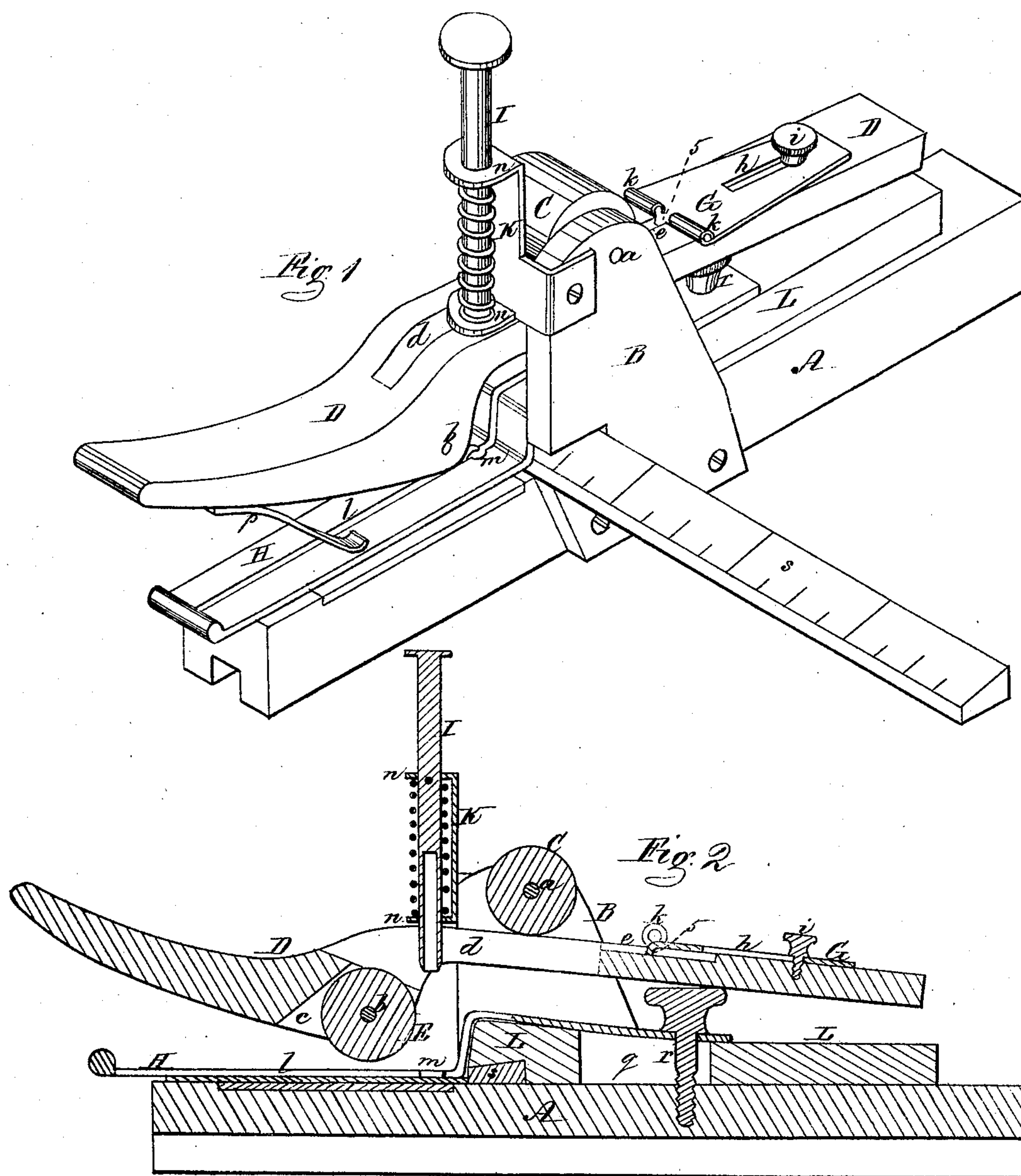


D. LUMBERT.
Button-Hole Cutters.

No. 149,409.

Patented April 7, 1874.



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UNITED STATES PATENT OFFICE.

DANIEL LUMBERT, OF CENTREVILLE, MASSACHUSETTS.

IMPROVEMENT IN BUTTON-HOLE CUTTERS.

Specification forming part of Letters Patent No. **149,409**, dated April 7, 1874; application filed February 27, 1874.

To all whom it may concern:

Be it known that I, DANIEL LUMBERT, of Centreville, in the county of Barnstable and State of Massachusetts, have invented certain Improvements in Button-Hole Cutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my button-hole cutter. Fig. 2 is a longitudinal vertical section through the center of the same.

My invention consists in a button-hole cutter, in which the holes in the garment or other article are made by a revolving knife, secured to an adjustable gage for regulating the length of the hole to be cut, in connection with another gage for regulating the distance of the button-holes from the edge of the article in which the holes are to be made, a punch for forming the eye or enlarged portion of the button-hole, and a graduated scale or measure for spacing off the distances between any two contiguous button-holes being employed, if desired; said button-hole cutter being capable of being readily secured in any convenient position, on a bench or table, by a clamp or otherwise.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a rectangular block, which forms the base of my cutter, from opposite sides of which, about equidistant from its ends, rise the standards B B, between which, and on a stationary pin, *a*, extending between their tops, is placed a roll, C. Under this roll, and between the inner surfaces of these standards, is made to slide an arm, D, (of the form seen,) having a circular knife or cutter, E, pivoted thereto at *b*, and revolving within a slit or opening, *c*, formed therein. This slit communicates with a slot, *d*, extending through the arm from top to bottom, and from the rear end of this slot proceeds a groove, *e*, which serves as a guide for the front or projecting end of a sliding plate, G, provided with a slot, *h*, through which passes a screw, *i*, by which construction the plate may be moved to or from the standards, and when

adjusted may be securely clamped in place, projections *k*, on the upper front end of the plate, coming into contact with the standards, the arm and its sliding plate serving as an adjustable gage for regulating the amount of motion of the revolving cutter, and consequently the length of the slit or straight portion of the button-hole to be formed. Over the base A, and in front of the standards B, extends a metallic spring-plate, H, through which is formed a narrow slit, *l*, and a circular hole, *m*, made in the center of its width, the slit being immediately under and in line with the edge of the revolving cutter, and the circular hole being directly under a spring-punch, I, made to move vertically in bearings *n*, formed in the upper and lower ends of a bent plate, K, secured to the top of the standards B.

The spring-plate H may be readily raised, by pressure applied to its outer end, to admit of passing thereunder the cloth or other material to be provided with button-holes, the base A serving as a bed or rest for the material during the operation of cutting the button-holes, a spring, P, on the under side of the arm D, serving to keep the cutter from contact with the material till it is adjusted in position and the arm is depressed by pressure applied to its forward end.

The distance of the line of button-holes from the edge of the work is determined in the following manner: L is a rectangular block, resting on the base A, and made of such a width as to move, without lateral play, within the sides of the standards B, a slot, *q*, being cut through this block for the passage of a screw, *r*, down into the base, the screw also serving as a support for the under side of the rear portion of the arm D to slide on. The forward end of this block is dovetailed on its under side for the reception of a graduated scale, *s*, of corresponding form in cross-section, the front edge of this scale being the line up to which is brought the edge of the material to be provided with button-holes, and an opening in one of the standards being formed to allow of the entrance of one end of the scale under the dovetailed end of the rectangular block L.

From the foregoing construction it will be seen that the scale may be moved a short dis-

tance forward or back, so as to change the relative distance of its front edge from the circular hole *m* in the spring-plate, whereby the circular eye or enlarged portion of each button-hole and its slit are formed in the material at the required uniform distance from its edge, the block, with its slot and screw, in connection with the scale, serving as an adjustable gage for regulating the distance of the line of button-holes from the edge of the work. After one button-hole is formed, the material, with its edge being against the front edge of the scale, is moved along to a point at a predetermined distance, corresponding to the required space between two contiguous button-holes.

The above-described button-hole cutter is intended to be secured to a bench or table, by a clamp or other device not shown.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A sliding arm, D, with its revolving cutter E, in combination with the base A, substantially as described, for the purpose set forth.

2. The sliding slotted plate G, with its clamping-screw *i*, in combination with a stop rising from the base A, the sliding arm D, and

revolving cutter E for regulating the length of the button-hole, &c., substantially as set forth.

3. The spring P, in combination with the sliding arm D, revolving cutter E, and base A, as and for the purpose described.

4. The block L, in combination with the sliding arm D, and revolving cutter E, substantially as and for the purpose set forth.

5. The spring-plate H, with its slit *l*, in combination with the base A, gage L, and sliding arm D, with its revolving cutter E, substantially as and for the purpose described.

6. A spring-punch, I, in combination with a sliding arm D, revolving cutter E, gage L, and base A, constructed and operated substantially as described for the purpose set forth.

7. The scale *s*, in combination with the sliding arm D, revolving cutter E, gage L, and base A, for spacing the distance between two contiguous button-holes, substantially as described.

Witness my hand this 20th day of February, A. D. 1874.

DANIEL LUMBERT.

In presence of—

F. G. KELLEY,
WILLIAM JONES.