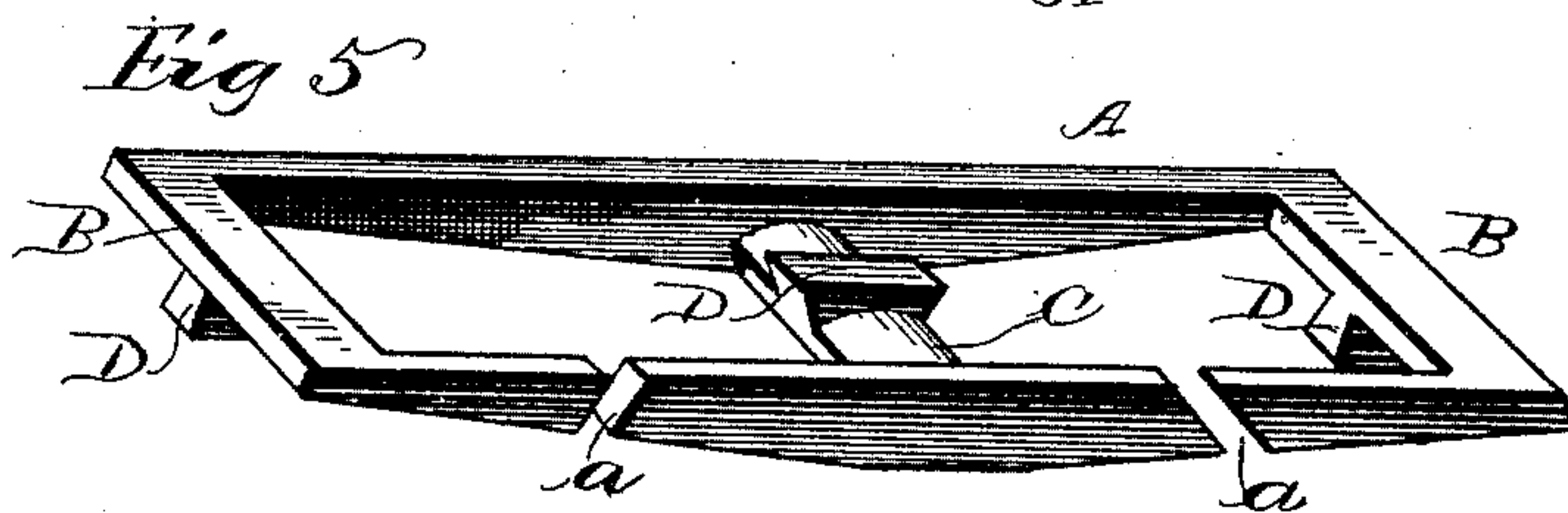
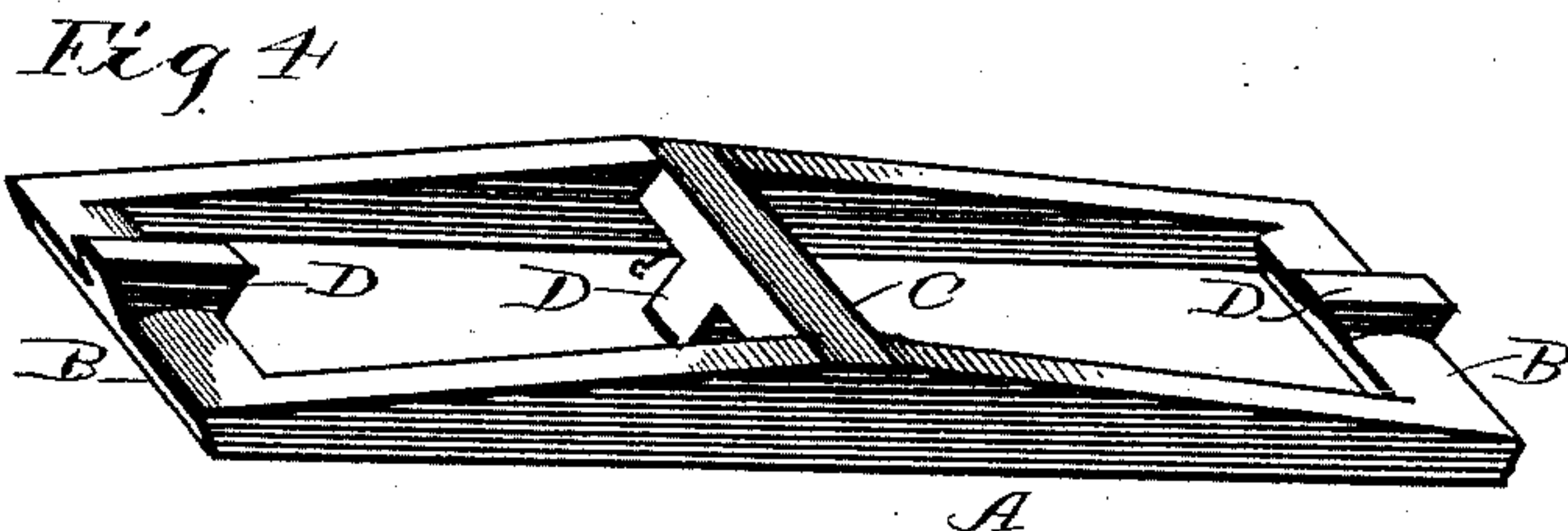
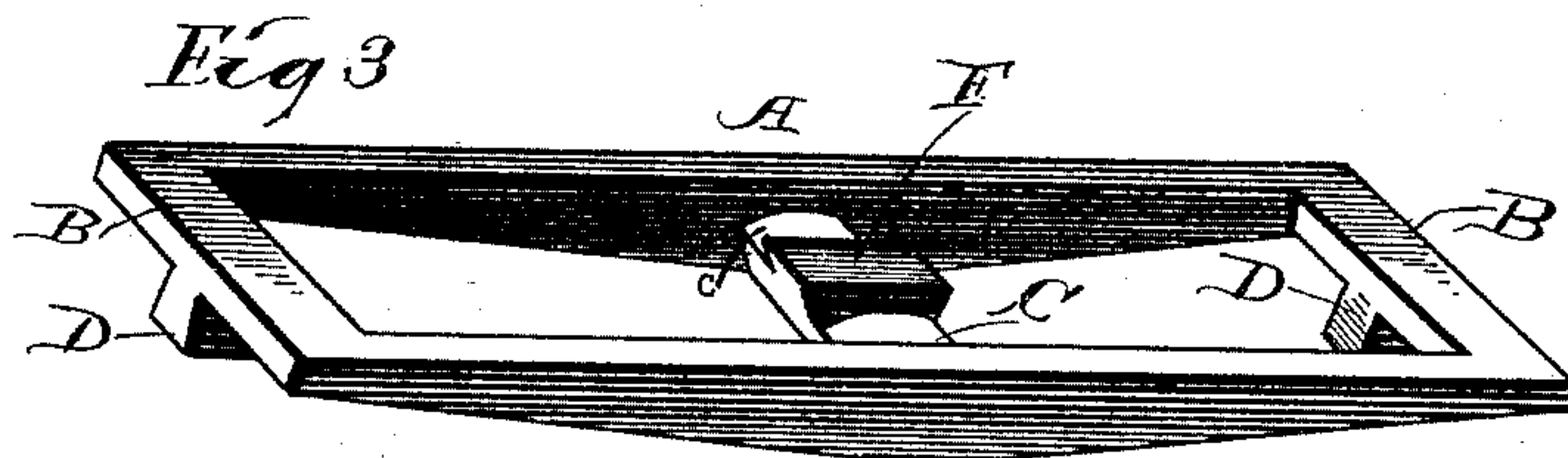
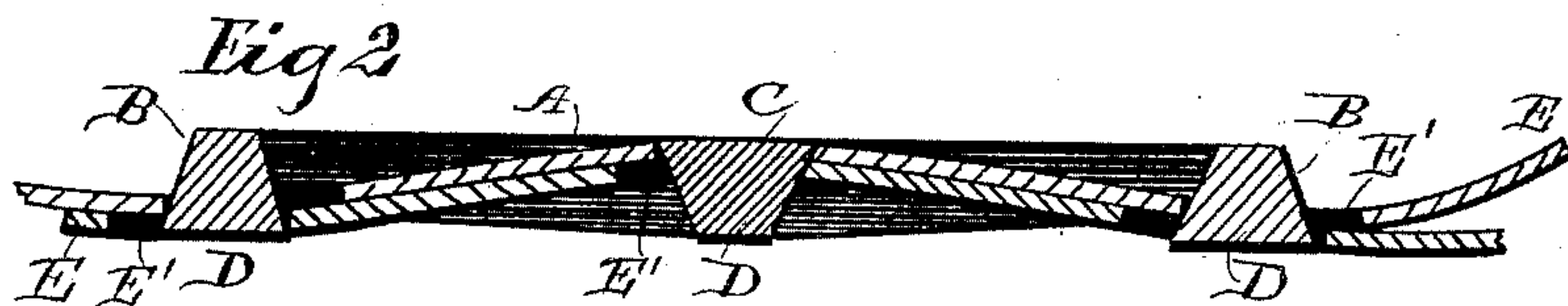
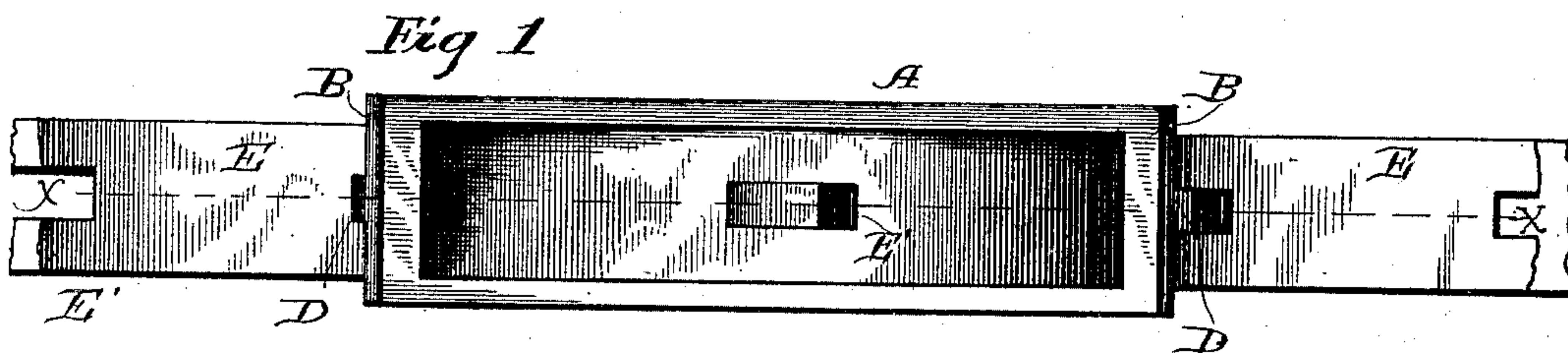


(No Model.)

J. B. HARRIS.
BALE TIE.

No. 443,045.

Patented Dec. 16, 1890.



Witnesses
C. C. Burdine
J. P. Davis.

Inventor
John Brown Harris
per R. G. Bois.
his Attorney.

UNITED STATES PATENT OFFICE.

JOHN BROWN HARRIS, OF EUTAW, ALABAMA.

BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 443,045, dated December 16, 1890.

Application filed April 17, 1890. Serial No. 348,289. (No model.)

To all whom it may concern:

Be it known that I, JOHN BROWN HARRIS, a citizen of the United States, residing at Eutaw, in the county of Greene and State of Alabama, have invented certain new and useful Improvements in Bale-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

This invention has relation to buckles, but more especially to that class of such devices used for making bale-ties and similar purposes.

The object in view is to produce a more simple, cheap, efficient, and durable device than has hitherto been in use; and to this end my invention consists in certain peculiarities of construction and combination of parts more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, making part of this specification, Figure 1 represents a top view of my device, illustrating the application of the same; Fig. 2, a longitudinal section taken on line *xx* of Fig. 1; Figs. 3 and 4, perspective views of the buckle detached, and Fig. 5 a modification.

The reference-letter A represents the side bars of the buckle, which are widest at the middle and taper toward either end; B, the end bars, and C the central cross-bar, which connects the side bars at their centers. All these parts are formed integral, and the end bars B and central cross-bar C are made wedge-shaped in section, as seen more clearly in Fig. 2, the side faces of the end bars flaring downwardly and those of the central bar flaring upwardly. The top and bottom surfaces of each end bar are flush with the corresponding surfaces of the side bars, and from the bottom surfaces of each projects a lug D, the ends of which are the continuations of the flaring faces of the end bars. These lugs are situated at the middles of the end bars, and their lower faces lie in the same plane with each other and also with the lower surface of the central cross-bar, while they are given a sufficient width and length to engage the openings E' in the strap E.

The lower face of the central cross-bar C is

flush with the lower edges of the end bars, but its upper surface *c* lies somewhat below the upper edges of said side bars, and is given a slightly-rounded contour, which is in approximately the same plane as the lower faces of the end bars, this being allowed by the shape of the side bars, which has been previously described. At the middle of this central bar is formed a lug F, similar in shape to those of the end bars, its upper surface lying in the plane of the upper faces of the side and end bars. It will be seen that the three lugs are each in alignment with the other, and that by the peculiar form of the side bars and central cross-bar their bases lie in approximately the same plane, while the two outside lugs extend below said plane and the central one above, each lug having the same dimensions.

The distance between the end bars and central cross-bar is about equal to that between the apertures of the strap, and by reference to Figs. 1 and 2 it will be seen the device is applied by inserting the meeting ends of the strap beneath the opposite end bars of the buckle and over the central bar, drawing them together as tight as possible, and at the same time causing the apertures in the two ends to register with each other. The three lugs will be made to engage their respective registering openings in the strap ends. The apertures of the strap are made somewhat longer than the lugs, and after the latter have been made to engage them and the parts are freed from the grasp of the manipulator the tightening of the strap about the bale will cause the ends of said strap to be slipped back and the apertures slipped past each other, thus tightly encompassing the lugs. The latter, as has been previously stated, are wedge-shaped, so that the more the strap gives the tighter its ends will be drawn about the lugs, and cannot become disengaged from the latter, except by drawing together the ends of the strap, and thus enlarging the opening about the lugs.

In Fig. 5 a modification is shown, in which oblique openings *a* are made in one of the side bars, through which the strap ends may be inserted from the side instead of beneath the end bars. This form is designed when

stiff hoop-iron straps are used, as in cotton-
bale ties. It is evident that besides this modi-
fication many other slight changes which
might suggest themselves to a skilled me-
5 chanic could be resorted to without depart-
ing from the spirit and scope of the inven-
tion, and hence I do not limit myself to the
precise construction herein shown.

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

1. A buckle consisting of side and end bars
and a central cross-bar, and lugs projecting
from said end bars and said central bar, the
15 lug on the latter extending in an opposite di-

rection from those on the end bars, said lugs
arranged to engage the apertures in the strap,
substantially as described.

2. In a buckle, side and end bars, a cross-
bar connecting said side bars at their centers, 20
and wedge-shaped lugs projecting from said
end bars and cross-bar and adapted to en-
gage the apertures of the strap, substantially
as and for the purpose described.

In testimony whereof I affix my signature in 25
presence of two witnesses.

JOHN BROWN HARRIS.

Witnesses:

JOHN CULLEN,
GEO. H. COLE.