(No Model.) 2 Sheets—Sheet 1.

M. T. BALDWIN.

PAPER CUTTER.

No. 414,669. Patented Nov. 5, 1889.

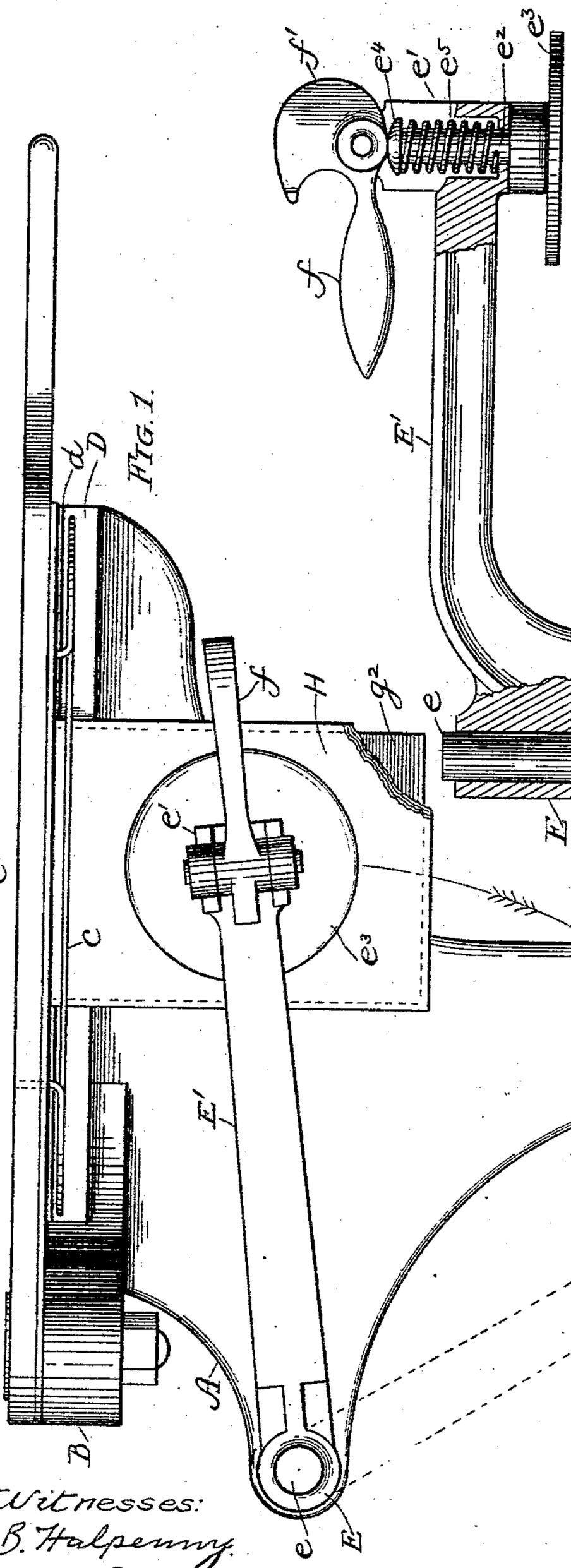

FIG. 1.

FIG. 2.

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his Attys.

(No Model.) 2 Sheets—Sheet 2.

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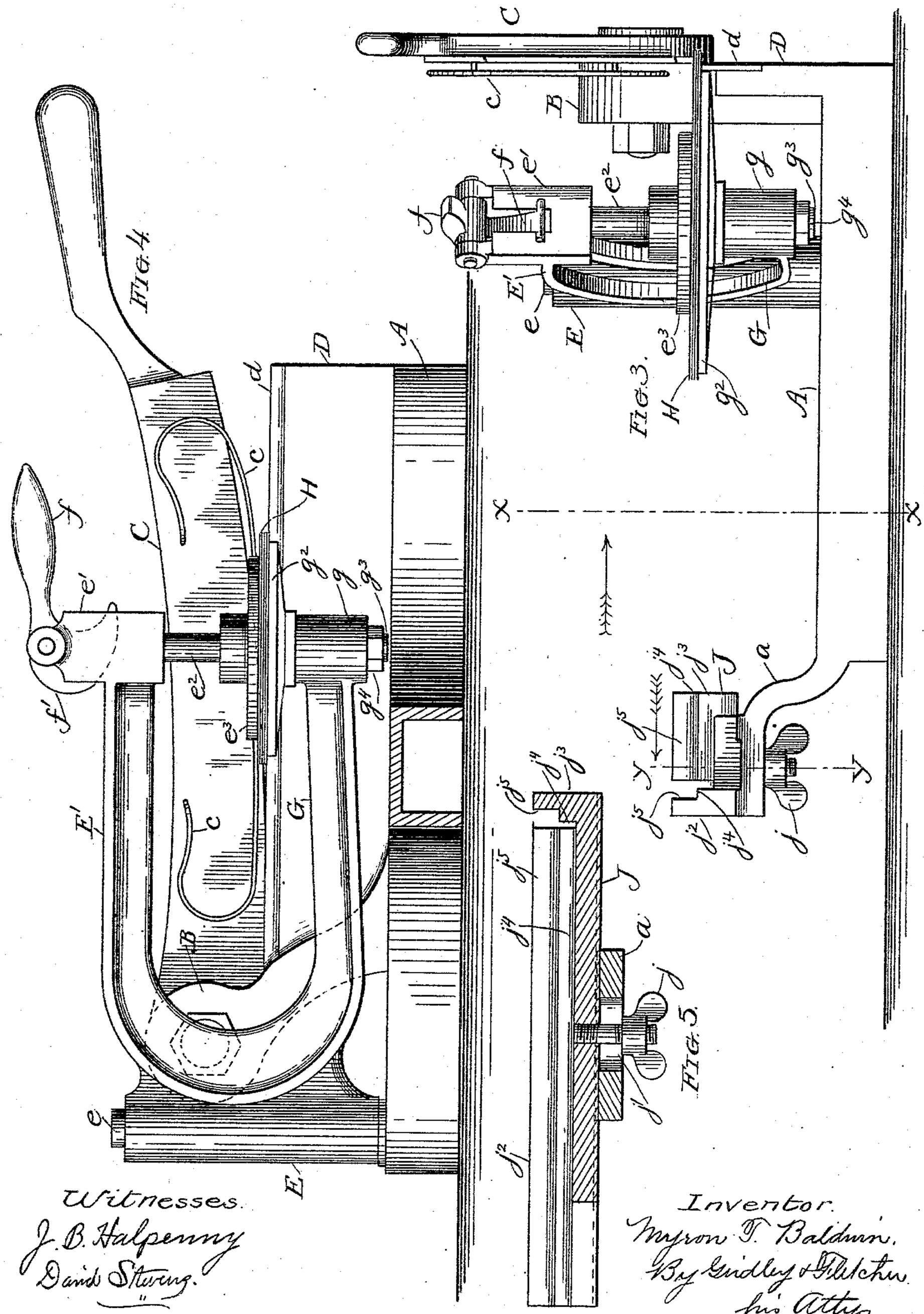

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UNITED STATES PATENT OFFICE.

MYRON T. BALDWIN, OF LA GRANGE, ILLINOIS.

PAPER-CUTTER.

SPECIFICATION forming part of Letters Patent No. 414,669, dated November 5, 1889.

Application filed July 24, 1889. Serial No. 318,590. (No model.)

To all whom it may concern:

Be it known that I, MYRON T. BALDWIN, of La Grange, in the county of Cook and State of Illinois, have invented a new, useful, and Improved Paper-Cutter, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of a paper-cutter embodying my invention. Fig. 2 is a detail view, partly in section, of the swinging paper-holding arm and clamping mechanism. Fig. 3 is a front end view of said paper-cutting device. Fig. 4 is a sectional view taken upon the line $x\,x$, Fig. 3, viewed in the direction of the arrow there shown; and Fig. 5 is a sectional view taken upon the line $y\,y$, Fig. 3, viewed as indicated by the arrow.

Like letters of reference in the different figures indicate like parts.

The object of my invention is to provide means for cutting paper into sheets of any desired size, and especially that which has been folded into a series of folds from a large sheet for the purpose of being formed into smaller ones, my purpose being to apply said device more particularly to the forming of sheets from sensitized paper used by photographers; and as said sheets are liable to curl at the edges, a further object is to provide means for automatically holding said edges down until properly severed by the knife.

To these ends my invention consists in the combination of elements hereinafter more particularly described and claimed.

In the drawings, A represents the frame of my improved paper-cutter, upon one side of which is formed a standard B, to which is hinged a knife C, the cutting-edge of which is adapted to engage with a stationary counterpart d, attached to a vertical flange D, formed upon the base. Rigidly secured to the base A is a vertical pin e, upon which is loosely mounted a sleeve E, having parallel arms E′ G rigidly attached thereto or integral therewith, which are arranged one above the other and adapted to swing laterally, for the purpose hereinafter stated. Upon the end of the arm E′ is a head e', which is bored to receive a loose pintle e^2, Figs. 2, 3, and 4, to the lower end of which is rigidly attached a plate e^3, preferably circular in form. Upon the upper end of the pintle e^2 is a head e^4, Fig. 2, between which and the bottom of the socket or bore into which the pintle is inserted is interposed a spring e^5, which serves to raise the pintle and normally hold the plate e^3 in the position shown in Fig. 2. A lever f, hinged at the top of the head e' and provided with a cam f' in operative engagement with said pintle e^2, serves by its movement to depress or elevate the plate e^3 at will. Upon the end of the arm G and directly beneath the head e' is a similar head g, which is bored to receive a loose pintle g', Fig. 2, to which is rigidly attached a plate g^2, which is parallel with the plate e^3 and is adapted to revolve in a horizontal plane. The pintle g' is by preference rounded or tapered at its lower end, and is adapted to rest upon the end of a set-screw g^3, tapped into the bore into which said pintle is inserted and secured by means of a lock-nut g^4.

The paper H to be cut is first folded to the desired size and placed loosely upon the plate g^2 and adjusted thereon so that there may be no unnecessary waste in cutting when it is clamped in place. This result is preferably accomplished as follows: Upon the opposite side of the swinging arms from the cutter C, and in operative proximity to the ends of said swinging arms, I place a paper-gage, which consists of a horizontal plate J, detachably secured to an arm a, formed upon the frame, by means of a bolt and thumb-nut j, Figs. 3 and 5. A slot j', Fig. 5, enables the adjustment of said plate to be varied. The plate J has formed therein vertical flanges $j^2\,j^3$, arranged at right angles to each other, each being provided upon the inside with a shoulder j^4 and a rabbet j^5, said shoulders being of such a height as to enable the top of the plate g^2 to be flush therewith, while the edges of the plate rest against said shoulder. The projecting edges of the paper can then rest against said rabbets, which causes it to assume the proper position with relation to the plate g^2, the edges of the paper being parallel therewith, as indicated in dotted lines in Fig. 1. The paper is then securely clamped, when, the knife C being elevated, the arms E′ G are swung laterally, so as to bring the edge of the plate g^2 against the stationary cutter d, over

which the edges of the paper project, as shown in Fig. 3. Holding the plate g^2 firmly against said stationary cutter d, one edge of the paper is trimmed by depressing the knife. The clamping-plates are then turned upon their axes a quarter of a revolution and pressed against said cutter, which serves as a gage therefor, when another cut is made, the operation being repeated in like manner until the four edges are trimmed. As the projecting edges of the sensitized paper are liable to curl and interfere with the cutting, I attach a spring c to the knife C, which is arranged parallel therewith and caused to project somewhat below the knife-edge, so as to depress the paper before the knife reaches it, as clearly shown in the drawings.

While I prefer to employ the lateral adjusting-gage J for readily securing the paper in position to be clamped for cutting, it is obvious that it may be dispensed with and that good results may with care be obtained without it. The sleeve E is made detachable and may be removed from the pin e, which enables others to be substituted therefor having varying-sized plates g^2 to conform to the size to which it is desirable to cut the paper; or the plates g^2 alone may be interchanged by merely removing one from the head g and replacing it with another of the desired size.

Having thus described my invention, I claim—

1. In a paper-cutting device, the combination, with cutting-blades, of swinging arms having parallel revoluble paper-clamping plates thereon, whereby the respective edges of the folded and clamped paper may be accurately presented to the cutters, substantially as shown and described.

2. In a paper-cutter, the combination, with laterally-swinging arms, of parallel revoluble clamping-plates for clamping the folds of the paper, and a gage consisting of shouldered vertical flanges arranged at right angles to each other, whereby one of said clamping-plates may rest against the shoulders of said flanges, while the edges of the paper may be caused to project against the rabbets thereof, substantially as shown and described.

3. The combination, in a paper-cutting device, of cutting-blades, laterally-swinging arms, revoluble clamping-plates, means for compressing one against the other, and a paper-adjusting gage consisting of vertical rabbeted flanges arranged at right angles to each other, substantially as shown and described.

4. The combination, in a paper-cutting device, of cutting-blades, laterally-swinging arms arranged one above the other, revoluble clamping-plates, means for compressing the same one against the other, and a spring arranged parallel to the movable cutter and beneath its edge, substantially as shown and described.

5. In a paper-cutter, the combination of the cutters C d, laterally-swinging arms E′ G, clamping-plates e^3 g^2, cam f', and lever f, substantially as shown and described.

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Witnesses:
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