J. A. SIDLE.

Button-Hole Cutter.

No. 168,794.

Patented Oct. 11. 1875.

Fig 1

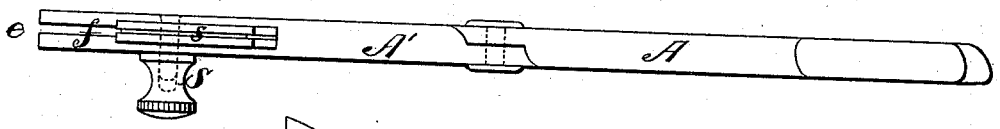

Fig 2

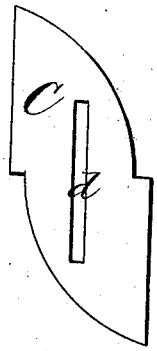

Fig 3

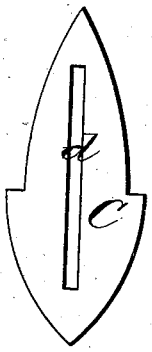

Fig 4

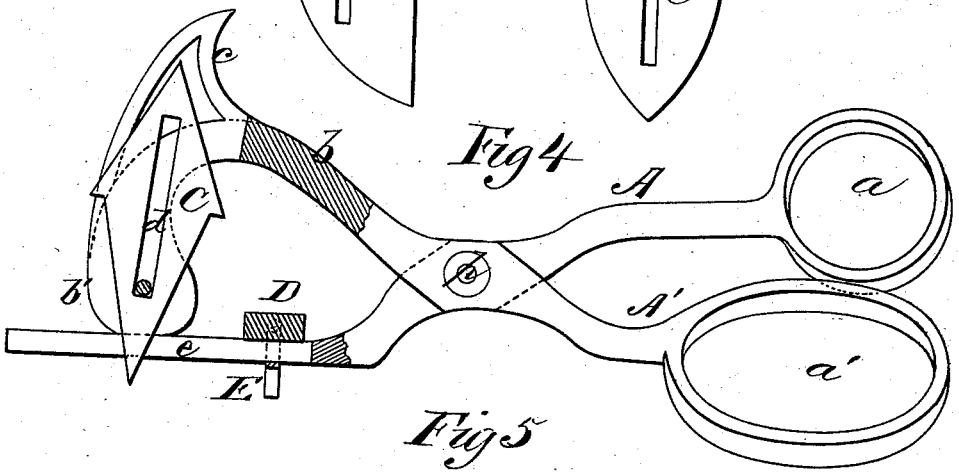

Fig 5

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN A. SIDLE, OF COMSTOCK, MICHIGAN.

IMPROVEMENT IN BUTTON-HOLE CUTTERS.

Specification forming part of Letters Patent No. **168,794**, dated October 11, 1875; application filed August 28, 1875.

To all whom it may concern:

Be it known that I, JOHN A. SIDLE, of Comstock, in the county of Kalamazoo and State of Michigan, have invented a new and valuable Improvement in Button-Hole Cutters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an edge view of my button-hole cutter. Figs. 2 and 3 are plan views of the cutter, and Fig. 4 is a plan view, part sectional, of the whole device. Fig. 5 is a sectional view of the spring.

This invention has relation to improvements in button-hole cutters; and it consists in the arrangement and novel construction, in connection with a pair of shear-blades, of a detachable adjustable blade, a sheath for protecting the blade from casual injury, and an adjustable slide for regulating the distance of the button-holes from the edge of the fabric, all substantially as hereinafter set forth and claimed.

In the annexed drawings, the letters A A′ designate the handles of an ordinary pair of shears, in connection with which I propose to illustrate my invention. These handles are provided with loops or stalls *a a′* for the reception of the fingers, and one of the levers A is provided with an arched or curved portion, *b*, terminating in a flattened enlargement, *b′*, upon the upper edge of which is an angular, preferably open, projection, *c*, the object of which will hereinafter appear. A deep slot, *s*, is cut in the length of the flattened portion *b*, and through the angular projection *c* upon its upper edge to a point nearly midway between the latter and the pivot *p*, thus dividing the part *b* centrally and longitudinally, and forming two plates, which are adapted to be clamped together for the purpose of seizing and holding a button-hole cutter, C, by means of a thumb-screw, S. This button-hole cutter is of the general form of an elongated lozenge, and is provided with a slot, *d*, cut in its length. It has also two penetrating-points and four cutting-edges, which latter may be either rectilinear, as shown in Fig. 4, curvilinear, as seen in Fig. 3, or they may be curvilinear on alternate edges of the cutter, as shown in Fig. 2. The other lever, A′, is provided with a rectilinear extension, *e*, through which is cut a longitudinal slit, *f*, of such a width as to receive the point of the cutter; and the lateral edges of this extension are beveled, as shown in Fig. 5, so that when a correspondingly-grooved slide, D, is passed over the said extension it shall have free endwise movement to and from pivot *p*, but will be held against axial rotation. This slide is designed to regulate the distance from the edge of the fabric at which the button-holes are to be cut, and is held to any desired point of adjustment by means of a strong W-shaped spring, E, the legs of which are rigidly secured to the slide, with its curved portion *i* bearing forcibly from below upward against the under side of extension.

To lessen the distance of the button-hole from the edge of the garment the regulating-slide is thrust away from pivot *p* toward the end of the said extension, an opposite result being obtained by reversing the above-described movement.

The cutter-blades C are designed to be of various sizes, so as to secure every variety of length in button-holes; and being readily detachable from the lever A′, by removing thumb-screw S, they are very conveniently sharpened when necessary.

The cutter-blade is attached to the enlarged head of the shear-lever by passing it up through slit *s* cut therein. Thumb-screw S is then passed through registering-perforations in the holder and the slot *d* in the blade and forcibly set up. By this means the jaws of the holder *b′* are clamped together against the blade, and the latter is rigidly held in position.

The open-work projection *c* above alluded to serves as a guard or sheath for the unemployed cutting-edges of blades C, and will effectually prevent the fingers of the operator from coming in contact therewith and being cut.

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

1. In a button-hole cutter, the reversible and detachable lozenge-shaped cutter C, having slot *d*, in combination with shear-lever A′, having a curved split enlargement, *b*′, and thumb-screw S, substantially as specified.

2. The guard *c* of lever A′, in combination with a lozenge-shaped four-edged and double-pointed blade, C, substantially as specified.

3. The beveled split extension *e* of shear-lever A, in combination with a grooved adjusting or set spring E, substantially as specified.

4. The four-edged double-pointed and slotted cutter C, adapted for use, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN A. SIDLE.

Witnesses:
DENISON E. GROESBECK,
JAMES W. HOPKINS.