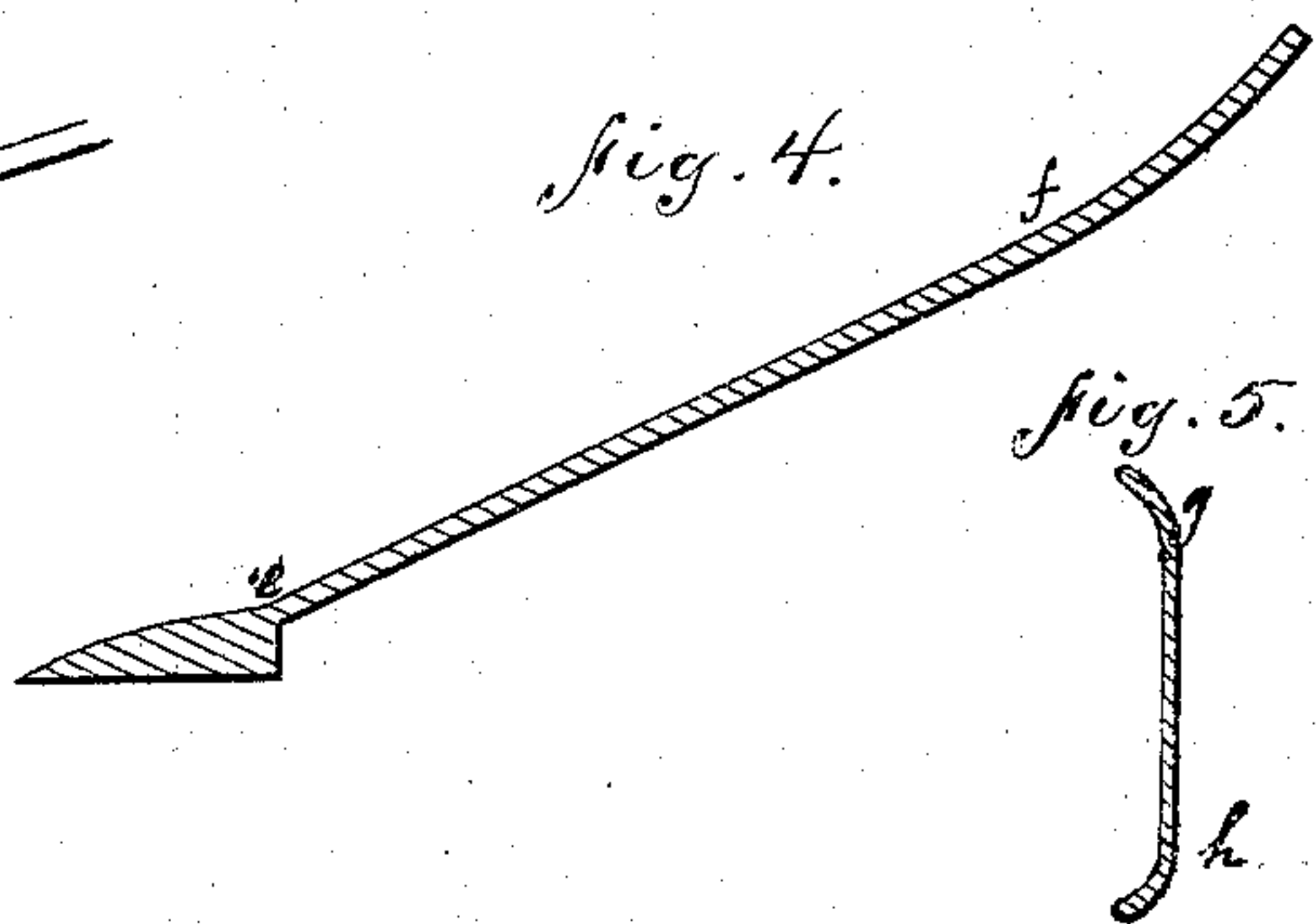
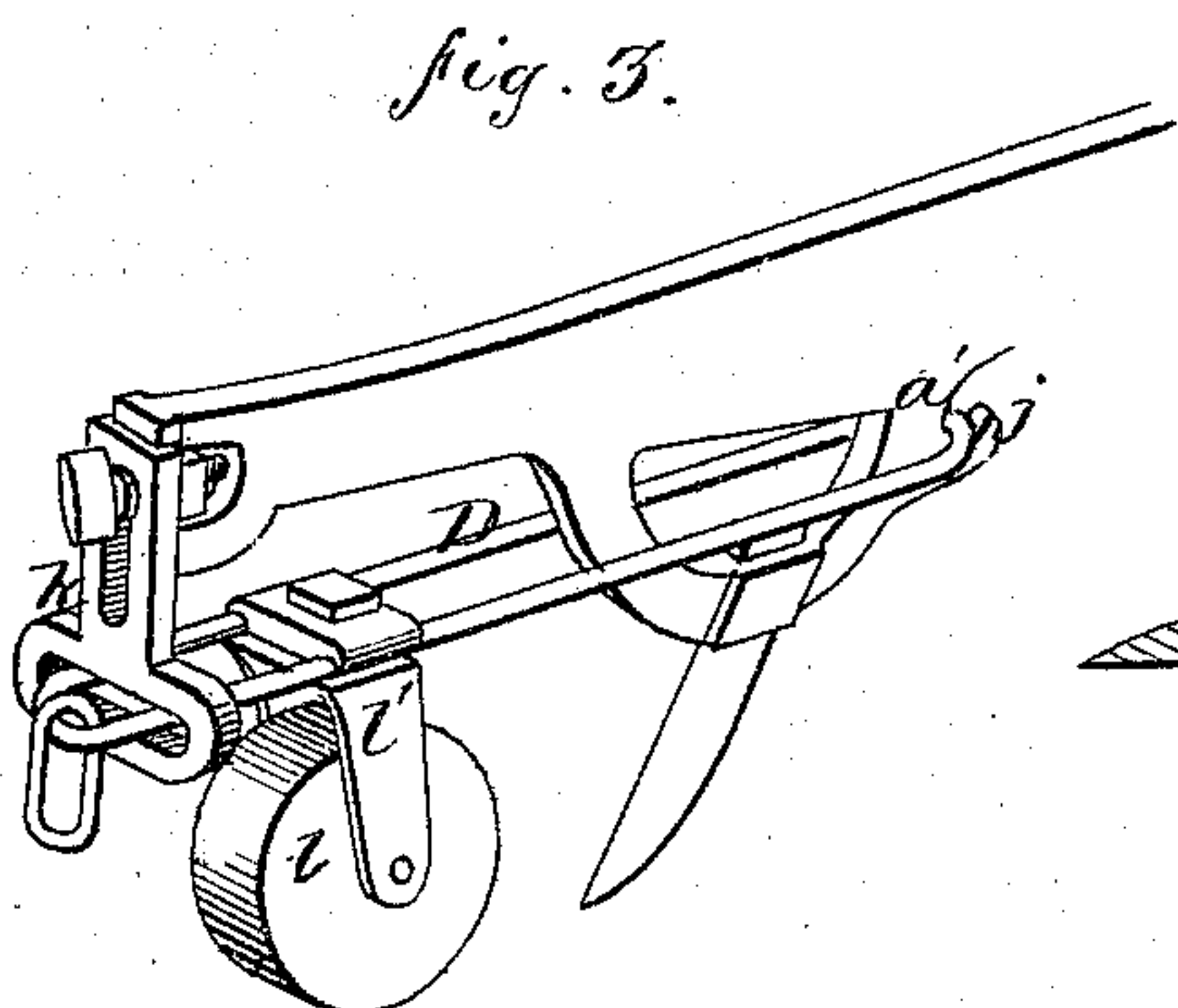
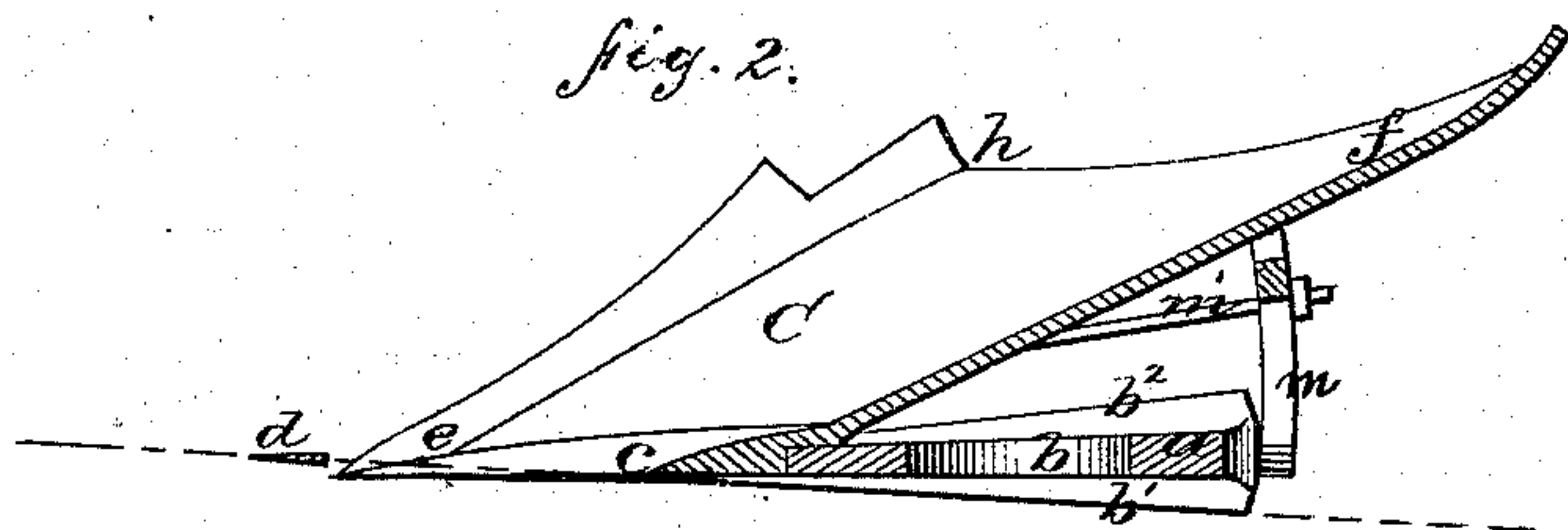
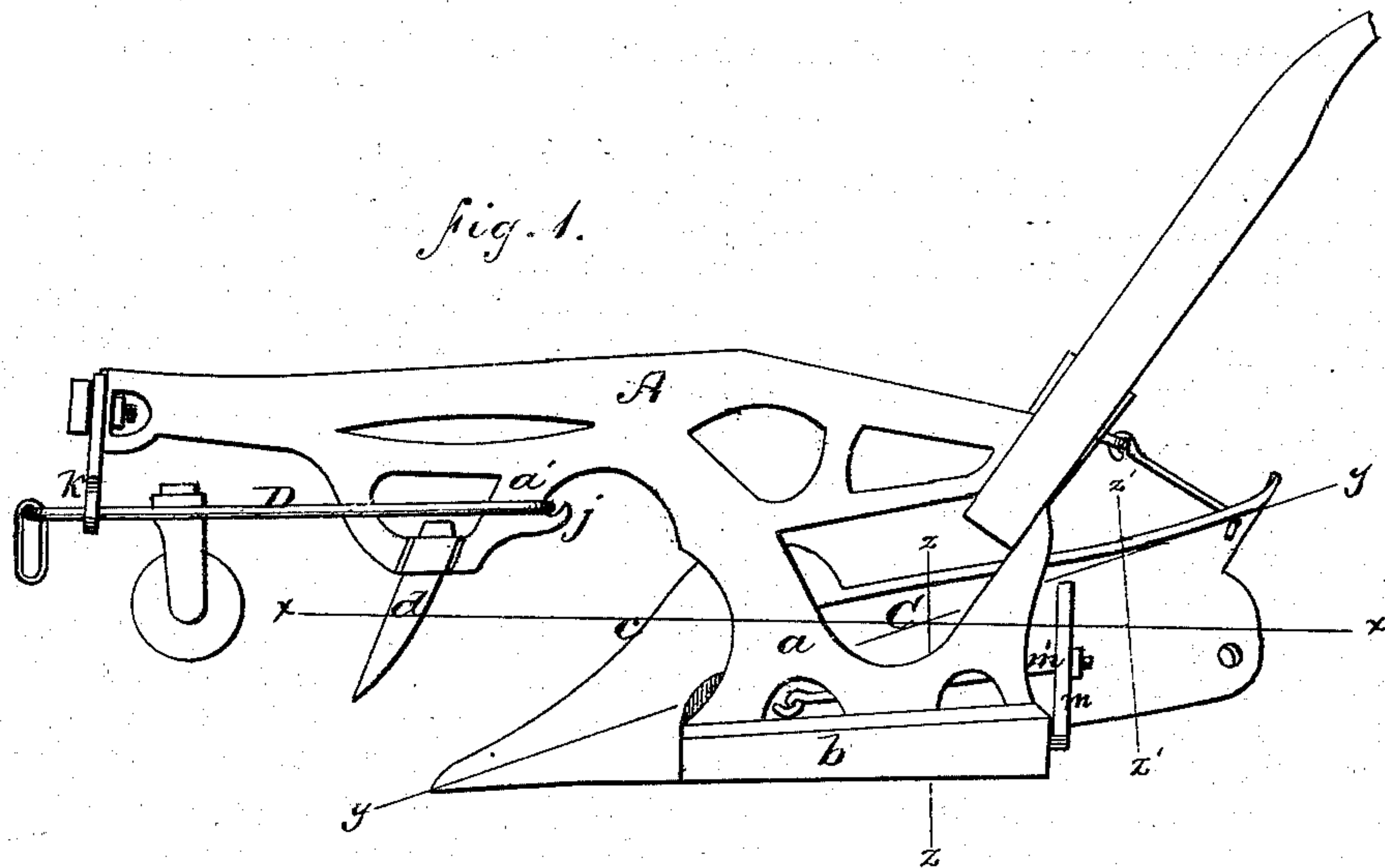


A. SANBORN.

Improvement in Plows.

No. 127,372.

Patented May 28, 1872.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUSTUS SANBORN, OF ST. JOHNSBURY, VERMONT.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 127,372, dated May 28, 1872.

Specification describing certain Improvements in Plows, invented by AUGUSTUS SANBORN, of St. Johnsbury, Caledonia county, State of Vermont.

This invention appertains to that class of plows denominated "swivel," in which the mold-board is pivoted in such manner that it may be swung from one side of the beam to the other, so as to enable the plow to be run back and forth on the same side of the land. In all plows it is of course desirable that the edge of the share should run in the seam made by the cutter. In swivel-plows it is necessary that the cutter be placed exactly at the middle of the beam, the natural center of the plow, in order that it may occupy the same relative position to the edge of the share, on whichever side of the beam the mold-board may be. It is inexpedient, however, to place the edge of the share at the middle of the beam, as it should project far enough beyond the standard to clear it, so as to make a smooth cut. It is therefore necessary, in order to place the cutter and share in the same line in swivel-plows, to swing the beam on the edge of the share, as its center of motion, far enough toward the land to bring the cutter in front of the share. If this be not done the cutter will run on the furrow side of the share, and the latter will have to cut a seam for itself. My invention relates to a wedge-shaped foot formed on the offset from the beam, to which the mold-board is pivoted, which foot projects to either side of the offset, and is of such degree of inclination that the land-side of it is always in line with both the cutter and the edge of the share, and consequently swings the front end of the beam to the extent necessary to bring the cutter in front of the share.

Figure 1 is a side elevation. Fig. 2 is a section in the line $x x$, Fig. 1. Fig. 3 is a perspective view. Fig. 4 is a section of the mold-board in the line $y y$, Fig. 1; and Fig. 5 is a section on the line $z z$.

A is the beam aforesaid; a , the offset of the same; and b , the wedge-shaped foot of the offset. This foot has two inclined sides, $b^1 b^2$. C is the mold-board; c , the edge of the share;

and d , the cutter. As shown in Fig. 2, the side b^1 of the foot b , the edge c , and the cutter d are all in line. In plowing the side b^1 throws the cutter directly in front of the edge c . When b^2 becomes the land-side it will also be in line with the share and cutter and produce the same effect. The old method was to construct the foot with parallel sides, and to make the brace m , which connects the mold-board with the rear end of the foot, long enough to cause the land-side of the foot to stand inclined to the natural center of the plow, which is the middle line of the beam, to the same degree that the wedge-shaped foot is now inclined. The object of this was to cause the plow to land to the proper extent, and this object was accomplished; but another effect was produced not desirable—viz., the throwing of the cutter toward the furrow-side of the share. To remedy this defect it was necessary to make the cutter adjustable, so as to admit of setting it back into its right place. I avoid the difficulty, and also escape the inconvenience of shifting the cutter, not by lengthening the brace, but by keeping the plow on its natural center, and, in order to make the plow land, forming the foot with sides inclined in the same lines with the share and cutter. Figs. 2, 4, 5 show the mold-board C made with a plane surface, $e f g h$, the upper half of which lifts and turns the furrow much more effectually than as though the mold-board were curved in cross-section in the ordinary manner.

I am aware that plow-standards have been made with a flange on the foot for the purpose of keeping the plow in the earth; but this flange does not in any manner affect the position of the cutter.

Claim.

The combination of the wedge-shaped foot b with the share and cutter, as and for the purpose described.

AUGUSTUS SANBORN.

Witnesses:

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