2 Sheets--Sheet 1.

J. HOLMES.

Method of Making Plow Mold-Boards.

No. 165,581. Patented July 13, 1875.

Fig. 1

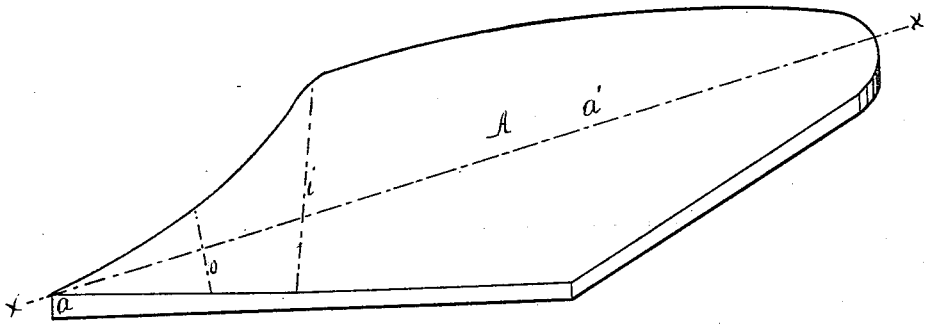


Fig. 2

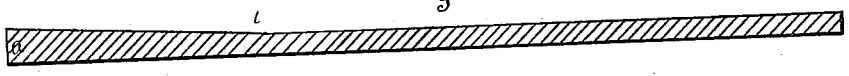
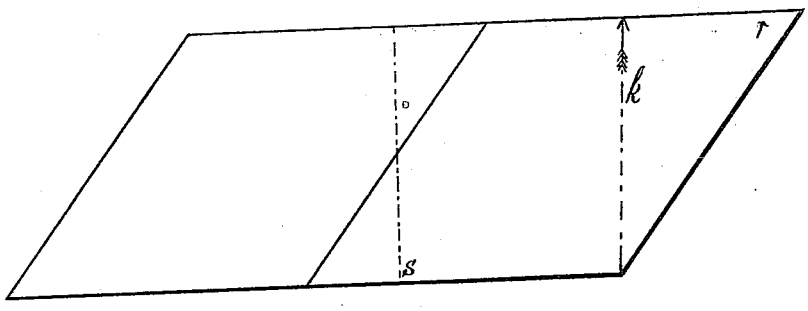


Fig. 3



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2 Sheets--Sheet 2.

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Fig. 4

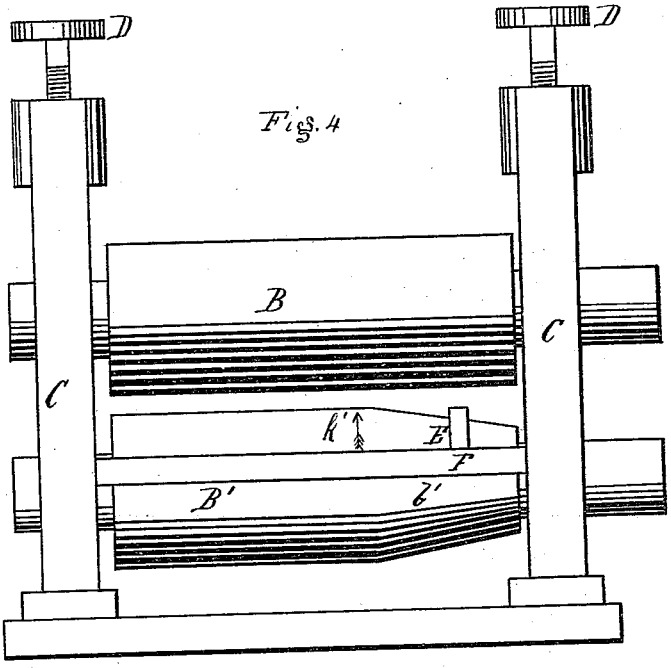
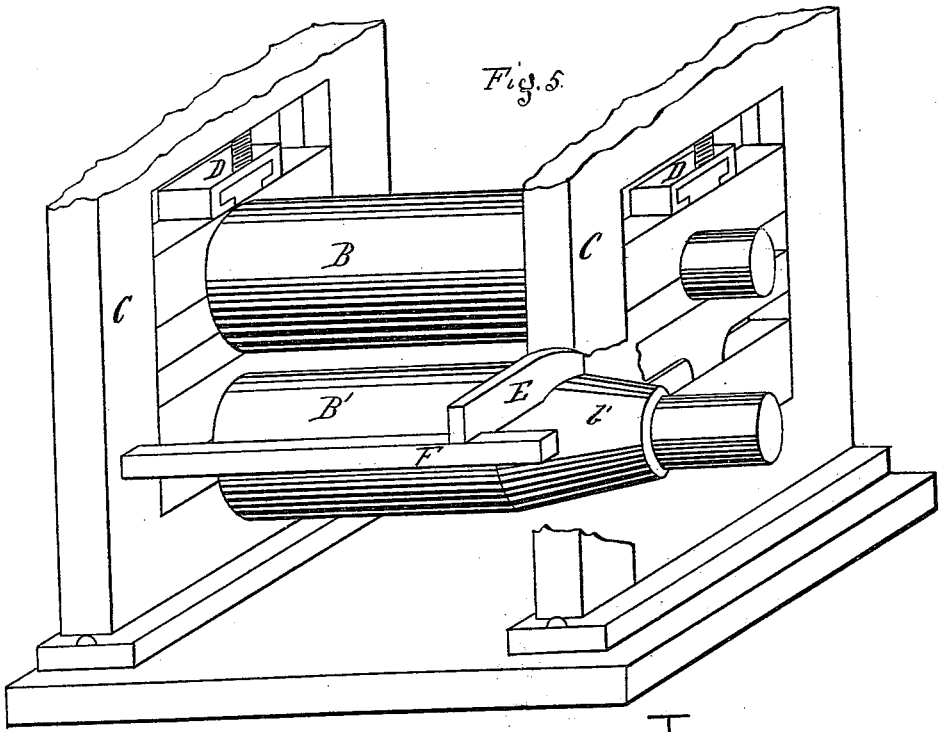


Fig. 5



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IMPROVEMENT IN METHODS OF MAKING PLOW MOLD-BOARDS.

Specification forming part of Letters Patent No. **165,581**, dated July 13, 1875; application filed December 8, 1874.

To all whom it may concern:

Be it known that I, JOSIAH HOLMES, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Mold-Boards for Plows; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a view of a mold-board blank. Fig. 2 is a section of the same on the line *x x*, Fig. 1. Fig. 3 is a diagram, showing the manner of cutting the blank from the bar and the line of rolling the blank. Fig. 4 is a front elevation of rolls employed for rolling the blank, and Fig. 5 is a perspective of the same.

Like letters refer to like parts wherever they occur.

My invention consists in the manufacture of mold-board blanks by the following steps: First, cutting the bar into diamond or similar shaped sections, and then passing the sections between beveled rols, which leave the proper thickness of the metal at the point, whereby mold-boards of the same size may be thickened for different distances front the point, and mold-boards of different sizes and thicknesses may be produced from the same bar or skelp by the same method and rolls.

I will now proceed to describe the invention so that others skilled in the art may apply the same.

In the drawing, A represents the blank, having an increased thickness from the point *a* to the dotted line *i*, including the entire point of the blank from the highest point of the curved edge to the base. The portion *a'* of the blank, in rear of the dotted line *i*, is of uniform thickness, or may be tapered toward the rear edge of the blank if it is desired to reduce the weight of metal at those points where not actually needed. In producing the blank above described, I preferably employ rolls, one of which, generally the lower, is beveled at one end, as illustrated in Figs. 4 and 5, in which B is the upper roll, and B', the lower, mounted in suitable housings C, and provided with the usual adjusting-screw D. The lower roll B' is beveled at one end, as shown at *b'*, and is provided with a sliding or adjustable guide, E, one end of said guide being concave and resting loosely upon roll B', the opposite end resting upon a cross-bar, F. This guide limits the distance that the blank laps upon the bevel *b'*, and enables the different sized blanks to be uniformly rolled, or the same sized blanks to be thickened up varying distances from the point *a*.

I proceed as follows: I take a bar, as shown at Fig. 3, twelve feet or more in length, of a width proportionate to the width required in the finished blank, say, an average of six inches, which will draw out to ten or twelve at the points where the blank is reduced, as at *a'*, and as thick as is required at the point *a*, say, an average of five-eighths of an inch. This bar I divide diagonally, so as to obtain diamond or similar shaped forms, as shown at Fig. 3, or a blank having three sides straight, as shown by dotted line *s*, which may be done by alternating straight and diagonal cuts. The form or blank is then presented to the rolls, the point *r*, Fig. 3, overlapping the bevel *b'* of the roll, the points marked by the arrow *k* of the form coinciding with the point on the rolls marked by the arrow *k'*. By this mode of procedure, the metal at the point of the blank is left of the desired thickness, while that passing between the plain portion of the rolls is spread to the breadth required, thus avoiding the loss of scrap upon one hand and the labor of welding upon the other, and producing a blank fulfilling all the requirements of the trade.

Having thus set forth my invention, what I claim and desire to secure by Letters Patent, is—

As an improvement in the art of manufacturing plow mold-boards, the method herein described.

In testimony whereof I, the said JOSIAH HOLMES, have hereunto set my hand.

JOSIAH HOLMES.

Witnesses:
F. W. RITTER, Jr.,
W. N. PAXTON.