No. 658,711. Patented Sept. 25, 1900.

W. H. FORKER.

APPARATUS FOR CUTTING OVALS FROM CARDBOARD.

(Application filed Mar. 6, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

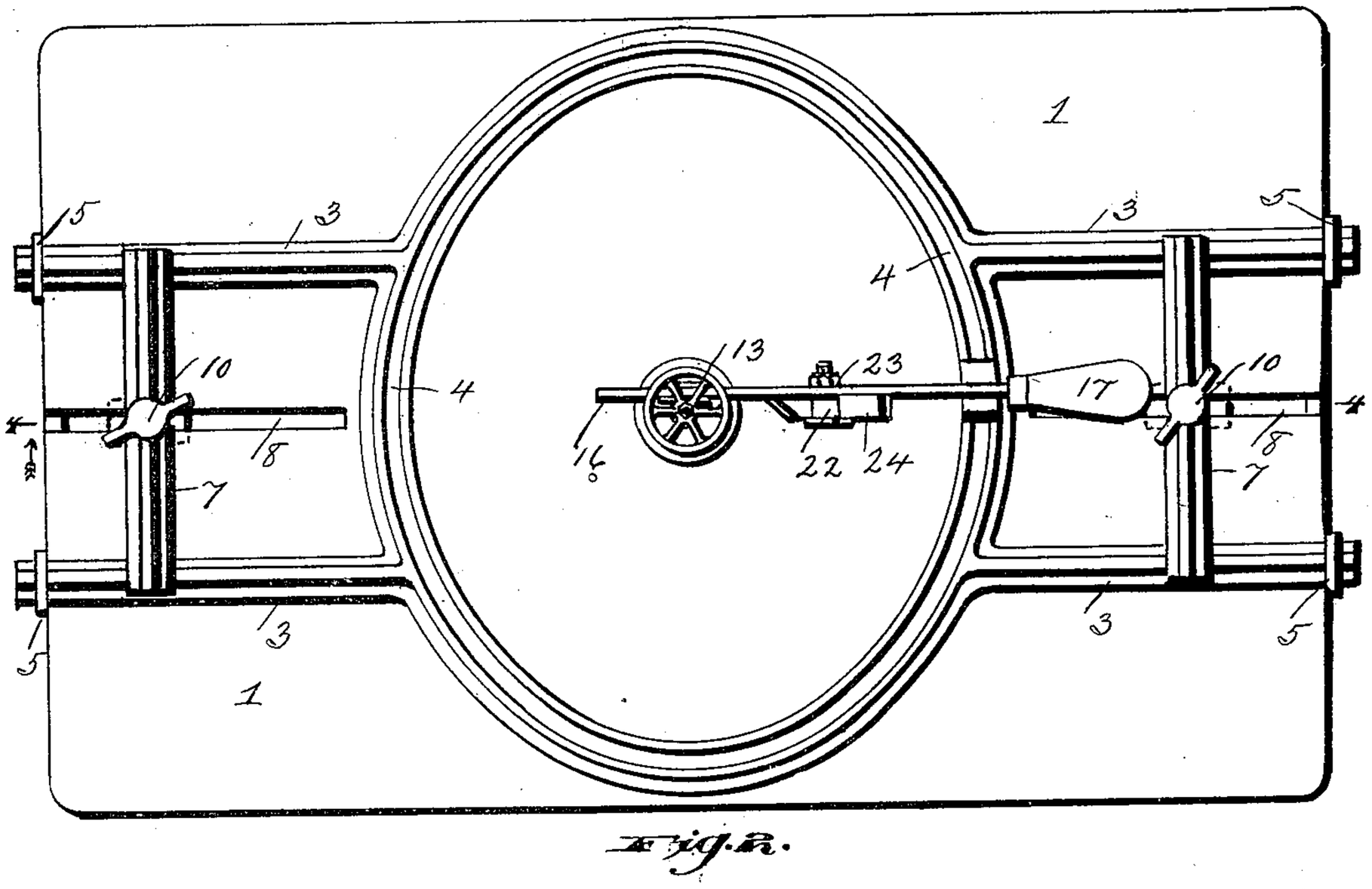
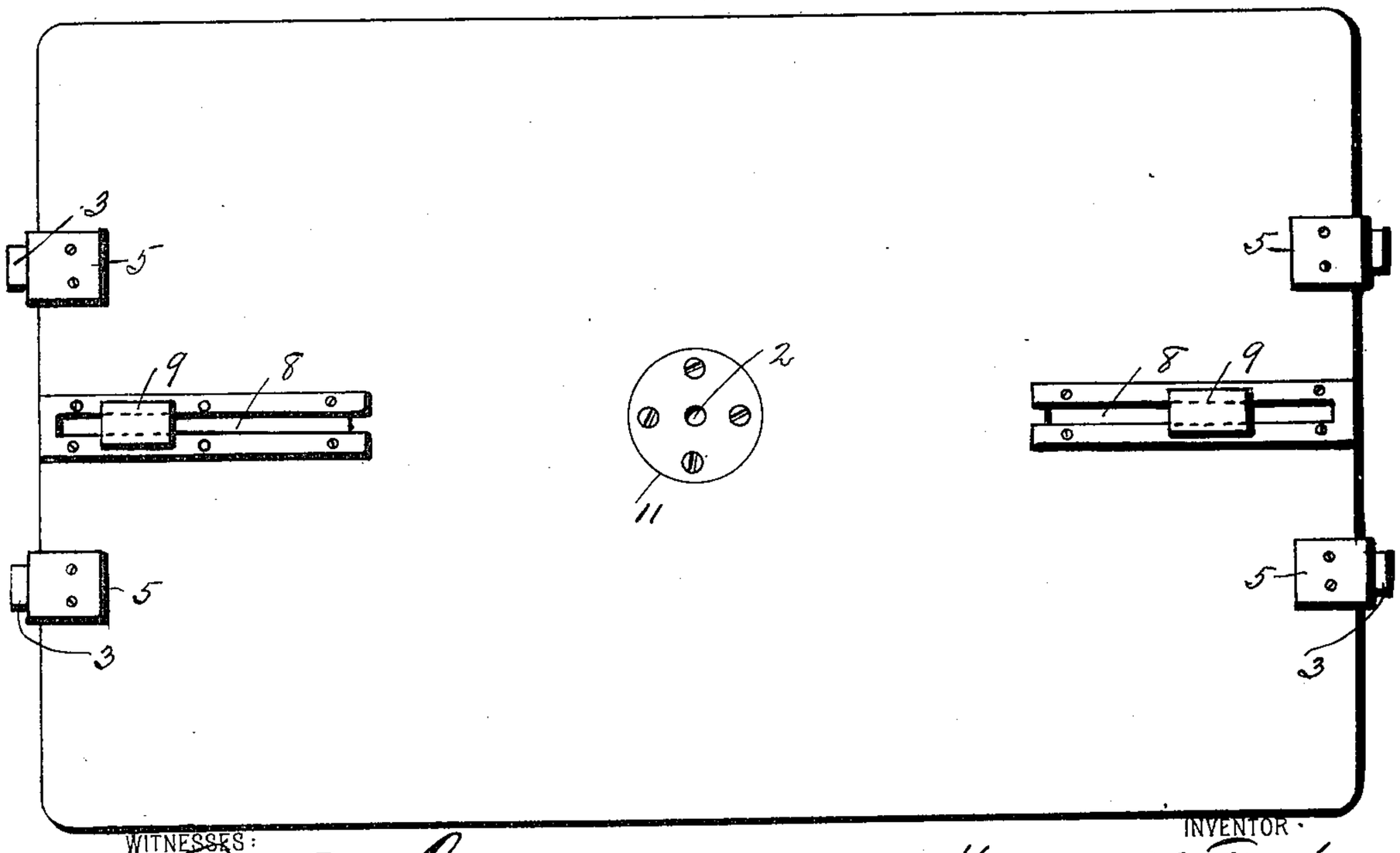


Fig. 2.



WITNESSES:

J. C. Appleman,

S B Lewis

INVENTOR.

William H Forker

BY

C D Lewis

ATTORNEY.

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Fig. 3.

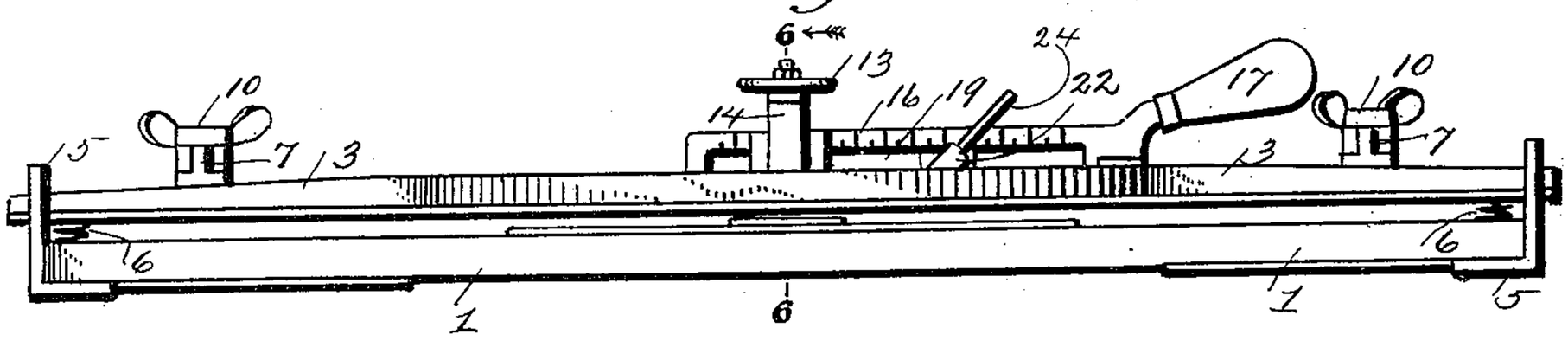


Fig. 4.

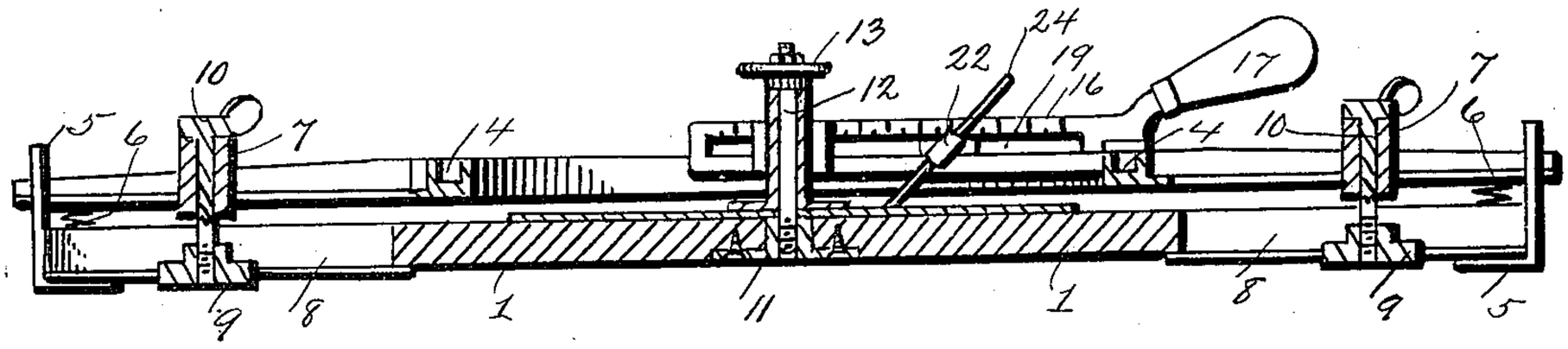


Fig. 5.

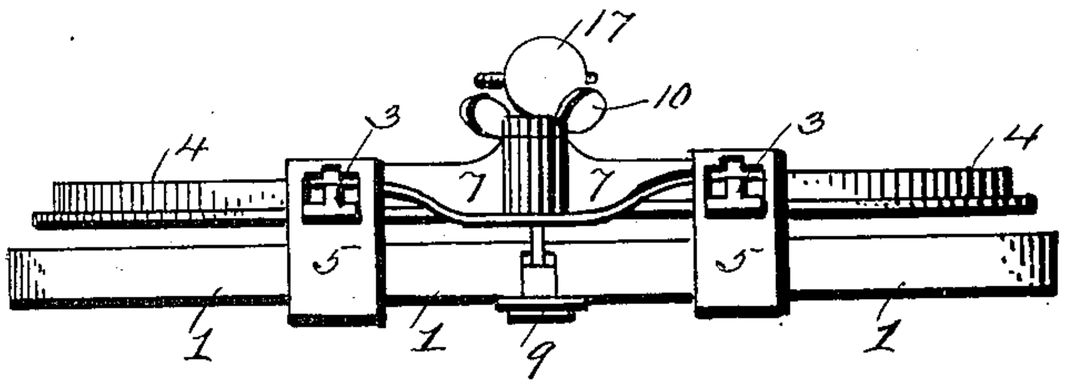


Fig. 6.

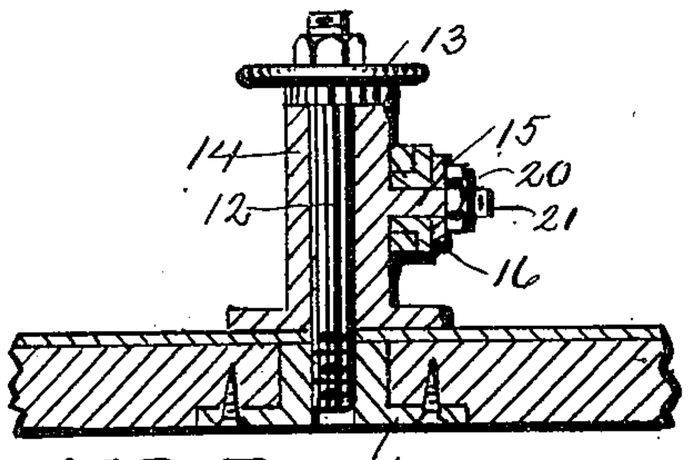


Fig. 7.

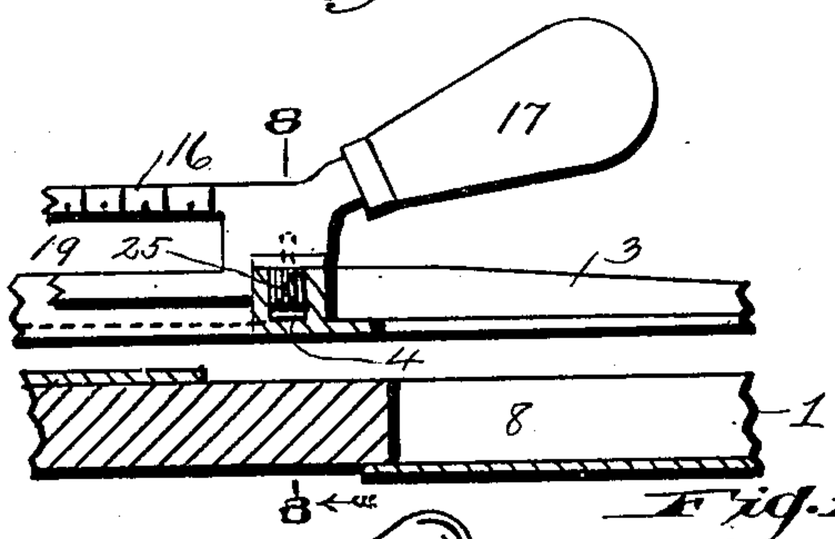


Fig. 8.

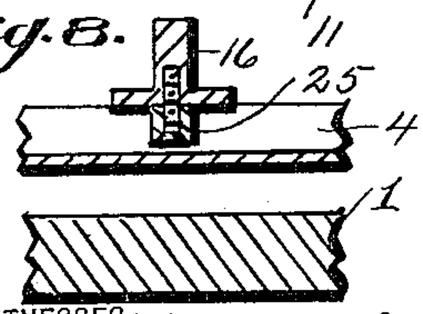


Fig. 9.

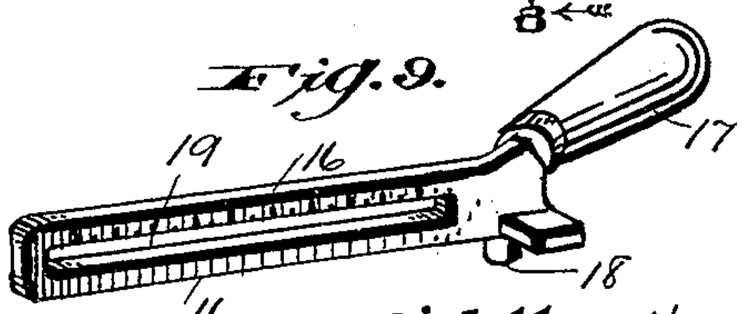


Fig. 10.

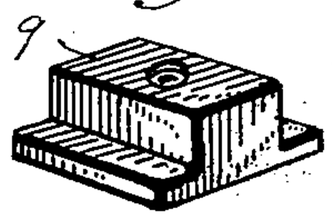
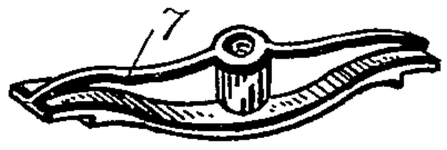


Fig. 11.



WITNESSES:

J. P. Appleman.

S. B. Lewis

INVENTOR

William H. Forker

BY

C. W. Lewis

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. FORKER, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO M. TORBETT FORKER, OF SAME PLACE.

APPARATUS FOR CUTTING OVALS FROM CARDBOARD.

SPECIFICATION forming part of Letters Patent No. 658,711, dated September 25, 1900.

Application filed March 6, 1900. Serial No. 7,574. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FORKER, a citizen of the United States of America, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Cutting Ovals from Cardboard, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved apparatus for cutting ovals from cardboard, paper, &c., and particularly relates to a machine or device used in the manufacture of picture-mats; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a plan view of my improved apparatus for cutting ovals, which is constructed and arranged in accordance with my invention. Fig. 2 is an inverted plan view of the same. Fig. 3 is a front elevation of the device. Fig. 4 is a sectional side elevation taken on the line 4 4 of Fig. 1. Fig. 5 is an end elevation of the machine. Fig. 6 is an end sectional elevation taken on the line 6 6 of Fig. 3. Fig. 7 is a detailed side view, partly in section, of the handle-bar or lever, showing its engagement with the oval slot. Fig. 8 is a cross-section of the same, said section taken on the line 8 8 of Fig. 7. Fig. 9 is a perspective view of the handle-bar or lever. Fig. 10 is a perspective view of one of the sliding blocks used beneath the base-plate. Fig. 11 is a perspective view of one of the cross-bars used for clamping the removable frame to the base-plate.

To construct an apparatus in accordance with my invention, I provide a base-plate 1, of a suitable size and form of construction, and arrange thereon in suitable slotted guides 5 a vertically-movable frame 3, having formed integral therewith an oval slot or groove 4, located upon the same plane as the base-plate 1 and a short distance above the same. Formed at the center of this oval groove 4 is an opening 2 through the base-plate 1 and reinforced by a threaded center-piece 11, to which is connected a threaded shaft 12, arranged in a vertical position to form a center-post for the parts hereinafter described.

Arranged beneath the frame 3 are a series of short spiral springs 6 to hold the said frame in an elevated position. To provide a means for clamping the frame upon a piece of paper placed upon the bed-plate 1, two cross-bars 7 are arranged upon the ends of the said frame 3 and clamped by means of a threaded shaft 10, engaging with blocks 9, placed beneath the bed-plate. These shafts 10 pass through slots 8, formed in the direction of the length of the bed-plate 1, in a manner that will permit the clamp-bars 7 to be adjusted toward or away from the center.

Attached to the center-post 12 by means of a suitable nut 13 is a sleeve 14, upon the side of which is formed an integral pin 15, having a threaded end 21 and nut 20. Loosely connected to this shaft 15 and capable of being moved freely in the direction of its length is a slotted lever 16, provided with a handle 17 and a small roller 25 to engage with the slot 4 of the frame 3. This lever is formed with graduated sides and with an adjustable knife 24, which may be set in an inclined or a vertical position and adjusted along the length of the slot 19 by means of a sleeve 22 and clamping-nut 23.

In operatian the paper or cardboard to be operated upon is arranged in the proper position beneath the oval groove 4, having first removed the central shaft 12 and its connected parts, and clamped in that position by operating the screw-clamps 7. The shaft 12 and its connected parts are now replaced and the small roller 25 engaged with the groove 4. The knife 24 is now adjusted along the scale and given the proper inclination and set in the desired position by the nut 23. By placing pressure upon the handle 17 and at the same time drawing the same about its pivotal point the knife enters the paper and is drawn about in the form of the oval groove 4, thereby cutting an oval piece from the center of the paper.

In the manufacture of picture-frame mats from heavy cardboard the edges are chamfered or beveled inwardly by this apparatus,

and an inclination of any degree may be given to the said edges by adjusting the angle of the knife 24.

It is obvious that ovals of varying sizes may be cut by the use of this apparatus.

Modifications and changes may be made in the details of construction without departing from the spirit of the invention.

Having thus described my invention, I claim—

1. In a device of the character described, the combination with the base-plate, the slotted guides secured thereto at each end of the plate, and the clamping-frame mounted in said guides, said frame having an oval-shaped groove formed therein, of a center-post removably secured centrally of the base-plate, a sleeve mounted upon said post above the base-plate, a shaft connected to said sleeve, a lever mounted on said shaft, means carried by said lever for engagement with the oval groove of the frame, and a knife adjustably secured in the lever, substantially as shown and described.

2. In a device of the character described, the combination with the base-plate, and the clamping-frame mounted thereon, said frame having an oval groove, of the center-post removably connected to the base-plate centrally of the oval groove in the frame, the sleeve mounted on said center-post, the shaft carried by said sleeve, the slotted lever mounted on said shaft, the adjustable knife carried by said lever, and means carried by the lever for engagement with the oval groove, as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

WILLIAM H. FORKER.

Witnesses:
JAMES G. FOSTER,
OTTO A. STOLZ.