

L. A. JOHNSON.

Improvement in Clamps for Making Picture Frames.

No. 119,151.

Patented Sep. 19, 1871.

Fig. 1

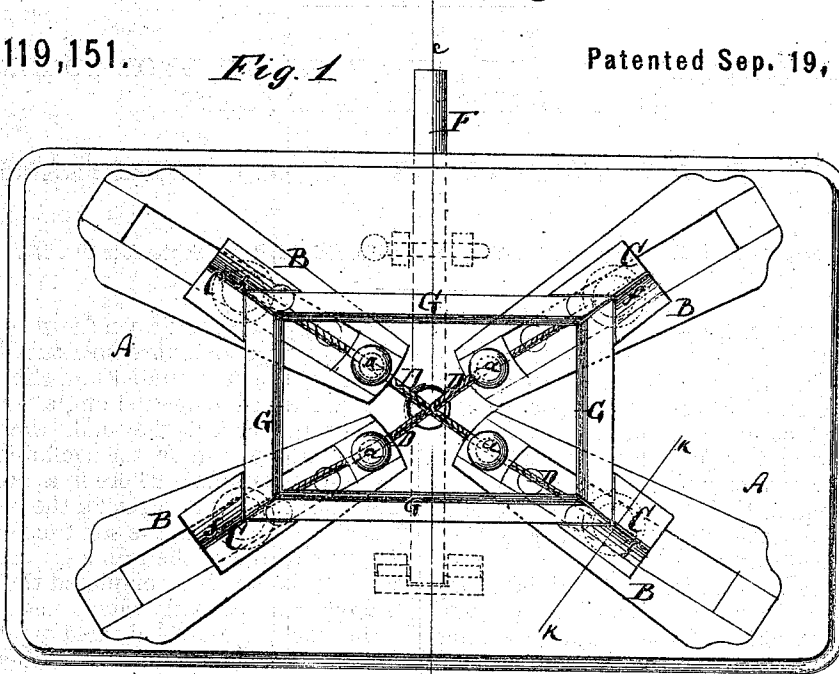


Fig. 2

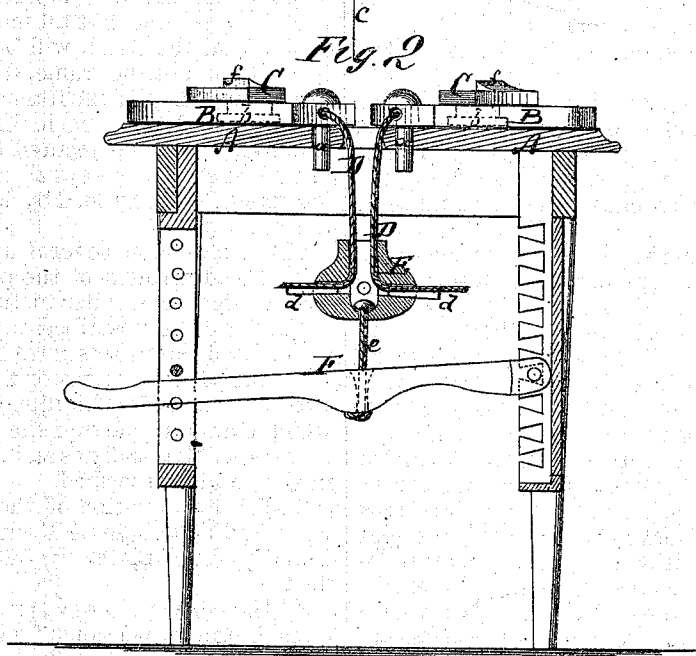
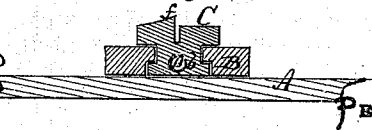


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

LEONARD A. JOHNSON, OF CANDOR, NEW YORK, ASSIGNOR TO HIMSELF AND JOHN O. FROST, OF SAME PLACE.

IMPROVEMENT IN CLAMPS FOR MAKING PICTURE-FRAMES.

Specification forming part of Letters Patent No. 119,151, dated September 19, 1871.

To all whom it may concern:

Be it known that I, LEONARD A. JOHNSON, of Candor, in the county of Tioga and State of New York, have invented a new and Improved Picture-Frame Machine; and 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 drawing forming part of this specification.

Figure 1 represents a plan or top view of my improved picture-frame machine. Fig. 2 is a vertical transverse section of the same on the line *c c*, Fig. 1. Fig. 3 is a detail vertical section of one of the corner blocks or heads, the line *k k*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for holding the pieces of a picture-frame in place while the joints are being cut by a saw, and, subsequent to such sawing, for holding the glued pieces in close contact, causing them to unite in the desired manner.

In the drawing, A represents the frame or table of the machine. Upon the table top are pivoted four oblong slotted frames or plates, B B, whose pivot-pins *a a* project from them into apertures of the table. C C are the corner blocks or followers. Each has a button, *b*, projecting from its lower face into a slot of a plate, B, wherein it can slide but not work up and down, being held in place by a projecting rib, or countersunk in said plate B. Above the plate B each corner piece constitutes a block with a rectangular recess in one edge. The blocks C C are held by ropes or cords D D, that all pass through a central aperture of the table, connected with a block, E, under the table top, keys *d d* serving to secure them to such block E. A short cord, *e*, connects the block E with a lever or treadle, F, which can be set higher or lower at either end, as indicated in Fig. 2. The pieces G G, which are to constitute one picture-frame, are held in place by the corner blocks or followers C C, which are drawn against the joined ends of said pieces G by the

cords D, which are drawn down by means of the lever F. The joints are now cut by means of a fine saw, which is guided in a slit of each block, C, to work in the desired angle. The ropes D D are so adjusted that they make the picture-frame square at every angle, the confining-blocks C being self-adjustable. There is a projection, *f*, on one side of every block C, for the back of the saw to rest on, to prevent the saw from cutting deeper than just through the frame G. After the joints are in this manner completed the pieces G are removed and properly glued, and then replaced in the machine, and firmly held together by means of the lever F; the frame can then be finished. The ropes D are not in line with the miters of the picture-frame, but all meet at a common center, so that the strain will be equal on each side of the corner of the frame, the sides being of different lengths. If the frame is made equilateral the ropes will also be in line with the miters. The ropes D, being secured to the ball or block E by means of the keys *d*, can be conveniently lengthened or shortened by detaching and replacing the keys.

The table A has several apertures for permitting the adjustment of the plates B to the holding of larger or smaller picture-frames.

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

1. The pivoted plates or frames B B, provided with the movable self-adjusting corner pieces C, which clamp the parts of the picture-frame at the corners, substantially as and for the purpose herein shown and described.

2. The combination of the ropes D D, blocks E, and adjustable lever F with the corner pieces C and pivoted plates B, all arranged as specified.

3. The corner pieces C, provided with the bottoms *b* and projections *f*, substantially as and for the purpose specified.

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(21.)