(No Model.)

A. BALL.

PLOW.

No. 245,429. Patented Aug. 9, 1881.

Fig. 3.

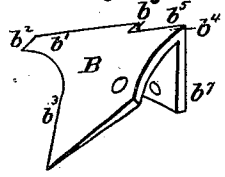


Fig. 1

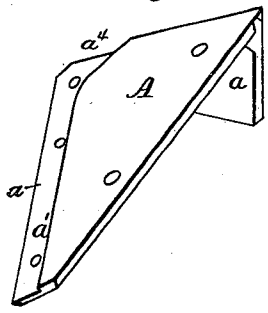


Fig. 2.

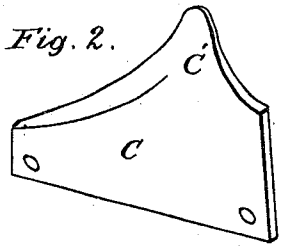


Fig. 7.

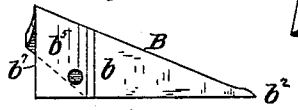


Fig. 8.

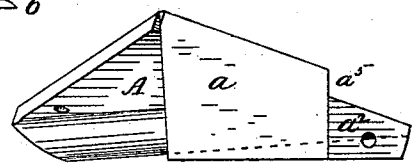


Fig. 4.

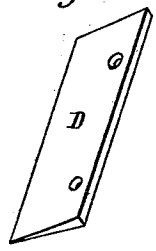


Fig. 5

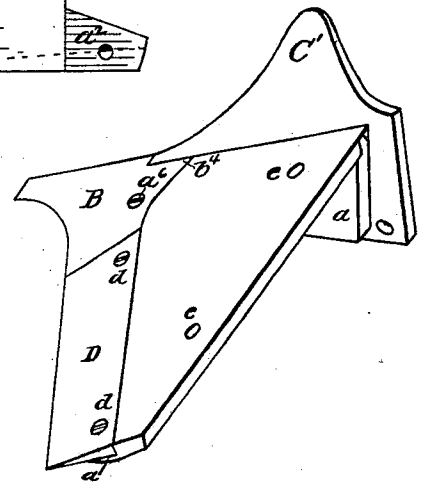


Fig. 6

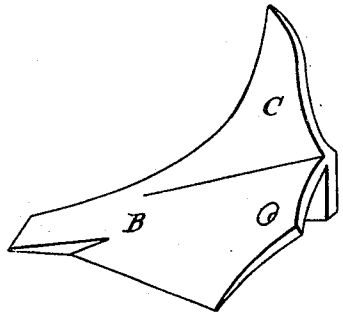
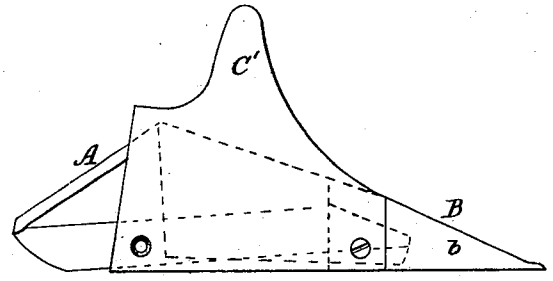


Fig. 9.



Witnesses:

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attys

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UNITED STATES PATENT OFFICE.

ALBERT BALL, OF CANTON, OHIO.

PLOW.

SPECIFICATION forming part of Letters Patent No. 245,429, dated August 9, 1881.

Application filed December 8, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALBERT BALL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective of the stock of my improved share. Fig. 2 is a perspective of the cutter. Fig. 3 is a perspective of the point. Fig. 4 is a perspective of the wing of the point. Fig. 5 is a perspective of the above parts connected. Fig. 6 shows a modified form of point and cutter. Fig. 7 is a side elevation of the point. Fig. 8 is a side elevation of the stock. Fig. 9 is a side elevation of the parts shown in Fig. 5.

In the drawings, A represents the stock. It is cast with a vertical wall, *a*, upon the landside, which wall does not extend to the plane of the bottom or sole of the plow, and therefore this part of the stock is not worn. The stock is also provided with a rabbet at *a'* along the outer and lower edge. To give a greater strength to the stock the metal is considerably thickened there, and is also made heavier at the vertical wall *a*.

a^2, Fig. 8, represents a recess formed in the vertical wall *a* on the landside of the stock.

B represents the detachable point of the plow. It is formed with a vertical face, *b*, which coincides with the plane of the landside of the plow, with a toe, *b'*, the cutting-edge b^2 of which is substantially at right angles to the landside, and with an inclined cutting-edge, b^3, lying in the plane of the bottom or sole of the plow. The rabbet *a'* is turned upward at the inner end, and the point B is provided with an upwardly-projecting shoulder, b^4, to fit the upwardly-turned portion of the rabbet *a'*, whereby a greater power of resistance is provided for the point against laterally-displacing agencies. The inner wall of the point B is cut away to form a recess or rabbet, as shown at b^5. The point is supported upon the shoulders a^4 a^5 of the plow-stock A, to which it is bolted, as shown at a^6.

C represents that part which operates both as cutter and landside. It is formed with the upwardly-extending cutter portion C', and is of such a thickness that its inner face can be made to coincide with the inner face of the point B. It is placed against the vertical wall *a* of the plow-stock A, the forward end fitting against the shoulder b^6 formed by the rabbet b^5. When placed in position it overlaps the inner end, b^7, of the point, and its lower edge extends below the wall *a* of the stock A. When thus constructed and arranged this part C operates as a part of the landside for the plow, and also as a cutter, it thus removing from the stock A all wear, not only upon the vertical face, but also upon the sole, as will be readily seen.

D represents the wing, which is secured to the stock A by bolts or rivets at *d d*. It is supported upon the part *a* of the stock. At the inner end it fits against the end of the point B and assists in supporting it against lateral resistance.

When the operative parts of the plow are thus constructed the landside, or the cutter, or the point, or the wing may be removed at any time independently of the others, as wear or breakage may demand, and the part or parts thus removed may be readily replaced without the necessity of changing any of the others. The stock A forms part of the mold-board, the upper part of the latter being fastened to the stock by bolts at *e e*.

By constructing the plow in this way the expense of the parts that are subject to wear is greatly reduced.

The beam of the plow is also fastened directly to the stock A. The plows having wooden beams, as now constructed, have a standard to which both the beam and the mold-board are fastened. In my construction the stock A not only forms part of the mold-board and landside, but is the only casting to which the plow-beam is fastened.

For some purposes it is desirable to cast the point B and the cutter C in one piece, as shown in Fig. 6. In this case the parts A C, cast in one piece, are fitted to the stock A in the manner above described for fitting the point B,

(when cast separate,) the inner face being made to correspond to the inner face of the wall *a* of the stock, said wall forming the landside. Thus, as will be seen, the stock A can be used with either of the above styles of plow independently.

What I claim is—

1. In a plow, the combination of the following elements: a stock, A, having the wall *a*, the rabbet *a'*, and the recess a^2, the point B, seated in the rabbet *a'* and in the recess a^2 to inclose the end of the stock, and having the recess b^5 on its landside, and the part C seated in said recess b^5, and extending both above and below said stock A, whereby it operates both as a cutter and landside for the plow, as set forth.

2. The combination of the following elements, namely: the stock A, having the rabbet *a'*, the vertical wall *a*, and the recess a^2, extending from the top to the bottom of the stock, the point B, which incloses the front end of the stock, and the part C, secured to the landside of the plow and constructed to extend from the top to the bottom of the stock, and to operate both as cutter and as landside, as set forth.

3. In a plow, the combination, with the point B and the cutter C, of the stock A, formed with the rabbet *a'*, the vertical wall *a*, and the recess a^2, extending from the top to the bottom of the stock on the landside, whereby the stock is adapted to be interchangeably used with said point B and cutter C, when formed in one piece and when they are formed separately, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT BALL.

Witnesses:
HENRY A. WISE,
HERBERT R. SPENCER.