

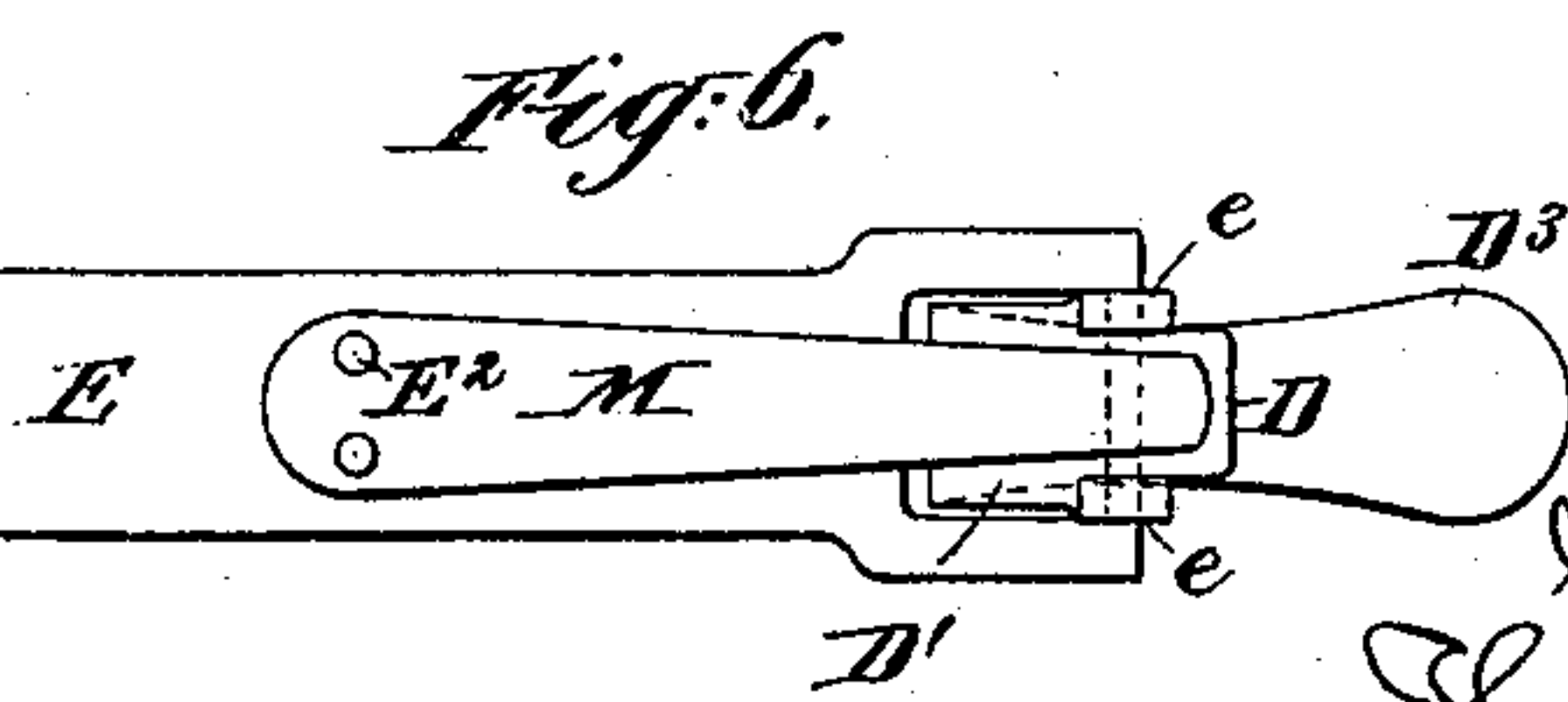
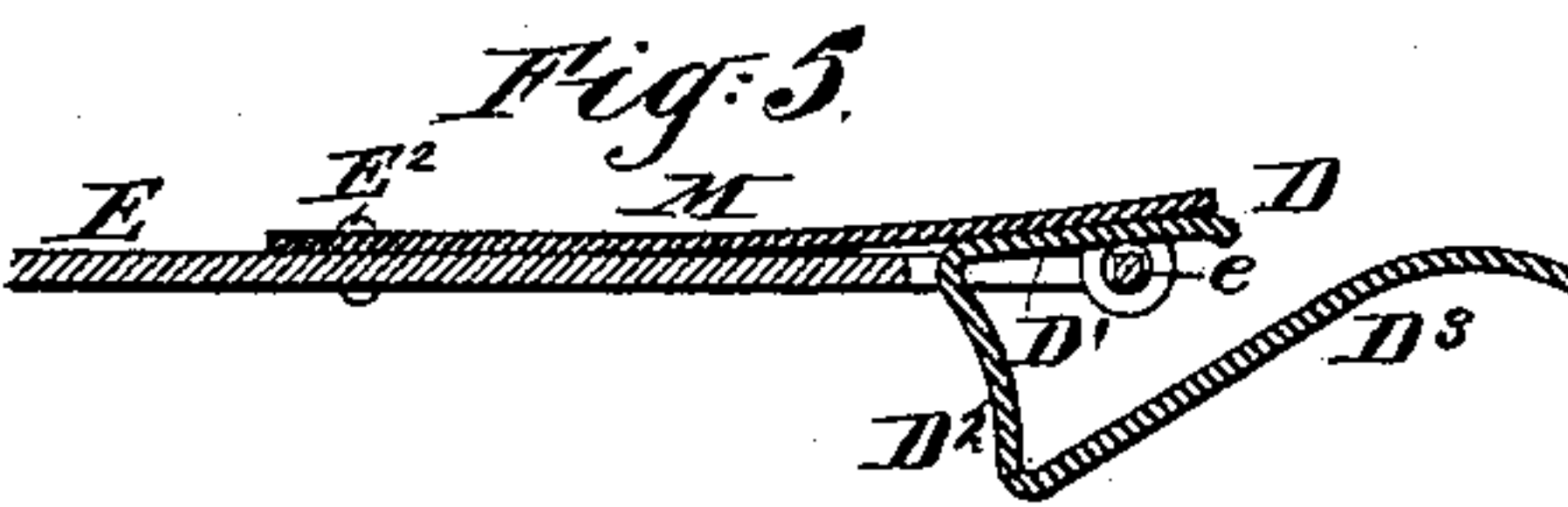
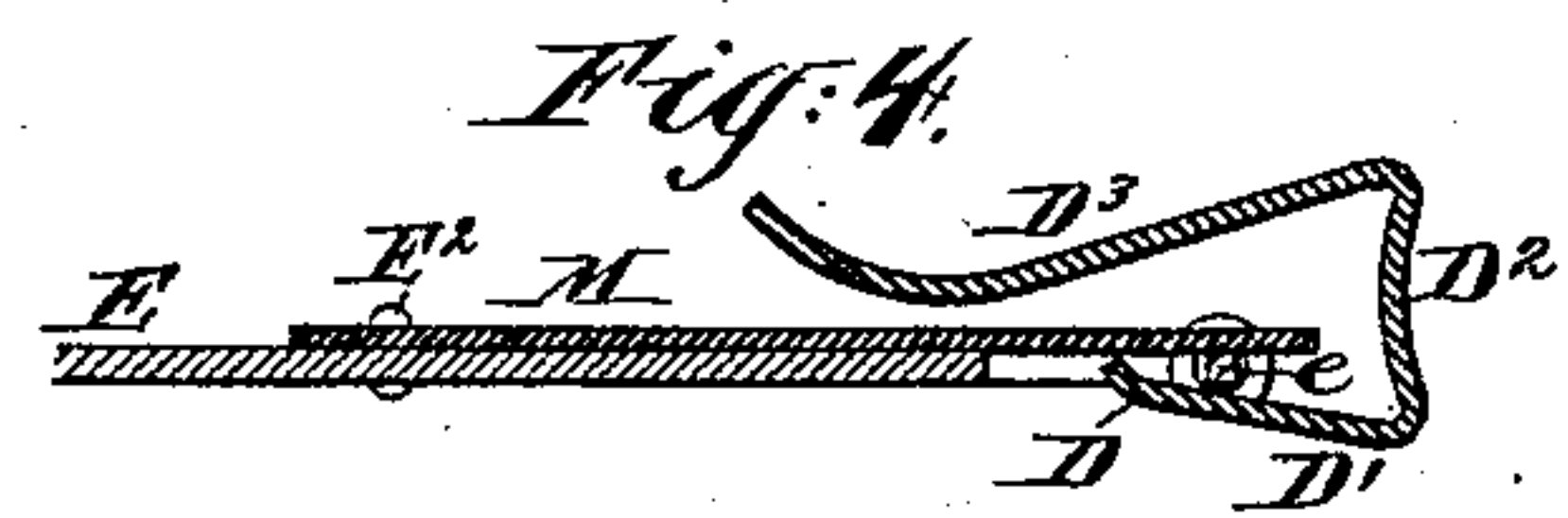
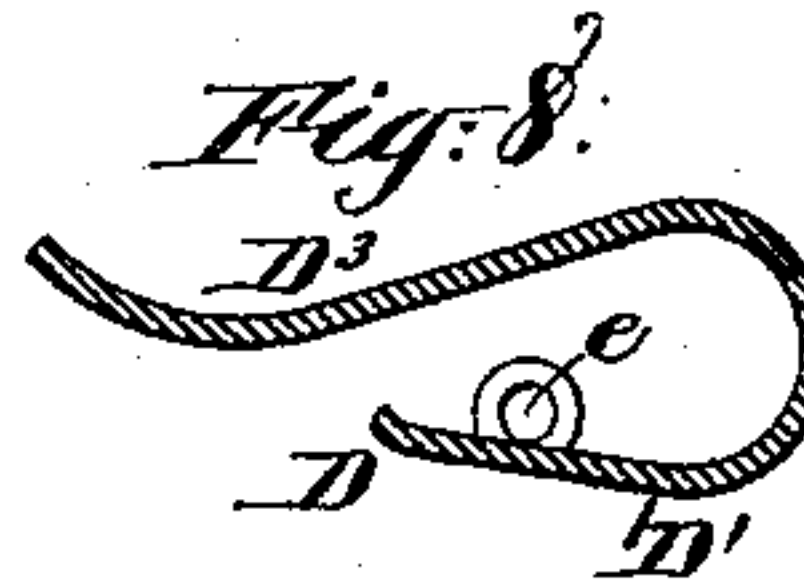
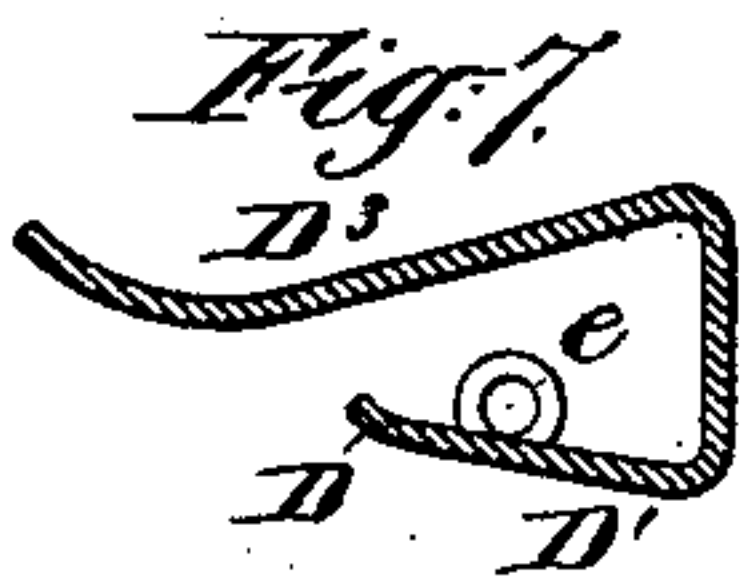
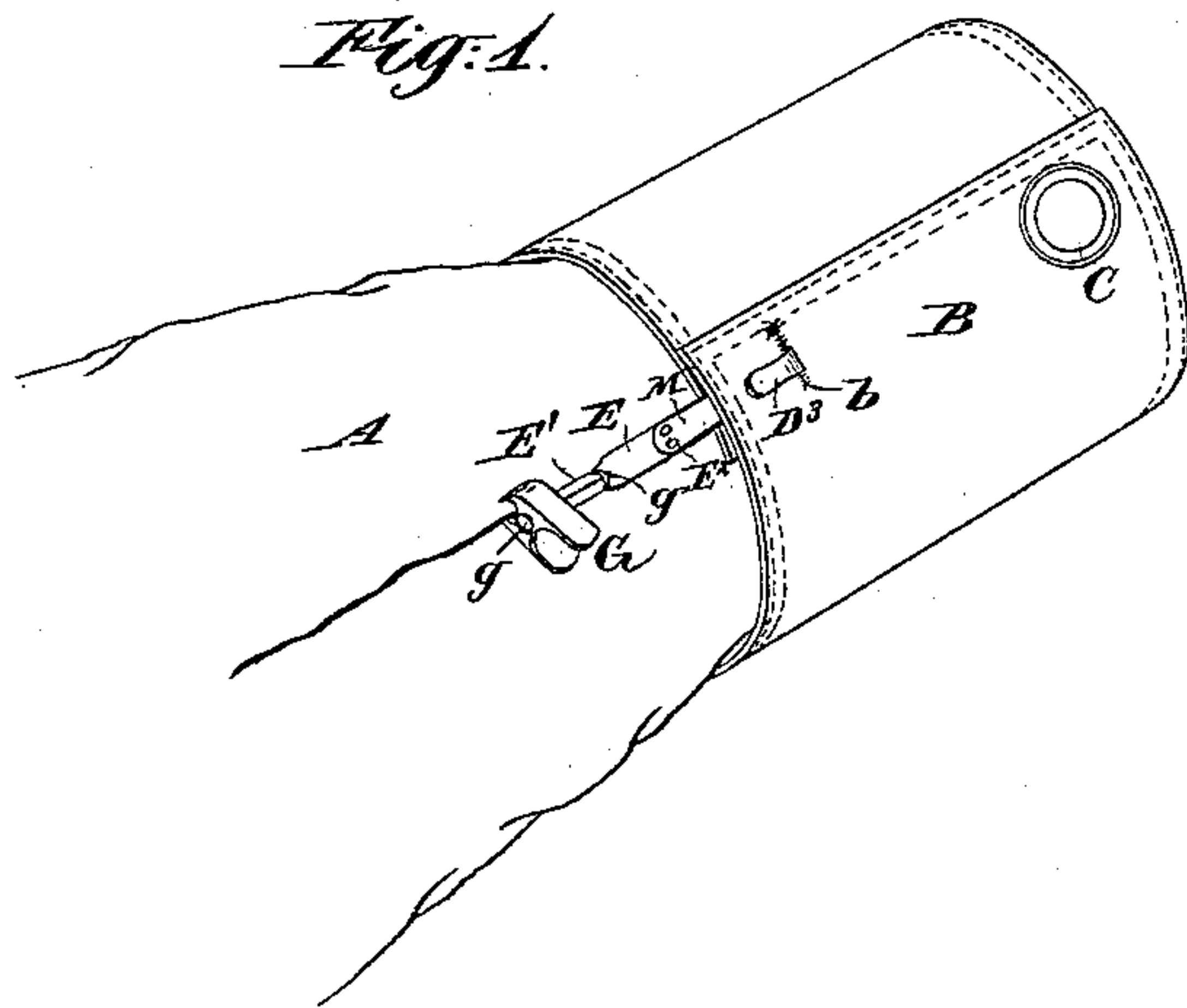
(No Model.)

H. C. FRANK.

CUFF FASTENER.

No. 397,119.

Patented Feb. 5, 1889.



Witnesses:  
Charles R. Searle,  
H. A. Johnston.

Inventor:  
H. C. Frank  
by his attorney  
Shuman & Sons

# UNITED STATES PATENT OFFICE.

HENRY C. FRANK, OF NEW YORK, N. Y.

## CUFF-FASTENER.

SPECIFICATION forming part of Letters Patent No. 397,119, dated February 5, 1889.

Application filed November 16, 1888. Serial No. 290,991. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. FRANK, of the city and county of New York, in the State of New York, have invented a certain new and useful Improvement in Cuff-Fasteners, of which the following is a specification.

I have in a patent to me, dated November 22, 1887, No. 373,556, set forth a style of cuff-fastener provided with a spring-clasp taking hold of the edge of the opening in the sleeve above the wristband, and which engages with the cuff through the intervention of a hook, which is engaged in the nearest button-hole and connected to the clasp by a chain of sufficient length to hold the cuff in the proper position. It is found that the great freedom allowed by this loose connection is objectionable. It is found that in working with the left hand to fasten the cuff on the right wrist, after the hook has been engaged with the cuff, the looseness of the connection makes it troublesome to get the clasp in the right position. The same difficulty, but to a less extent, obtains in adjusting the cuff on the left wrist. The rigidity of the hook in my former patent involves difficulties in engaging it with the cuff, and the rigid hook is not certain to retain its hold on the cuff while in use.

I have devised an improvement in which the hook is jointed, and the joint is provided with a spring which is arranged to act like the spring of a pocket-knife to hold the hook either open or closed. In preparing to engage it with a cuff the hook is set open. So soon as it is engaged it is closed, and the same spring serves to keep it closed and insure its retention in the cuff. The hook is extended in length to give the required distance between the clasp and the button-hole of the cuff, and is connected to the clasp by a swivel-joint which allows it to turn, but does not allow it any further liberty. This aids to hold the clasp in the proper position to be engaged with the shirt-sleeve.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a general perspective view showing the device in use. The remaining figures show the device detached on a larger scale. Fig. 2 is a face view, and Fig. 3 is a corre-

sponding edge view. The remaining figures show portions on a still larger scale. Fig. 4 is a longitudinal section showing the hook closed. Fig. 5 is a corresponding section showing the hook open. Fig. 6 is a corresponding face view. Fig. 7 is a longitudinal section with the hook detached. Fig. 8 is a corresponding section showing a modification of the form of the hook.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is a portion of the shirt-sleeve, and B an ordinary cuff, having holes *b*, which receive an ordinary cuff-button, C. My fastener has a spring-clasp, G, composed of two parts with a connecting-rivet and actuating-spring, as in my former patent referred to. Instead of the extremely flexible connection before employed, this clasp is stiffly connected to the hook, with liberty simply to be rotated. This is effected by extending the rivet in the direction toward the hook and embracing the extended portion in a long sleeve formed on the hook.

E is a long shank of the hook, and E' a sleeve formed in the end and embracing the rivet *g* of the clasp G, as shown. A hinge, *e*, connects the shank E to a hook, D D' D<sup>2</sup> D<sup>3</sup>. When the device is engaged with a cuff and conditioned for use, the part D' extends nearly or exactly in line with the part E. The part D<sup>2</sup> extends nearly at right angles to D', and the part D<sup>3</sup> extends in the general direction toward the clasp G, curved as shown. A short arm, D, extends from the hinge *e* nearly in the plane of the shank E. This arm D is subject to the force of a flat spring, M, which is strongly and stiffly held on the inner face of the shank E by rivets E<sup>2</sup>. This spring M presses forcibly on the hinge *e*. When the hook is opened in the position shown in Fig. 5, the spring M holds it stiffly open. In this position it may be easily thrust through the proper button-hole in the cuff. When this is effected, the wearer turns the hook on its pivot *e*, and the short arm D, after deflecting the spring M in its middle position, is acted on by the spring M, so as to snap the hook into the closed position, as in Fig. 4. Thenceforward my device remains engaged with the cuff in the same manner as in my



patent of 1887, but still more effectually, because the action of the spring M urges the curved arm  $D^3$  into contact with the face of M, and insures the continued engagement of the  
5 parts with the cuff until the wearer shall again forcibly straighten the hook to facilitate its detachment from the cuff.

Modifications may be made by any good mechanic without departing from the principles or sacrificing the advantages of the invention. I can vary the length of the projecting end of the rivet  $g$ , correspondingly  
10 varying the length of the sleeve  $E'$ , which embraces it. It is only important that it be stiff with regard to the length and easy to turn  
15 laterally, so as to allow a hook to serve for either the right or left cuff. I can vary the widths of all the parts.

Figs. 7 and 8 show modifications in the  
20 form of the hook in the part  $D^2$ . Either form may be used. I prefer that shown in Figs. 4 and 5.

I claim as my invention—

1. In a cuff-fastener, the hinged hook  $D D'$   
 $D^2 D^3$  and shank E, in combination with each  
25 other and with the spring M and clasp G, arranged for joint operation as herein specified.

2. In a cuff-fastener, the swivel  $E'$ , formed on a rigid extension of the shank E, in combination with the hook  $D D' D^2 D^3$  and with  
30 the spring-clasp G, the fastener being adapted to serve right or left at will, while holding itself rigid longitudinally, as herein specified.

In testimony whereof I have hereunto set  
my hand, at New York city, this 15th day of  
35 November, 1888, in the presence of two subscribing witnesses.

HENRY C. FRANK.

Witnesses:

CHARLES R. SEARLE,  
H. A. JOHNSTONE.