

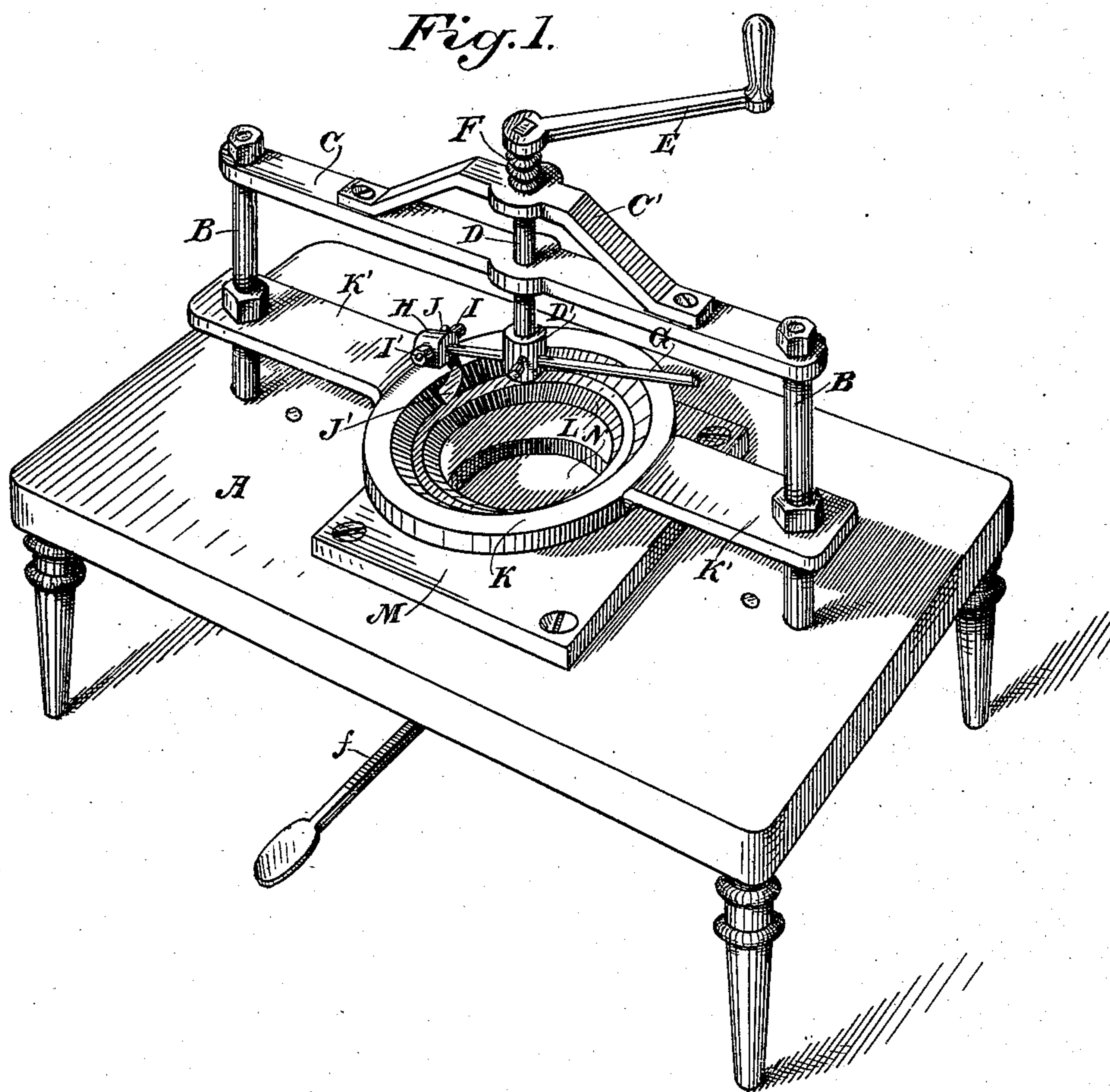
(No Model.)

2 Sheets—Sheet 1.

P. J. STUPARICH.  
CUTTER FOR BEVEL CARDS.

No. 572,320.

Patented Dec. 1, 1896.



Witnesses,  
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(No Model.)

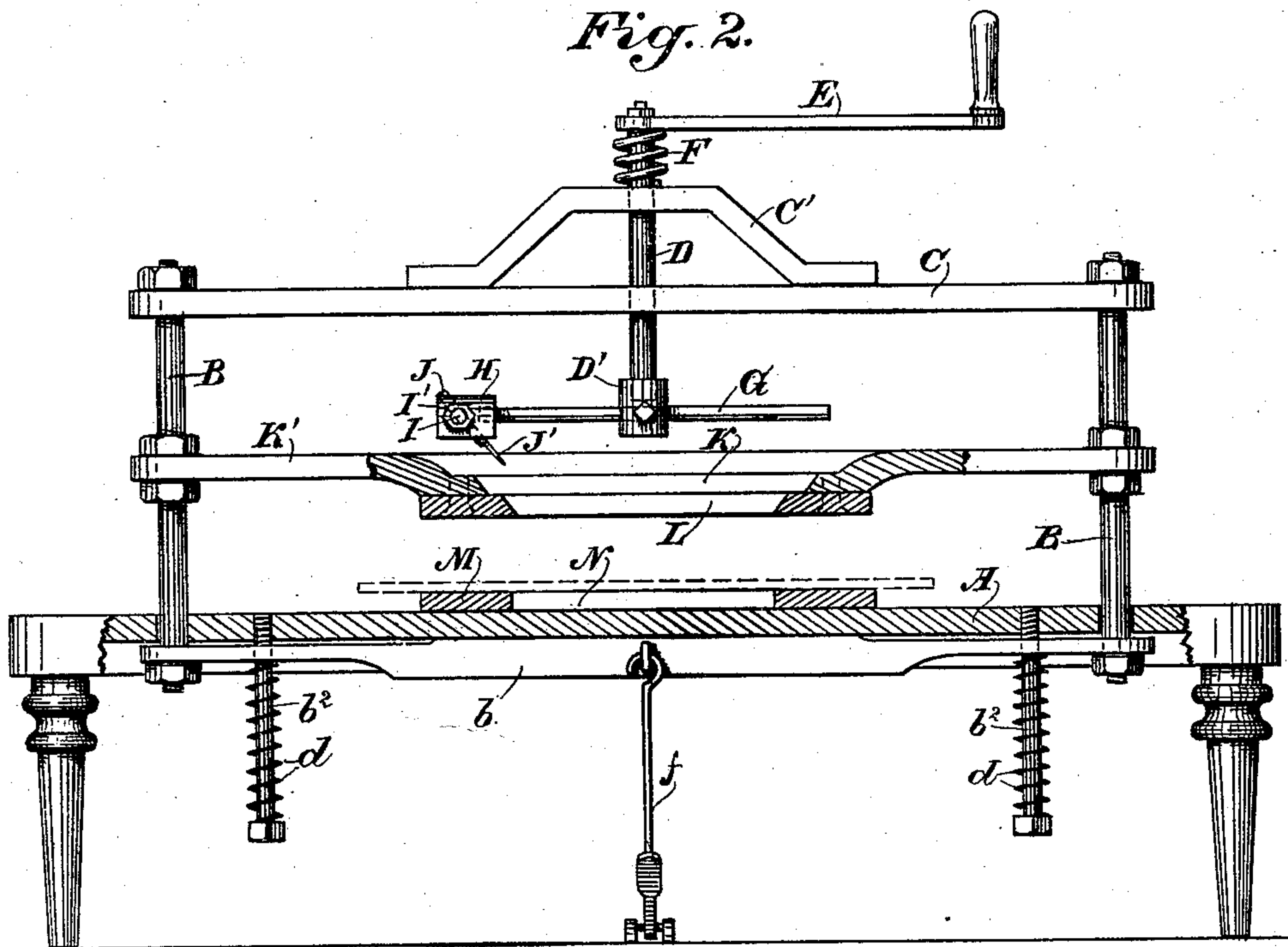
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*Fig. 2.*



*Fig. 3.*

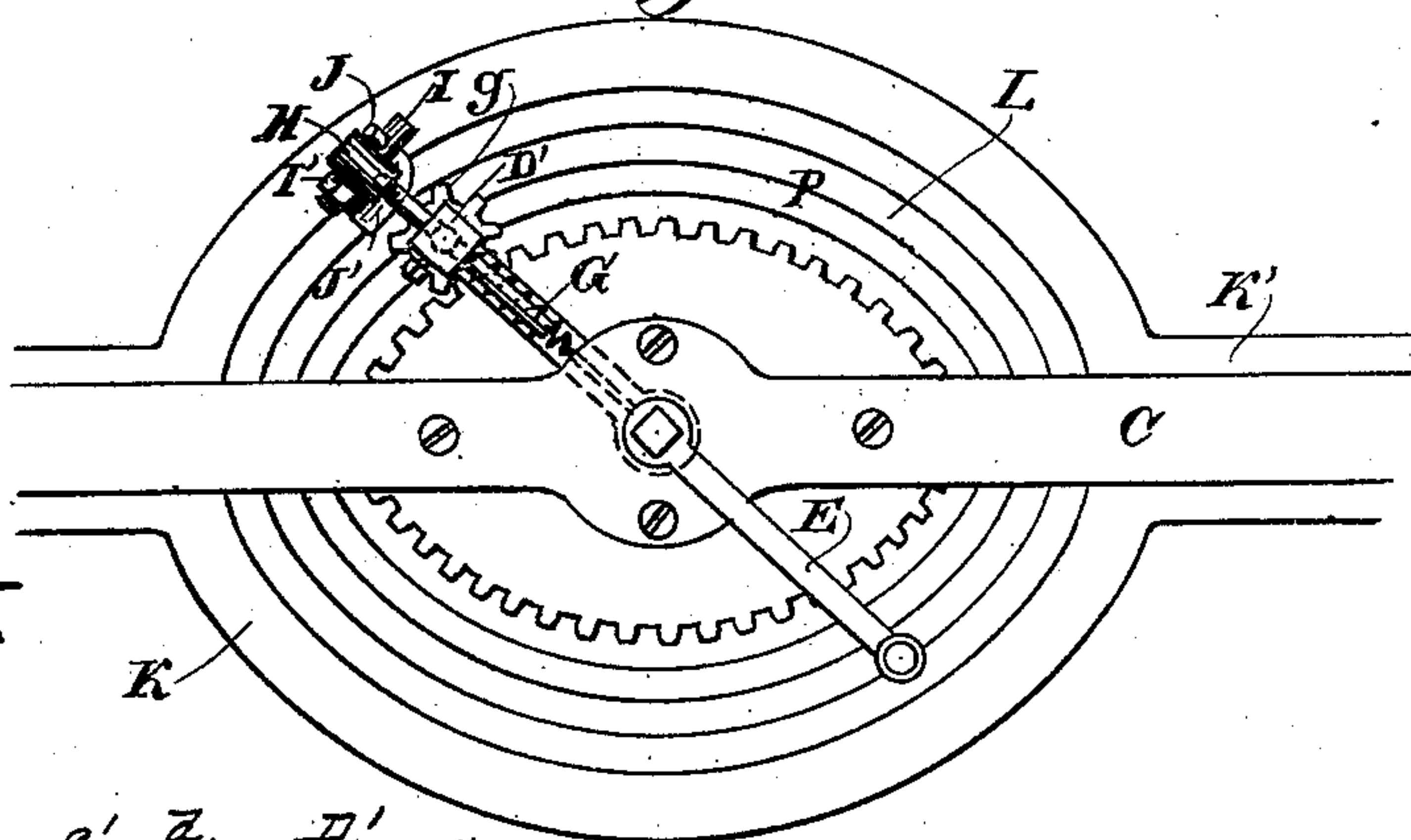
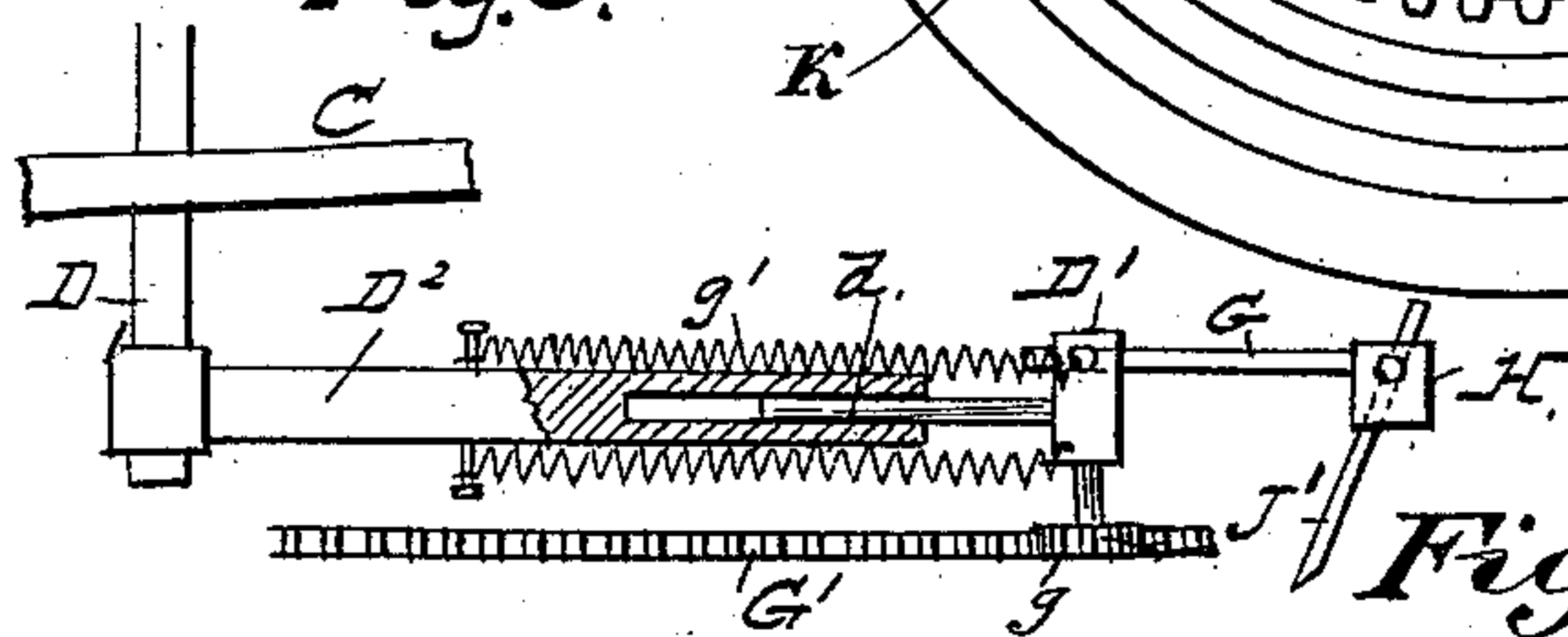
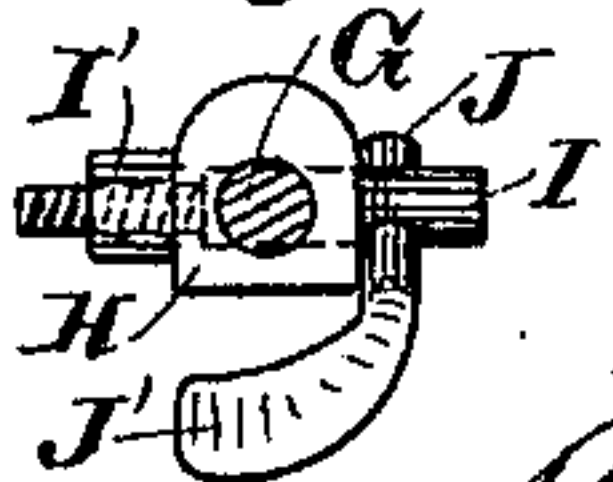


Fig. 5.



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

PAUL J. STUPARICH, OF SAN FRANCISCO, CALIFORNIA.

## CUTTER FOR BEVEL-CARDS.

SPECIFICATION forming part of Letters Patent No. 572,320, dated December 1, 1896.

Application filed May 11, 1896. Serial No. 590,999. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL J. STUPARICH, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Apparatus for the Manufacture of Bevel-Cards; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an apparatus which is especially designed for forming beveled openings in cards or tablets which are designed for photographic mounts and other purposes.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a side sectional elevation. Fig. 3 is a plan view of the mechanism adapted for cutting ovals. Fig. 4 is a detail view of the cutter and its holder. Fig. 5 is a part elevation and part sectional detail of the devices for cutting ovals.

The object of this invention is to provide a device by which beveled openings of any degree of inclination, either circular or oval, may be cut in the thick material which is employed for photographic mounts, or for other purposes requiring such openings, so as to produce a smooth beveled edge to the opening, the apparatus being adjustable to cut any desired size. The centers which are thus cut out may also be utilized for other purposes.

A is a base-plate of any desired size, which may be made of metal, or of sufficient rigidity to retain its shape, and mounted upon a table or proper support. Through opposite ends of this table slide the vertical standards B, which have their lower ends fixed in a bar *b* beneath the table. This bar slides on guides *b*<sup>2</sup> and is normally held up by springs *d*. A rod *f* from a treadle is the medium by which it is depressed at will. A strong bar C is secured to the upper ends of the standards B. Through the center of this bar passes a vertical shaft D, the upper end of which shaft is guided and supported by a yoke C', fixed upon the top of the bar C, so that the vertical shaft is made to turn evenly and steadily.

Upon the upper end of this shaft is a crank E, by which power may be applied to rotate the shaft. The shaft is vertically slidable through the yoke and bar C, and between the crank and the yoke, or at other suitable point, is a spiral spring F, which acts to normally raise the shaft up, but which is compressible, so that the shaft may be pressed down at will when the crank is being turned. Upon the lower end of the shaft D is an enlarged hub D', and transversely through this is made an opening in which is fitted a slidable bar G. The end of this bar has secured upon it an enlarged head H, and through this head, transversely to the arm G, passes a short rod I. Through this rod I is made a hole to admit the shank J of the cutting-knife J'.

The rod I is turnable in the head H, so that the cutter J' may be set at any desired angle, and the shaft J of the cutter may also be turned in the rod I, thus giving a universal adjustment, besides allowing the knife J' to be raised or lowered, as may be desired. The end of the rod I upon the opposite side of the head H is screw-threaded, and a nut I' fits upon it. When this is screwed up against the side of the head H, it draws the shank J of the cutter J' firmly against the opposite side of the head H, and thus locks the cutter in any position to which it may have been previously adjusted, where it will be held firmly while the work is being done. This adjustment enables me to set the cutter at any desired bevel and angle, so as to cut to any desired depth below the head and accommodate it to any thickness of material to be operated upon.

Below the bar C is the annular disk K, having arms K' projecting in opposite directions and perforated so as to fit over the vertical standards B, upon which these arms are fixed, so that the disk K can be raised or depressed at will and in unison with the movements of the sliding standards B and connected parts. The inner periphery of this disk has a beveled form, the bevel being approximately that which it is desired to give to the card or mount to be operated upon. Beneath this disk K is another disk L, having a similarly-beveled interior periphery. This disk is removable and is fixed beneath the disk K by



any suitable fastenings, so that the disk L may be taken out and any other differently-sized disk and different bevel may be substituted for it. This enables me to employ the apparatus for various sizes of cards or mounts to be operated on with various bevels, as may be found desirable, by simply changing the disk L to suit the work to be done.

Upon the table A, directly beneath the openings in the disks, is secured a plate M, this plate being also removable so that different sizes may be employed to correspond with the sizes of the beveled disks above. In the center of this plate is made an opening N, corresponding with the openings in the disks above, so that the upper edge of the opening forms a support for the edge of the card to be cut when the latter is clamped thereon.

The disk K is by means of its arms K' movable with the vertical standards B, so that when a card has been placed upon the plate M the disk is drawn down by means of the foot-lever connecting with the disk until it is pressed firmly upon the card to be cut. The knife J' is now adjusted so as to move within the periphery of the beveled ring L, and when its angle is properly determined it is locked in place by means of the nut I'. The crank E is then turned, thus rotating the shaft D and head D' and causing the cutter J' to traverse the inner periphery of the disk L and cut through the thick card until the center has been detached. The card resting upon the ring M in such a manner that the edge of the knife just cuts through it interior to the ring and its upper surface being correspondingly clamped by the disk L, the edge of the cut will be properly supported, so as to be left perfectly smooth, and the cutter, which is made with a convex cutting edge, will make a perfectly smooth bevel cut through a card of any thickness up to a half-inch or more. These cards are especially constructed and built up to a considerable thickness, and it is of importance to make the face of the beveled cut as smooth and perfect as the surface of the card itself.

When it is desired to make an oval cut, the mechanism shown in Figs. 3 and 5 is used, which mechanism may be briefly described as follows: From the shaft D extends an arm D<sup>2</sup>, having a socket at its outer end, into which enters and is guided the stem *d*, the latter carrying on its outer end the head D'. This head carries at its bottom the pinion *g*, which meshes with the oval gear G'. This pinion *g* is held in contact with the large gear by means of the spring or springs *g'*. Secured to the upper portion of this head D' is the stem G, which carries the head H. A set-screw in the head D' holds the stem G firmly in the desired position. It will be seen by this construction that by turning the crank E the arm D<sup>2</sup>, with its pinion *g*, will follow

the periphery of the gear G', the springs *g'* holding the gear *g* constantly against the gear G', and the socket in the arm D<sup>2</sup> allows the stem *d* to move in and out freely. The knife-carrying head H being fixed rigidly to the pinion-carrying head D' will cause the knife to describe exactly the same contour as that of the large gear G'. These parts may be reversed to advantage by putting the gear G' and pinion *g* above and the head D' below.

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

1. An apparatus for cutting beveled openings in cards and tablets, consisting of a table, a removable plate secured thereon having a beveled central opening, a vertically-movable clamping-plate having a beveled opening made centrally therein, a vertical shaft turnable above the clamping-plate, a transversely-adjustable bar carried by the shaft, having a head upon its outer end, a cutting-blade and a means for clamping it to the head so as to stand at the desired angle, and a means for rotating the shaft and blade.

2. An apparatus for cutting beveled openings in cards and tablets consisting of a table, a base-plate having a central opening, a vertically-movable clamping-plate and guides upon which it is movable, said clamping-plate having a beveled opening made centrally therein, an adjustable supplemental plate fixed beneath the clamping-plate, a vertically movable and rotatable shaft having a head at its lower end, an arm transversely adjustable in said head, having a head at its outer end, a rod extending through said head having an opening upon one side to receive the shank of the cutter-blade and a nut fitting the screw-threaded opposite end whereby the blade may be turned and clamped at any desired angle.

3. An apparatus for cutting beveled openings in cards or tablets, consisting of a table, a removable plate fixed thereto having a central opening, a cross-bar supported and vertically movable above the plate, with journals for a vertically-rotatable shaft, an arm carried by the lower end of the shaft and adjustable transversely thereto, with an angularly-adjustable cutter at the end, a spring by which the vertical shaft is normally held up, said spring yielding to allow the shaft and cutter to be depressed, a disk having a beveled central opening, and a mechanism by which the disk is movable to clamp the tablet to be operated on between itself and the lower perforated plate.

In witness whereof I have hereunto set my hand.

PAUL J. STUPARICH.

Witnesses:

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JESSIE C. BRODIE.