

(No Model.)

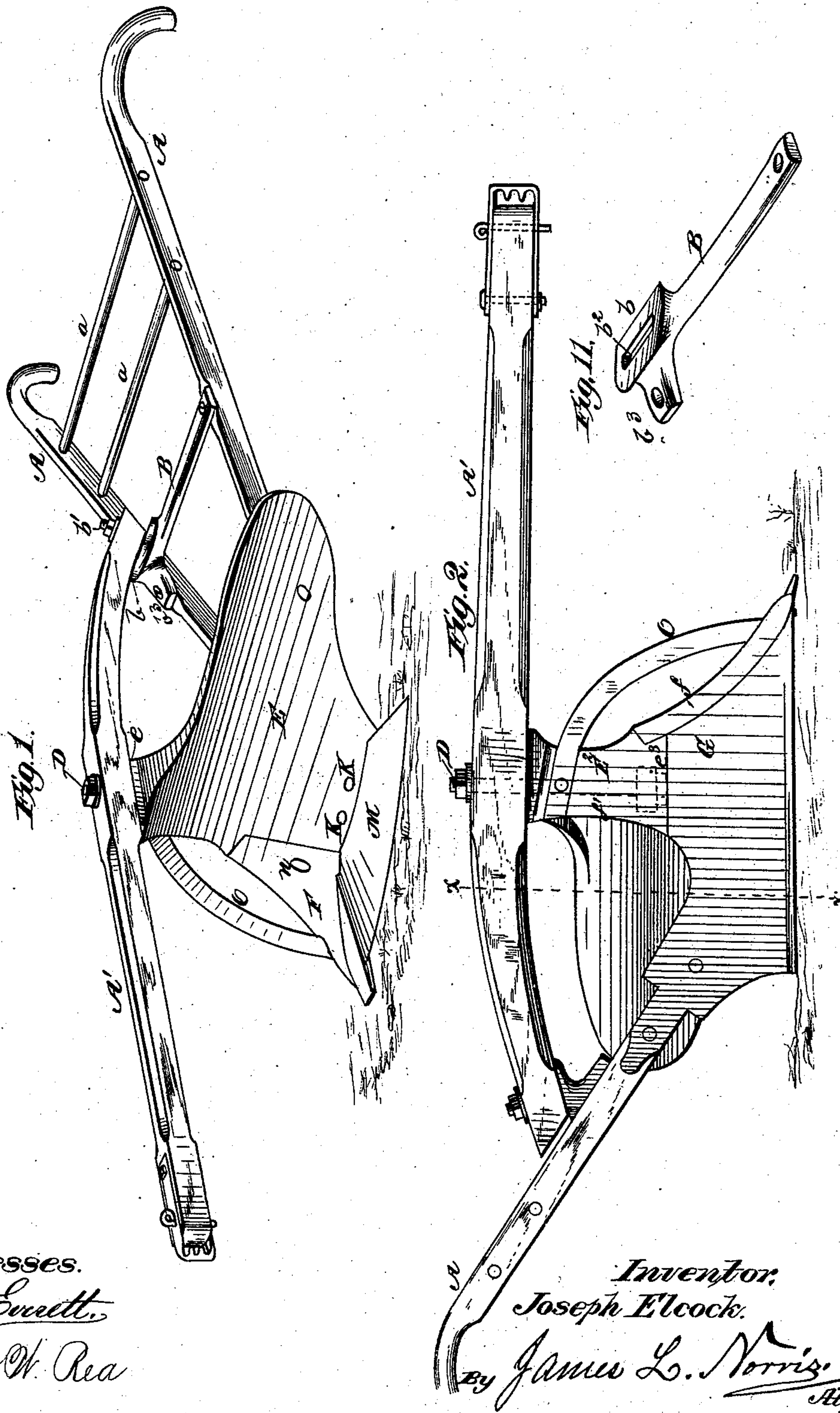
J. ELCOCK.

2 Sheets—Sheet 1.

PLOW.

No. 292,636.

Patented Jan. 29, 1884.



Witnesses.  
*Robert Everett.*  
*George W. Rea*

Inventor.  
*Joseph Elcock.*  
By *James L. Norris.* *Atty.*

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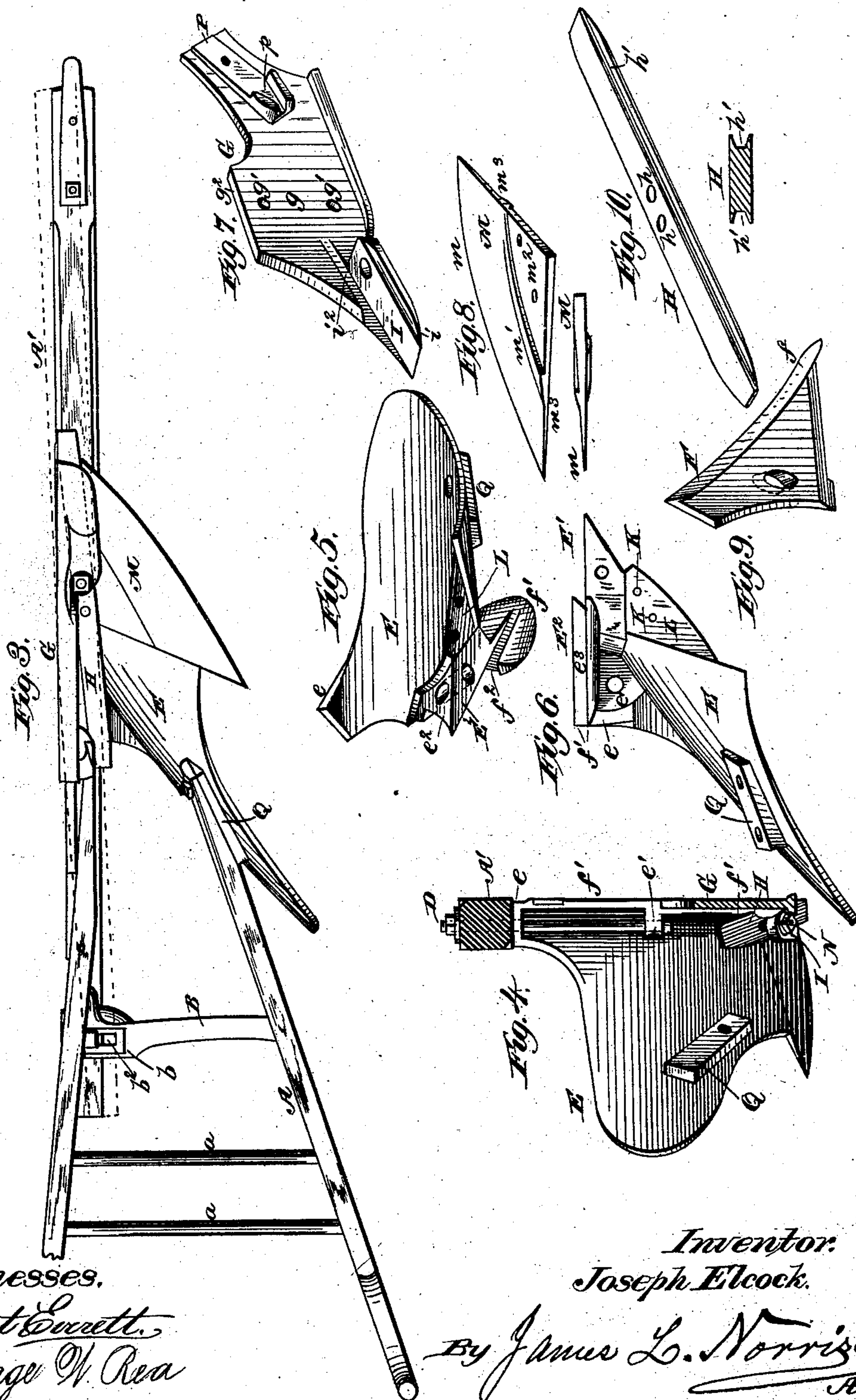
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# UNITED STATES PATENT OFFICE.

JOSEPH ELCOCK, OF MECHANICSBURG, PENNSYLVANIA.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 292,636, dated January 29, 1884.

Application filed January 11, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH ELCOCK, a citizen of the United States, residing at Mechanicsburg, in the county of Cumberland and State of Pennsylvania, have invented new and useful Improvements in Plows, of which the following is a specification.

The object of this invention is to provide improved means for adjusting the plow-beam so as to bring it into the line of draft; also, to provide the mold-board with an improved detachable and reversible share; also, to furnish an adjustable and reversible double plow-point, which can be adjusted forward or removed and reversed, so as to bring either one of its ends to the front; also, to connect the landside, the mold-board, the cutter, and the plow-point in a novel and effective manner; also, to provide certain bearings upon the mold-board and the landside for the handles, and, also, to improve the construction and connection of certain parts of the plow, substantially as described, and shown in the drawings, in which—

Figure 1 is a perspective view of my improved plow, showing the mold-board side thereof. Fig. 2 is a side elevation of the plow, showing the landside. Fig. 3 is a top or plan view. Fig. 4 is a view from the rear of the plow, the mold-board being in elevation, and the beam and rear portion of the landside being shown in section, taken on the line  $xx$ , Fig. 2. Fig. 5 is a perspective view of the mold-board, with its lower edge turned up, so as to show the construction of the same. Fig. 6 is a bottom view of the mold-board. Fig. 7 is a perspective view, and Fig. 8 an edge view, of the share. Fig. 9 represents the cutter, which is adapted to be fitted to the front edge of the mold-board. Fig. 10 shows a perspective view and transverse section of the detachable and reversible plow-point. Fig. 11 is a perspective view of a brace-bar to which the rear end of the plow-beam is adjustably secured.

The handles  $A A$  of this plow are connected by the rounds  $a$ , as usual, and they are further connected and braced by a horizontal brace-bar,  $B$ . The rear end of the beam  $A'$  rests upon a slotted seat,  $b$ , that is formed at one end of the said brace-bar, and it is adjustably secured upon said seat by means of a bolt,  $b'$ , which passes through the beam and the slot  $b^2$

in the seat, and is provided with a tightening-nut upon its screw-threaded end. The slotted seat is provided with a forward extension or lug,  $b^3$ , which rests upon the top of the plow-handle, and is secured thereto by a bolt or other appropriate device. The beam is swiveled upon the plow by means of a vertical bolt,  $D$ , and hence by loosening the nut which binds the rear end of the beam upon said seat the beam can be turned about its pivot to a limited extent in a horizontal plane, so as to bring it into the line of draft, after which it can be fixed in its adjustment by tightening up the nut.

The mold-board  $E$  is formed at its top with a flat bearing,  $e$ , upon which the beam is supported. The vertical bolt  $D$ , which pivots the beam upon this portion of the plow, passes down through this seat, and also through a lug,  $e'$ , (see Fig. 4,) that is provided upon the inner side of the mold-board at a point below the said bearing  $e$ . The mold-board is cut away or recessed at its point or lower portion of its front edge, as indicated at  $e^2$ , Fig. 5, and to this recessed point of the mold-board is fitted the cutter  $F$ , consisting of a curved rectangular-shaped plate having an oblique flange or lip,  $f$ , (see Figs. 2 and 9,) which laps over the front edge of the mold-board. The mold-board is also formed with a vertical flange,  $f'$ , which extends back from its front edge. The lower portion of this flange and the point of the mold-board on the side next to the landside of the plow are cut away or recessed, and to this recessed portion of the mold-board is fitted and secured the flat inner side,  $g$ , of the landside  $G$ , the latter being formed with perforations  $g'$ , for the screws that are employed for fastening the landside and the mold-board together. The landside has a straight edge,  $g^2$ , above its perforated portion  $g$ , this said straight edge being fitted against a straight shoulder,  $e^3$ , Fig. 2, that is formed by recessing the mold-board on its inner flanged portion. The flange  $f'$  of the mold-board extends below the point of the same, and in the inner side of said extended end of the flange is formed an inclined channel,  $f^2$ , which receives one edge of the inclined plow-point  $H$ .

The sole  $I$ , that is formed upon the landside, is beveled at its point, as at  $i$ , and the landside is formed with an inclined channel,  $i^2$ , just



above the sole, said channel being located to constitute a continuation of the channel  $f^2$  in the flange  $f'$  of the mold-board when the landside and the mold-board are fitted together.

5 The plow-point H is fitted between the flat triangular-shaped under side,  $E'$ , of the mold-board point and the inclined top face of the sole, with one of its edges resting in the grooves  $f^2$  of the mold-board and  $i^2$  of the landside.

10 The mold-board is formed with perforations K K near its lower edge and just in rear of the cutter F, and at its inner side, at this perforated part, it is cut away or formed with a shallow triangular-shaped recess, L, in which  
15 the inner end of a triangular-shaped share is fitted and detachably secured by means of screws passing through said perforations.

The share M, which is thus detachably secured to the mold-board, so that after it becomes worn it can be detached and reversed, consists of a flat triangular-shaped plate having a curved cutting-edge,  $m$ , which can be readily sharpened after the share has been detached from the mold-board. The share is  
25 formed on each side with a curved rib or shoulder,  $m'$ , and is cut away upon opposite sides, back of such shoulder, as indicated at  $m^2$ , said cut-away or recessed part having an inclination toward one of the straight edges  
30 of the shoe, these recessed portions of the share being inclined in reverse directions, so that either side of the share is adapted to fit the mold-board, and hence the share can be accurately secured to the curved recessed portion  
35 L of the mold-board in reversing the share.

The double plow-point H, which consists of a long flat bar sharpened at each end, and provided at its middle with several perforations,  $h$ , is formed with a longitudinal groove,  $h'$ , running along its opposite edges. When  
40 this double-pointed bar is fitted in between the bottom of the mold-board and the sole I, one of the straight edges  $m^2$  of the share will be received in one of the said grooves of the double-pointed bar, whereby the parts are fitted snugly together and in such way as to give  
45 firmness to the structure. When one of the ends of this double plow-point becomes worn, the point can be advanced, and, when necessary, it can be taken out and then inserted in a reversed position. The means for securing  
50 this double point in place consists of a bolt, N, which passes through and binds together the sole I, the double point H, the mold-board, and the cutter F, that is fitted upon the recessed point of the mold-board in the manner  
55 already described. As the face of the cutter is concaved, the head  $n$  of this tie-bolt is beveled, so that it will be flush with said face, and upon the lower screw-threaded end of the  
60 bolt, below the sole I, will be arranged a washer and a tightening-nut.

The curved colter O is fitted and secured at its upper end by a screw-bolt in a recess that  
65 is formed in the flanged side or wing  $E^2$  of the mold-board, and is extended down over the plow-point. The landside is formed with an

enlargement, P, upon the inner side of its rear portion, and in this enlargement is formed  
70 a V-shaped socket,  $p$ , which receives the pointed lower end of one of the plow-handles, while upon the inner side of the mold-board is formed an enlargement constituting a bearing, Q, against which the flattened lower end of the  
75 remaining handle is held. These said enlarged recessed and plane-faced bearings of the landside and mold-board are perforated to receive the bolts or screws that are employed for securing the handles in place.

From the above it will be seen that the beam  
80 can be readily brought into the line of draft, the plow-point H either advanced by passing its securing-bolt through a different hole, or reversed by first taking out the bolt and then removing the point, and that the point, the  
85 share, the cutter, the colter, and the landside can all be detached from each other as occasion may require, and any one of said parts be either refaced or replaced by a new one.

The plow-beam may be stiffened by truss-  
90 rods passing from a point between the attaching-bolts under a spreading plate placed against the under side of the beam and above the colter, said plate having end slots to receive the rods, which converge from that point  
95 toward the end of the beam, where they may be attached in any suitable manner. These truss-rods greatly stiffen the beam, and prevent it from springing or bending either laterally or vertically.

Having thus described my invention, what I claim is—

1. The combination of the transverse bar B, having the slotted seat  $b$  and extension or lug  
105  $b^3$ , the handles A, the mold-board E, provided with seat  $e$ , flange  $f'$ , and intermediate lug,  $e'$ , beam  $A'$ , and bolt D, passing through beam-seat  $e$  and lug  $e'$ , substantially as described.

2. The landside G, having the sole I at its front end, the inclined chamber  $i^2$ , arranged  
110 above said sole, and the enlargement P and V-shaped socket  $p$ , substantially as described.

3. The combination of the mold-board having the flanged portion  $f'$ , the inclined channel  $f^2$ , formed in the lower portion of the latter, and the flat upper bearing-surface,  $E^2$ , located  
115 above a portion of said inclined channel, with the reversible plow-point and the landside having the beveled sole I, substantially as described.

4. The combination of the reversible share M, having the curved shoulder  $m'$  formed upon its opposite sides, and having the inclined  
125 perforated and cut-away inner portion,  $m^2$ , with the mold-board having the perforated and recessed portion L, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH ELCOCK.

Witnesses:

M. J. HYERS,  
CHARLES HYERS.