# O. T. Bedell,

## Miter Box.

No. 49,965. Patented Sep. 19, 1865.

Fig 2

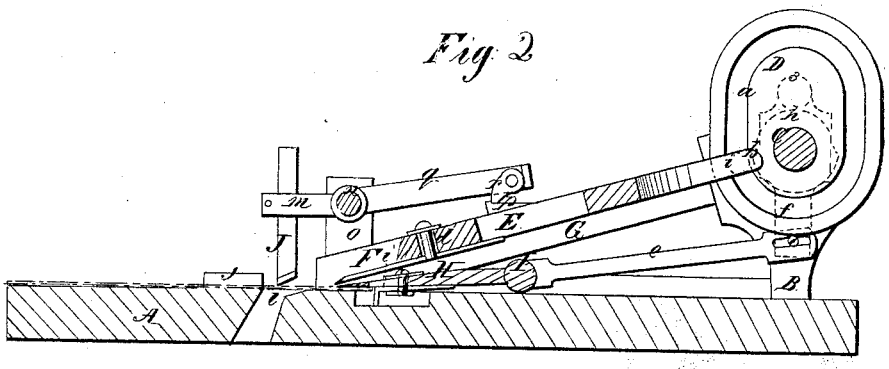
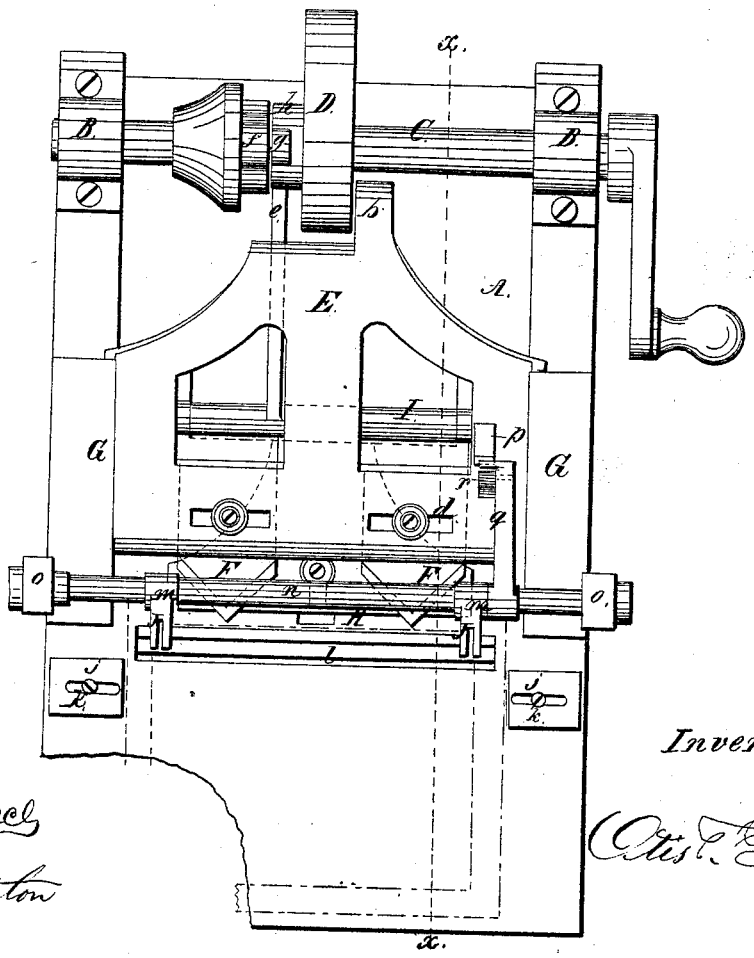



Fig 1.




Witnesses:

Flex Fusch

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# UNITED STATES PATENT OFFICE.

OTIS F. BEDELL, OF NEW YORK, N. Y.

## MACHINE FOR BEVELING PICTURE-FRAMES.

Specification forming part of Letters Patent No. **49,965**, dated September 19, 1865.

*To all whom it may concern:*

Be it known that I, OTIS T. BEDELL, in the city, county, and State of New York, have invented a new and Improved Machine for Beveling Photographic-Picture Frames; 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, in which—

Figure 1 represents a plan or top view of this invention. Fig. 2 is a longitudinal vertical section of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate like parts.

The object of this invention is a machine intended to bevel off the edges of pasteboard frames, such as are generally inserted in photographic-album leaves. These frames are equal in thickness to two photographic cards of that class generally made for the purpose of inserting in photographic albums, and the openings in them are cut out large enough to take in such cards.

In order to be able to remove the cards, it is necessary to have one of the ends (generally the lowest end) beveled off, for if the edge is left square and the card or cards are inserted into the frame they can only be removed with great difficulty. The operation of beveling the edges of these frames is usually carried out by hand, causing great loss of time, and consequently much expense for labor. By the machine which forms the subject-matter of this present invention the edges of said frames are beveled by the action of a knife or knives, which are secured in a carriage reciprocating in an inclined direction, and the corners are brought to the required shape by vertical cutters secured to a rock-shaft, and the entire operation is performed with ease and facility.

A represents a platform, made of wood or any other suitable material, from which rise two standards, B, that form the bearings for the driving-shaft C. Mounted on this shaft is a disk, D, furnished with a cam-groove, *a*, by means of which a reciprocating motion is imparted to the carriage E, to which the knives F are secured. Said carriage moves in inclined guideways G, and it is provided with an arm, *b*, carrying a friction-roller *c*, which catches into the cam-groove *a* on the disk. The knives F, as shown in the drawings, are calculated for a double frame, each knife being wide enough to bevel the edge in one opening of said frame by one cut; but it is obvious that the same arrangement may be used for single frames, and in this case only one knife is used, which is secured in the center of the carriage. When two knives are used they are made adjustable by means of slots *d*, through which the screws pass which serve to secure them to the carriage. By this arrangement said knives can be readily adjusted to suit the width of the strip which divides the two apertures in double frames.

The frame to be cut is held in the proper position during the operation of cutting by means of a clamp, H, which projects from a rock-shaft, I, that has its bearings in two boxes secured to the platform A. From said rock-shaft extends an arm, *e*, which connects with a strap, *f*, that straddles the driving-shaft C. A roller, *g*, secured to a pivot inserted into the upper end of said strap, bears upon the surface of a cam, *h*, which is mounted on the driving-shaft, and as the driving-shaft revolves the arm *e* is alternately raised and depressed. When the arm rises the clamp (extending from the opposite side of the rock-shaft T) is depressed and caused to grasp the frame placed between it and the platform. As the revolution of the driving-shaft proceeds the frame is released from the clamp, and said clamp is held open long enough to give time to the operator to remove the finished frame and replace it by another one not yet acted upon by the knives F.

A gage, *i*, Fig. 2, which is secured to the under side of the clamping-jaw, and which is adjustable back and forth by a set-screw or other suitable means, serves to set said gage, according to the width of the end pieces of the frame to be cut. This gage serves to adjust the frame longitudinally, and two other gages, *j j*, which are secured to the platform A in front of the knives, and which are adjustable by set-screws *k*, serve to adjust the frame laterally. If these gages are once adjusted for frames of a certain size, they need not be

disturbed until frames of a different size have to be introduced.

The knife or knives F are wide enough to act upon the edge of the aperture or apertures in the frame throughout its entire width, and if the width of the aperture or apertures changes, knives of different width have to be introduced. A slot, *l*, in the platform, with a chamfered edge, gives the knives a chance to act on the frame.

The corners at the ends of the beveled edge, which cannot be cut out clean by the knives F, are brought to the proper shape by vertical knives J, which are secured in arms *m*, extending in a horizontal direction, or nearly so, from a rock-shaft, *n*. This rock-shaft has its bearings in standards *o* rising from the platform A, and motion is imparted to it at the proper intervals by a cam, *p*, which is secured to the upper surface of the carriage E, and which acts upon an arm, *q*, extending from said rock-shaft, as clearly shown in the drawings. Said arm is provided with a hinged dog, *r*, which acts in conjunction with the cam in such a manner that the knives J are raised and dropped at the proper intervals.

I do not wish to confine myself, however, to this precise arrangement of parts, but reserve the right to change the same as circumstances may make desirable, it being obvious that various devices may be applied in place of the cam and dog to produce the desired effect.

In practice the arms *m*, which carry the knives J, will be secured to the rock-shaft *n* by means of set-screws, so that they can be adjusted to correspond to the width of the apertures in frames of different size. For frames with two apertures four vertical cutters or knives must be attached to the rock-shaft *n*.

By this machine the edges of the pasteboard frames used in photographic albums for the purpose of holding the pictures can be beveled off with the greatest ease and facility, much labor and expense are saved, and the work is done more perfectly and uniformly than it can be done by hand labor.

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

1. The use of mechanism substantially such as described for the purpose of beveling the edges of photographic-picture frames by machinery, in contradistinction to performing the operation by hand labor.

2. The combination of one or more knives, F, secured to a carriage, E, with the self-acting clamp H, constructed and operating substantially as and for the purpose set forth.

3. The vertical knives or cutters J, in combination with the inclined knife or knives F and clamp H, constructed and operating substantially as and for the purpose specified.

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Witnesses:
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