

(No Model.)

W. K. HARRELL.

PLOW.

No. 274,491.

Patented Mar. 27. 1883.

Fig-1-

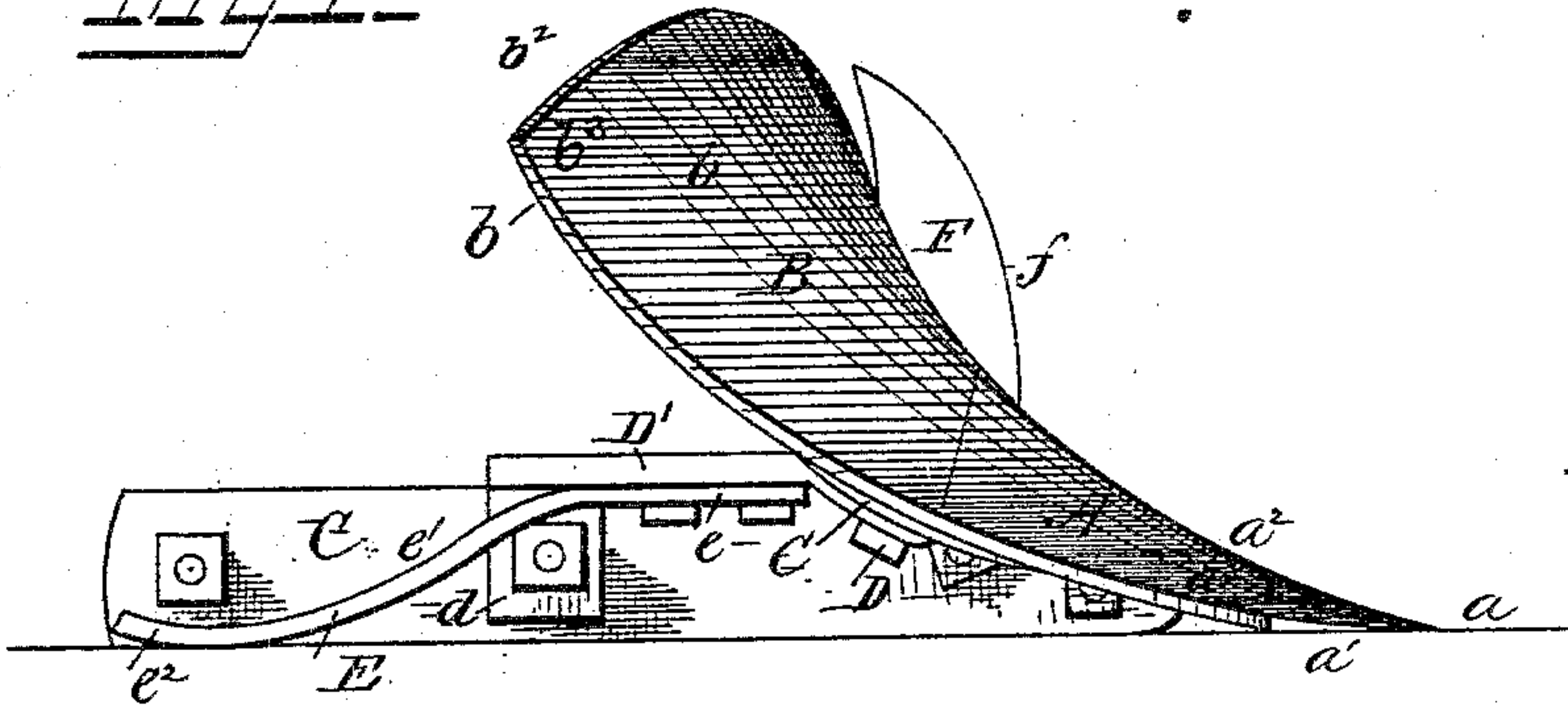


Fig-2-

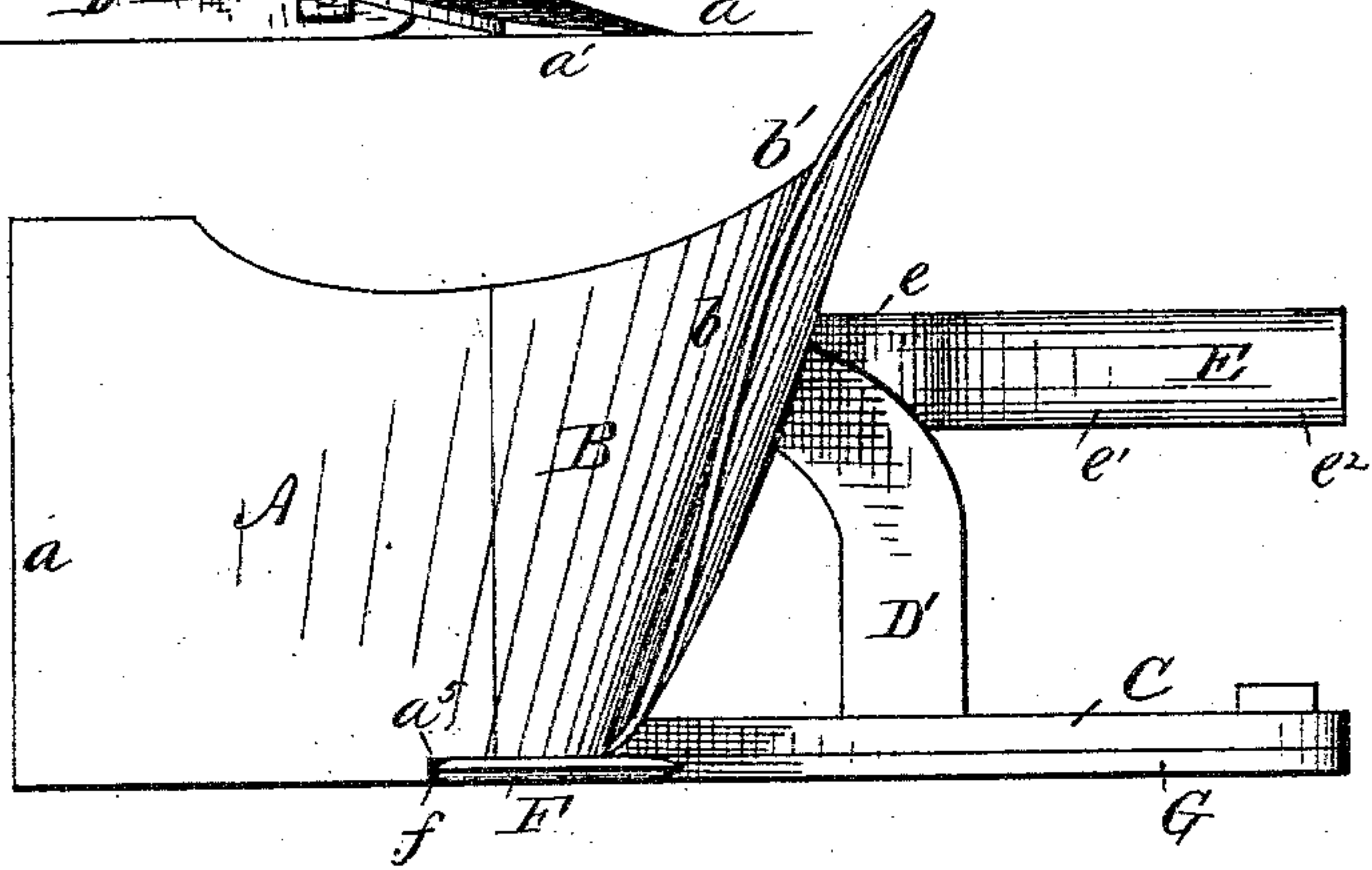


Fig-3-

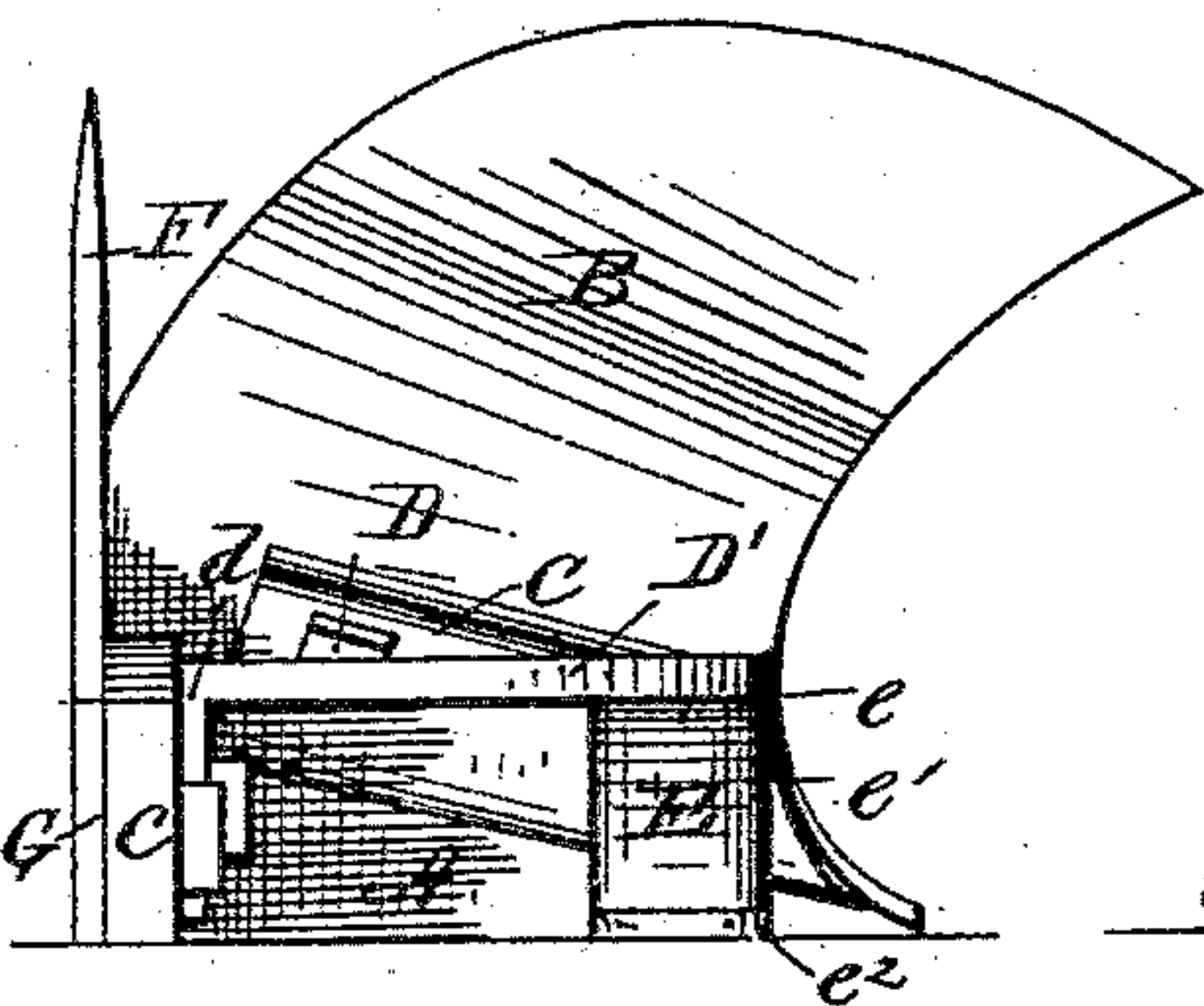


Fig-4-

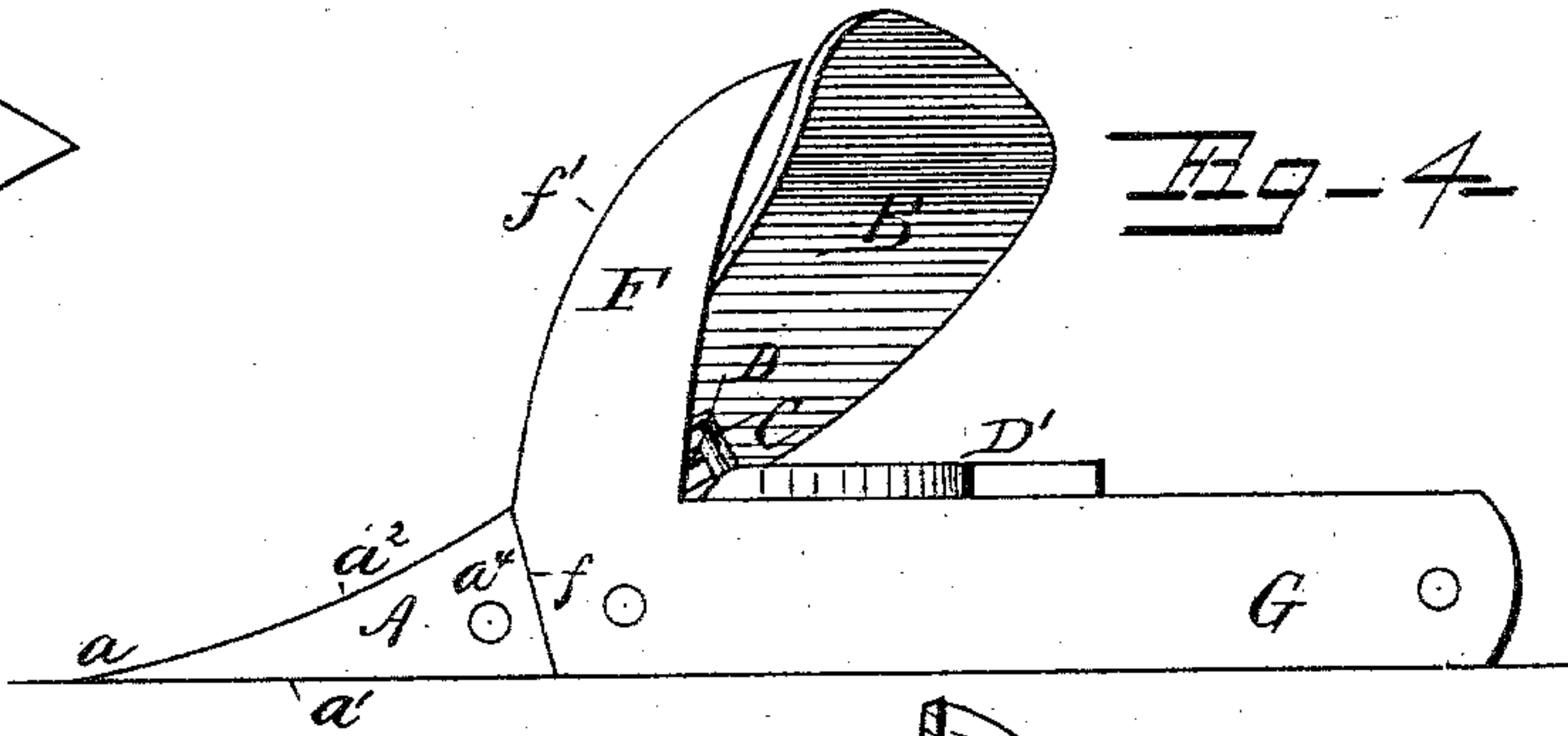


Fig-5-

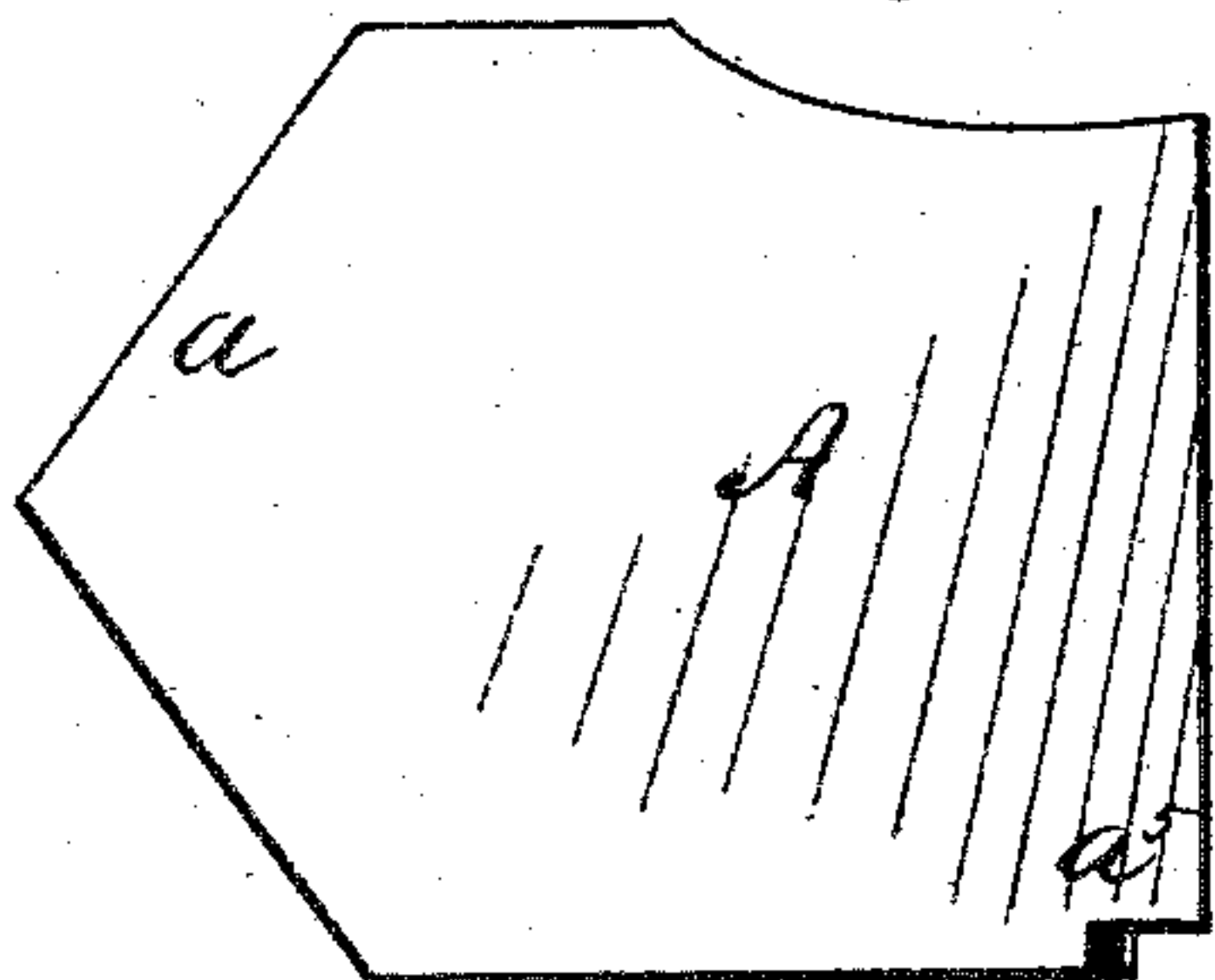
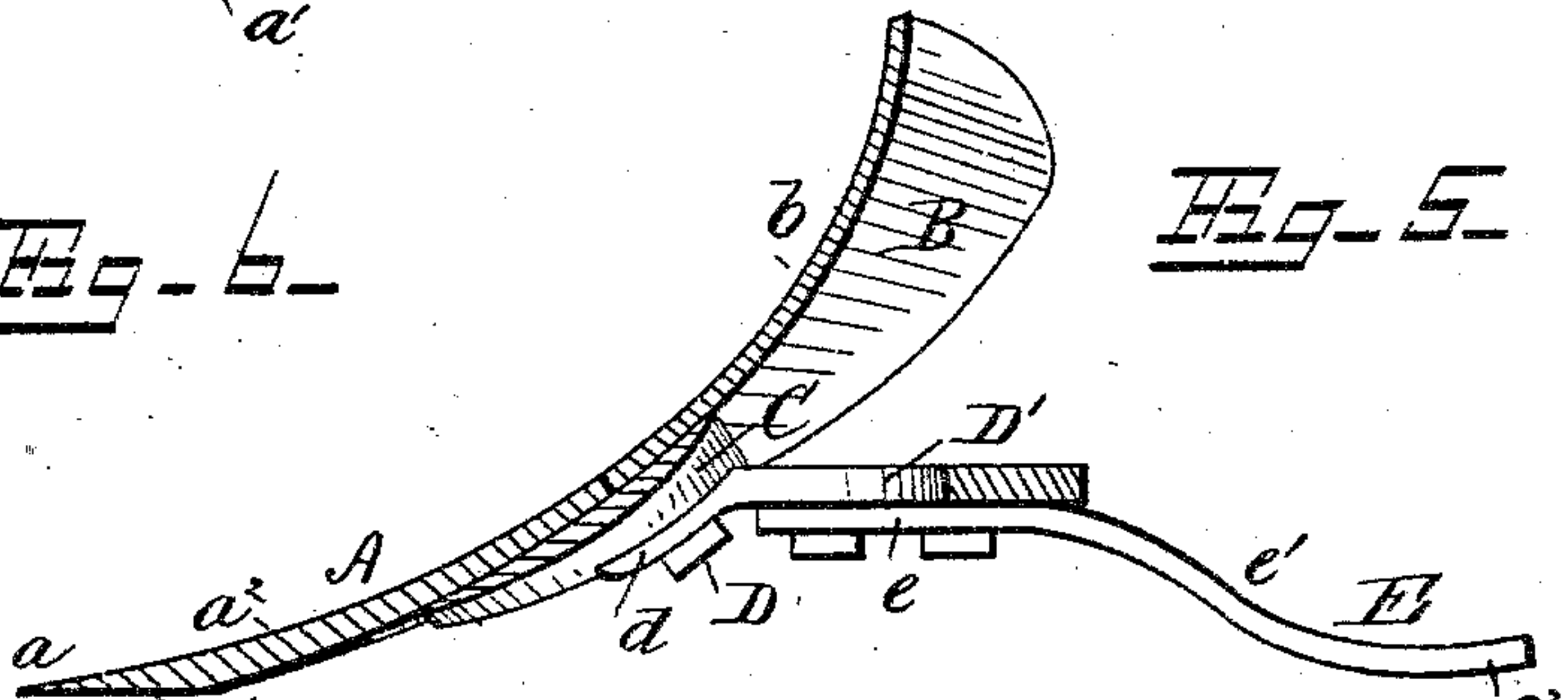


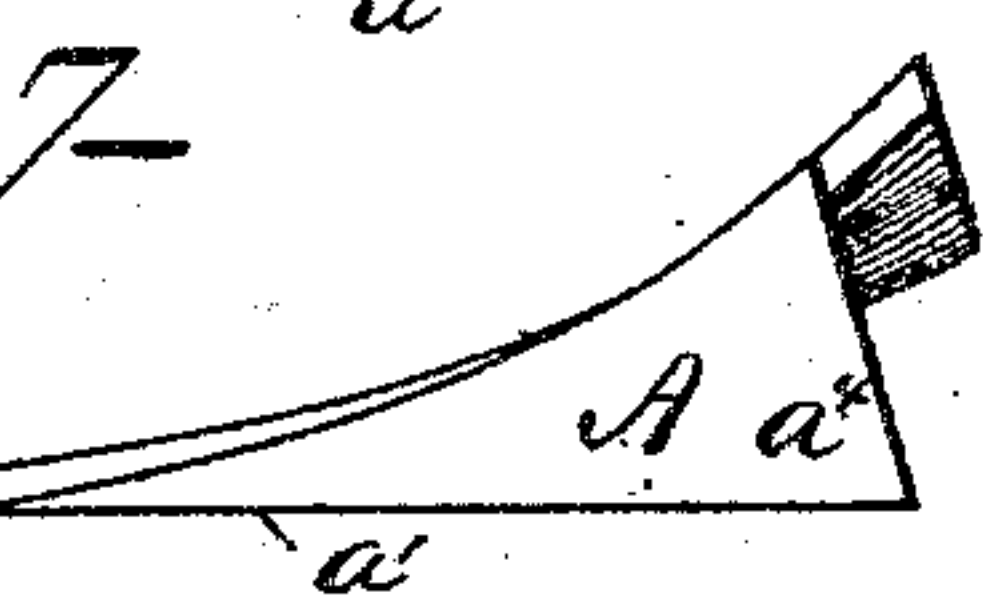
Fig-6-



WITNESSES

J. R. Sittell
J. L. Ormand

Fig-7-



INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM K. HARRELL, OF CLARINDA, IOWA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 274,491, dated March 27, 1883.

Application filed November 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. HARRELL, a citizen of the United States, residing at Clarinda, in the county of Page and State of Iowa, have invented a new and useful Plow, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to plows, and has for its object to provide a simple, inexpensive, durable, and efficient plow, that will be of light draft, and that is most especially adapted for plowing old ground—such as stubble, cotton, and corn land, and the like.

In the drawings, Figure 1 is a side view of my invention. Fig. 2 is a top view thereof. Fig. 3 is a rear view. Fig. 4 is another side view. Fig. 5 is a vertical longitudinal sectional view. Fig. 6 is a top view of a slightly modified form of share cutting-edge. Fig. 7 is a side view of the latter.

Referring to the drawings, A designates the share, which is formed with only a broad cutting-edge, a , at its front, the under side of the share being flat, as at a' , for a short distance from edge a , which flat portion will rest upon the ground. The face a^2 of the share is curved upward, with a slight bevel, a^3 , from the landside. The share or point A is also provided with a flange, a^4 , at the landside, at the rear of which is formed a shoulder, a^5 , in the face a^2 .

B is the mold-board, which is secured to the share A at its top edge, preferably by means of the back plate, C, and bolts and nuts D, the latter passing through both the mold-board and share. The mold-board serves as a continuation of the share, its face b being correspondingly curved upward and beveled from the landside, as at b' . b^2 is an extension of the top of the mold-board, the face b^3 of which extension is slightly concaved.

By reason of the above-described construction the broad cutting-edge forms a thin wide wedge, which cuts the land without breaking it and allows it to come upon the plow in an intact condition. The relative shape of the mold-board and share is such that the wear on the face is equalized, since the earth is received in an intact and compact form, and passes in this form to the mold-board, and is not broken until it reaches the extreme end or

extension of the same. This equalization of course effects a loss of friction and corresponding decrease in draft.

C is the inner landside-plate, which is bolted to the inner face of the flange a^4 .

D' is a curved brace bolted to and extending from the outer edge of the point of juncture of the share and mold-board to the inner face of the landside. The ends d d of the brace D' are preferably turned down to provide bolting-flanges, as shown.

E is a slide plate or runner, which is bolted to the under side of the brace D', as at e , from thence curved downwardly, e' , and having the rear flat runner portion or extension, e^2 . This runner-plate E is parallel with the landside, but some distance therefrom, and serves to support its side of the plow, so that its point enters the ground horizontally, and the plow is retained in horizontal position, when the intact earth can pass up to the top of the mold-board before it falls over at the side.

F is the colter or cutter, which is formed integral with the outside plate, G, of the landside. The front lower edge, f , of the colter abuts against the shoulder a^5 of the share, and thus the cutting-edge f' of said colter is in line with the landside-edge of the share, which is very essential in some kinds of soil, as the cutting-edge of the share cuts away for the colter. Besides, in this manner the colter is more firmly secured to the plow.

The share represented in Figs. 6 and 7 of the drawings has its cutting-edge entirely across the front; but instead of being straight across the edge is semi-diamond or V shaped. This form of cutting-edge is preferred for use in timber and stony land.

The advantages of my invention will be readily understood. The construction is very simple, and the manufacture can be conducted at a minimum cost.

I claim as my invention—

1. In a plow, the combination of the share A, having a broad cutting-edge running at right angles from the landside and formed as a thin horizontal wedge curved upward slightly at the rear, and the mold-board increasing in curvature rearward and slightly twisted till its top rear edge stands in an oblique and

nearly vertical plane, and having the outline substantially as shown.

2. As an improvement in plows, the combination, with the share, mold-board, and land-side, of the flat slide-plate, E, secured to the opposite side of the plow from the landside to form a rear runner, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM KING HARRELL.

Witnesses:

P. SWISHER,

T. T. PENDERGRAFT.