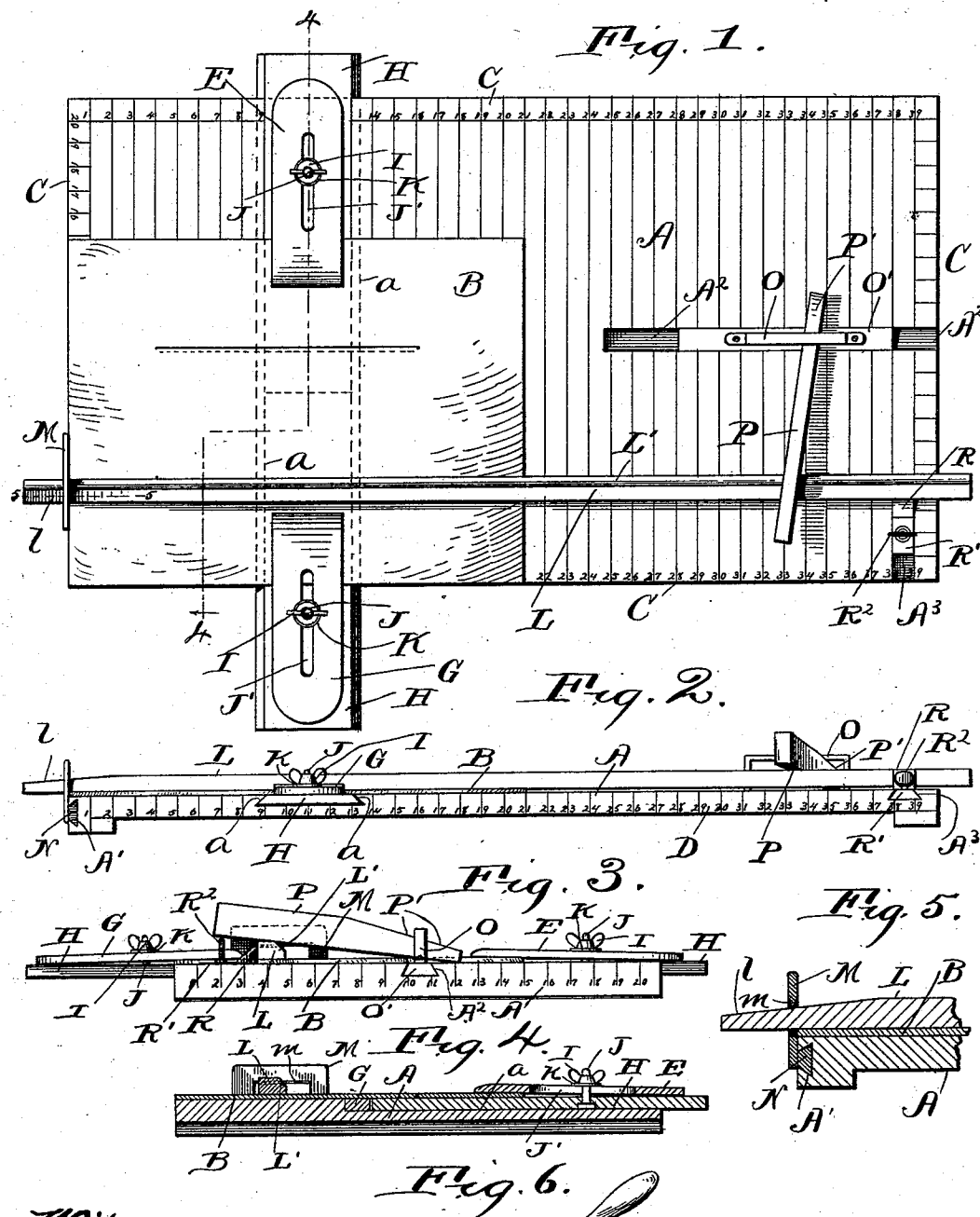


(No Model.)

M. E. CHILDS.
APPARATUS FOR PROVIDING PICTURE MATS WITH SQUARE OR
RECTANGULAR HOLES.

No. 536,016.

Patented Mar. 19, 1895.



Witnesses.
E. P. Gilchrist
Chas. J. ...



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UNITED STATES PATENT OFFICE.

MERRICK E. CHILDS, OF WEST LIBERTY, IOWA.

APPARATUS FOR PROVIDING PICTURE-MATS WITH SQUARE OR RECTANGULAR HOLES.

SPECIFICATION forming part of Letters Patent No. 536,016, dated March 19, 1895.

Application filed April 28, 1894. Serial No. 509,311. (No model.)

To all whom it may concern:

Be it known that I, MERRICK E. CHILDS, of West Liberty, in the county of Muscatine and State of Iowa, have invented certain new and useful Improvements in Machines or Apparatus for Providing Mats for Picture-Frames with Square or Quadrangular Openings or Holes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in machines or apparatus for providing mats for picture-frames, with square or quadrangular openings or holes; and the invention consists in certain features of construction, and in combinations of parts, hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan of a machine embodying my invention. Fig. 2 is a front side elevation of the same. Fig. 3 is a right hand side elevation relative to Figs. 1 and 2. Fig. 4 is a section on line 4—4, Fig. 1, looking in the direction of the arrow. Fig. 5 is an enlarged section in detail on line 5—5, Fig. 1. Fig. 6 is a perspective view of the knife or cutter.

My improved machine comprises a board or table, A, upon which the mat-board B to be cut is placed. A scale, C, for the purpose of measuring and squaring the mats to be cut, is marked upon the top surface of board or table A along the edges of said board or table, and the front edge of board or table A is preferably provided with a scale D to be used when the scale on the top surface of the table is more or less covered. A mat-board B to be cut is shown in position upon board or table A with the forward edge of the mat-board flush with the forward edge of the supporting-table and with the left-hand edge of the mat-board flush with the left-hand edge of the table. The mat-board, if not already properly trimmed, is secured upon the top surface of the supporting-board or table in any approved manner, but preferably by means of one or more clamps, preferably, a pair of clamps E and G adjustably secured to slides H that are arranged transversely of board or table A and are adapted to slide endwise of slideways a formed in the supporting-table,

the clamps being preferably adjustable forwardly and rearwardly, that is, transversely of table A, to accommodate different sizes of mat-boards, and being secured to the supporting-slides preferably by means of thumb-nuts, I, and studs or bolts J engaged by said nuts and rigid with the slides, one or more washers K being preferably interposed between the securing-nuts and upper surface of the clamps, and the holes J' in the clamps through which studs or bolts J extend, being elongated in the direction to accommodate the aforesaid adjustment of the clamps. After trimming the mat-board externally, as just described, the securing-clamps can be removed from the supporting-board or table, if desired.

When the mat-board has been trimmed externally, the corners of the opening or hole to be cut in the mat-board are pricked or otherwise marked upon the surface of the mat-board by means of a compass or any tool suitable for the purpose. A straight-edge or rule, L, whose upper surface at one end, (in the present instance the left-hand end) is beveled downwardly and outwardly or wedge-shaped, as at l, is then placed or laid upon the mat-board with its beveled, or wedge shaped end engaging the lower edge m of the clamping-member of a sliding-clamp M at the left-hand end of board or table A. The engaging edge m of said clamp is preferably quite sharp (see Fig. 5) in order to bite, and thereby retain the straight-edge or rule in place, and the sliding capability of the clamp accommodates the adjustment of the straight-edge or rule relative to the cut to be made in the mat-board. The straight-edge or rule is, of course, adjusted endwise to wedge the same, as required in under clamp M, said adjustment varying according to the thickness of the mat-board. Sliding-clamp M consists, preferably, of a single piece of sheet metal that is suitably secured to a slide N arranged longitudinally of the left-hand edge of supporting-board or table A, and adapted to operate in a slideway, A', formed in and arranged lengthwise of said edge of the table. (See Figs. 2 and 5.) The straight-edge or rule is also clamped to the supporting-board or table at or near its opposite or right-hand end. This is accomplished preferably by means of

a sliding-clamp O and a clamping-stick P, (see Figs. 1 and 3) the latter being adapted to engage the upper surface of the straight-edge or rule, and clamp O being arranged lengthwise of supporting-board or table A and rigid with a slide O' arranged in the same direction and adapted to operate in a slideway A² formed in and also arranged lengthwise of the supporting-board or table.

10 Clamping-stick P engages the under side of the clamping-member of clamp O. The upper surface of said stick is beveled downwardly and rearwardly, or wedge-shaped, as at P', so that by wedging the stick in under clamp O, 15 the straight-edge or rule is caused to be securely held upon the supporting-board or table. The sliding capability of clamp O accommodates the adjustment of the clamping-stick relative to the adjacent edge of the 20 mat being cut.

A rest, R, for the purpose of steadying the straight-edge or rule in cutting mats of extra large size, is preferably provided, the rest shown being adjustable transversely of the 25 supporting-table and being rigid with a slide R' adapted to operate endwise of a slideway, A³, formed in and arranged transversely of board or table A said slide capable of being secured in the desired adjustment by means 30 of a thumb-screw R², the rest being adapted to engage the front edge of the straight-edge or rule. (See Figs. 1 and 3.)

The straight-edge or rule, at its rear edge, is beveled downwardly and rearwardly, as at L', and the operating-knife S employed in 35 cutting the mat is held with its side engaging the beveled edge of the straight-edge or rule so that when the hole or opening in the mat-board is cut, a beveled edge is formed around 40 the hole or opening. The knife employed is preferably of the construction shown in Fig. 6, wherein it is beveled and sharpened at the lower or cutting side and free end to permit it to be pressed firmly into the corner of the 45 opening or hole to be cut in the mat, so that a smooth clear cut is obtained, the knife in the cutting operation of course being held with its unbeveled side in engagement with the beveled edge of the straight-edge or rule.

50 In using the knife it should be firmly held against the beveled edge of the straight-edge or rule by pressing the first and second fingers of the left-hand (referring to a right handed operator) on the blade of the knife

with the thumb of the same hand resting upon 55 the straight-edge or rule and when the knife has been placed in position for cutting it should be carefully drawn along the bevel of the straight-edge or rule between the marks indicating the corners of the opening 60 or hole to be cut in the mat. The cutting of heavy mat-boards will require several cuts and close hard pressing into the corners to free the detached central portions of the mat-board. 65

What I claim is—

1. In apparatus for cutting picture-mats with square or rectangular holes, the combination of a board or table A, a straight-edge or rule L beveled or wedge-shaped at one end 70 as at L, a clamp for engaging and holding said wedge-shaped end in position, a clamping-stick P adapted to engage the straight-edge or rule on top, and a clamp O for securing said clamping-stick in place, and the stick 75 being beveled or wedge-shaped at the end engaged by the clamp, all arranged substantially as and for the purpose set forth.

2. In apparatus for cutting picture-mats with square or rectangular holes, the combination of a board or table A, a straight-edge 80 or rule L beveled, as at L', along its rear edge, and beveled or wedge-shaped at one end, a clamp for engaging and holding said wedge-shaped end of the straight-edge or rule in 85 place and adjustable transversely of the supporting-board or table, the clamping-stick P beveled or wedge-shaped at one end and the clamp O adjustable lengthwise of the board or table and all arranged and operating sub- 90 stantially as set forth.

3. In apparatus for cutting picture-mats with square or rectangular holes, the combination of a board or table A, a straight-edge or rule L, suitable clamping-devices for hold- 95 ing the mat and straight-edge in place, and the rest R for engaging the front edge of the straight-edge or rule and adjustable transversely of the board or table, substantially as set forth. 100

In testimony whereof I sign this specification, in the presence of two witnesses, this 14th day of February, 1894.

MERRICK E. CHILDS.

Witnesses:

C. H. DORER,
ELLA E. TILDEN.