

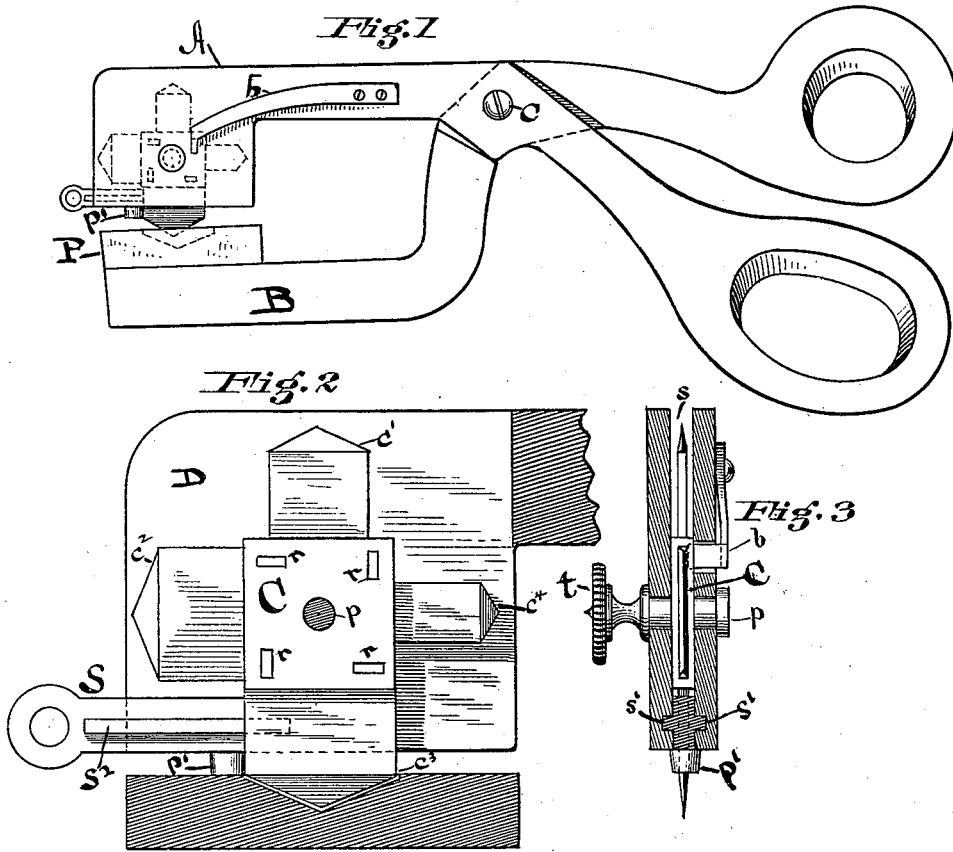
(No Model.)

M. T. LOTZ.

BUTTON HOLE CUTTER.

No. 250,669.

Patented Dec. 13, 1881.



Attest

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UNITED STATES PATENT OFFICE.

MARY T. LOTZ, OF LOVELAND, OHIO.

BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 250,669, dated December 13, 1881.

Application filed August 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARY T. LOTZ, a citizen of the United States, residing at Loveland, Clermont county, Ohio, have invented new and useful Improvements in Button-Hole Cutters, of which the following is a specification.

My invention relates to button-hole cutters, and contemplates the construction of a convenient household implement for cutting button-holes, with suitable adjustments for a proper range of work, the whole embodied in a form of structure convenient for manipulation, and cheaply produced.

My invention will be hereinafter fully described in detail, and the improvements afterward specifically pointed out in the claims.

My invention is embodied in mechanism illustrated in the accompanying drawings, in which Figure 1 is a side elevation of my invention complete. Fig. 2 is an enlarged elevation of the bifurcated cutting-head, with one side removed, showing the revolving adjustable cutter and the slide containing the eyelet-punch in position, and the socket-piece for cutter in section. Fig. 3 is a vertical cross-section of the cutting-head and the slide containing the punch.

Similar letters of reference in the specification and drawings indicate similar parts.

A and B in the drawings represent the upper and lower members, respectively, of the button-hole cutter, formed substantially like a pair of scissors, pivoted together at *c*, and formed at the rear into finger-loops for convenience of manipulation, in the usual manner. The upper member, A, is formed at the front into a flat head, D, separated into two portions by an open slot, *s*, Fig. 3, in which is pivoted a revolving cutter, C, preferably a thin square piece of steel, having cutting-edges *c'* *c''* *c'''* *c''''*, of suitably graduated lengths, projecting equal distances beyond its four sides respectively, and formed with diamond-pointed or beveled edges.

The cutter C is perforated centrally for the insertion of the pivot *p*, by which it is secured and revolved in the bearings provided therefor in the two sides of the head A, at such a distance from their lower edges as to bring the cutting-edges *c'* *c''* *c'''* *c''''*, respectively, beneath the under side of the head D when in position for

cutting. One end of the pivot *p* is extended into and forms a thumb-piece, *t*, for convenience in adjusting the cutter C, and the other end is upset against the head, or otherwise secured, to prevent its withdrawal. The cutter is secured in the desired position by means of a spring-catch, *b*, consisting of a thin strip of spring metal secured at one end to the upper member, A, near the end, and bent inwardly at the other end, so as to enter a slot in one side of the head D, and enter suitably-disposed recesses *r* in the square portion of the cutter C, thus resisting its rotary movement when in use, but not preventing its forcible rotation by hand when necessary. The lower member, B, is turned downward at the pivot *c*, and carried thence forward, so as to form a jaw, of convenient width and depth, between the forward ends of the members A and B; and on its upper side, opposite to and of equal length with the cutting-head, is a cushion of soft metal, preferably copper, having a narrow slot or recess, into which the cutting-edges of the cutter enter when the two members A and B are pressed together in rear. The diamond-shaped edges of the cutters readily penetrate through any ordinary material with a very slight amount of pressure on the handles.

In connection with the hereinbefore-described mechanism for cutting the button-hole, I provide means for cutting at the same time an eye, as follows: The two sides of the cutting-head A are grooved lengthwise near the bottom, on their inner surfaces, as shown at *s'*, Fig. 3. A straight bar of metal, S, formed with side ribs, *s''*, running lengthwise thereof, is fitted to pass within the open slots of the cutting-head, the ribs or lugs *s''* engaging in the grooves *s'*. Upon one end of the bar S is secured the circular eyelet-punch *p'*, preferably of steel, in such manner that when the cutter C is in position for use, and the bar S containing the punch is inserted in position in the open slot *s* and grooves *s'*, the punch *p'* rests against the edge *c''* of the cutter, thus practically forming part of its continuous cutting-edge. The grooves *s'* being continued entirely across the head A, it is evident that the bar S may be inserted from either the front or rear, thus placing the punch *p'* on one side or the other of the cutting-edge *c''*, as may be desired.

A number of punches of various sizes may be provided, any one of which may be inserted at the will of the operator.

The operation of my device will be evident from the above description.

The cutter C is revolved by means of the thumb-piece *t* until the desired cutting-edge is brought into position beneath the cutting-head, and is there held by means of the spring-catch *b*. If it is desired to cut an eye in connection with the button-hole, the bar S, containing the eyelet-punch, is inserted in the grooves *s s'* until the punch *p'* impinges against the cutter.

The forward ends of the implement being separated from the rear, the cloth or other material to be cut is inserted between them, and the two ends brought together by pressure at the rear, the cutting-edge passing through the cloth into the narrow recess in the upper surface of the cushion P. The cutting-edge of the cutter having passed entirely through the cloth, the cutting-edge of the punch *p'* is brought to bear upon the surface of the cloth,

and by means of the continued pressure from the rear is forced through the cloth.

Having described my invention, I claim and desire to secure by Letters Patent—

1. In a button-hole cutter, the combination, with the rotating adjustable cutter and its supporting head or member, of an eyelet-punch detachably and adjustably connected with said supporting head or member, for operation substantially as described.

2. In combination with the slotted member A of a button-hole cutter carrying the rotating cutter-head C, the removable eyelet-punch *p'*, adapted to be inserted and held in the slot adjustably to the cutting-edge in use, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

MARY T. LOTZ.

Witnesses:

C. P. DOOLITTLE,
L. M. HOSEA.