

(No Model.)

J. L. RAWBONE.  
KEYLESS CANVAS STRETCHER.

No. 335,480.

Patented Feb. 2, 1886.

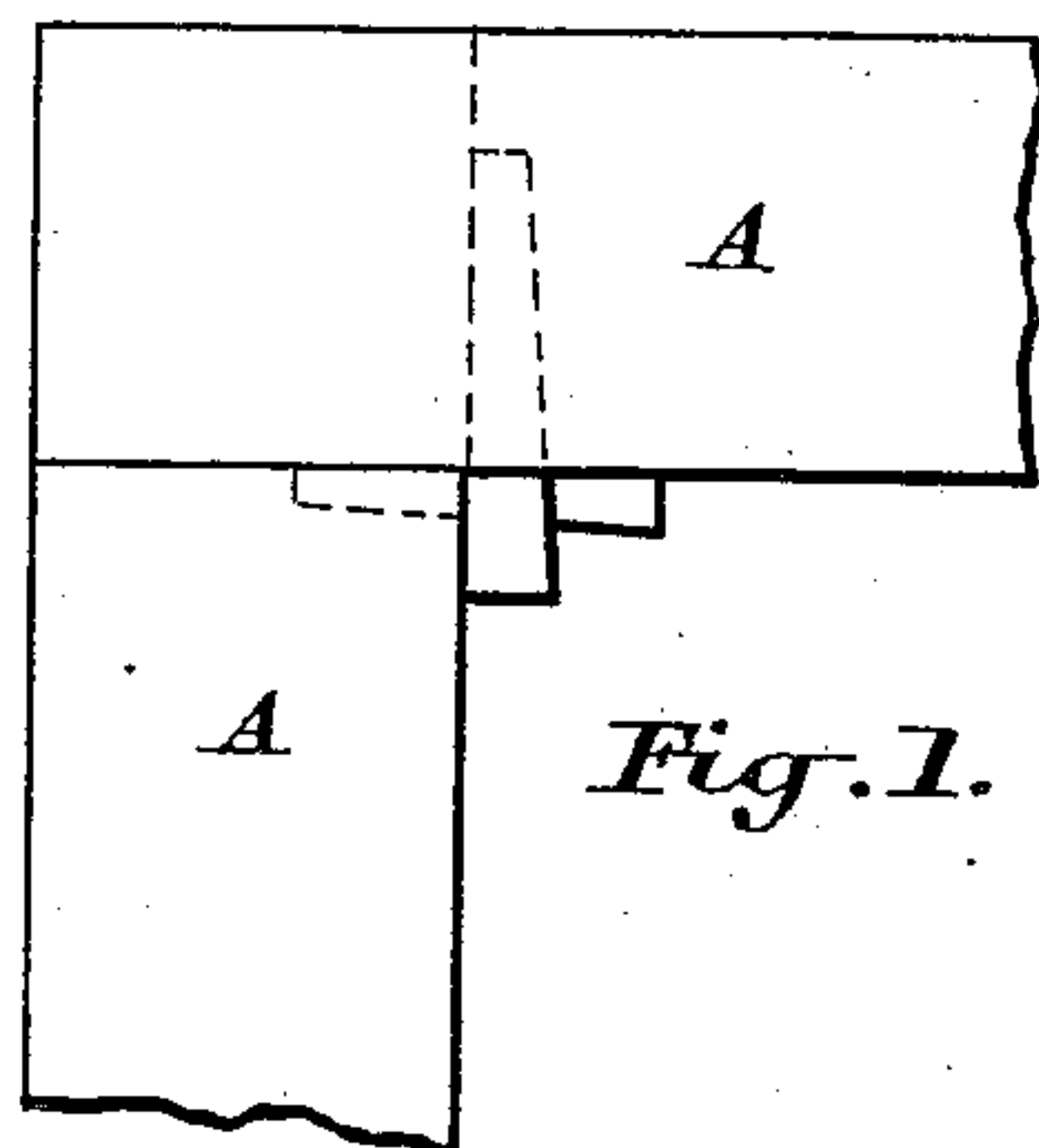


Fig. 1.

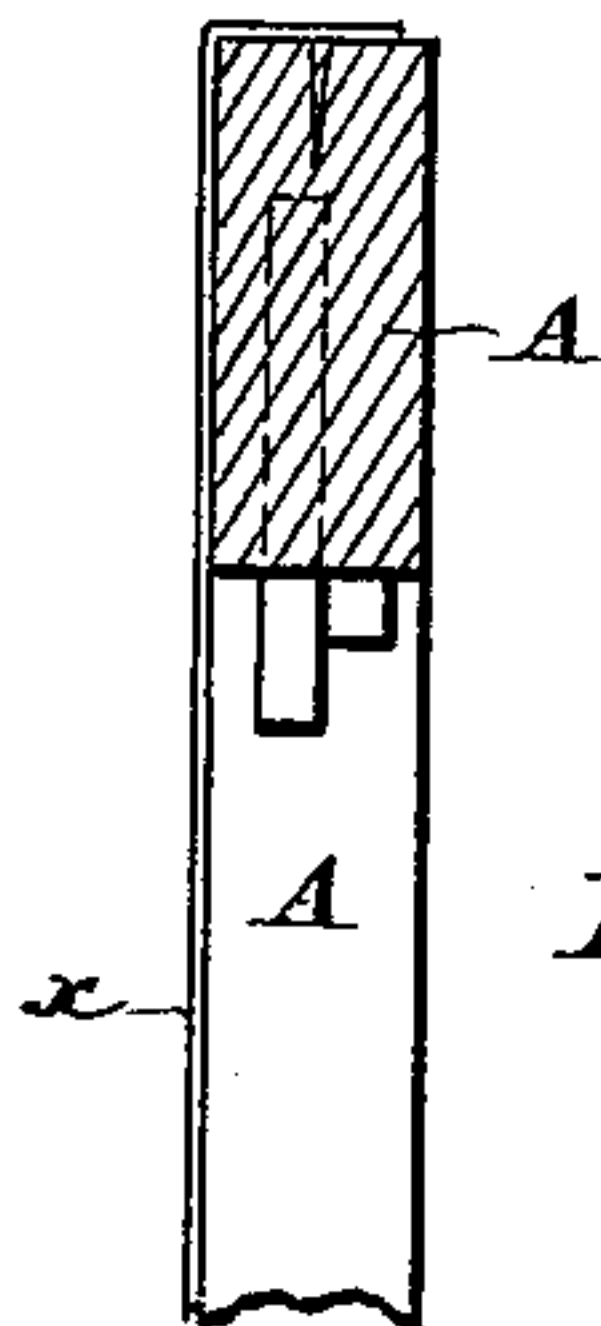


Fig. 2.

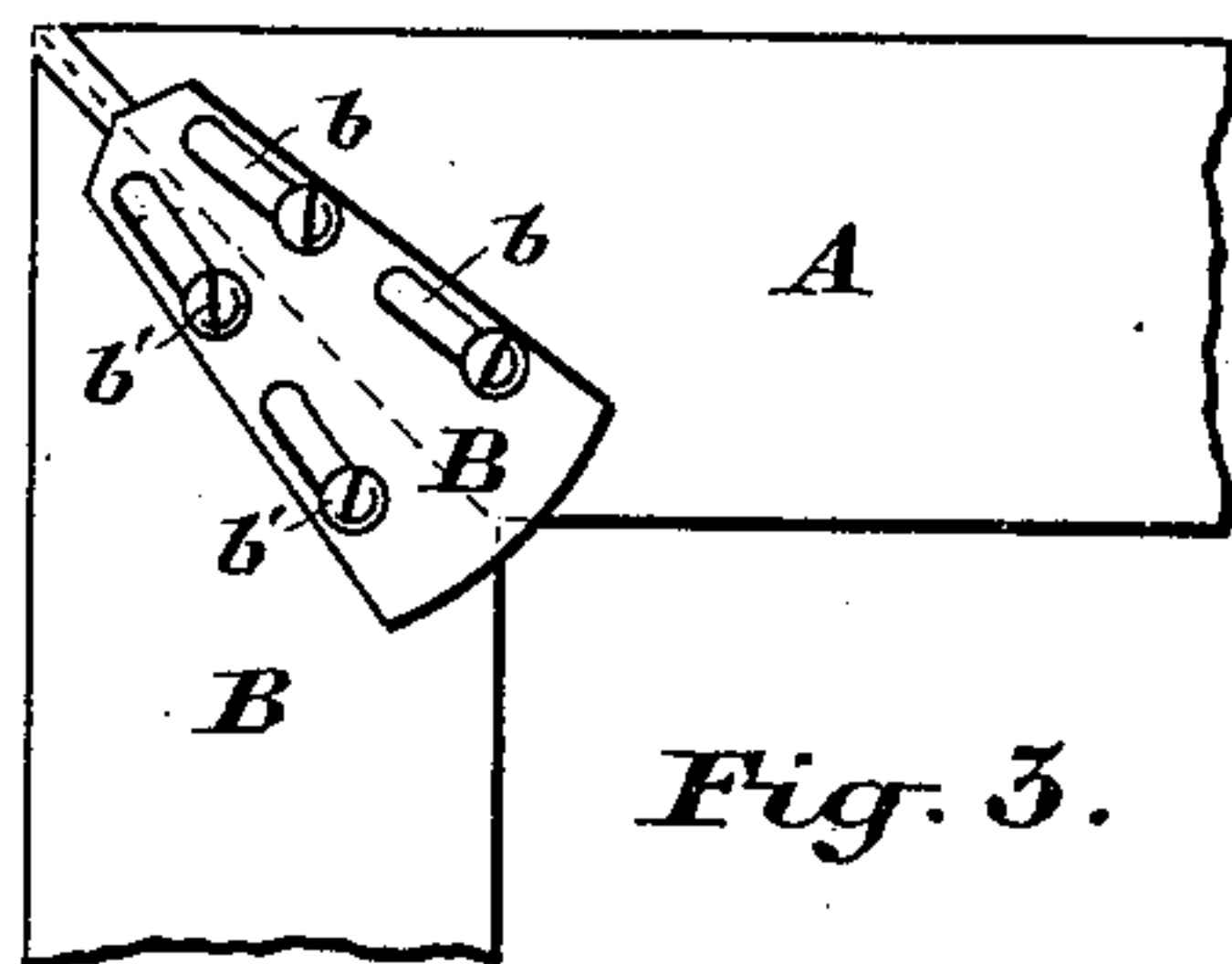


Fig. 3.

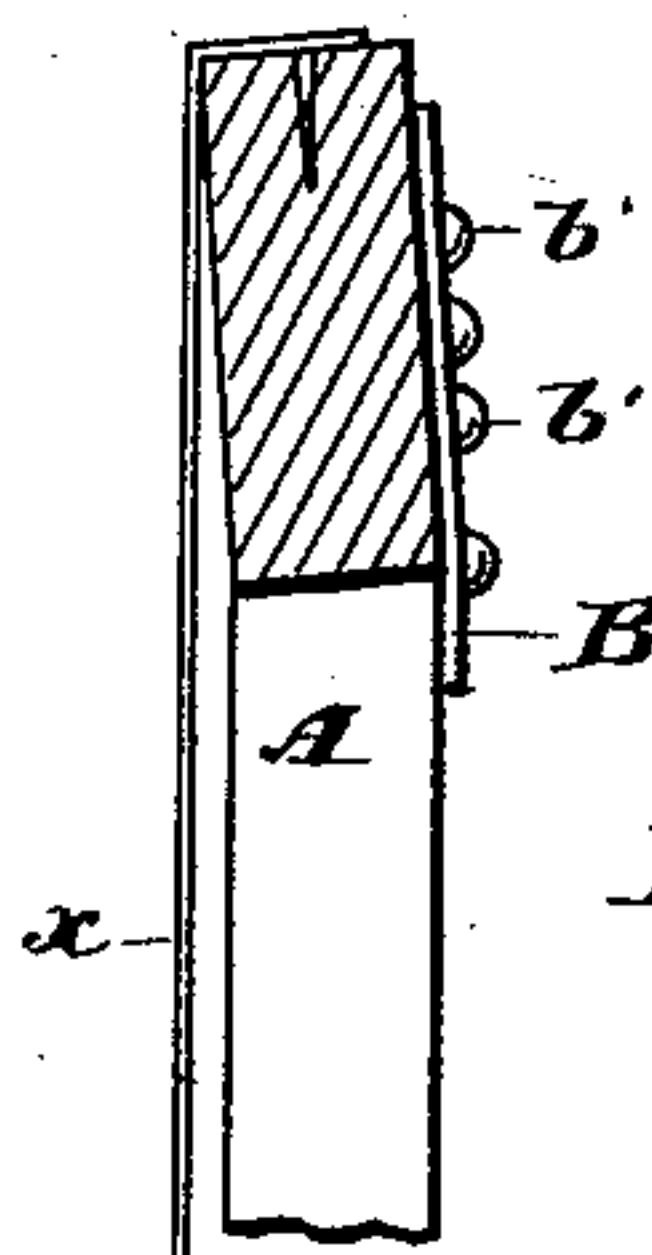


Fig. 4.

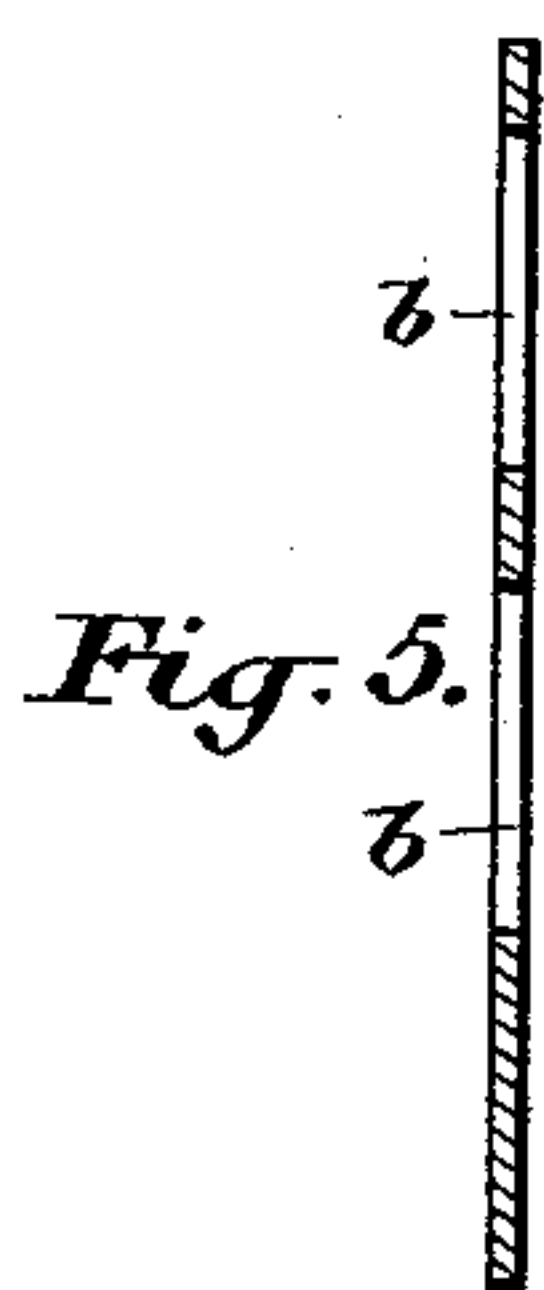


Fig. 5.

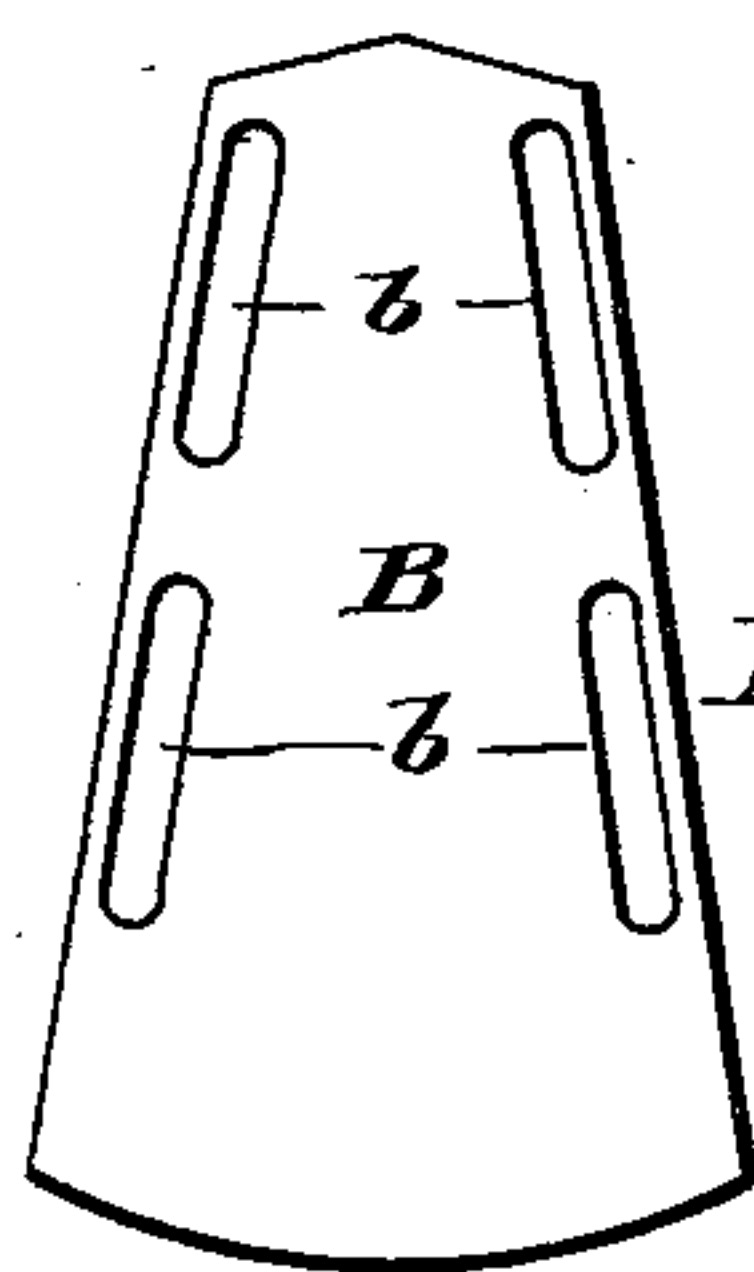


Fig. 6

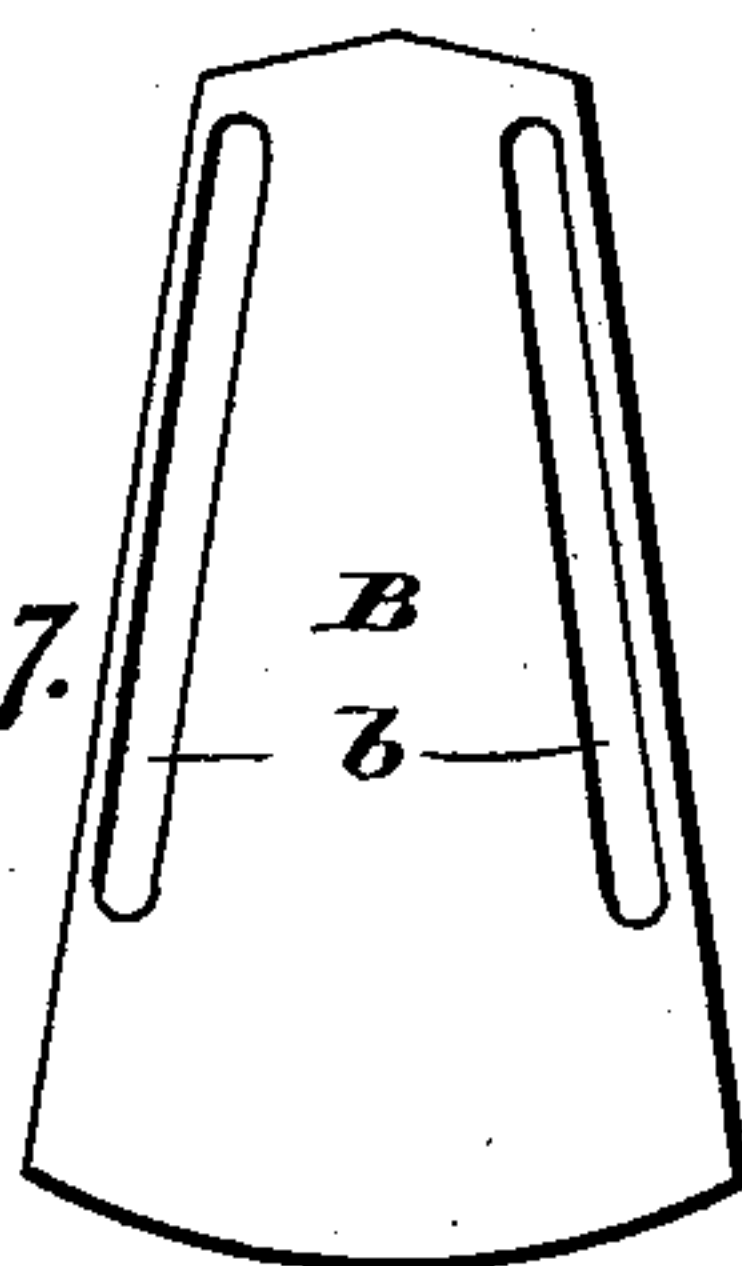


Fig. 7.

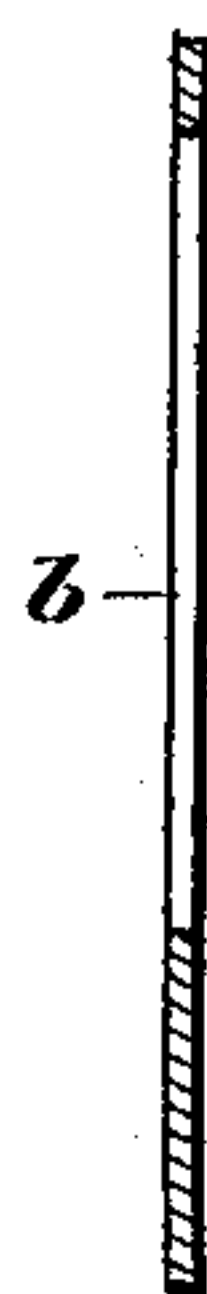


Fig. 8.

Witnesses.

George East  
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# UNITED STATES PATENT OFFICE.

JOSEPH LOXTON RAWBONE, OF TORONTO, ONTARIO, CANADA, ASSIGNOR  
OF TWO-THIRDS TO WILLIAM GEORGE RAWBONE AND CHARLES MER-  
RICK EDWARDS, BOTH OF SAME PLACE.

## KEYLESS CANVAS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 335,480, dated February 2, 1886.

Application filed June 22, 1885. Serial No. 169,447. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH LOXTON RAW-  
BONE, a subject of the Queen of Great Britain,  
residing in the city of Toronto, in the county  
of York and Province of Ontario, Canada,  
have invented certain new and useful Improve-  
ments in Keyless Stretchers; and I do hereby  
declare that the following is a full, clear, and  
exact description of the same.

My invention relates to a keyless stretcher  
for artists' use, as hereinafter set forth.

Figures 1 and 2 show the method at present  
in vogue in the manufacture of artists' stretch-  
ers. Figs. 3 and 4 illustrate the operation of  
my improvement. Figs. 5 and 6 are a section  
and plan, respectively, of the clamping-plate  
used by me. Figs. 7 and 8 show an alterna-  
tive method of forming the clamping-plate.

Referring to the drawings, A A represent  
two sides of the frame or stretcher, such sides  
having heretofore been joined by means of ten-  
ons, and expanded by wedges or plugs *a a*, as  
shown in Figs. 1 and 2.

It will be seen on reference to Figs. 3 and  
4 that the sides of the frame are cut at each  
end to an ordinary miter or angle of forty-five  
degrees. Over this miter I lay a plate, B, made  
of wrought-iron or other material having ten-  
sile strength. This plate B is provided with  
diagonal or converging slots *b b*. I then at-  
tach the plate B to the sides A A of the frame  
by means of set-screws, as shown, or by nails  
*b' b'*. It therefore follows that on the plate B  
being thrust forward in the direction shown  
by arrow by any kind of pressure or by a blow  
on the larger or convex end of said plate, the  
miter-joint will be opened, the edges of the  
miter, however, still remaining parallel. This  
plate B being placed on the back of the frame  
or stretcher, and the canvas being tacked on  
the front of such frame, it follows that on the  
opening of the miters the whole frame will be  
expanded and the area occupied by the canvas  
will be increased, the canvas being caused to  
stretch quite evenly on each of the four sides.  
The economy of this method of constructing  
the stretcher is not its only advantage. It has

always been noticed that the canvas, being  
strained over a frame joined by means of ten-  
ons, (see Figs. 1 and 2,) will show a distinct  
line or edge caused by the inner edge of such  
frame. To obviate this, it has been the prac-  
tice to bevel off the inner edge, so as to remove  
it from contact with the canvas. It will be  
found that by using my improved plate the  
force created by blows or pressure on the said  
plate will have the effect of opening the miters  
at the back of the frame, while the front of the  
miter will remain closed, thus causing the  
sides of the frame to cant outward toward the  
rear, (see Fig. 4,) so that the only point of  
contact of the canvas with the frame will be  
at the outside edge of the front of the frame,  
the canvas being in these drawings denoted by  
the letter *x*. The material of which the plates  
B are made allows of their bending sufficiently  
for this purpose.

The shape of plate which I prefer is shown  
in Fig. 6, and it will be seen that by driving  
up these plates at each corner of the frame an  
equal expansion is secured, allowing of no  
wrinkles whatever in the canvas.

A great advantage in my invention is that  
by its application the corners of the stretcher  
are left square and solid, with no tenons or  
other projections to interfere with the tacking  
on of the canvas.

I am aware of the patents to A. D. Shat-  
tuck, Nos. 272,162 and 320,300, in which a key  
is employed. I do not, however, claim the  
construction shown in said patents, nor do I  
broadly claim a diagonally-slotted metallic  
plate in connection with a stretcher-frame.

What I claim as my invention, and desire to  
secure by Letters Patent, is—

An artist's stretcher consisting of the frame  
A, having separable miter-joints, and the key-  
less metallic plate B, having converging slots  
*b b*, and adjustably secured to said frame by  
set-screws *b' b'*, as set forth.

JOSEPH LOXTON RAWBONE.

Witnesses:

GEORGE EARL,  
M. WILLS.