

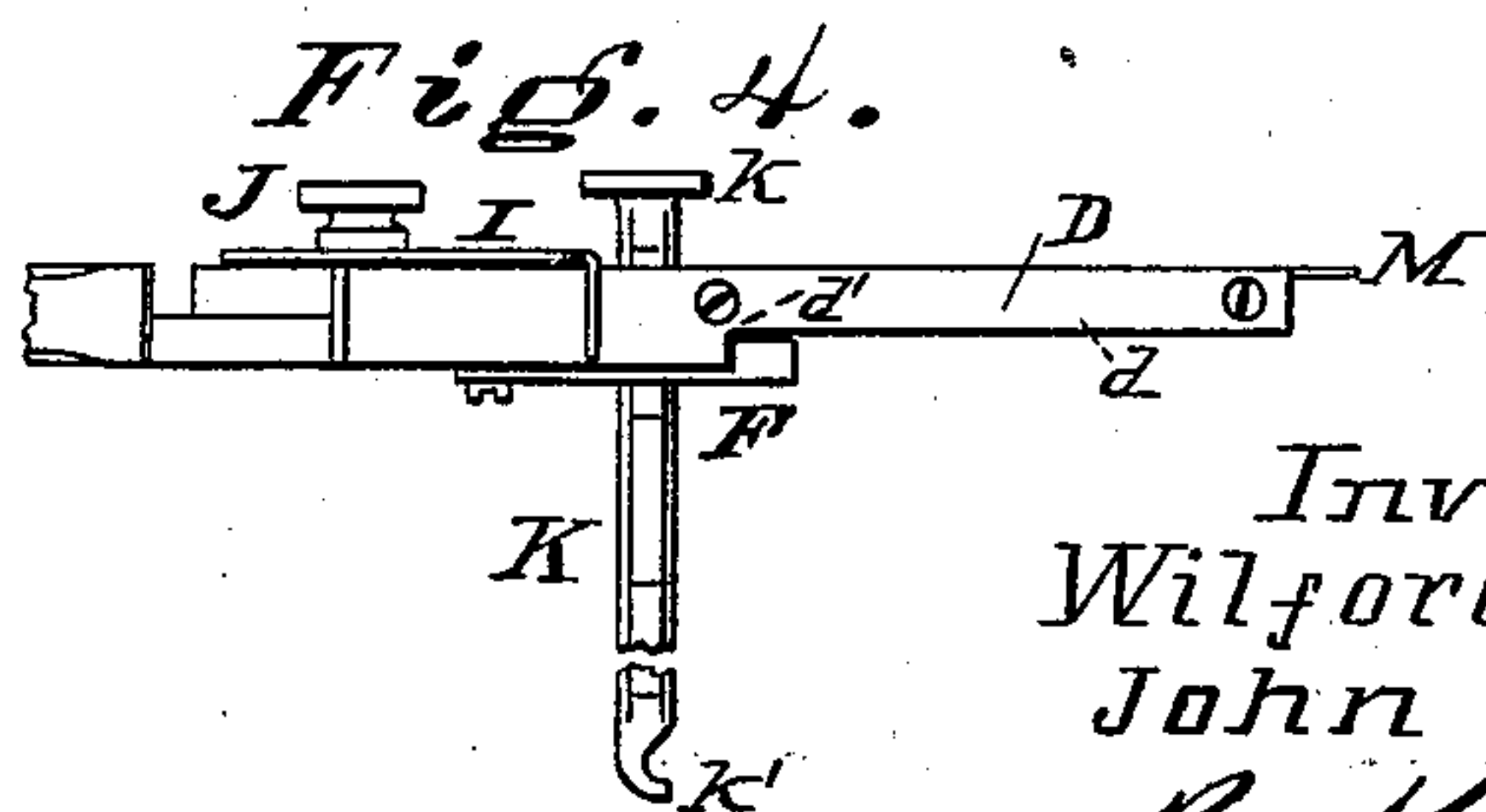
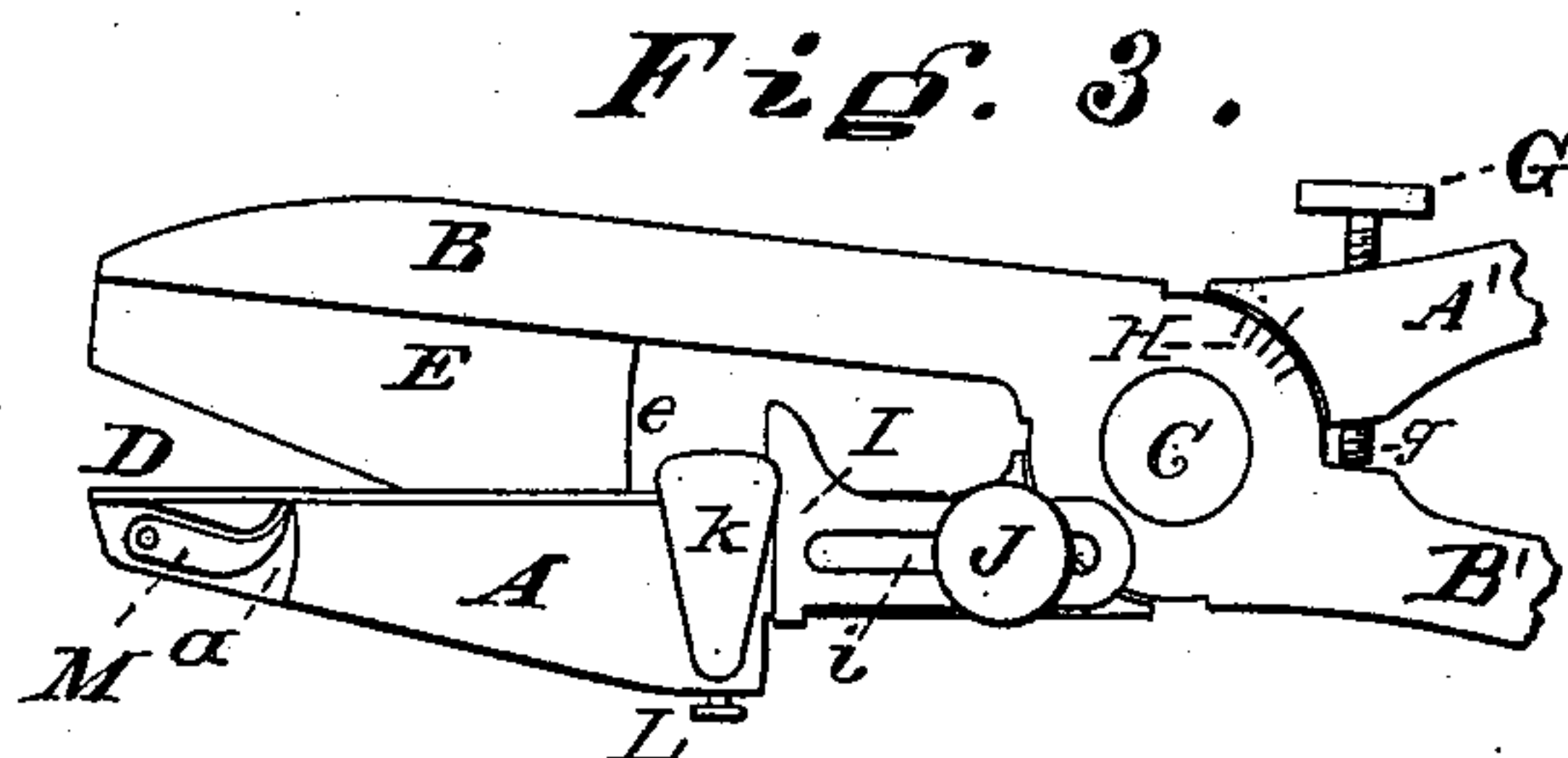
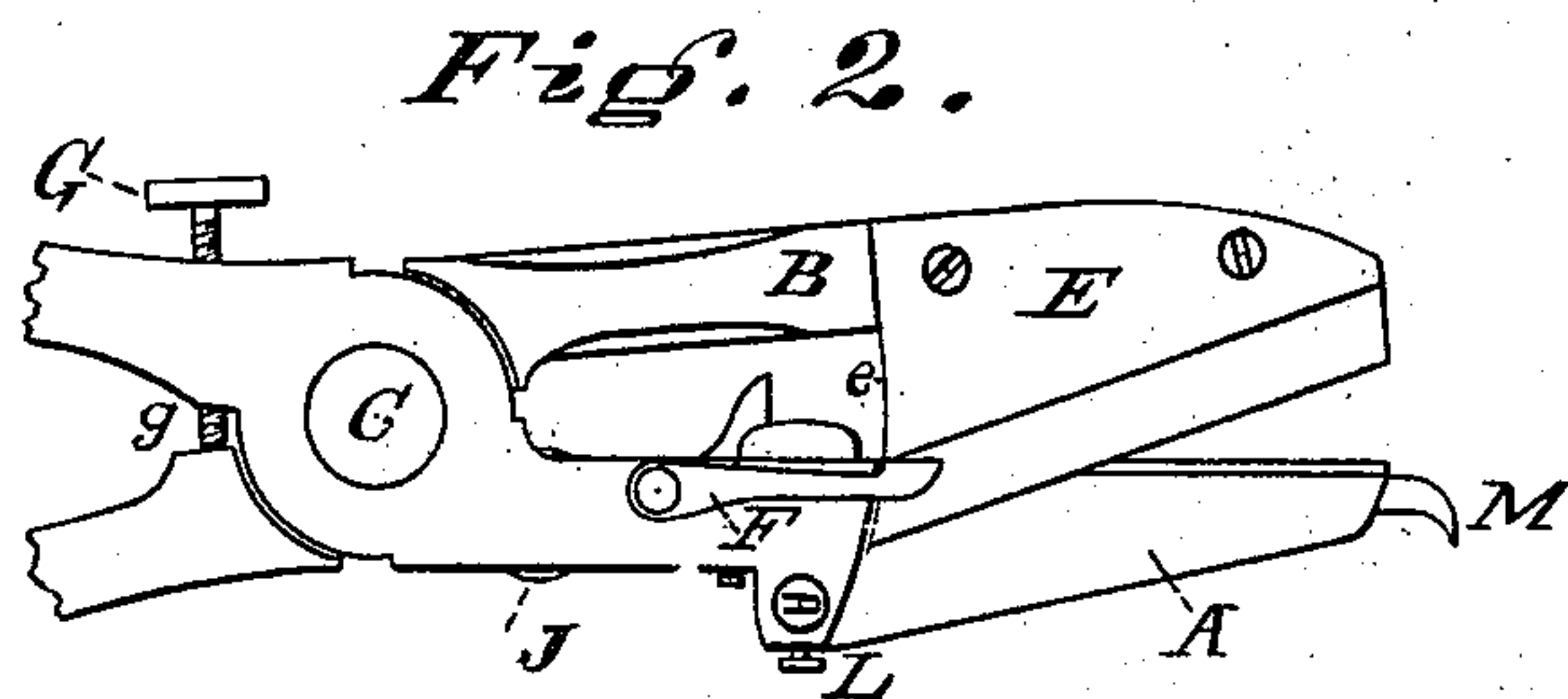
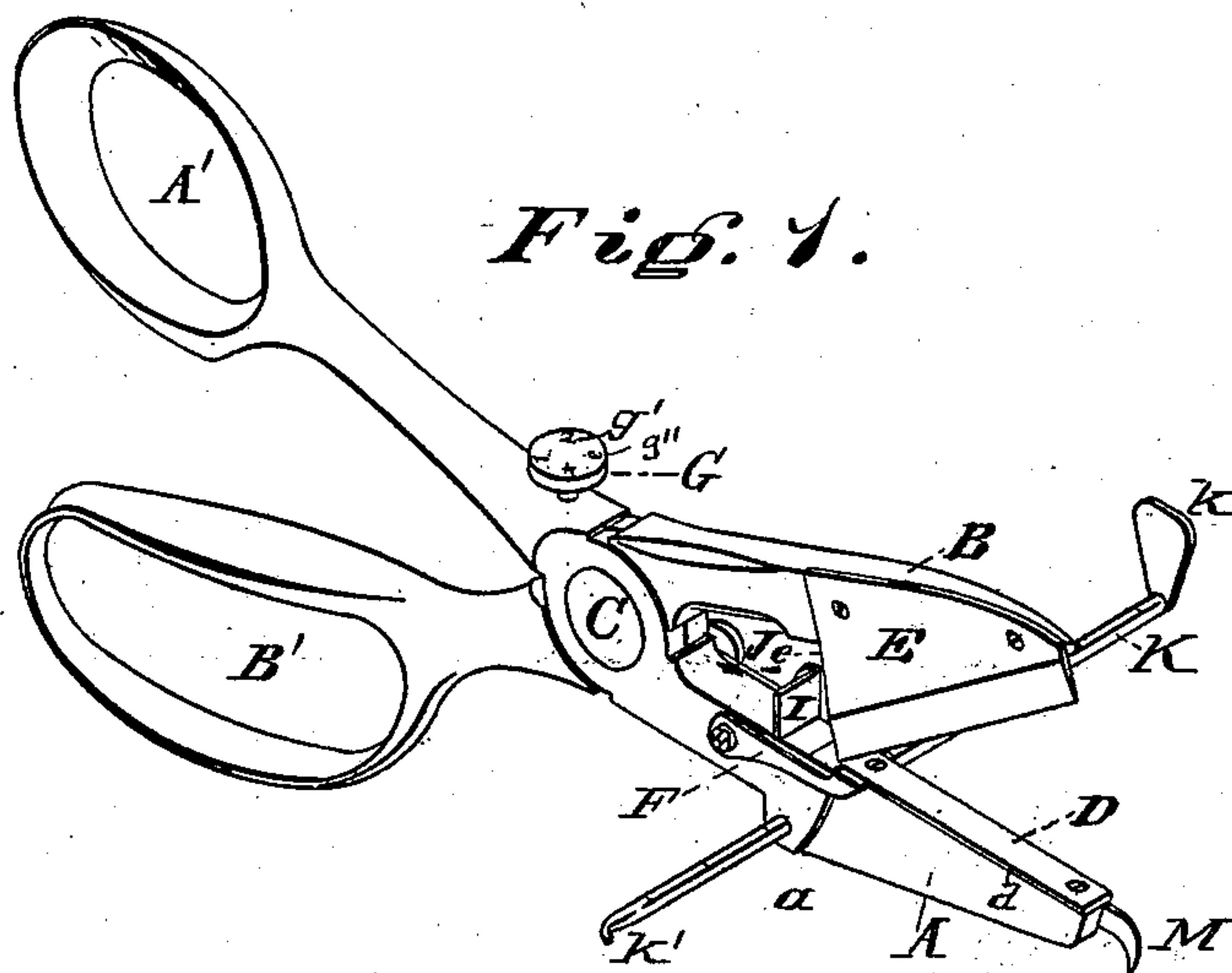
(Model.)

W. C. HUDSON & J. BARRY.

BUTTON HOLE CUTTER.

No. 316,366.

Patented Apr. 21, 1885.



Attest:
A. P. Knight
Geo. L. Wheelock

Inventors:
Wilford C. Hudson
John Barry
By Knight Bros
Atty.

UNITED STATES PATENT OFFICE.

WILFORD C. HUDSON AND JOHN BARRY, OF CHILLICOTHE, OHIO, SAID
BARRY ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN C. ENTREKIN,
OF SAME PLACE.

BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 316,366, dated April 21, 1885.

Application filed August 8, 1884. (Model.)

To all whom it may concern:

Be it known that we, WILFORD C. HUDSON and JOHN BARRY, both of Chillicothe, Ross county, Ohio, have jointly invented new and
5 useful Improvements in Button-Hole Cutters, of which the following is a specification.

Our invention relates to improvements in those button-hole cutters whose cutting parts or members are attached to or constitute portions of two articulated jaws working on the
10 principle of a pair of shears.

Our invention comprises a device for holding the goods level on each side of the cutter-blade and for pressing the said blade firmly
15 against its counter.

Our invention further comprises devices for regulating the length of cut and the uniform distance of the holes from the edge of the goods and from each other.

20 In the accompanying drawings, Figure 1 is a perspective view of a button-hole cutter embodying our invention, said cutter being shown set to cut a button-hole of medium size, and being represented in the open condition. Figs.
25 2 and 3 are respectively right and left side views of the jaws of such cutter, the instrument being shown in its closed condition, the two views representing the ripper-hook, one in the unfolded and the other in the folded condition. Fig. 4 is a top view of the lower jaw.

A represents the lower or counter jaw, and B the upper jaw, of a button-hole cutter, the two jaws having the customary articulating-pivot, C, and terminating in the accustomed
35 bows or handles, A' B'.

Screwed or otherwise firmly fastened to the top of the lower or counter jaw, A, is a steel bit, D, whose portion *d* nearest the upper jaw constitutes the lower cutting-edge or counter
40 proper. This bit is preferably let in flush, or nearly so, with the top of said jaw.

In a suitable recess in the upper jaw, B, is screwed a triangular blade, E, of steel. The body of the blade is formed concave, so as to
45 permit only its inclined cutting-edge to bear on the cutting-edge of the bit. The rear edge or heel of this blade is formed concave and concentric with the pivot C to prevent the goods

slipping away by the outward pressure of the closing-blades, and so insure a shear-cut of the
50 exact length desired.

Attached to the right-hand side of the counter-jaw A, and occupying re-entrant angle *d'* of bit D, is a piece of steel that constitutes an auxiliary laterally yielding and pressing support or spring, F. The upper surface of said
55 spring F is flush with that of the bit D. Said spring's resilience, causing it to press closely against the back of blade E as the latter descends in the act of cutting, serves to hold said
60 blade firmly against said bit, while said spring's upper surface operates to support that part of the goods which is situated on the inside side from the bit D.

To enable adaptation of the instrument to
65 cut button-holes of any desired uniform length, the extension of the jaw A immediately behind the pivot C has tapped within it a gage-screw, G, whose point *g* abuts against the corresponding extension of the jaw B.
70

A circular scale, H, at the periphery of the pivot C enables the operator to know when the screw is sufficiently advanced to gage the instrument to the desired length of cut. For
75 still nicer accuracy the screw-head *g'* may have radial graduations *g''*.

To enable uniform distancing of the button-holes from the edge of the garment, we provide a slidable gage, I, whose slot *i* receives a set-screw, J, by which said gage may be fixed at
80 any desired distance from the heel *e* of the cutting-blade.

Any desired uniform distancing of the consecutive button-holes may be facilitated by an adjustable gage consisting of a rod, K, which
85 is marked off with any desired linear measurements, and which occupies a transverse orifice, *a*, in the jaw A, and is retained to any specific adjustment by means of a set-screw, L. An upwardly-directed spur, *k*, at said gage's left
90 end enables accurate application to each last-cut button-hole in succession. The other extremity of said gage may take the form of a small hook, *k'*, suitable for picking out basting-stitches, &c.
95

There may be pivoted to that side of the

jaw A which is remote from the cutting-blade D a ripping-knife, M, which, when desired for use, may be unfolded, as in Figs. 1, 2, and 4, and at other times may occupy a recess, a' , in said jaw, as in Fig. 3.

An important feature of our invention is the auxiliary counter or spring F, which, by the prevention of sagging of the goods on the inside, and by the prevention also of any spreading apart of the cutters, insures a sharp, accurate, and easy cut.

We claim as new and of our invention—

1. The combination, with the lower or counter jaw and a spring secured at one end thereof and having its free end extending forward, of the upper jaw and the blade secured thereto, the free end of the spring forming an additional support to the goods and bearing on the lower or counter jaw and the blade working between the lower or counter jaw and the spring.

2. The combination, with the lower or counter jaw having a re-entrant angle, d' , and a spring secured to the lower or counter jaw and having its free end occupying the re-entrant angle, of the upper jaw and a blade secured thereto, the blade working between the lower or counter jaw and the spring.

3. The combination, with the lower or counter jaw and the bit D, having re-entrant angle d' , and of the yielding spring F, of the upper jaw and the blade secured to the upper jaw, the yielding spring being flush with the said bit and occupying the re-entrant angle d' thereof.

4. The combination of the lower or counter jaw, A, having the separable bit D, formed with a cutting-edge, d , and re-entrant angle d' , the jaw B, having separable blade E, formed with concave heel e , pivot C, and the spring F, the concave heel being concentric with the pivot and the spring being secured to the lower or counter jaw yielding laterally having its free end occupying the re-entrant angle and its upper surface flush with the bit.

5. The combination of the jaws A and B, having handles A' and B', respectively, pivot C, having a circular scale, H, on the periphery thereof, and an adjustable gage-screw, G, working through one handle and bearing on the other handle, and having a head, g' , provided with graduations g'' .

6. The adjustable gage K, having an upwardly-directed spur, k , for insertion in a button-hole, in combination with a jaw having a hole through which the gage is adjusted transversely of the jaw.

7. The combination of the gage K and the thread-picker k' .

8. The combination, with the lower or counter jaw, A, having a recess, a' , of the folding ripper hook or knife M pivoted in the recess.

In testimony of which invention we hereunto set our hands.

WILFORD C. HUDSON.
JOHN BARRY.

Attest:

CHAS. S. MICK,
E. K. MICK.

Correction in Letters Patent No. 316,366.

It is hereby certified that Letters Patent No. 316,366, granted April 21, 1885, upon the application of Wilford C. Hudson and John Barry, of Chillicothe, Ohio, for an improvement in "Button-Hole Cutters," should have been issued to the said *Wilford C. Hudson and John C. Entrekin*, said Barry having assigned all his interest in said invention to the said John C. Entrekin; that the proper corrections have been made in the files and records pertaining to the case in the Patent Office and should be read in the Letters Patent that the same may conform thereto.

Signed, countersigned, and sealed this 21st day of July, A. D. 1885.

[SEAL.]

H. L. MULDROW,
Acting Secretary of the Interior.

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.