2 Sheets—Sheet 1.

# A. WIETING.

## PICTURE-FRAME CLAMPS.

No. 177,605. Patented May 16, 1876.

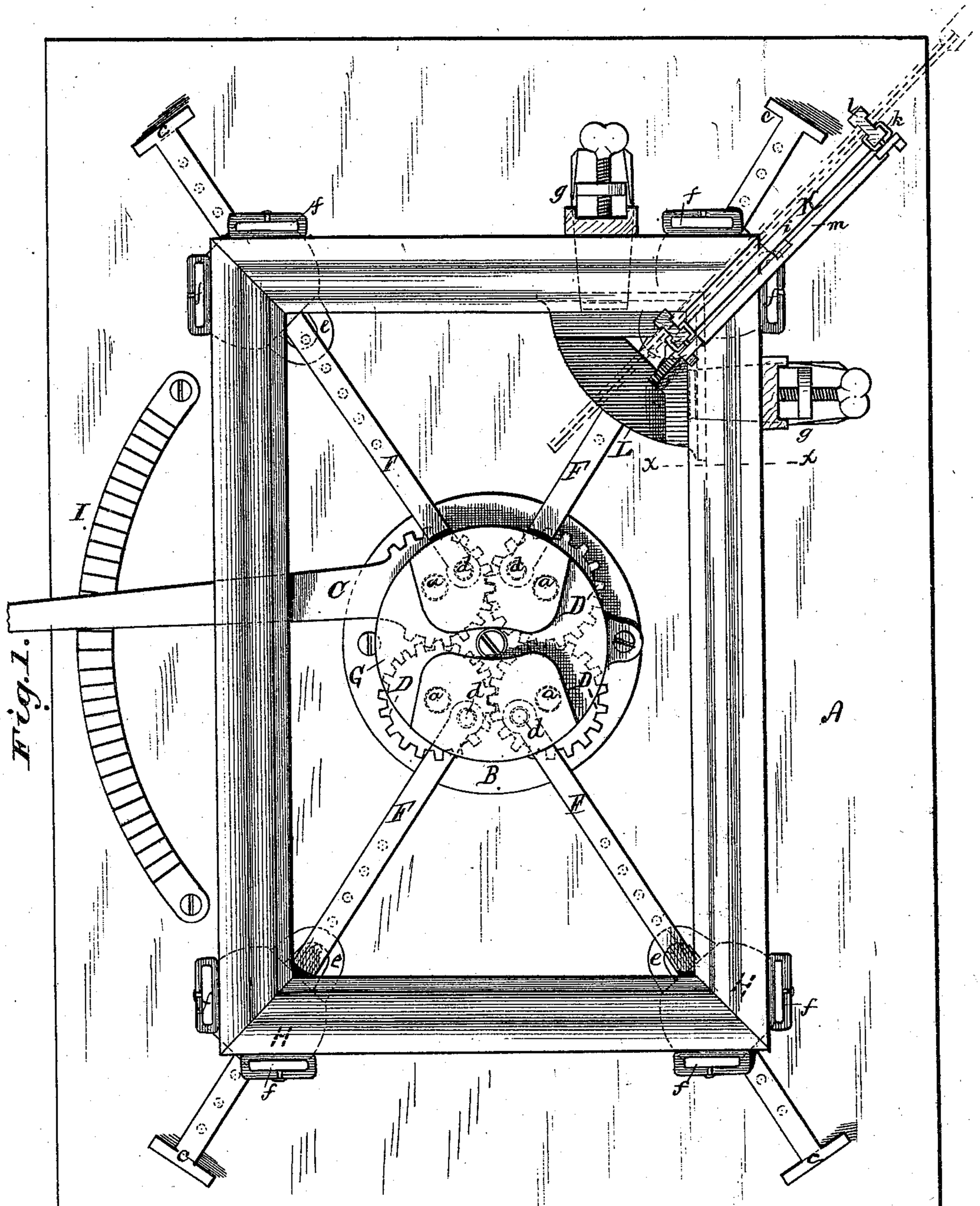


Fig. 1.

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2 Sheets—Sheet 2.

# A. WIETING.

## PICTURE-FRAME CLAMPS.

No. 177,605. Patented May 16, 1876.

*Fig. 2.*

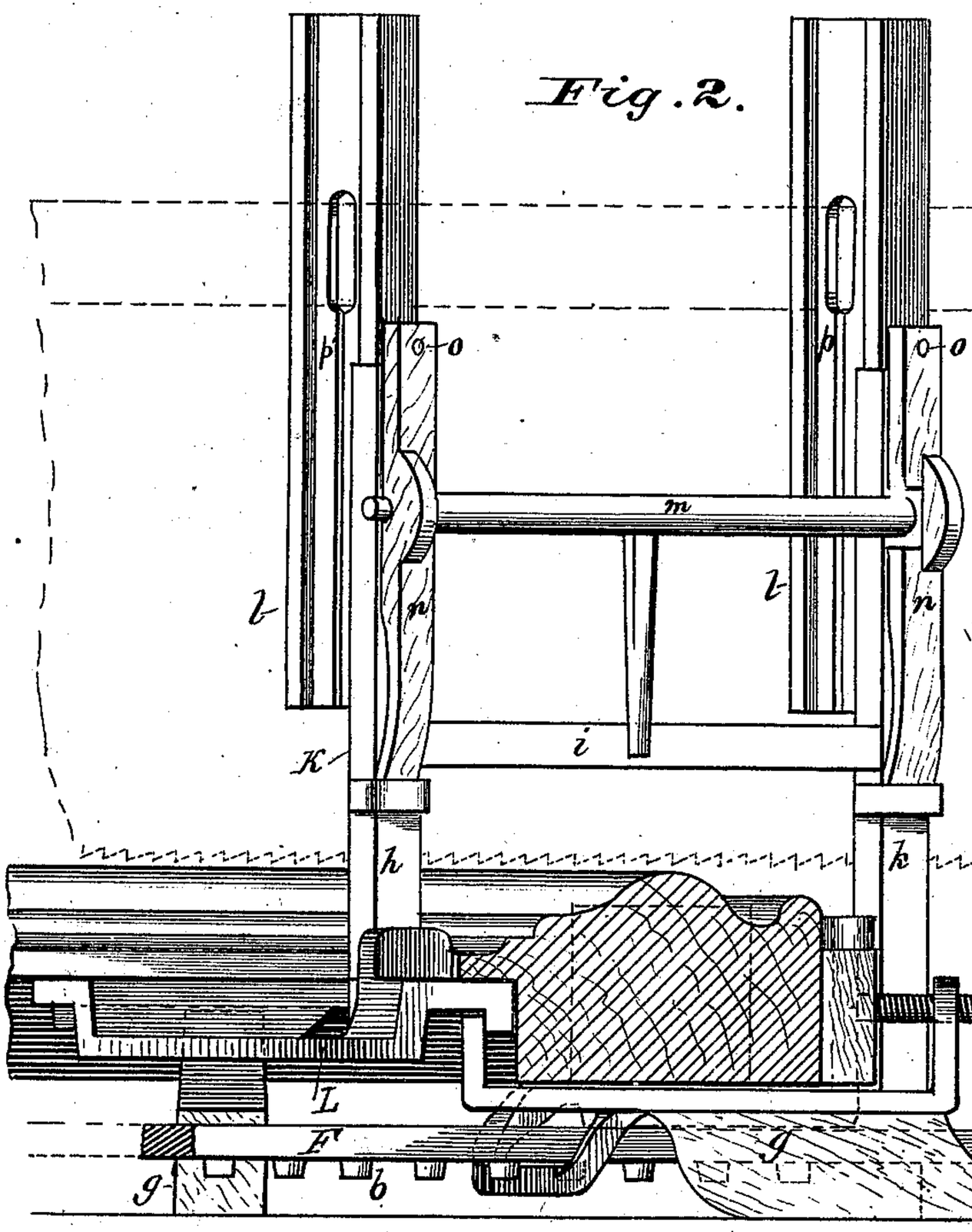



*Fig. 3.*

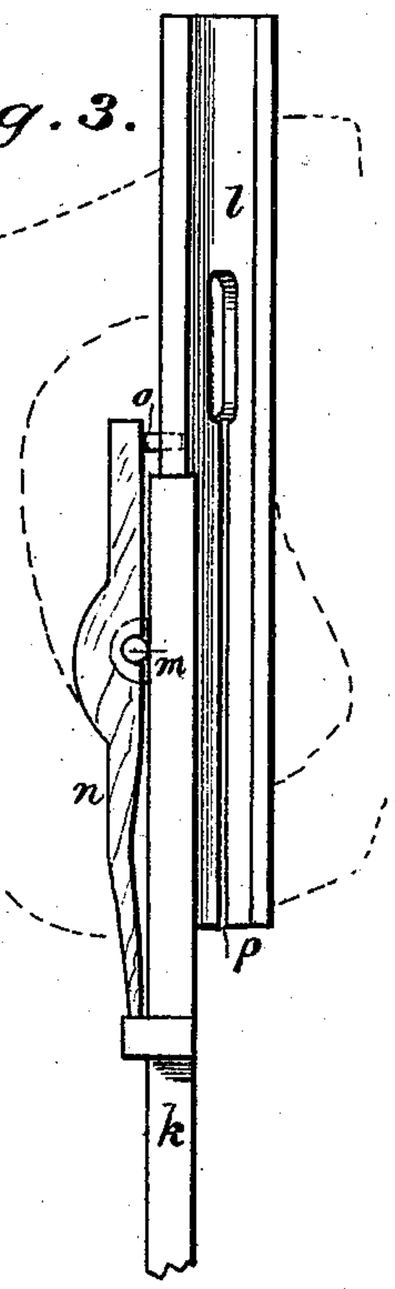
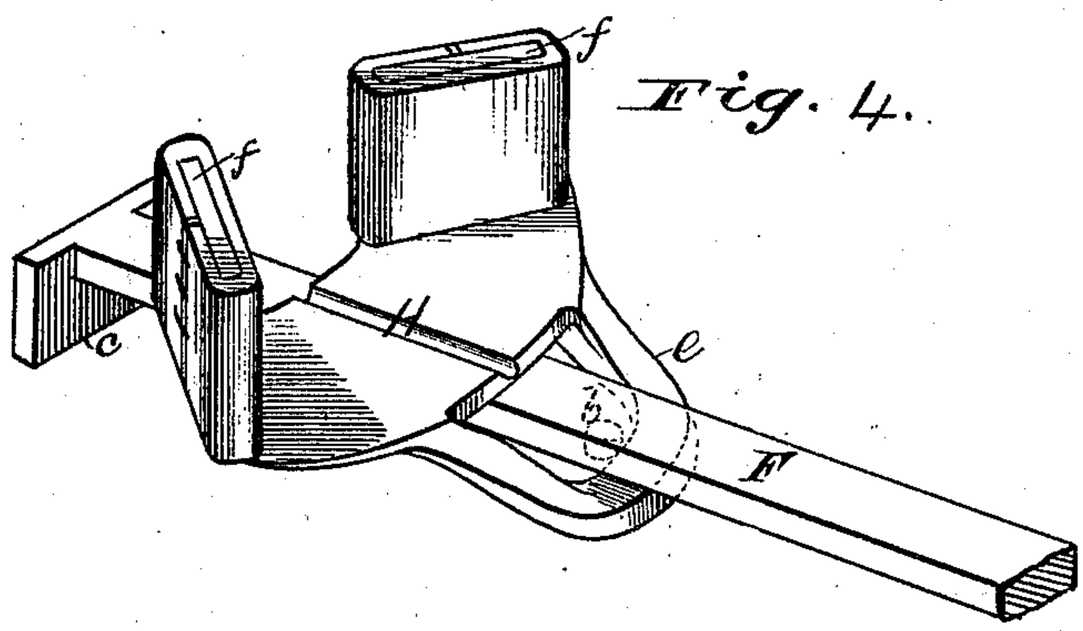



*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

ARCHIBALD WIETING, OF FORT PLAIN, NEW YORK, ASSIGNOR TO ELIZABETH WIETING, OF SAME PLACE.

## IMPROVEMENT IN PICTURE-FRAME CLAMPS.

Specification forming part of Letters Patent No. **177,605**, dated May 16, 1876; application filed January 7, 1876.

*To all whom it may concern:*

Be it known that I, ARCHIBALD WIETING, of Fort Plain, in the county of Montgomery, in the State of New York, have invented certain new and useful Improvements in Picture-Frame Clamps, whereof the following is a full, clear, and exact description:

This invention relates to a machine for clamping picture-frames while the corners are being secured, either by glue or nails, or otherwise; and the invention consists in peculiarly-constructed corner-holding shoes, adjustably attached to stretching-rods, which are secured to and actuated by a lever, and gearing on a bench or bed-plate.

The invention further consists in combining, with such a mechanism, an adjustable tenon or miter saw-frame.

In the accompanying drawings, forming part thereof, like letters refer to similar parts in the several figures; and

Figure 1 is a plan view of my device with frame and saw in position. Fig. 2 is sectional elevation on line *x x*, Fig. 1, enlarged. Fig. 3 is an end view of part of the saw-frame. Fig. 4 is a perspective view of a shoe and part of a stretcher.

Upon an ordinary bench or bed-piece, A, is secured a metal plate, B, made with four lugs, *a a a a*. One of these lugs constitutes a bearing or journal for a toothed segmental lever, C, and the others form journals or pivots for cog-wheels or segments D, which wheels and lever intermesh to form a connected train of gearing. Pins or pivots *d* are formed on the upper face of each of the wheels and the lever, and constitute journals for stretchers or rods F; and to hold these several rods and the wheels and lever in place, I secure over them a suitable cap, G, by screws or other fastenings.

The stretchers F, of cast metal, are formed with lugs *b* on their under faces, and their outer ends are made with a flange, *c*, of equal height with the thickness of the wheels D, to which their inner ends are attached. On these stretchers I place shoes, H, which are readily adjustable thereupon by the engagement of loops *e* on said shoes with lugs *b* on the stretchers. These shoes are formed with ears *f*, at right angles to each other, with an intermediate space, so as to allow the end of the corner of the frame to project beyond them. The ears *f* are covered with leather, felt, or other material that will not scratch or abrade the frame when placed in the shoes. The outer end of the lever C engages with a toothed rack, I, to lock it and the gearing in different positions, according to the size of the frame being clamped.

The operation of this part of my invention is as follows: The shoes H are adjusted on the stretchers in accordance with the size of the frame, each shoe being set in relatively the same position, so as to insure a perfectly square or rectangular frame. The frame is placed with its corners in the shoes, and the lever C being drawn in the proper direction, the shoes are made to approach toward the gearing until the clamping is as firm as may be, when the lever is secured to rack I.

The joints may be by mortise and tenon, miter or otherwise, nailed or glued.

In order to insure correct mitering of the frame, I provide, in combination with this clamping device, an adjustable frame, K, in which a tenon-saw is suspended. This frame consists of a casting, L, from which rises a grooved post, *h*, connected to a similar post, *k*, by a cross-piece, *i*. In these grooved posts slides *l l* work, each slide being made with a slit, *p*, to receive and hold the tenon-saw. The saw in the slides is held up from the frame, when not in use, by pins *o* on springs *n*, which enter holes in said slides. A cam, *m*, playing under said springs, serves to release the slides from the pins *o* when the saw is to be used, and longitudinal grooves made in the shoes H (see Fig. 4) prevent the saw from coming into immediate contact with the metal in sawing the joint. This frame is applied to the clamped frame by placing the casting L on one of the stretchers and passing its edges under the picture-frame into its rabbet, as indicated in Figs. 1 and 2, and holding it there by clamps *g g*.

While I regard the cog-wheel or segment-gearing the best for operating the stretchers, still I may employ other toothed or cogged devices—as, for instance, I may secure two stretchers to a plate having a toothed extension, two of such plates being employed, and

a toothed lever interposed between them, or a pinion and crank, to operate them.

What I claim is—

1. In a machine for making picture-frames, the combination of the shoes H, having covered ears *f* and loop *e*, and the adjustable stretchers F, having the lugs *b*, as and for the purpose set forth.

2. The combination of the toothed lever C, the cog-wheels D, and stretchers F, carrying shoes H, all constructed and operating substantially as shown and described.

3. The combination, with a device for clamping picture-frames, of a tenon-saw arranged in an adjustable frame, K L, and constructed substantially as and for the purpose described.

ARCHIBALD WIETING.

Witnesses:

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C. W. WEBSTER.