(No Model.) 2 Sheets—Sheet 1.

# C. B. BALDWIN.

## SLOTTING MACHINE.

No. 493,674. Patented Mar. 21, 1893.

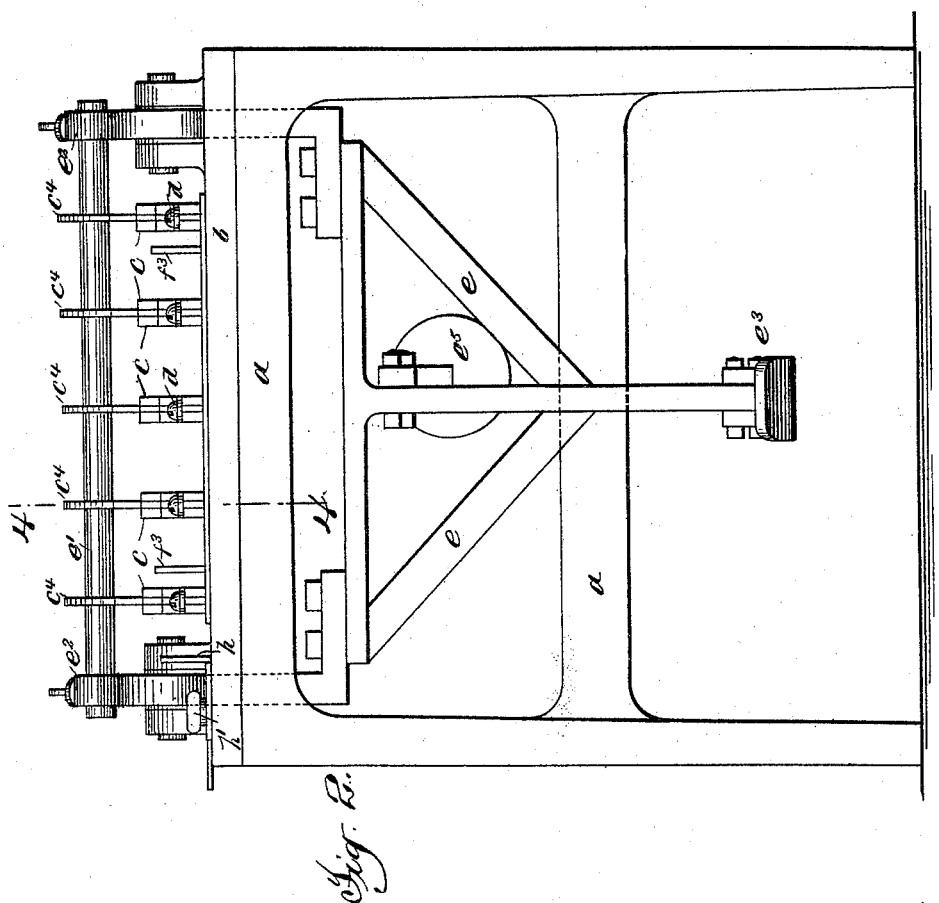

Fig. 2.

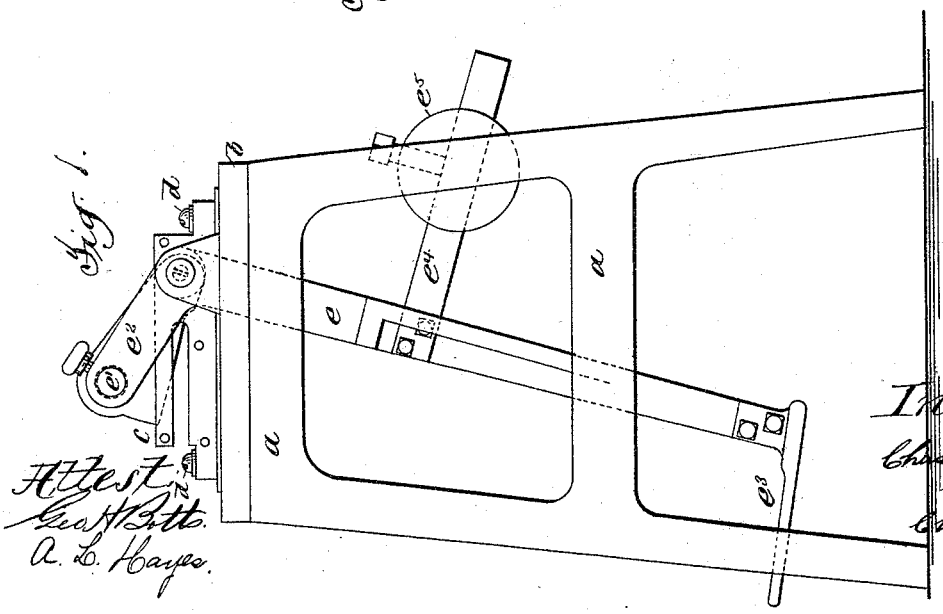

Fig. 1.

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# C. B. BALDWIN.

## SLOTTING MACHINE.

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Fig. 3.

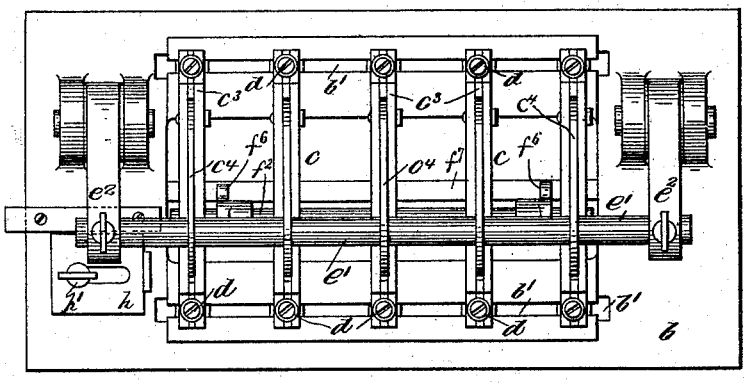


Fig. 4.

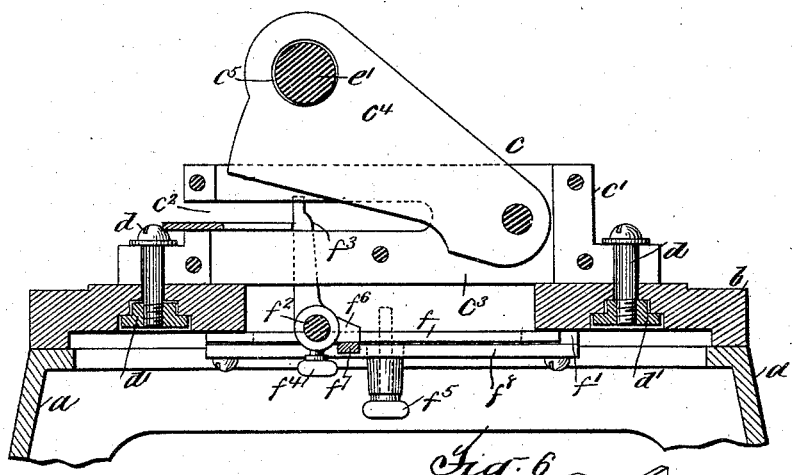


Fig. 6

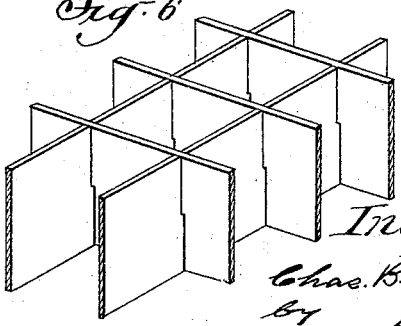
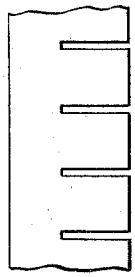


Fig. 5



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# UNITED STATES PATENT OFFICE.

CHARLES B. BALDWIN, OF BROOKLYN, NEW YORK.

## SLOTTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 493,674, dated March 21, 1893.

Application filed March 10, 1892. Serial No. 424,458. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES B. BALDWIN, a citizen of the United States, and a resident of Brooklyn, Kings county, and State of New York, have invented new and useful Improvements in Slotting-Machines, of which the following description, taken in connection with the drawings herewith accompanying, is a specification.

My invention relates to slotting machines, which, in the instance illustrated, is more particularly adapted for cutting or slotting strips or pieces of card-board or other suitable material for the purpose of interlocking the same to form partitions for location in a box or in the formation of other receptacles, although it is obvious that the machine may be employed for various other uses; and my present invention consists, first,—in the construction of the cutting devices for slotting the pieces to be operated upon; second,—in the means for operating the blades of the cutting devices; third,—in the means for gaging or determining the length of the slots to be cut; and fourth,—in other details of construction and combination of parts to be hereinafter referred to; the object of my invention being to provide a machine of simple construction and operation, that is positive in its movements, and is provided with the necessary adjustments for the several movable parts.

Referring to the drawings:—Figure 1, represents a side elevation of a machine embodying my invention. Fig. 2, represents a front elevation, and,—Fig. 3, a plan view of the same. Fig. 4, represents a vertical section of the machine through line 4—4 of Fig. 2. Fig. 5, represents a piece of board provided with slots as produced by my machine, and,—Fig. 6, shows several of the same interlocked, showing the method of connecting the same.

To explain in detail,—*a*, represents the supporting frame or stand, *b*, the table or bed-plate located on the said frame or stand, and *c* the cutting or slotting devices. The latter are connected and supported on the bed-plate *b* in a manner to be moved or adjusted horizontally thereon, to provide for the varied distances required between the slots to be cut, by means of adjusting bolts *d* which connect with the devices *c* and extend through longitudinal slots or openings *b'* in the bed-plate *b* and connect with nuts *d'* located in grooves in the under side of the latter, as more clearly shown in Fig. 4, in order to adjustably clamp the devices *c* in a fixed position at any desired point. It will be obvious, however, that set-screws or any suitable form of clamping device may be used for holding the devices *c* in adjustable connection with the bed-plate *b*, in lieu of the bolts *d* as shown, without departing from the spirit of my invention.

The cutting devices *c* consist of a plate or block *c'* provided with an opening $c^2$ in its forward end, forming a mouth into which the piece to be operated upon is adapted to be inserted; and with a vertically arranged opening or passage $c^3$ therein opening across said mouth $c^2$, forming a guide-way in which a cutting-blade $c^4$ is supported and adapted to operate. The cutting-blade $c^4$ is pivoted at or near one end thereof, near the rear end of the opening or passage $c^3$ in the plate or block *c'*, and its opposite end is adapted to be carried and be vertically reciprocated to cause its lower or cutting edge to pass across the mouth or opening $c^2$ and cut or slot the piece inserted therein, by means of the connecting cross-bar or shaft *e'* of a rocking frame *e*, which extends through an opening $c^5$ located in the cutting blades $c^4$ of the several devices *c* to unite and operate the same simultaneously. The said cutting blades being thus loosely connected with the cross-bar of the operating rocking frame in a manner to move horizontally thereon as shown, no separate adjustment of the blades is required when the cutting devices are shifted or adjusted on the supporting bed-plate *b*. The rocking frame *e* is hinged or pivoted on the bed-plate *b* near its opposite sides between lugs or projections as more clearly shown in Figs. 2 and 3, and is formed with two elbow arms $e^2$, $e^2$, at its upper end, by which the said cross-bar *e'* for carrying the blades of the cutting devices *c* is supported; and at its lower end the rocking frame is provided with a foot-rest or support $e^3$ for the operator. A weight $e^5$ is supported on an arm $e^4$ projecting from the rear side of the rocking frame, which is adapted to tilt or raise the arms $e^2$ of the latter upward, in order to hold the connecting blades of the cutting devices

$c$ in a normal raised position above the mouth or opening $c^2$ therein as shown in the several figures of the drawings; and the said cutting blades are adapted to be lowered to cut and slot the piece inserted into the said opening $c^2$, by depressing or pushing back the lower end of the rocking frame, as will be readily understood.

In order to gage or regulate the desired length of slot to be cut in the piece to be operated upon, I have provided an adjustable gage adapted for adjusting the length of the mouth or opening $c^4$ into which the piece to be slotted or operated upon is adapted to be inserted, as more clearly shown in Fig. 4. This adjustable gage consists of a sliding or movable frame $f$ which is supported and guided in suitable guide-ways $f'$ located beneath the bed-plate $b$, and is provided with a connecting cross-rod $f^2$ on which adjustable arms $f^3$ are mounted to slide and turn and be held in a desired position by set-screws $f^4$. The arms $f^3$, when held in a normal vertical position as shown in Fig. 4, extend across the mouth or opening $c^4$ in the cutting devices $c$ and form a stop against which the end of the strip or piece to be operated upon strikes or contacts when inserted into the mouth or opening $c^4$; and the relative position of the arms $f^3$ to the front end of the mouth $c^3$ determines the length of slot to be cut as will be readily understood. The guide-ways $f'$ are formed by rods or strips $f^8$ (see Fig. 4) which are secured at each end to the under side of the bed-plate $b$ with sufficient space left between the same to form the ways $f'$, and the sliding-frame $f$ (and thereby the gage) is adjustably held in a desired stationary position in the latter by means of a clamping device or screw $f^5$ which connects with the rod or strip $f^8$ at a point between its ends and passes into or engages with the bed-plate $b$ in a manner to cause the part $f^8$, which is yielding, to clamp the frame $f$ and hold the same, as will be readily understood. The arms $f^3$ of the gage, are laterally adjustable on their supporting rod or shaft $f^2$, to allow for the different lengths or sizes of the pieces to be operated upon or slotted as will appear obvious; and the same are mounted on their supporting rod in a manner to turn thereon as described, in order to be turned below the lower edge of the cutting devices to allow for lateral adjustment of either the said arms or the cutting devices, without contact of each other as will appear obvious. The arms $f^3$ are provided with an arm or projection $f^6$ at their lower ends and at their rear sides, which is adapted to engage with a cross-bar $f^7$ of the sliding frame when the arm is thrown up in a vertical position, to check or limit the same and insure its proper position. I have also provided a second gage, represented at $h$, which is located adjacent to one end of the bed-plate, against which one end of the pieces to be operated upon, are placed, to insure the proper distance of the first slot from the end of the piece as will be readily understood. The gage $h$ is adjustable on the bed-plate by means of an adjusting screw $h'$, as more clearly shown in Figs. 2 and 3.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a slotting machine, the combination with the supporting frame, of a cutting device, consisting of a supporting block or plate having an adjustable sliding connection with the said frame, and provided with a cutting blade pivoted thereto, and an operating frame or lever provided with a rod or shaft having a loose sliding connection with said cutting blade and adapted to operate the same, substantially as described and for the purpose set forth.

2. In a slotting machine, the combination with the supporting frame, of a cutting device consisting of a block or plate having an adjustable sliding connection on said frame and provided with a receiving opening or mouth into which the material to be operated upon is adapted to be inserted, a cutting blade pivoted at one end on said block or plate and adapted to operate across said mouth or opening, an operating frame provided with a rod or shaft having a loose sliding connection with said cutting blade, and an adjustable gage forming a stop to engage with the piece inserted into the said mouth or opening in the cutting device, substantially as described and for the purpose set forth.

3. In a slotting machine, the combination with the supporting frame, of a cutting device, consisting of a supporting block or plate, having an adjustable sliding connection with the frame and provided with a cutting blade connected therewith, an operating frame or lever provided with an arm or shaft having a loose sliding connection with said cutting blade, and suitable means for adjustably securing the cutting device in a desired position, substantially as described and for the purpose set forth.

4. In a slotting machine, the combination with the supporting frame, and a cutting device supported in a horizontally adjustable position on the bed-plate thereof provided with a receiving mouth or opening, of an adjustable gage, consisting of a sliding frame mounted in suitable ways on the under side of the bed-plate, and an arm or rod pivoted on said frame in a manner to be moved across said receiving mouth or be turned beneath the surface of the bed-plate, substantially as described and for the purpose set forth.

CHAS. B. BALDWIN.

Attest:
CHAS. F. DANE,
ANNIE L. HAYES.