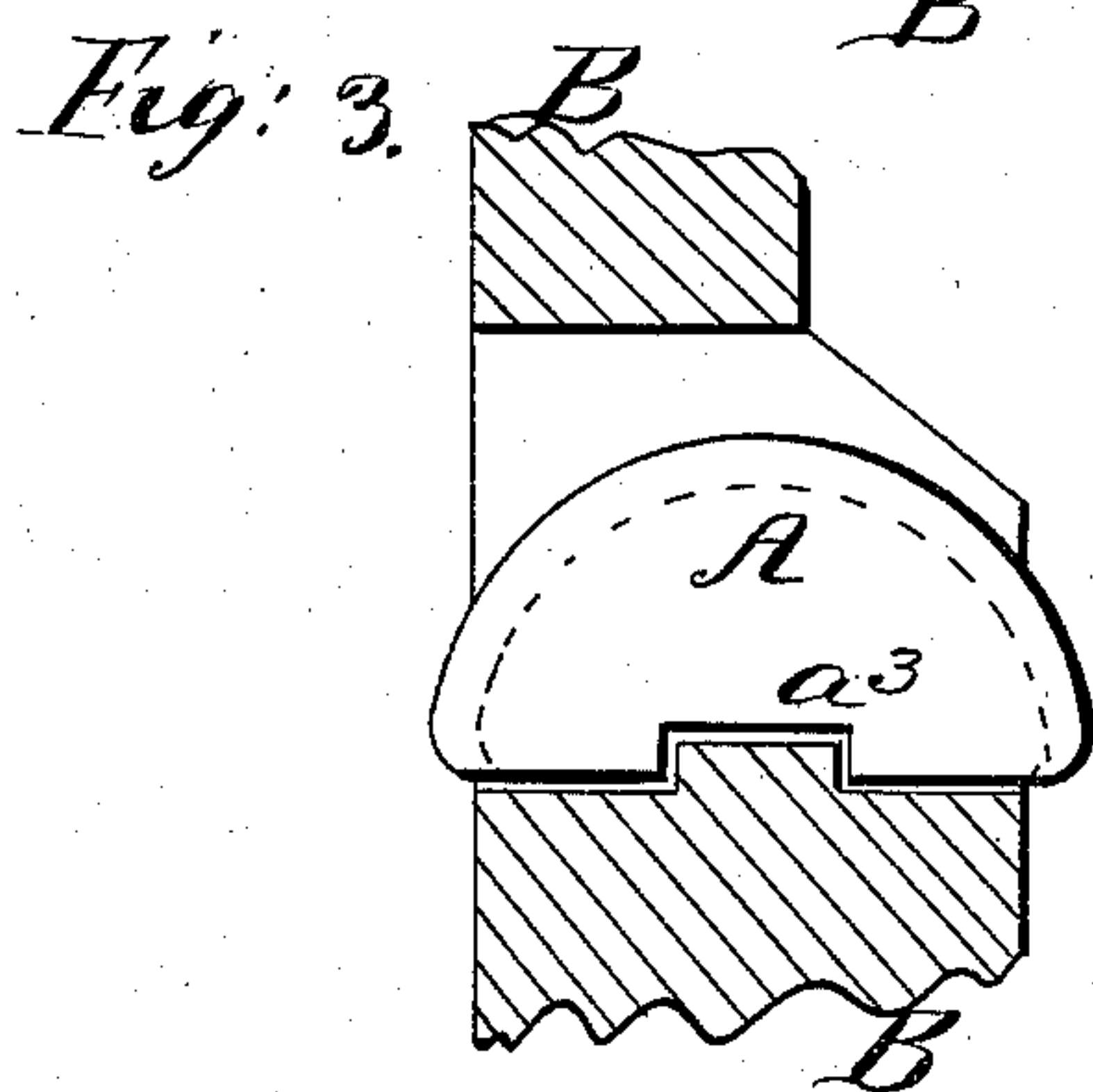
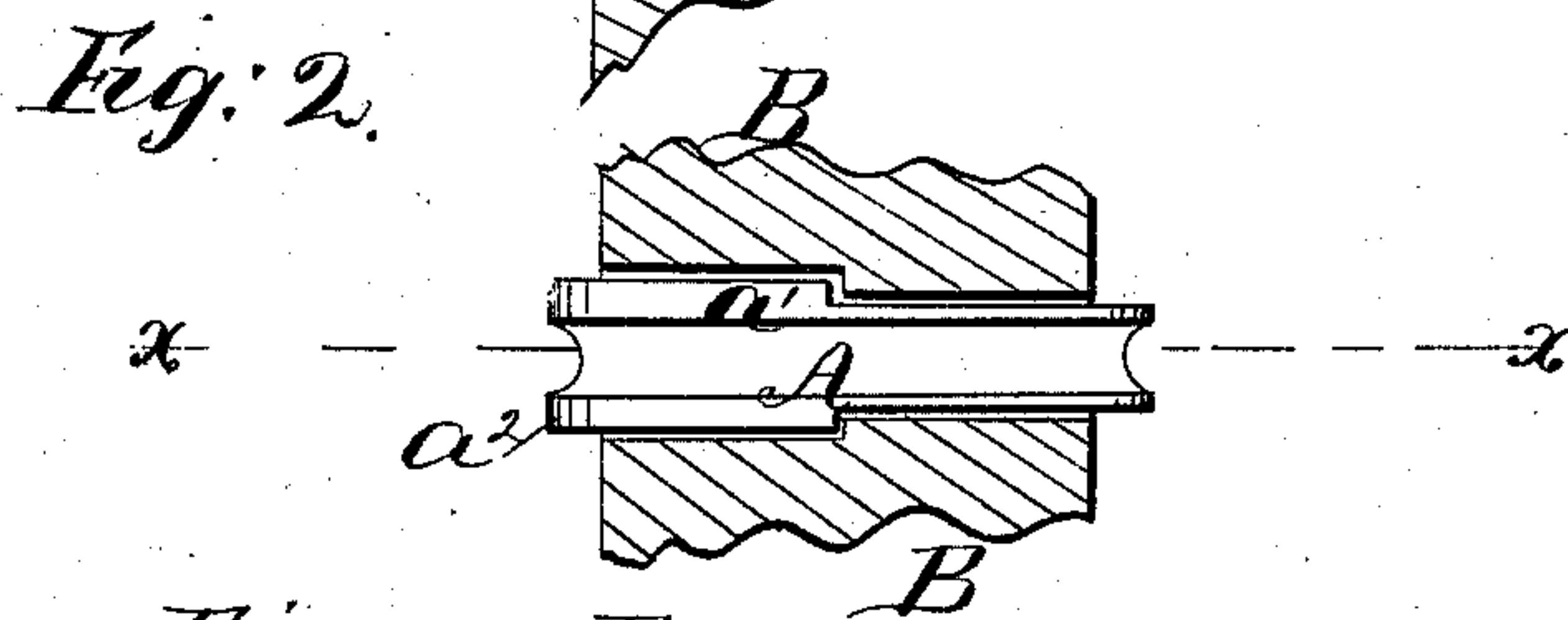
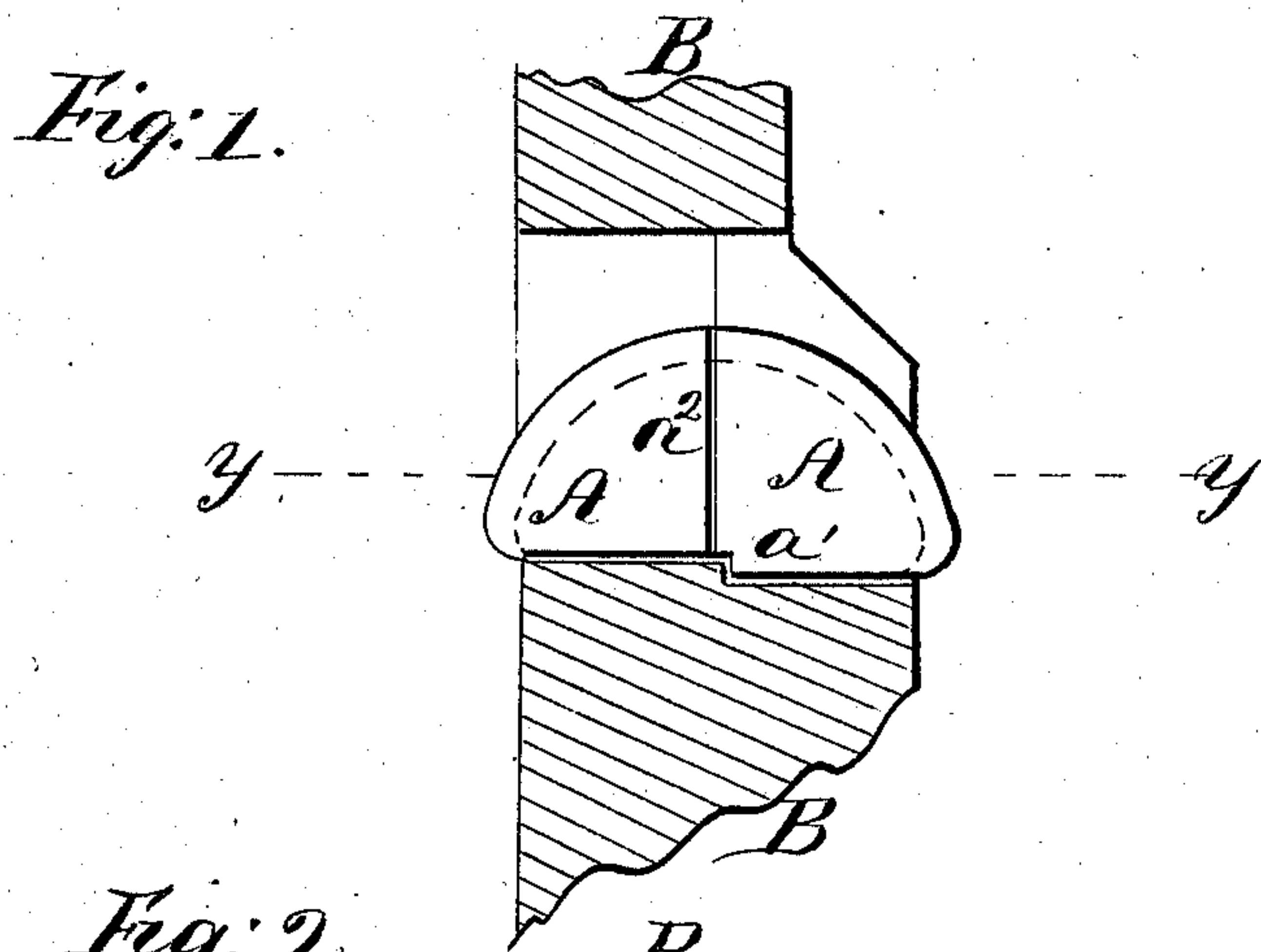


A. Bicknell,
Sash-Cord Guide.
N^o 83,685. Patented Nov. 3, 1868.



Witnesses;

W. C. Asketon
John A. Morgan

Inventor;
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per Munn &
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United States Patent Office.

ALFRED BICKNELL, OF SOUTH READING, MASSACHUSETTS.

Letters Patent No. 83,685, dated November 3, 1868.

IMPROVEMENT IN SASH-GUIDE BLOCKS.

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, ALFRED BICKNELL, of South Reading, in the county of Middlesex, and State of Massachusetts, have invented new and improved Guide-Blocks for Window-Sash Cords; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a vertical section of a portion of a window-casing, taken through the line $x-x$, fig. 2, and showing a side view of my improved guide-block.

Figure 2 is a horizontal section of a portion of a window-casing, taken through the line $y-y$, fig. 1, and showing a top view of my improved guide-block.

Figure 3 is the same section as fig. 1, and showing a modified form of the guide-block.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved anti-friction grooved guide-block for window-sash cords, which shall be simple in construction, inexpensive in manufacture, and effective in operation, and which is designed to take the place of the ordinary guide-pulleys.

And it consists in the construction of the guide-blocks, as hereinafter more fully described.

A is my improved guide-block, which is semicircular in its general form, and the upper circular edge of which is grooved, to receive the sash-cord.

The block A may be made of glass, porcelain, anti-friction metal, or any other suitable material. When made of porcelain, the glazing must be done very carefully, so as to leave the surface of the groove entirely smooth, to prevent the cord from being chafed when sliding over it; but I prefer to make the blocks A of glass, as being cheaper, and effecting better results.

The blocks A are set in slots in the casing B, in the same position in which the cord-pulleys are usually placed, and with their grooved and curved edges upward. The blocks A are kept in place by shoulders

or notches formed in them, fitting upon shoulders or tongues formed in the casing B, as shown in figs. 1, 2, and 3. In the form shown in figs. 1 and 2, a shoulder, a^1 , is formed upon the lower edge of the block A, upon its inner end, and shoulders, a^2 , are formed upon the sides of said blocks, upon their outer ends, which said shoulders fit against corresponding shoulders formed upon the bottom and sides of the slot in the casing B, in which said blocks are placed. In this case the blocks A are inserted in the slots in the casing B, and pushed inward until the shoulders a^2 upon their sides strike against the shoulders upon the sides of the slot in the casing. The blocks are then pressed downward until the shoulders a^1 upon their lower edges take hold of the shoulder in the bottom of said slot. By this construction, when said blocks are held down by the weight of the sash and balancing-weight attached to the ends of the cords passed over said blocks, it is impossible for them to move in either direction, or to get out of place.

In the form shown in fig. 3, a square notch, a^3 , is formed in the middle part of the lower edge of the said block, which fits upon a tongue formed upon the bottom of the slot in the casing B, so that when the said blocks are held down by the weight of the sash and balancing-weight, they may be held securely in place.

I prefer the construction first described, as being equally easy of construction, and giving a firmer support to the blocks.

I claim as new, and desire to secure by Letters Patent—

The anti-friction grooved guide-blocks A, constructed substantially as herein shown and described, that is to say, with grooves upon their semicircular upper edges, and with shoulders or notches upon either or both their sides and lower edge, or upon their lower edge only, as and for the purpose set forth.

ALFRED BICKNELL.

Witnesses:

RUFUS S. GILMORE,
H. J. STOCKFORD.