

H. Barnes.

Manuf. of Plows.

No 93,162.

Patented Aug 3. 1869.

Fig. 1.

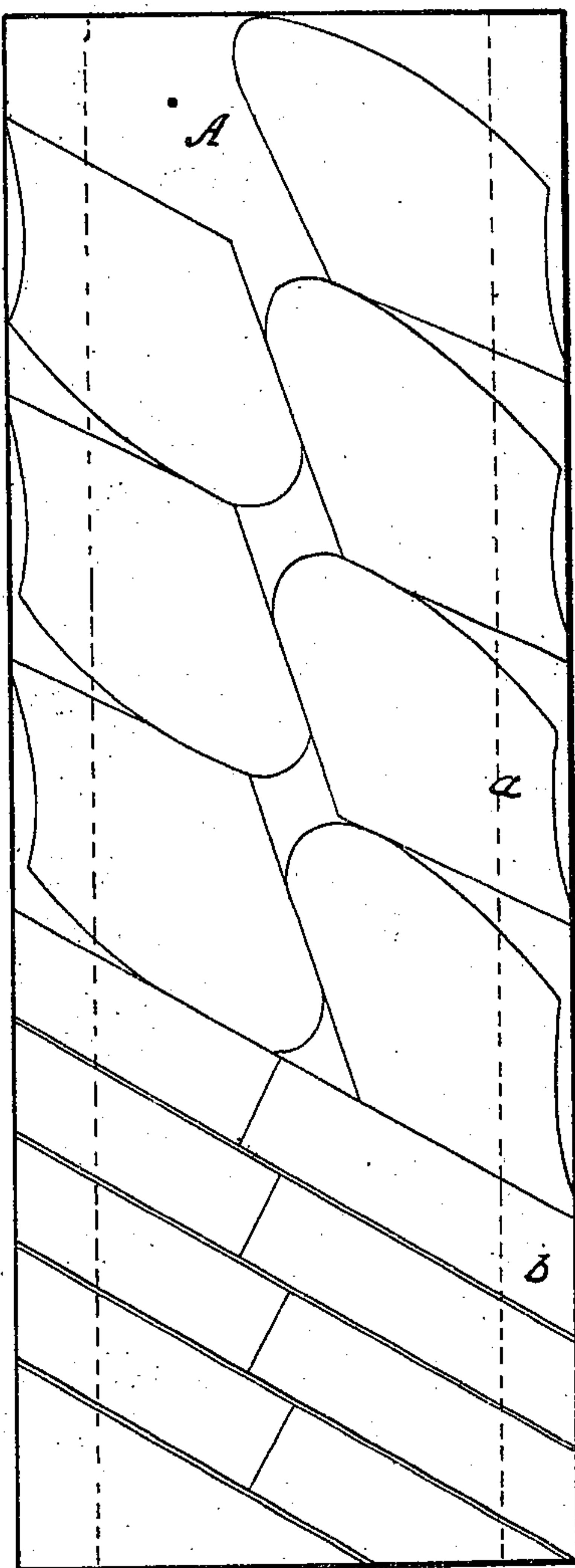


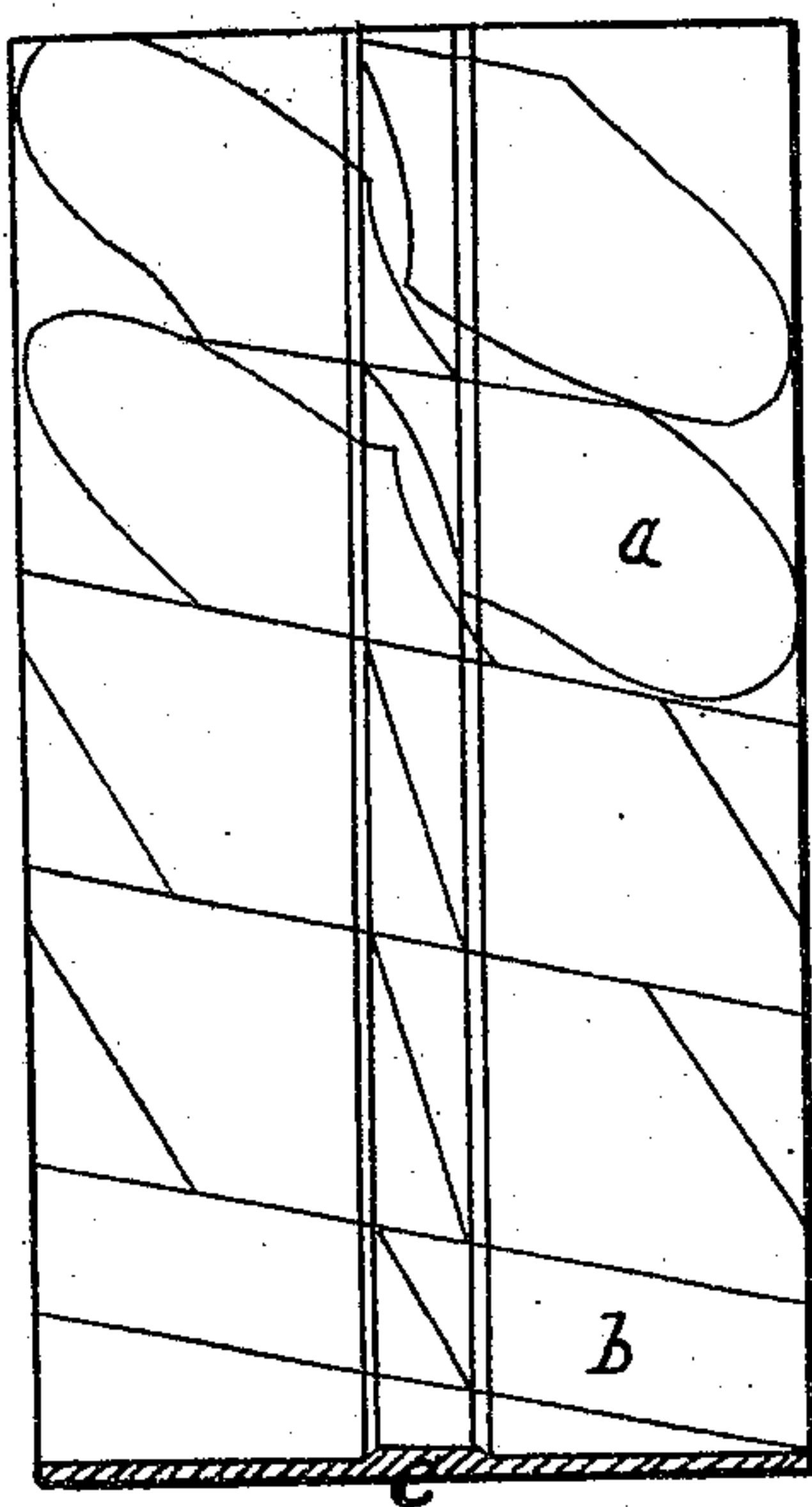
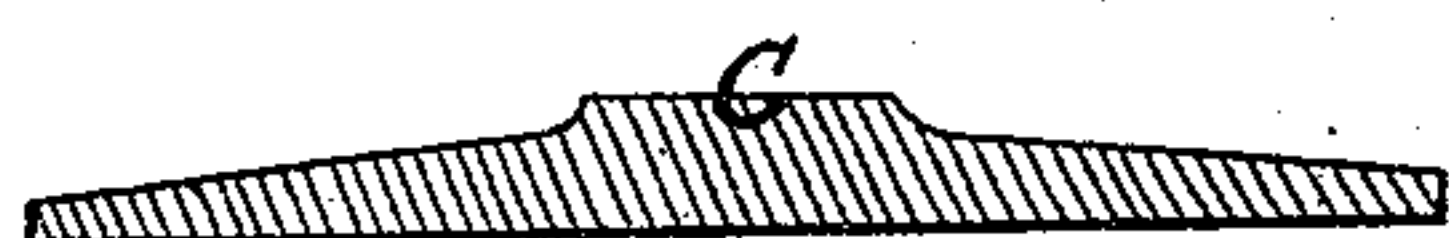
Fig. 2.



Fig. 3.



Fig. 4.



Witnesses:

Gustave Dietrich
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Inventor:

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PER

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UNITED STATES PATENT OFFICE.

HENRY BARNES, OF FRANKLIN TOWNSHIP, STORY COUNTY, IOWA.

IMPROVED PLATE FOR MAKING BLANKS FOR MOLD-BOARDS AND SHARES FOR PLOWS.

Specification forming part of Letters Patent No. 93,162, dated August 3, 1869.

To all whom it may concern:

Be it known that I, HENRY BARNES, of Franklin Township, in the county of Story, and State of Iowa, have invented a new and useful Improvement in the Manufacture of 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 make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in the manufacture of plows, designed to cheapen the cost and provide plows of better quality than those constructed according to the present methods.

The improvement consists in the construction of the bars or plates from which the blanks for the mold-boards and share-plates are cut by first rolling such plates into such form that the blanks may be punched therefrom without material waste of metal, and the "shins" or parts thereof subjected to the greatest amount of wear be formed with the increased thickness required to withstand the wear, which said increase of thickness is commonly added to the plates by welding after they have been shaped into blanks, involving expense and liability to damage the steel by heating and imperfect welds, which it is the object of my invention to avoid.

Figure 1 represents a plan view of a bar as formed according to my improvement from which the blanks are to be punched, and having diagrams thereon showing the order of punching the blanks; Figs. 2 to 4 represent transverse sections of various forms in which the bars may be rolled. Fig. 5 represents a plan view of the plate having its center thickened, as shown in cross-section, Fig. 4, and having diagrams thereon illustrating the order of arranging the blanks to be cut.

Similar letters of reference indicate corresponding parts.

The mold-boards, for a short distance from the front cutting-edge, and that portion of the share-plate near the point, are subjected to a greater amount of wear than the other parts, for which reason they are commonly made thicker in these parts.

The present method of thickening them is to weld additional strips of metal thereto, the blanks being first punched from sheets of equal thickness.

I propose to save the labor, expense, and other objections involved in this method by rolling the metal into plates, with thickened longitudinal edges, from which the blanks may be punched or otherwise separated according to the diagrams represented in Fig. 1, so as to dispose the thicker portions thereof in the parts of the blanks as required, as shown at *a* in the mold-board blanks, and *b* in the blanks for the share-plates.

The plates of *A* are sufficiently wide for two sets of blanks, as shown in Fig. 1, with both edges thickened, and these thickened edges may both be on one face of the plates, as shown in Fig. 2, or on opposite sides, as in Fig. 3; or, again, one thickened strip wide enough for two sets of blanks may be arranged in the center of the blank, as shown at *C*, Fig. 4.

The said blanks may be made of any preferred metal, but I prefer to make them of steel; and they may be finished up after being formed as I have described in any preferred manner.

By the formation of the plates with two thickened edges, so as enable two sets of mold-boards and shares to be cut therefrom, much waste of metal is avoided, as the mold-boards dovetail into each other, and fill up the spaces which would otherwise produce only waste metal where one set of blanks only is cut from the plates.

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

The herein-described improved plates for the manufacture of blanks for mold-boards and shares for plows, substantially as specified.

The above specification of my invention, signed by me this 15th day of February, 1869.

HENRY BARNES.

Witnesses:

P. L. PORTER,
DANIEL MCCARTHY.