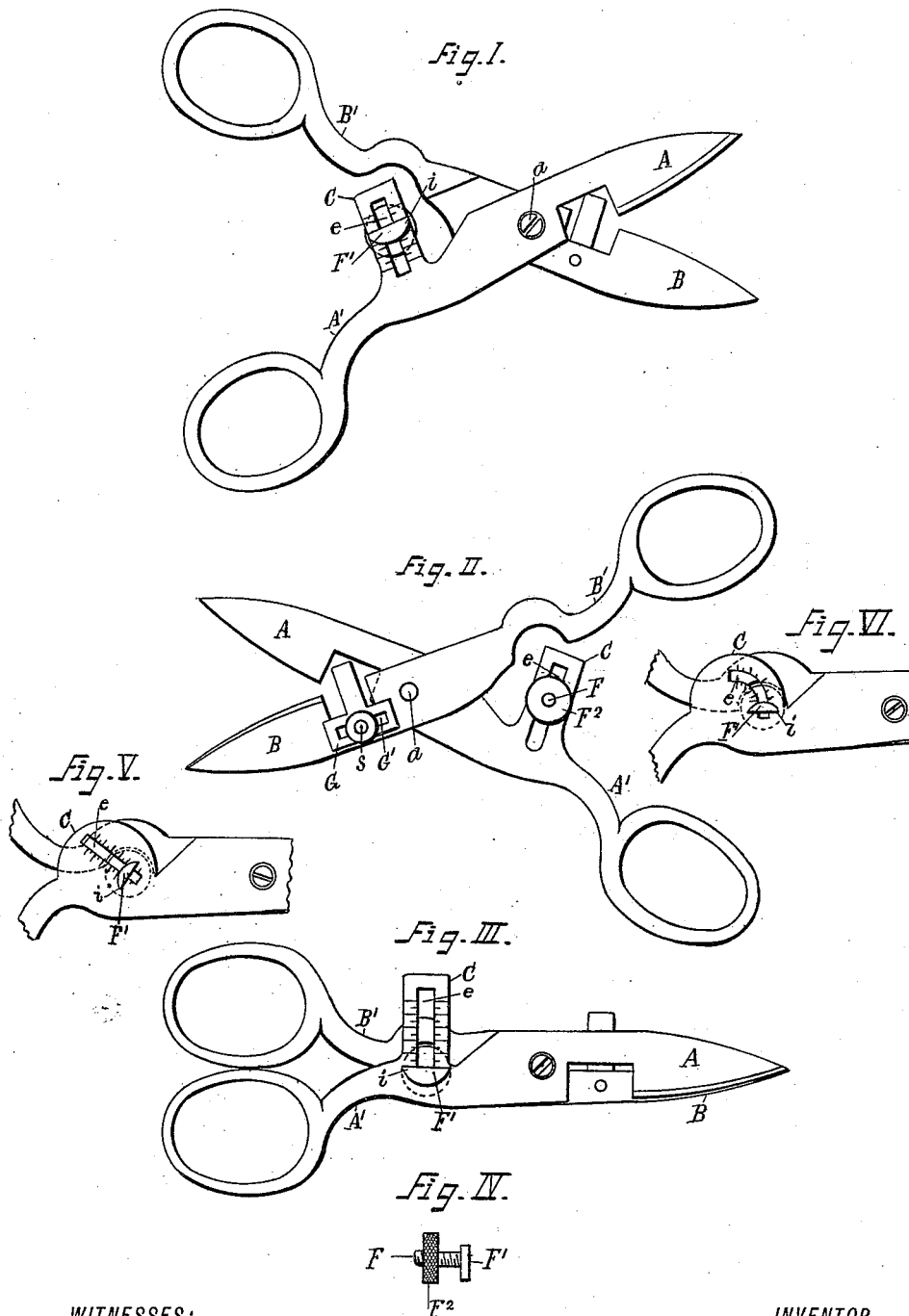


(No Model.)

J. BADGER.
BUTTON HOLE CUTTER.

No. 419,489.

Patented Jan. 14, 1890.



WITNESSES:

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JONATHAN BADGER, OF WATERBURY, CONNECTICUT.

BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 419,489, dated January 14, 1890.

Application filed May 23, 1889. Serial No. 311,797. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN BADGER, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Button-Hole Shears, of which the following is a specification.

My invention relates to improvements in button-hole shears to be used for cutting button-holes by hand; and it consists, essentially, in a novel construction of a gage for determining the length of the cut forming the button-hole, as hereinafter fully described.

The accompanying drawings represent an instrument embodying my improvements.

Figure I is a side view showing the instrument open, Fig. II being a similar view, also showing the instrument open, looking in an opposite direction to Fig. I. Fig. III is a side view showing the instrument closed, and Fig. IV a detail view of parts. Figs. V and VI represent modifications of the invention.

Similar letters of reference indicate corresponding parts.

The letters A B indicate the cutting-blades, and A' B' their respective carrying arms or handles, which are pivoted together, as at *a*, and provided with the usual eyes for the thumb and finger. At a point in rear of the pivot *a* the blade-arm A' is provided with an extension C, projecting inwardly, or toward the arm B', in which extension is formed a slot *e*, having fitted therein a screw-bolt F, with its head F' bearing against the outer face of said extension, and its nut F² bearing against the inner face thereof. On said outer face of the extension C is marked a graduated scale, as shown, while on said head F' of the screw-bolt is formed an indicator *i*, of a suitable character to co-operate with said scale, whereby the bolt is adapted to be brought to a fixed or measured position on the extension.

It will be noticed that the nut F² lies in the path of the plain blade-arm B', and hence when the instrument is applied to use said nut acts as a stop to limit the movements of

the blades upon each other, thereby determining the length of the cut, while by adjusting the bolt to the proper position in relation to the scale on the extension C the length of the cut can be regulated with nicety.

To the blade-arm B', between the pivot *a* and the extremity of the blade B, is the gage G, for determining the distance between the edge of the cloth and the beginning of the cut for the button-hole. This gage G consists of a bar of substantially T shape, having its cross-piece provided with a slot G', and secured to the outer face of the blade B by means of a screw-bolt *s*, which is fitted in said slot. The leg of said T-shaped bar G projects from the blade B substantially at a right angle to its cutting-edge, thereby acting as a stop to the edge of the cloth that is introduced between the blades, and it is evident that by simply adjusting the bar, by means of its slot G', on the bolt *s* the button-hole cut by the blades can be brought to any desired distance from the edge of the cloth. If desirable, the slotted portion of the bar G may be provided with a graduated scale.

It should be remarked that my invention can be applied to shears of any usual or suitable construction—one form or example thereof having the blades with their arms made of sheet metal.

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

Button-hole shears having on one of their blade-arms an inwardly-projecting extension provided with a slot and a graduated scale, combined with a screw-bolt forming a gage, which is fitted in said slot and provided with an indicator for the scale, substantially as shown and described, for the purpose set forth.

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 31st day of January, A. D. 1889.

JONATHAN BADGER.

Witnesses:

EWIS E. WRIGHT,
D. P. CHABOB.