L. B. WHITE.

Plow.

No. 164,951. Patented June 29, 1875.

Fig. 1.

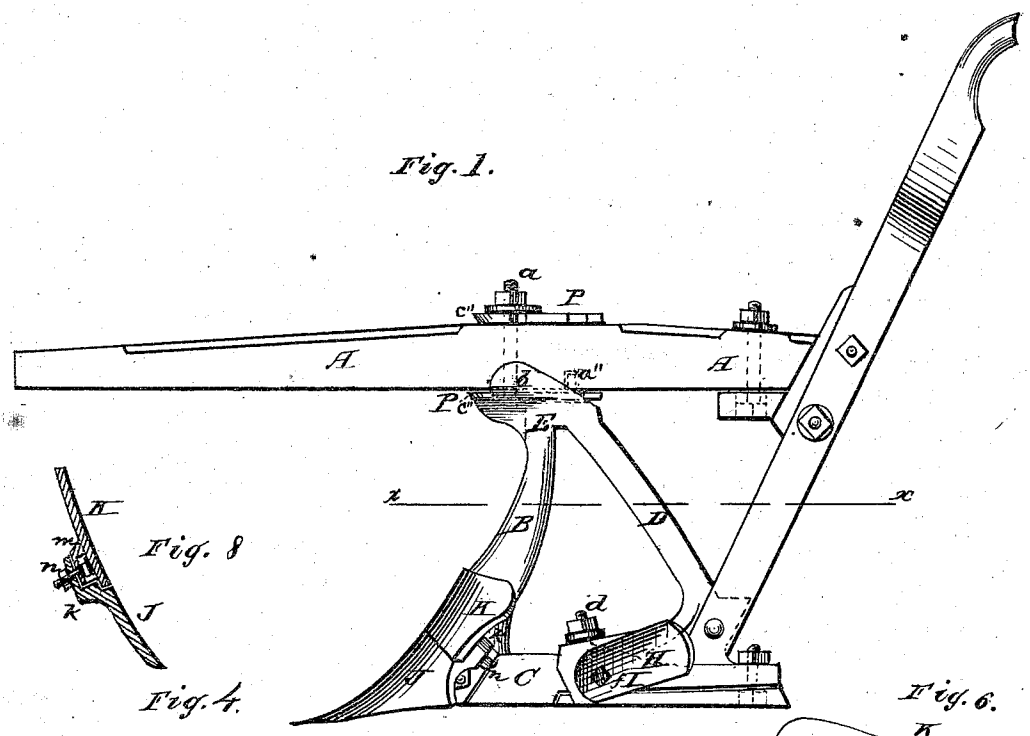


Fig. 8

Fig. 4.

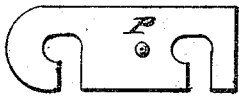


Fig. 2.

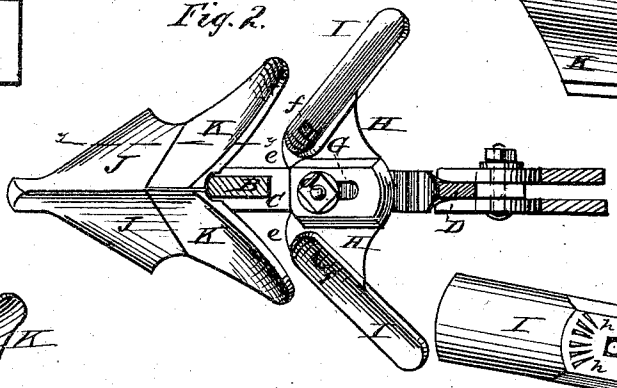


Fig. 6.

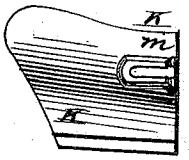


Fig. 5.

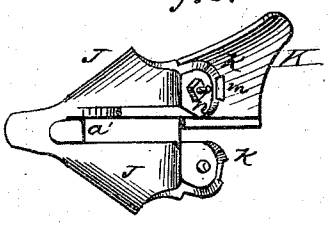


Fig. 7.

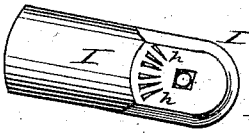
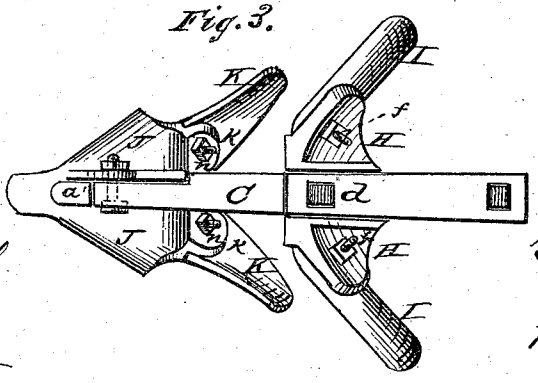
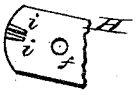


Fig. 3.





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UNITED STATES PATENT OFFICE.

LEWIS B. WHITE, OF NORFOLK, VIRGINIA, ASSIGNOR TO HIMSELF AND S. R. WHITE, OF SAME PLACE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **164,951**, dated June 29, 1875; application filed May 8, 1875.

To all whom it may concern:

Be it known that I, LEWIS B. WHITE, of Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in certain improvements upon the plow for which Letters Patent No. 129,076 were granted to me July 16, 1872, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a side elevation of my improved plow. Fig. 2 is a horizontal section of the same through the line *x x*, Fig. 1. Fig. 3 is a bottom view thereof. Figs. 4, 5, 6, 7, and 8 are detailed views of certain parts of the plow.

A represents the plow-beam, of any suitable shape. B is the plow-standard; C, the base, and D the brace—all cast in one piece, the upper ends of the standard and brace being connected by a cap-piece, E. This cap-piece is extended in front of the standard a suitable distance to allow the bolt *a* to pass up through the same in front of the standard, and through the beam, for fastening the plow thereto. The cap-piece E is made wide enough to extend entirely across the under surface of the beam, and has, at one or both sides, a flange, *b*, extending up along the side of the beam. This flange or flanges relieve the bolt from any strain during any side movement of the plow, and also form a support to the projection, so that it will not break from upward strain. The front edge of the brace, rear edge of the standard at their lower ends, and the upper edge of the base between them, are made on a curve, as shown, and the longitudinally-slotted weeder-stock G is correspondingly curved on the under side, so that it can be adjusted backward or forward, as desired, to change the angle of the blades, the stock being fastened by a bolt, *d*. The under surface of the stock G is formed with teeth or corrugations to fit in similar teeth or corrugations on the base, so that, when the stock is adjusted and the bolt tightened, it will be held tightly without danger of slipping. From each side of the stock G projects an inclined wing, H, for the attachment of the weeder-blades. At the inner end of each wing H is a shoulder, *e*, made on a circle, with the bolt-hole *f* for a center; and near the outer end of the wing, at equal distance from the bolt-hole at the shoulder *e*, are two teeth, *i i*. The weeder-blade I is made concave on its front surface, with cutting-edge along both top and bottom. The inner end of the blade is rounded to fit against the shoulder *e*, and on its rear side is formed a segmental rack, *h*, for the teeth *i* to take into.

When the blade I is placed on the wing H and a bolt passed through the bolt-holes, the blade may be adjusted on said bolt as a center, so as to point straight out, up, or down, as desired, and the bolt is then fastened, securing the blade, by means of the teeth *i* and rack *h*, firmly in position.

When the lower edges of the blades are worn out the blades may be reversed, and placed on opposite sides from their former position, bringing the upper edges down the same as when new.

J represents the plow share or point, fastened to the standard B in the same manner as described in my former patent above referred to. At the upper edge, on each side of the plow-point, is a projecting ear, *k*, recessed on its front side and provided with a bolt-hole. K K represent the two parts of the mold-board to be fastened to the point. On the rear side of each part K is formed a dovetailed slide, *m*, open at its lower end. Into this slide the head of the bolt *n* is slipped.

When the mold-board is placed in position the slide *m* fits in the recess on the ear *k*, and the bolt *n* passes through the hole in said ear, after which a nut is screwed up on the end of the bolt, thereby fastening the mold-board firmly in its place, and at the same time leaving the front entirely smooth and even without any bolt-heads or anything else to form any obstruction thereon.

The lower inside of the share J is formed with a socket, a', for the front end of the base C to fit in.

The weeder-stock, wings, and blades are adjusted in the following manner: When the stock is pushed back, the rear part of the same rising and resting on corrugations in the base or shoe of the standard provided for the purpose, two motions are given to the wings H. They are raised up and down to give any desired inclination to the ridge. At the same time they are brought more in a perpendicular line with the soil to be cultivated, which causes the blades to move the earth with more force. Now, it is often desirable to move the earth with more force than the blades will admit of in their natural position; still it is necessary that no greater inclination be given the ridge. To accomplish this purpose the stock is moved back, throwing the top of the blades forward, which causes the earth to be moved with more force. But this movement raises the lower and outer edges of the blades, and gives a greater inclination to the ridge. To have the blades assume their original position with reference to their lower cutting-edges the bolts *f* are loosened and the blades turned down to the desired angle, or vice versa.

P P are slotted wedges, placed above and below the beam around the bolt *a*. They are constructed as shown in Fig. 4, and serve to adjust the inclination of the standard with reference to the beam, so as to bring the point of the plow up or down, as desired.

The wedges have a double slot, one to receive the bolt passing through the beam, and the other to receive the stud a'' on the top of the standard; and the front edges c'' of the wedges are beveled, so as to make a true curve with the upper portion of the standard when placed beneath the beam, so that the trash will not be gathered and held. The flange or flanges *b* on the upper portion of the standard also serve to allow sufficient metal to be used to support the bolt passing vertically through the beam, and to allow the bolt to be set farther forward than in any other construction, and at the same time receive the requisite support.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The standard B, curved base C, and brace D, as shown, in combination with the curved weeder-stock G, the adjoining surface being provided with teeth or corrugations, as and for the purpose described.

2. The standard B, curved brace C, brace D, and weeder-stock G, the adjoining surfaces being provided with teeth or corrugations, in combination with the wings H H, having curved shoulders *e*, bolt-holes *f*, teeth *i i*, reversible blades I, the inner ends having segmental racks *h*, all as and for the purpose specified.

3. The plow share or points J, provided with a projection running back along the base, and secured thereto, and having the recessed ears, in combination with the mold-boards K, having dovetailed slides *m* to receive the bolts *n*, whereby the share and mold-boards are secured firmly in place without any bolt or bolts passing through the surface of the plow, all constructed as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

LEWIS B. WHITE.

Witnesses:
C. H. WATSON,
X. C. SCOTT.