S. H. BOGENRIEF & W. PATTISON.

Plow.

No. 201,153. Patented March 12, 1878.

Fig. I

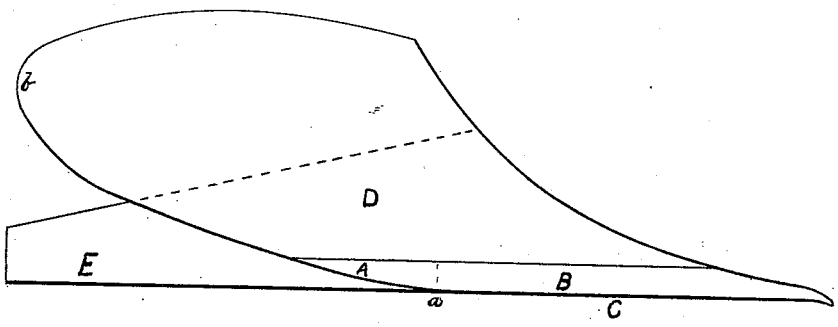


Fig. II

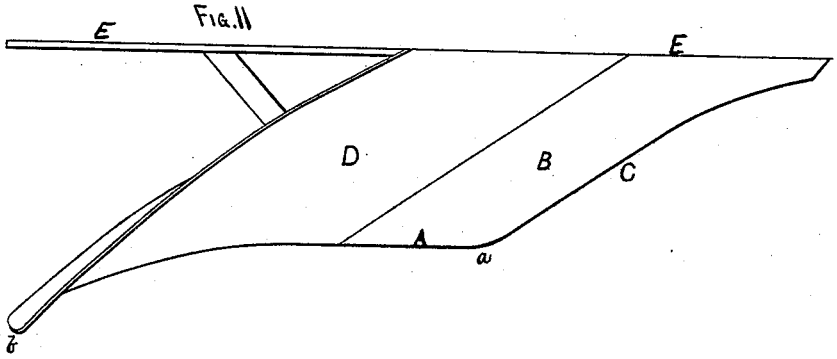
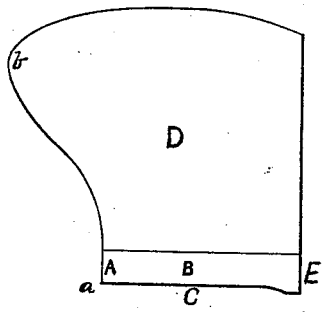


Fig. III



WITNESSES.

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E. N. Woodward

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UNITED STATES PATENT OFFICE.

SAMUEL H. BOGENRIEF AND WILLIAM PATTISON, OF ST. CLOUD, MINNESOTA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **201,153**, dated March 12, 1878; application filed December 6, 1877.

To all whom it may concern:

Be it known that we, SAMUEL H. BOGENRIEF and WILLIAM PATTISON, both of St. Cloud, in the county of Stearns and State of Minnesota, have invented certain new and useful Improvements in Plows, which invention is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation, Fig. 2 a plan view, and Fig. 3 a front elevation, of the mold-board, share, and land-side of a plow embodying our invention.

This invention consists in forming the shares of plows with their outer or back ends parallel with the land-side, and on a line with the outer edge of the mold-board, so that all the earth that is cut by the share will be turned over by the mold-board, as hereinafter specified.

In the ordinary plow the outer end A of the share B is made at right angles to the front or cutting edge C, so that an angular line is formed by the end of the share and the outer or back edge of the mold-board D. (See dotted lines in Figs. 1 and 2.)

Our improvement consists in forming the outer end A parallel with the land-side E, and so joining the mold-board D thereto as to form a continuous straight line the whole width of the share and a short distance up the mold-board, from which point it is continued in a curved line to the upper point of the mold-board, in the usual manner, from *a* to *b*.

By this arrangement we accomplish several very important results not obtained by the common method: First, all the soil cut by the share is turned over by the mold-board, while in the old style all that portion left by the angular line remains in the furrow; second, the friction is very much reduced, as the continuous line of the share and mold-board renders the passage of the plow through the soil much easier; third, it is cheaper to manufacture, as the shares may be cut from sheet-steel with less waste than in the old method.

We are aware that mold-boards have been made with a space cut away in the center, and having the heel all the way up parallel with the front cutting-edge; but it is in no sense a share.

We are also aware that ditching-plows have been made with the heel nearly parallel, and with fixed cutters, which, while they cut, also produce great friction.

We do not wish to claim any such construction of plow, our invention relating solely to shares adapted to be applied to plows designed to receive a share; and, therefore,

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

As an improved article of manufacture, the plowshare D, the line of whose back edge or end A is parallel with the land-side E, and designed as described, so that it may be joined to the mold-board, and form, when so joined, a continuous line from the lower back point of the share to the upper back point *b* of the mold-board.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

SAML. H. BOGENRIEF.
WILLIAM PATTISON.

Witnesses:
L. A. EVANS,
C. F. MACDONALD.