J. LANE.
Plow.

No. 205,491. Patented July 2, 1878.

Fig. 1.

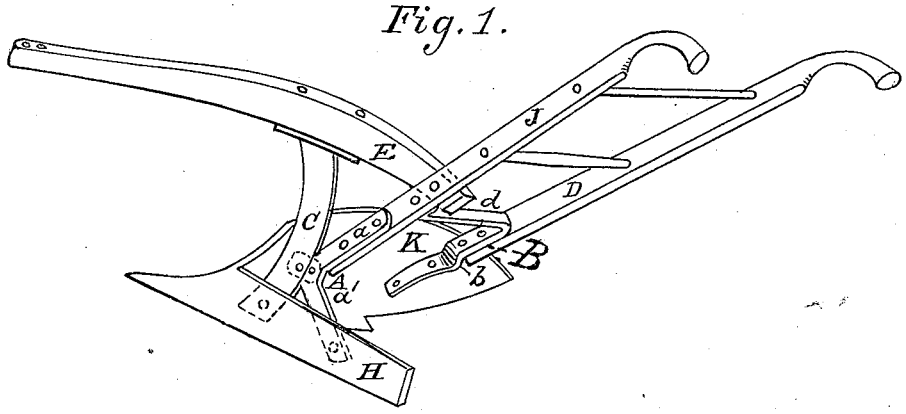
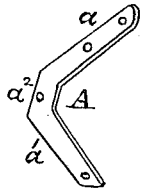


Fig. 2.



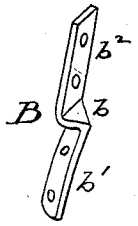
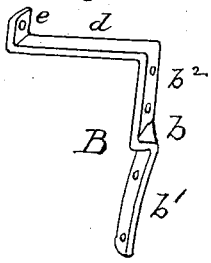


Fig. 3.

Fig. 4.



Witnesses;
Myron Helmuch.
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John Lane.

UNITED STATES PATENT OFFICE.

JOHN LANE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **205,491**, dated July 2, 1878; application filed March 19, 1878.

To all whom it may concern:

Be it known that I, JOHN LANE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Plows, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a view of a plow having my improvements attached. Fig. 2 is a view of my improved beam-handle extension detached. Fig. 3 is a view of my improved mold-board-handle extension detached. Fig. 4 is a view of my improved mold-board-handle extension, having a brace, *d*, connected therewith for connecting the two handles together.

The plow may be of any ordinary construction, having my improvements attached therewith; and in the use of my improvements the bottom end of both handles may be straight and unbent, avoiding the necessity of bending them to fit the curve of the mold-board and inside of the land-bar.

My invention consists, in the first part, of an improved handle-extension to which the bottom end of the beam-handle is attached, and connecting with both standard and land-bar; and the second part consists in an improved handle-extension to which the mold-board handle is attached, and connecting with the mold-board and a brace connected therewith, all as hereinafter set forth and shown.

A is my improved beam-handle extension-bar. It consists of a flat bar of suitable length, and bent somewhat L shape, one arm, *a*, of which I attach with bolts to the bottom end of the beam-handle J, and the other arm, a^1, of which I attach with bolts to the land-bar H some distance in the rear of the standard C, and the angle a^2 of which I attach to the standard some distance above the end of the standard, as shown in the drawings.

The arm *a*, when united to the beam-handle J, and extending in the direction of the handle to the standard C, where the angle a^2 is united to the standard, operates as a brace to the rear end of the beam E and standard C, and the arm a^1, extending rearward and united to the land-bar, operates as a brace to the standard C and land-bar H; and the L shape of the bar A is bracing in itself, in that when the angle and one arm are secured in position the other arm is thereby held in position, and when attached at the three points $a\ a^1\ a^2$, as shown, operates as a brace with great strength, making a strong cheap plow; and the bar A may or may not be removably attached to the standard with bolts or rivets, or by means substantially the same.

I am aware that standards having handle-lugs have been used. Such I do not claim, my improved handle-extension bar A being single, separate from the standard, and L-shaped, and extending from the handle to the standard, and thence rearward to the land-bar, as shown, and for the purpose shown.

B is my mold-board-handle extension-bar, which consists in a flat bar of iron of suitable length, bent, forming a twist offset shoulder near the center of its length, which shoulder forms a seat, *b*, on which the end of the handle rests. The seat *b* is of V shape, wider at the rear edge than at the forward edge, and made so by the twist given, the two ends being out of line about one-eighth part of a full round twist. One end, b^1, is fitted to the curve of the mold-board K, where it is directly attached in about the same position as when ordinarily attaching mold-boards direct to the handle; and the seat *b*, being a short distance below the top of the mold-board and projecting away from it, as shown, affords room for the end of the handle on the seat *b* and against the mold-board. The arm b^2 extends upward from the seat *b* on the inside of the handle D, and to it the handle is attached directly with two bolts, as shown, thus avoiding the necessity of any twist or bend of the bottom end of the handle, as the usual twist and curve given to the handle I transfer to the extension-bar, as shown.

I am aware handle-lug ears projecting inward from the back of the mold-board, and intermediate between the mold-board and handle, have been used. Such I do not claim.

I sometimes combine my improved mold-board-handle extension-bar B with a brace, *d*, as shown in Figs. 1 and 4, in which case I extend the length of the end b^2, and bend it so as to cross over as brace *d* to the beam-handle J, where it is again bent upward, forming the ear *e*, which is bolted directly to the

beam-handle J, close to the beam E, as shown in the drawings.

I do not claim, broadly, a handle-extension or bar intermediate connecting the handle and standard, or connecting the handle and land-bar, or connecting the handle and mold-board.

Having thus set forth my invention, I claim—

1. In combination with standard C, handle J, and land-bar H, the single bar A, bent at right angles near its center L shape, and extending from the handle J to the rear part of the land-bar H, and detachably bolted to the handle J and land-bar H, and the angle a^2, attached to the standard C some distance above the end, as shown, all arranged and combined as shown.

2. In combination with the mold-board handle D and mold-board K, the bar B, having the shoulder b, arm b^1, and arm b^2, and arm b^1 attached directly to the mold-board K, and the end of the handle D resting on the shoulder b and against the mold-board K, as shown, and the arm b^2 extending above the shoulder b on the inside of handle D, and thereto attached directly with two bolts, as shown, as and for the purpose set forth.

3. In combination with the beam-handle J, mold-board handle D, and mold-board K, the bar B, having the shoulder b, arm b^1, and arm b^2, brace d and ear e in a single bar, and arm b^1 directly attached to the mold-board K, and the end of the handle D resting on the shoulder b and against the mold-board K, as shown, and the arm b^2 extending upward on the inside of the mold-board handle D, and thence bent, forming brace d, extending from the mold-board handle D to the beam-handle J, and the ear e formed on the end of the brace d, as shown, and the bar B, attached with bolts directly to both handles J and D, as shown, all as and for the purpose set forth.

JOHN LANE.

Witnesses:
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