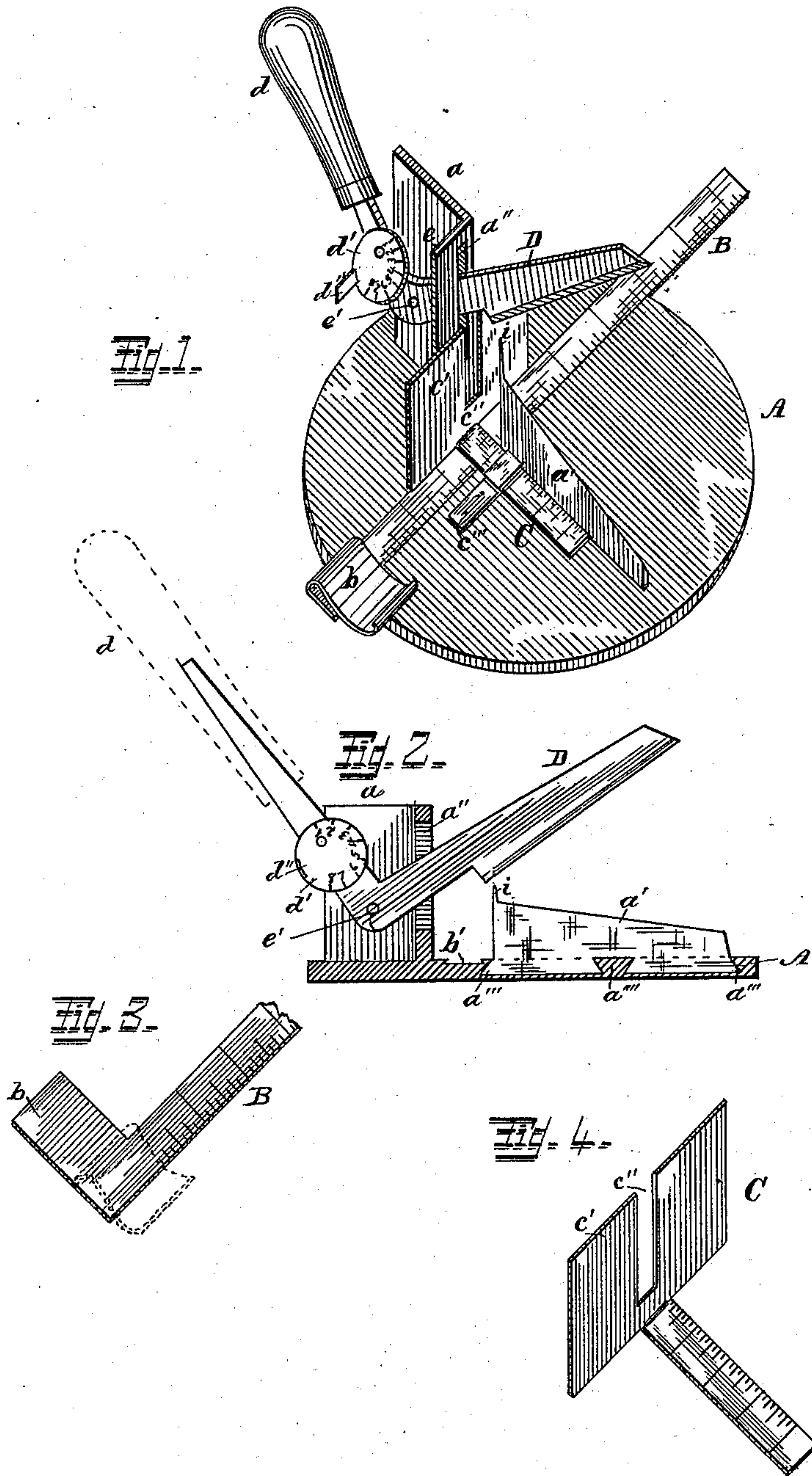


(No Model.)

J. R. HOPKINS.
BUTTON HOLE CUTTER.

No. 384,164.

Patented June 5, 1888.



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UNITED STATES PATENT OFFICE.

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BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 384,164, dated June 5, 1888.

Application filed March 29, 1888. Serial No. 268,873. (No model.)

To all whom it may concern:

Be it known that I, JASON R. HOPKINS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Button-Hole Cutters; 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 appertains to make and use the same.

My invention comprises an implement for cutting button-holes in garments or fabrics; and it consists, essentially, of a base-plate, a stationary knife or cutter forming one blade of a pair of shears mounted on said base-plate, a movable knife or cutter forming the other blade of a pair of shears pivoted on a standard rising from the base-plate, and two gages, one for measuring the distance between the button-holes and the other for measuring and regulating the distance between the ends of the button-holes and the edge of the fabric.

The object of the invention is to provide a convenient, durable, cheap, and reliable implement for cutting button-holes with the greatest accuracy.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a cutter embodying my invention. Fig. 2 is a sectional elevation. Fig. 3 represents a portion of the blank from which the gage for measuring the distance between the button-holes is formed, and Fig. 4 is a perspective view of the gage which measures the distance between the button-hole and the edge of the fabric.

The same letters designate the same parts in all the views.

A designates a base-plate, preferably of round or oval form, which has near its edge an angular vertical standard, a , and forward of said standard a fixed blade or cutter, a' . The base-plate and standard may be made separately and united in any suitable manner—as by soldering, brazing, or riveting; but I prefer to cast them integrally in suitable molds.

The blade a' is firmly and rigidly mounted on or set into the base-plate A in front of the standard a and directly in line with that face of the latter upon which the knife or cutter D is pivoted, so that the two cutters a' and

D may work together after the manner of a pair of shears. When the base is cast, the blade a' may be conveniently secured in place by placing it in the mold in proper position and casting the metal around its base, as represented in Fig. 2, the base in such case being formed with pointed corners a''' , over and around which the metal flows, and which prevent the blade from being lifted out of its seat. A further fastening may be provided by forming one or more dovetail or other suitably-shaped notches or openings in or through the base of the blade, through which the metal will flow, as at a'''' , to unite and bind the parts together.

The standard a is formed with a right-angled flange, e , which is slotted at a'' . The blade D is pivoted at e' , and the shank works in the slot a'' , the upper end of said slot forming a stop to limit the upward movement of the blade. This blade has a lever-handle, d , which stands at substantially right angles to the body of the blade. To the shank of the lever-handle is pivoted an eccentric plate, d' , which, on the forward movement of the handle, strikes against the flange e and forms an adjustable stop to limit the downward movement of the blade D, whereby the length of the cut is regulated. The plate d' is graduated so that the length of cut can be accurately determined, and it has a laterally-projecting stem or handle, d'' , by which it is conveniently turned.

C designates a gage, which lies at one side of the blade a' . It carries at its rear end a gage-plate, c' , against which the edge of the garment or fabric is placed before making the cut, and which accurately gages the distance the cut is to be made from the edge. The gage C slides under a guide or keeper, c''' , and is capable of being moved back and forth to bring the gage-plate c' nearer to or farther away from the end of the blade a' . The gage-plate c' is higher than the blade a' , and has a vertical notch, c'' , to receive the shank of the blade D when the latter moves downward to make a cut.

The distance between the button-holes is measured by a gage, B, which is movable transversely across the base-plate A in a direction at right angles to that in which the gage C moves. The gage B is formed from a blank of

sheet metal cut to the shape represented in Fig. 3, with an angular portion, *b*, which is bent over, as represented in full lines in Fig. 1, and in broken lines in Fig. 3, to form a spring-clamp to receive and hold the edge of the fabric to be cut. The gage B lies in a transverse groove or channel, *b'*, in the upper surface of the base-plate A. By making the groove *b'* dovetailed, as represented in Fig. 2, and fitting the gage thereto, the latter will be retained in place without other fastening. The groove *b'* may be conveniently formed in casting the base-plate by properly disposing a suitably-shaped strip of sheet metal in the mold before casting and then withdrawing said strip after removing the casting from the mold.

In order that the fabric may be properly adjusted and held before making the cut, I provide the blade *a'* at the rear end where the cut commences with a needle-point, *i*, upon which the goods is pressed after being properly adjusted by the gages, and by which it is held in adjusted position. The point *i* penetrates the fabric and marks the exact point at which the cut begins.

The manner of using and operating this implement is as follows: The two gages B and C are set to properly gage the distance between the button-holes and the distance at which they are to be cut from the edge, and the eccentric stop-plate *d'* is adjusted to the required length of cut. The parts being thus adjusted, the fabric is pressed upon the point *i* at the place where the first button-hole is to be cut and the cut is then made. The first hole being cut, the handle *d* is drawn back and the blade D raised, the fabric raised from the blade *a'*, and moved along and placed under the clamp *b*, with the first cut close to or under the edge of the clamp, when it is in proper position for the second cut. It is then again pressed down upon the point *i*, which holds it in proper position, and the next cut is made. This operation is repeated till all the button-holes are cut.

Having thus described my invention, I claim as new—

1. In a button-hole cutter, the combination, with the cutting-blades *a'* D, of a transversely-movable gage for spacing the button-holes, said gage being provided with a spring-clamp to receive and hold the edge of the fabric to be cut, substantially as shown and described.

2. In a button-hole-cutter, the combination, with the cutting-blades *a'* D, one of which is

provided with a holding-point, *i*, of a transversely-movable gage for spacing the button-holes, said gage being provided with a clamp to receive and hold the edge of the fabric to be cut, substantially as shown and described.

3. In a button-hole cutter, the combination, with the fixed cutting-blade *a'*, provided with a holding-point, *i*, of the gage C *c'*, to gage the distance between the button-holes and the edge of the fabric, substantially as shown and described.

4. In a button-hole cutter, the combination, with the fixed and pivoted cutting-blades *a'* D, the first of which is provided with a holding-point, *i*, of the transversely-movable gage B, for spacing the button-holes, and the gage C *c'*, for gaging the distance between the button-holes and the edge of the fabric, substantially as shown and described.

5. In a button-hole cutter, the combination of the base-plate A, provided with a fixed cutting-blade, *a'*, and a vertical standard in line with said blade, and a vibrating or swinging cutting-blade, D, pivoted to said standard and having a lever-handle by which it may be operated, substantially as shown and described.

6. In a button-hole cutter, the combination, with the base-plate A, provided with a fixed cutting-blade, *a'*, and a vertical standard in line therewith, of a vibrating or swinging cutting-blade, D, pivoted to said standard and having a lever-handle by which it may be operated, and an adjustable stop to limit the movement of the blade D in the cutting direction, substantially as shown and described.

7. In a button-hole cutter, the combination, with the base-plate A, provided with a fixed cutting-blade, *a'*, and a vertical angular standard, *a e*, in line therewith, the angular part *e* of said standard having a vertical slot, *a''*, of a vibrating or swinging cutting-blade, D, pivoted to said standard and working through said slot and having a lever-handle by which it may be operated, and an adjustable stop to limit the movement of the blade D in the cutting direction, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JASON R. HOPKINS.

Witnesses:

APPLETON P. CLARK,
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