

O. G. KLUGEL.
ADJUSTABLE BLOCK FOR BOOK TRIMMING MACHINES.
APPLICATION FILED SEPT. 25, 1911.

1,035,200.

Patented Aug. 13, 1912.

Fig. 1.

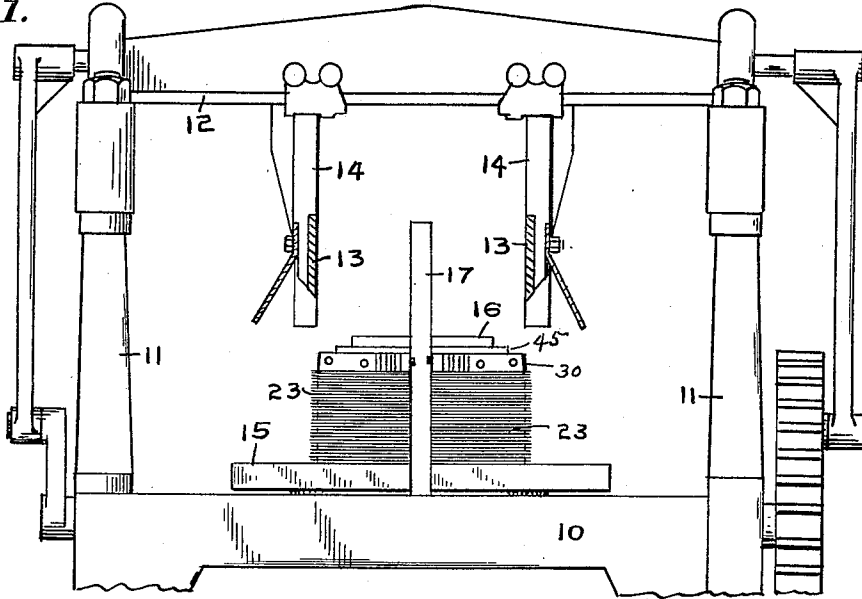


Fig. 2.

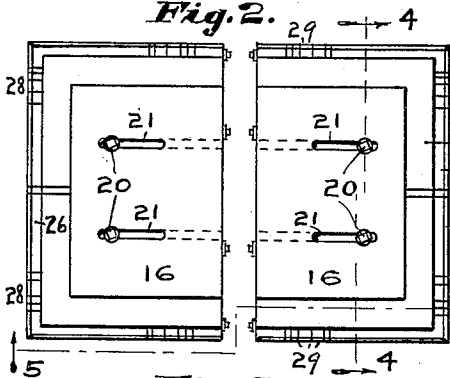


Fig. 3.

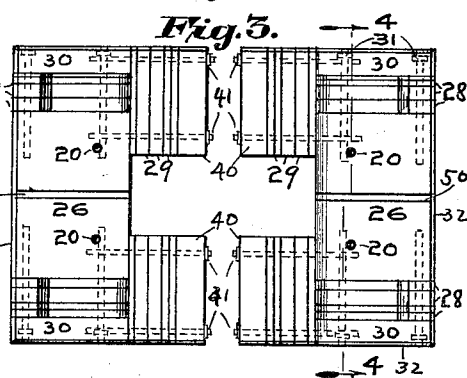


Fig. 4.

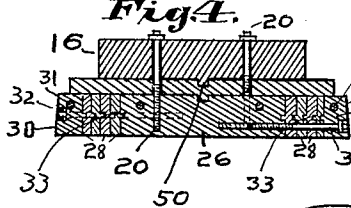


Fig. 5.

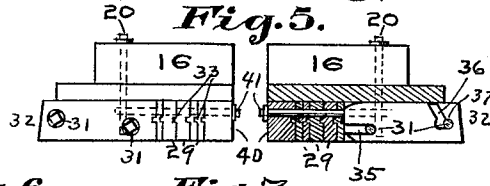


Fig. 6.

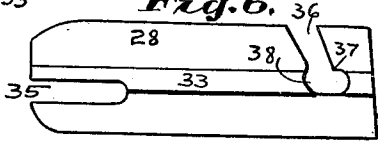


Fig. 7.

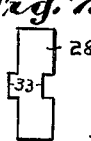


Fig. 8.

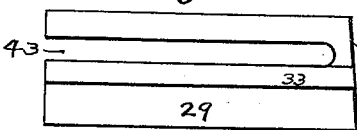


Fig. 9.



Witnesses;

L. B. Moorme.

Wm L. Bushong.

Inventor,
Oscar G. Klugel,
By
Minturn & Wormer
Attorneys.

UNITED STATES PATENT OFFICE.

OSCAR G. KLUGEL, OF INDIANAPOLIS, INDIANA.

ADJUSTABLE BLOCK FOR BOOK-TRIMMING MACHINES.

1,035,200.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed September 25, 1911. Serial No. 651,205.

To all whom it may concern:

Be it known that I, OSCAR G. KLUGEL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Adjustable Blocks for Book-Trimming Machines, of which the following is a specification.

This invention relates to improvements in clamping blocks to be used with paper cutting machines for holding books, pamphlets, and the like, comprising a plurality of sheets or leaves of paper, while said articles are being trimmed at their outer edges in their finishing and binding processes.

The articles to be trimmed are usually stacked on the bed-plate of the cutting machine, or on a cutting block on said bed-plate, and under a superimposed block, between which and the bed-plate the articles are clamped under heavy pressure. The paper edges to be cut project past the top block in the paths of vertically moving knives, and in order to make a clean cut of the paper it is necessary that the top clamping block cover the entire page or surface to be left, and extend quite to the cutting lines in the planes of travel of the knives. Because of the lack of uniformity in page-size in the manufacture of books and pamphlets the clamping blocks are not always of the right size, and it is a common practice to paste card-board strips on those edges of the blocks which are short, to extend them. This expedient is not entirely satisfactory because, aside from the time and bother entailed in building out the edges of the blocks in this manner, the extensions thus constructed are less firm and solid, and frequently break off while in use.

The object of my invention is to provide a clamping block in a plurality of separately removable pieces with convenient means for adding to or reducing the size of the block by increasing or lessening the number or sizes of the pieces.

The object also is to provide a built-up block which will be easy and convenient to change, and which will be strong and substantial when completed, and which will be well adapted for the intended purpose.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawing in which—

Figure 1, is a fragmentary view in front elevation of a paper cutter with my inven-

tion installed. Fig. 2, is a top plan view of my invention detached from all of the paper cutting machine except the horizontal pressure plate thereof, to which my device is bolted. Fig. 3, is a top plan view of my built-up clamping block with the pressure plate and equalizer plate of Fig. 2, removed. Fig. 4, is a vertical section on the lines 4—4 of Figs. 2 and 3. Fig. 5, is a side elevation and partial vertical section on the line 5—5 of Fig. 2. Fig. 6, is a side elevation and Fig. 7 an end view of one of the removable pieces, commonly called furniture, used in building out my clamping block, and Fig. 8 is a side elevation and Fig. 9, an end view of a removable piece or furniture used in building the clamping block out in opposite direction from that wherein the furniture shown in Figs. 6 and 7 is used.

Like characters of reference indicate like parts throughout the several views of the drawing.

Referring to Fig. 1, of the drawing, 10 is the bed-plate of a paper cutting machine, 11 vertical standards, 12 a vertically reciprocating bar and 13 a pair of cutting knives suspended from the bar 12 by hangers 14, whereby the knives 13 will be made to travel up and down in vertical planes.

15 is a cutting block supported by the bed-plate 10.

All of the above parts may be and are of any usual and well known construction. 16 is a horizontal pressure plate which is carried by the vertical standards 17. These parts are also of usual construction and the pressure plate 16 will be provided with any suitable and usual means for moving it toward the cutting block 15 with ample clamping force to properly compress and hold the sheets of paper in book, pamphlet, or other form to be cut. My invention is assembled between the pressure plate 16 and cutting block 15, so as to come in direct contact with the paper, and it is secured to the underside of plate 16 by means of suitable bolts or screws 20. Plate 16 is provided with slots 21 for the passage through the plate of bolts 20, the slots permitting an adjustment of bolts 20.

The pamphlets or books 23 are usually stacked upon the cutting block in two piles with their backs toward each other, as shown in Fig. 1, which presents the edges properly on the outside of the piles for ready access for trimming, and by the use

of two knives, as shown in Fig. 1, the sides and ends of the two piles of books will be trimmed in two operations of said knives by the turning of cutting block 15 and the two piles to bring the uncut edges under the knives.

The main or body portion of my clamping block will be in two separate and similar parts 26, and each of these body portions 26 will be built onto at each end to increase the length of that block and will also be built onto at its inner edge at two places, opposite the ends of the extended body, to increase the width of the latter.

The building on to increase the length and also the width of the body portions 26 will be by means of separate pieces or furniture 28 and 29 which are provided in assortments of different widths which will permit of the selection of a piece of furniture of the requisite width to secure the required change in dimension of the clamping block as a whole. The pieces 28 will be clamped between body 26 and outside members 30, by means of a pair of bolts 31, for each outside member, which are passed through suitable holes in said members and through the furniture pieces 28, into threaded holes or sockets in the body 26. The outside members will be counter-sunk to let the heads of the bolts in below the outer edge of members 30 so as not to interfere with the action of the knives in cutting against said edges, and in order to insure unobstructed action of the cutting knives in passing the clamping block, I prefer to bevel all of its outside edges upwardly and inwardly as shown at 32. The furniture pieces 28, outside members 30 and the body member 26 are tongued and grooved as shown at 33 to keep them all uniformly level and even when assembled. The openings through the furniture pieces 28 for the bolts which pass through their inner ends are longitudinal end slots 35 to enable the pieces to be assembled and removed without withdrawing the bolts, and the openings near their opposite ends for the passage of the other bolt 31 have slots leading into them from the upper edges of said furniture pieces, as best shown in Fig. 6, and the slots 36 meet the bolt holes, in a manner as shown, to form an offset or shoulder 37 which rests upon the bolt when the furniture piece is in operative position and is for the purpose of holding said furniture piece in place, that is from dropping down by gravity, before the bolts 31 have been tightened. An indent 38 in the opposite wall of slot 36 is required to permit the furniture piece to be drawn out longitudinally a distance sufficient for the shoulder 37 to clear the bolt.

The upper and lower inner corners of furniture piece 28 are cut away or rounded in the manner shown in Fig. 6 to permit

the piece 28 to swing in a vertical plane without locking against adjacent portions of the device.

The furniture piece 29 used to extend the width toward the middle of the machine, of my clamping block, are clamped between the body 26 and end extensions 28 and 30 and the members 40; and the members 40 and the furniture pieces 29 are secured to body 26 and outside member 30 by bolts 41. The bolt holes in members 40 do not need to be countersunk as the bolt heads may project without interfering with the cutting knives. To permit the furniture pieces 29 to be assembled without the complete removal of bolts 41 openings for the latter in the form of slots 43 extending in from the inner ends of pieces 29 will be provided, and these slots will permit the furniture pieces 29 to be placed and withdrawn by longitudinal movements of said pieces.

Both sides of the two-part clamping block will be made up of removable members in the manner as above described and they will then be joined and covered by an equalizer plate 45 which overlies a major portion of the complete clamping block, thereby distributing the pressure and strain over all parts of the composite structure. The horizontal plate 16 of the main machine rests upon the equalizer plate 45 and the retaining bolts 20 pass down through pressure plate 16, equalizer plate 45, and enter the bodies 26, thereby uniting all said parts. Plates 16 and 45, and bodies 26 are provided with tongues and grooves 50, to additionally position and hold said parts in proper operative relation to each other.

The enlargement or diminution in area of my improved clamping block by means of removable furniture pieces, is so apparent that further description is deemed unnecessary.

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

1. A clamping block for paper cutters comprising a body piece, a plurality of smaller pieces removably secured to the ends and inner edges of said body, means for removably securing the smaller pieces to said body piece, the outer edges of the composite block thus formed being beveled.

2. A clamping block for paper cutters comprising a body piece, a plurality of smaller pieces removably secured to the ends and to the inner edges of said body, means for removably securing the smaller pieces to said body, and an equalizing plate covering the major portion of the composite block thus formed.

3. A clamping block for paper cutters, comprising a body piece, smaller pieces secured to the ends and inner edges of said body, bolts for securing said smaller pieces

to said body the pieces at the ends of said body being countersunk to let the heads of their retaining bolts in below the surface, and a plurality of pieces between the body and said smaller pieces.

5 4. A clamping block for paper cutters comprising a body piece, a plurality of smaller pieces of different thicknesses, and bolts for securing said smaller pieces to
10 said body to extend the dimensions of the latter, said smaller pieces having slots extending in from their edges to permit the assembly and removal of said pieces without the removal of the bolts.

15 5. A clamping block for paper cutters comprising a body piece a plurality of smaller pieces of different thicknesses, and

bolts for securing said smaller pieces to said body to extend the dimensions of the latter, said smaller pieces having slots extending in from their edges to permit the assembly and removal of said pieces without the removal of the bolts, some of said slots having shoulders to engage on the bolts to hold the pieces from dropping before 25 the bolts are tightened.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this, 5th day of September, A. D. one thousand nine hundred and eleven.

OSCAR G. KLUGEL. [L. S.]

Witnesses:

J. A. MINTURN,
F. W. WOERNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."