

(No Model.)

M. HARMON.

DEVICE FOR TIGHTENING BOLTING CLOTH.

No. 259,639.

Patented June 13, 1882.

Fig. 1.

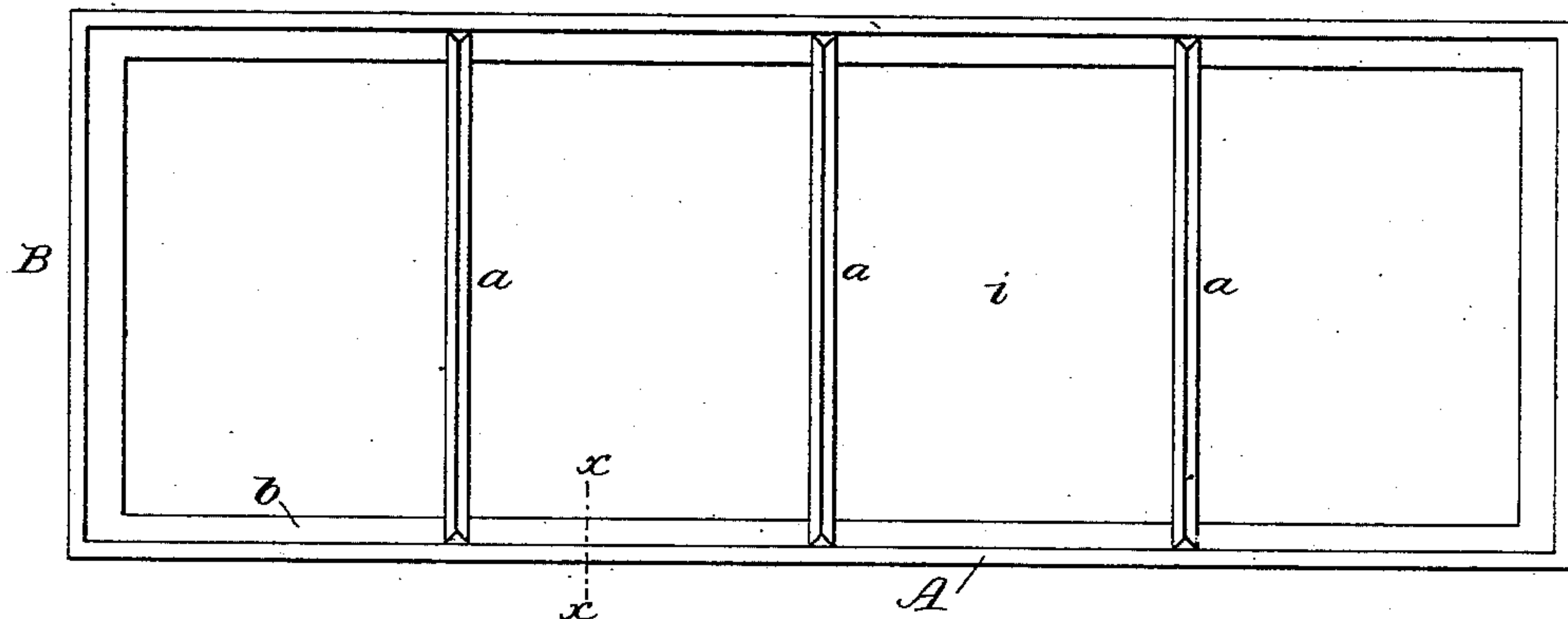


Fig. 2.

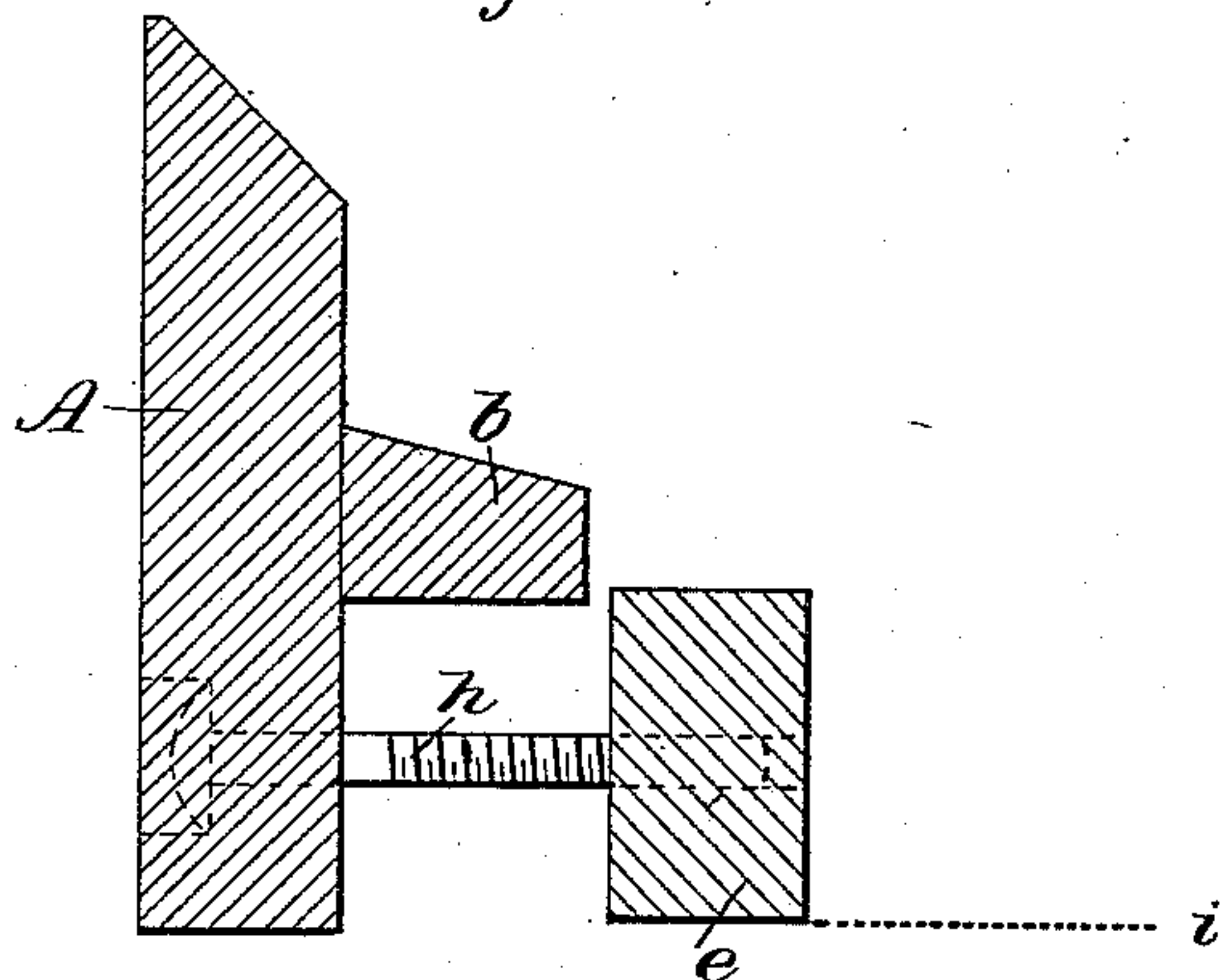
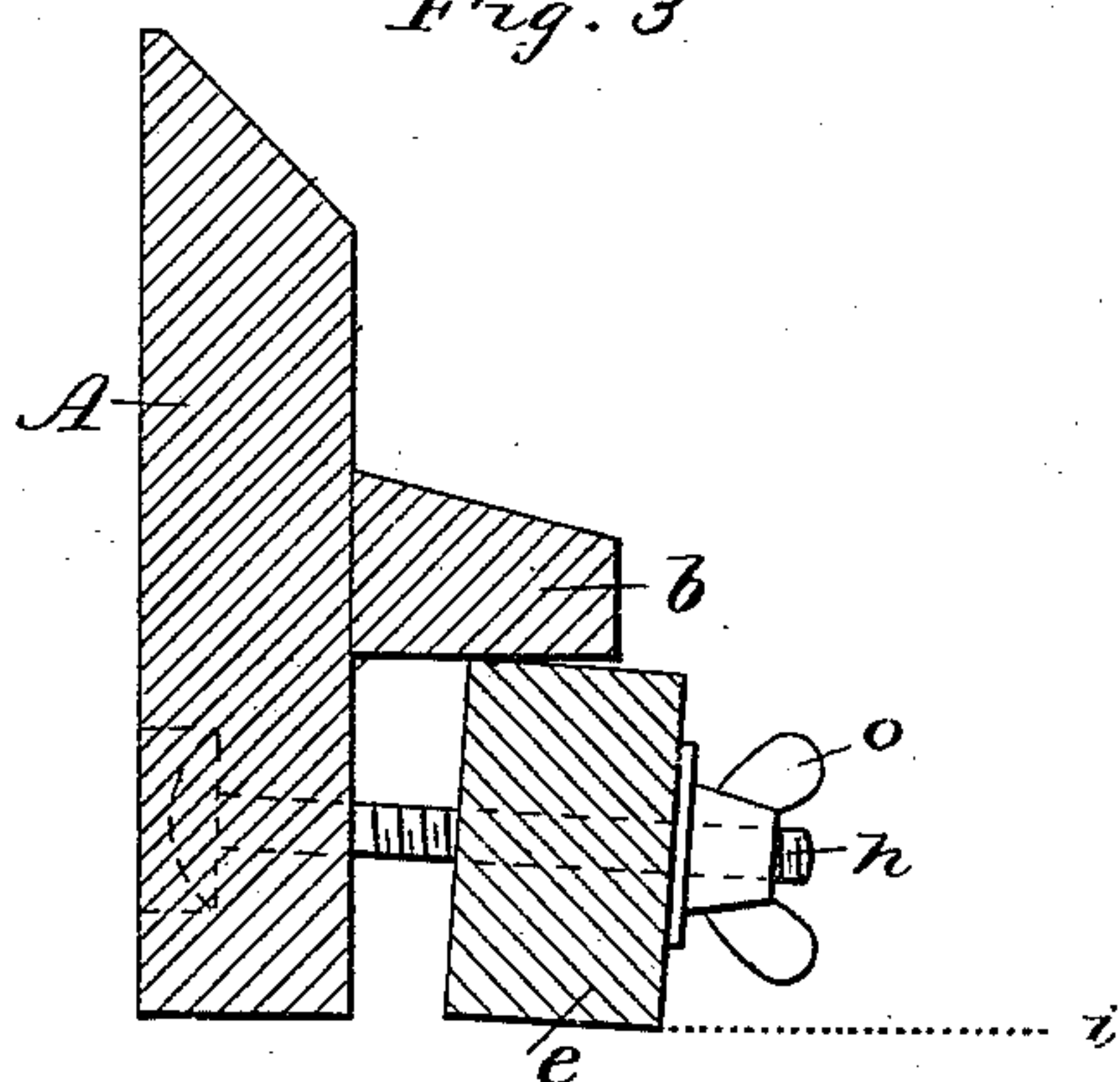


Fig. 3.



Witnesses:

H. N. Low

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UNITED STATES PATENT OFFICE.

MILFORD HARMON, OF JACKSON, MICHIGAN, ASSIGNOR TO THE GEORGE T. SMITH MIDDLINGS PURIFIER COMPANY, OF SAME PLACE.

DEVICE FOR TIGHTENING BOLTING-CLOTH.

SPECIFICATION forming part of Letters Patent No. 259,639, dated June 13, 1882.

Application filed October 3, 1881. (No model.)

To all whom it may concern :

Be it known that I, MILFORD HARMON, a citizen of the United States of America, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Devices for Tightening Bolting-Cloths; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a top or plan view of a shaker having my invention applied thereto. Fig. 2 is a vertical transverse section of one of the side pieces or ends of the same, showing the position of parts before the cloth is tightened. Fig. 3 is a similar view, showing the position after the cloth has been tightened.

In the drawings, A are the side pieces, and B the ends, of a shaker-frame for a middlings-purifier of any ordinary or approved construction, the parts being firmly united at the corners of the shaker. Each of the side and end pieces is provided upon its inner face, and about midway between its upper and lower edges, with a projecting rib or cleat, *b*, preferably about an inch or an inch and a quarter in width, and has its upper side beveled or inclined to facilitate the sliding of the middlings therefrom.

ee are the cloth-bars, of which there are four, the sides of the cloth being attached to two of them and the ends of the cloth to two others. These bars are attached to and supported from the sides and ends, respectively, of the shaker-frame by means of bolts *h* and thumb-nuts *o*, the bolts being thrust through the shaker-frame from the outside, the heads of the bolts being seated in recesses, so as not

to project beyond the outer face of the frame, as shown in dotted lines, Figs. 2 and 3.

In order to insure that the upper edges of the cloth-bars are held in the desired close contact with the lower sides of the ribs *b*, I bore the bolt-holes in the shaker-frame at distances from the under side of ribs *b* a little less than the distances between the corresponding bolt-holes in the cloth-bars and the upper edges of the bars, as plainly shown in Fig. 2, so that when the cloth is tightened, as in Fig. 3, the bolts perform not only the function of tightening the cloth and supporting its weight, together with that of a portion of the middlings, but also of keeping the upper edges of the cloth-bars in close contact with the lower sides of the ribs *b*, as will be readily understood from an examination of the drawings, without further explanation.

I do not in this case claim any invention except that which is specifically claimed herein, reserving the right to claim all other patentable features shown or described in another application, which I have heretofore filed.

Having thus described my invention, what I claim is—

The combination, with the shaker-frame, of the inwardly-projecting ribs *b*, the cloth-bars *e*, the bolts *h*, and thumb-nuts *o*, the bolts being arranged in the described relation to the ribs *b* and the cloth-bars, whereby said bolts and nuts are adapted to draw the cloth-bars toward the shaker-frame, and also to press the upper edges of the cloth-bars into close contact with the lower faces of the ribs *b*, substantially as set forth.

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

MILFORD HARMON.

Witnesses:

C. R. KNICKERBOCKER,
GEO. S. BENNETT.