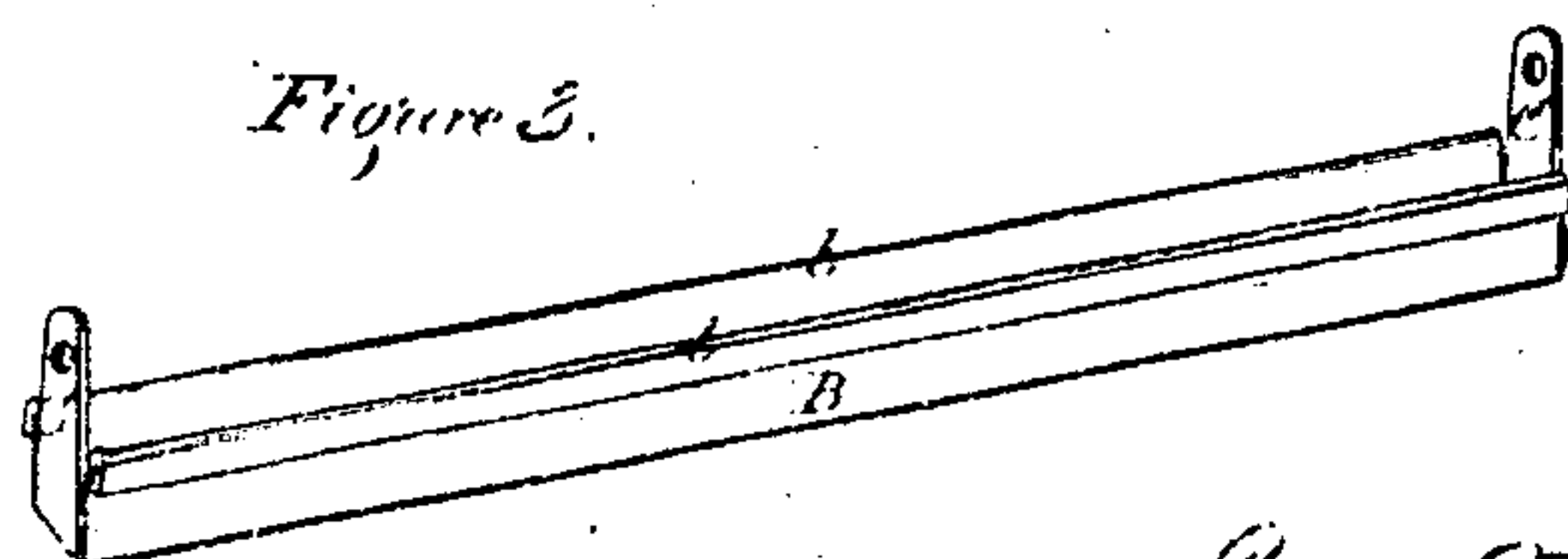
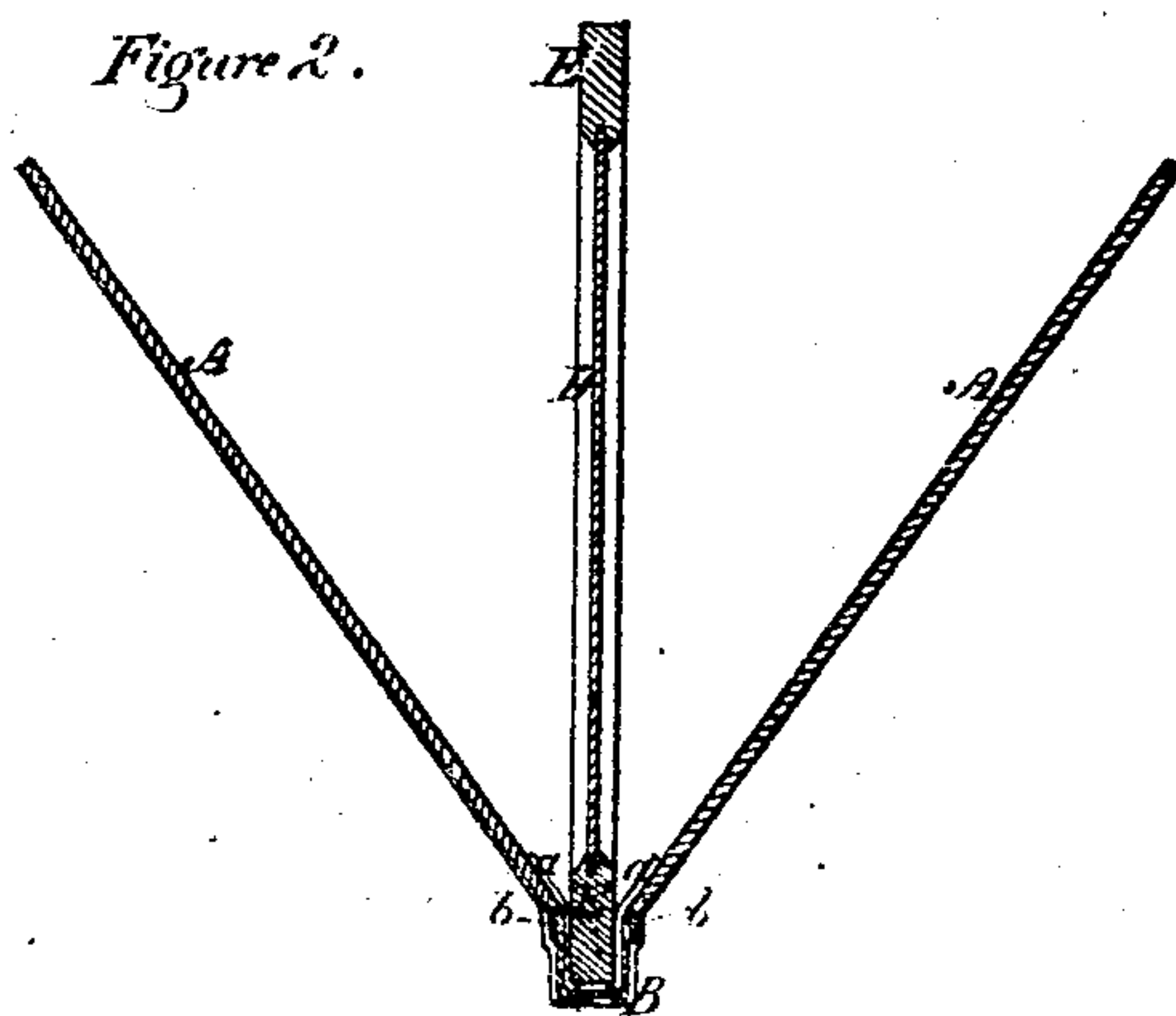
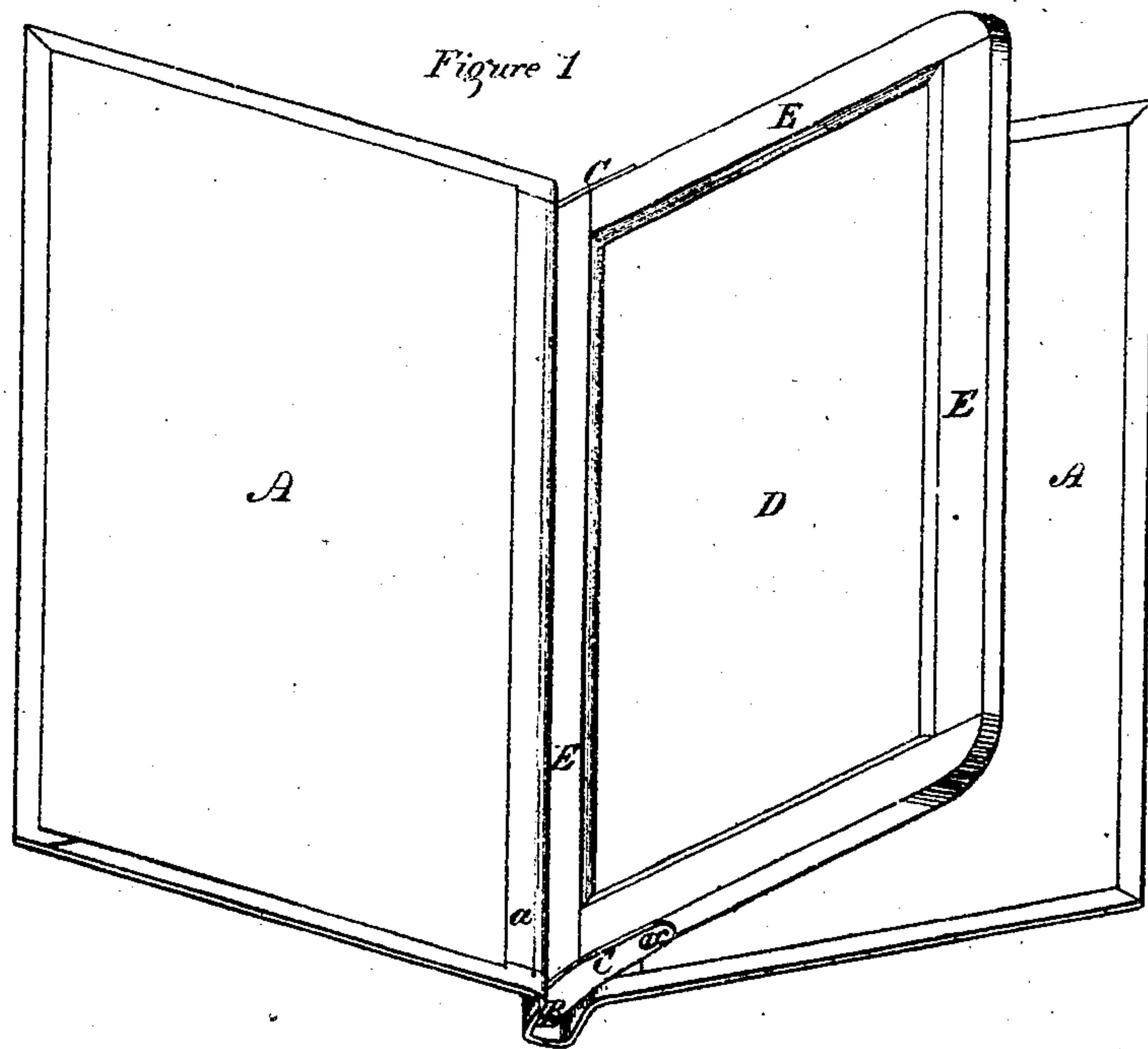


*G. P. Bowman,*

*Portfolio Slate.*

*No. 98,458.*

*Patented Dec. 28, 1869.*



*Wm. H. Johnson*  
*Chas. W. Johnson* } *Witnesses*

*George F. Bowman*  
*By W. H. Johnson*  
*Attorneys.*

# United States Patent Office.

GEORGE F. BOWMAN, OF CLEVELAND, OHIO.

Letters Patent No. 98,458, dated December 28, 1869.

## IMPROVEMENT IN MOUNTING WRITING-SLATES.

The Schedule referred to in these Letters Patent and making part of the same

*To all whom it may concern:*

Be it known that I, GEORGE F. BOWMAN, of Cleveland, in the county of Cuyahoga, and State of Ohio, have invented an Improved Slate-Portfolio; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 is a perspective view of the portfolio open, showing a common framed slate hinged therein;

Figure 2 represents a vertical transverse section of the same; and

Figure 3 represents a view in perspective of the metallic slate-holder.

My improvements consist in securing, within a portfolio, a common framed slate by means of a metallic holder, to the angular projecting ends or sides or back of which the slate is secured, and by the sides of which it is supported throughout its length, which also forms a rigid back for the portfolio, and a rigid seat for the slate, whereby the latter may be removed in case of breakage, and replaced by another with facility, and combining the use of a common cheap framed slate with a portfolio.

In the accompanying drawings—

A represents the portfolio-leaves or covers, united at the back in the usual manner.

The back of this portfolio is provided with a metallic supporting and holding-trough, B, having at each end a projecting ear, C.

This trough is open at one side to form the seat or receptacle for the slate D, and is secured between the back of the portfolio, and an inner lining of morocco *a* glued to the inner sides of the trough B, and to the inner sides of the portfolio-covers A, so as to be united securely therewith, in such manner that the sides of said metallic trough will form a rigid back, and the hinges of the covers, by which the sides which form the hinges will embrace and support the frame of the slate throughout its length.

In order to prevent the hinges of the back of the portfolio from being cut out by the edges of the sides

of the metallic holder, I bend them over so as to form convex bearing-surfaces *b* at the junction of the morocco back with the sides of the metallic support B, which also has the additional advantage of forming a bracing-rib throughout its length. It is obvious that this is a very important improvement, and greatly increases the durability of the portfolio.

The ears C, by which the frame E of the slate is secured to the portfolio, are bent at right angles to the metallic trough B, at each end thereof, and project a sufficient distance beyond the hinges of the covers to embrace the inner top and bottom corners of the slate-frame E, in such manner as to form a rigid support to the slate in the direction of its length, and confine it securely within the metallic holder B.

These projecting ears C may be attached to the frame of the slate by screws *c*, to admit of its removal therefrom, whenever, from any cause, it may be necessary to do so, and its replacement by another with facility. They may also be countersunk in the ends of the slate-frame, so as to make a neat finish.

By means of a portfolio thus constructed, a cheap common framed slate may be used, possessing all the advantages of a cover, to protect the figures thereon, having the appearance of a book, and may be used without noise or defacing the desk.

This arrangement will also admit of the frame of the slate being made much lighter and thinner than heretofore.

Having thus described my invention,

I claim a common framed slate, secured within a portfolio by means of metallic end ears C, and supported along its entire length by a metallic back, B, fitted thereto, made in one piece with the ears, and constituting the seat or receptacle for the slate-frame E, and the back of the portfolio A, so that the slate may be removed when necessary, as described.

GEORGE F. BOWMAN.

Witnesses:

GEO. T. CHAPMAN,

SAML. E. WILLIAMSON.