *s*, made with a radius equal or about equal to the horizontal distance from it to the forward edge of the mold-board *m*, and at its rear end is a series of holes, *s'*.

The plate *d* is secured to the beam-extension *b'* by a headed bolt and nut, *n*, by which also provision is made for adjustment at the forward end, while, to hold the rear end in place at any desired point of adjustment, a pin, *n'*, passes through the beam-extension and through one of the holes, *s'*.

If so preferred, the slot *s* and holes *s'* may change places, it not being important in which end either is made; also, the slot may be dispensed with, the bolt *n* pass through a hole in the plate to hold it in place; and the plate be adjusted from that as a pivoting-point by means of the holes *s'* and pin *n'*. In like manner, lugs and notches may take the place of the holes *s'*.

In connection with revolving mold-boards a scraper has been used, which consisted of a blade extending half-way across the face of the mold-board. I have devised and combined with a revolving flat or concave-faced mold-board a circular revolving scraper, *f*. This may be made in any desired way, either of a circular flat, or concavo-convex disk, brought to an edge, or of a circular blade, connected by spokes to a central hub or bearing, or in other desired way. In any case it is so combined with the revolving mold-board that its edge shall operate against or near to that part of the mold-board which requires cleaning. It is supported in any suitable way by a bracket, *h'*, extending to the

saddle *g*, or to other part of the plow or its attachments. In this respect I not limit myself to any particular construction or arrangement. No separate devices are necessarily required to rotate it, as the rotation of the mold-board will in most cases suffice for this purpose; but independent means of rotating it may be provided, if found necessary.

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

1. A circular rotating scraper, combined with a revolving mold-board, substantially as described.
2. A bent spindle, capable of both lateral and rotary adjustment, as a carrier for a revolving mold-board,

and in combination therewith, substantially as described.

3. The saddle-piece *g*, in combination with the slotted post *d'* and fastening-eye *e*, as a means of adjusting vertically the spindle *a* and mold-board *m*, substantially as described.

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

JOSEPH S. GODFREY.

Witnesses:

THOS. B. KERR,
A. S. NICHOLSON.