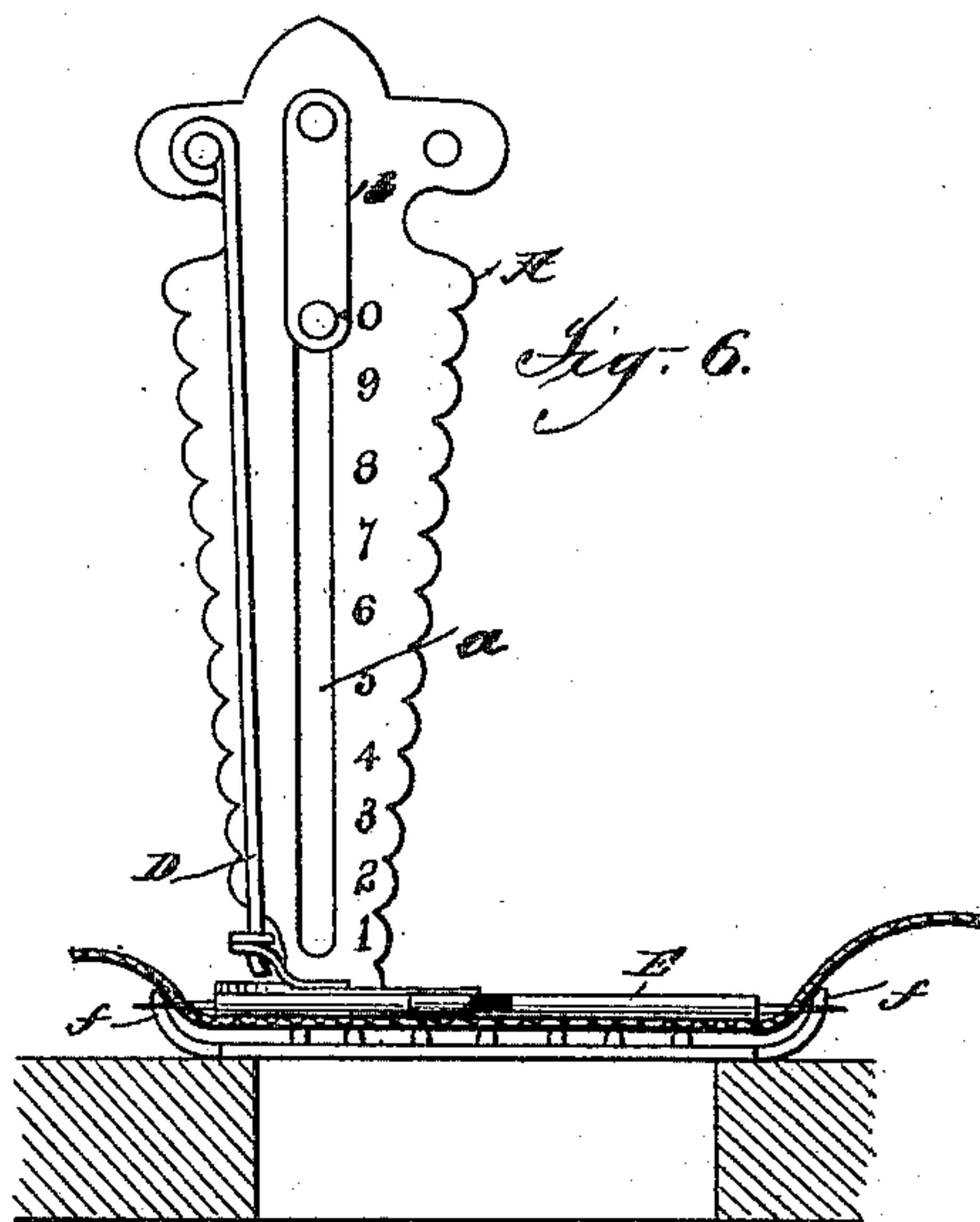
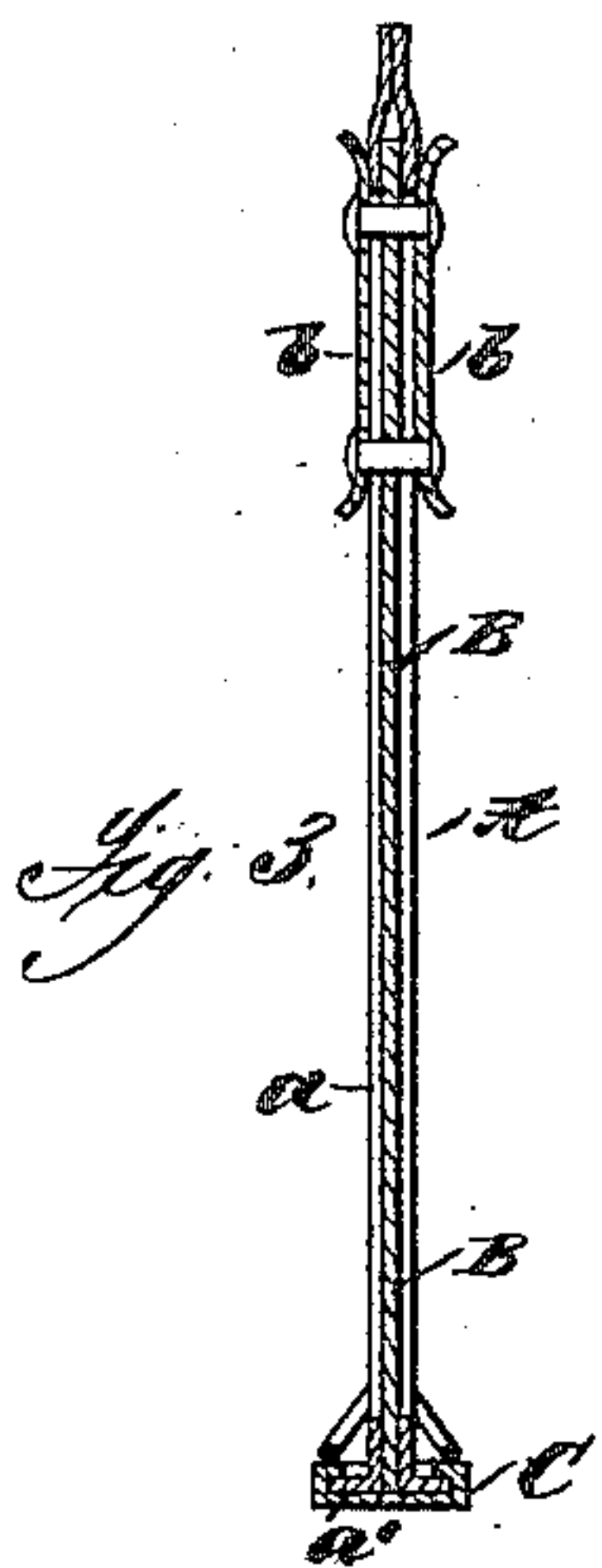
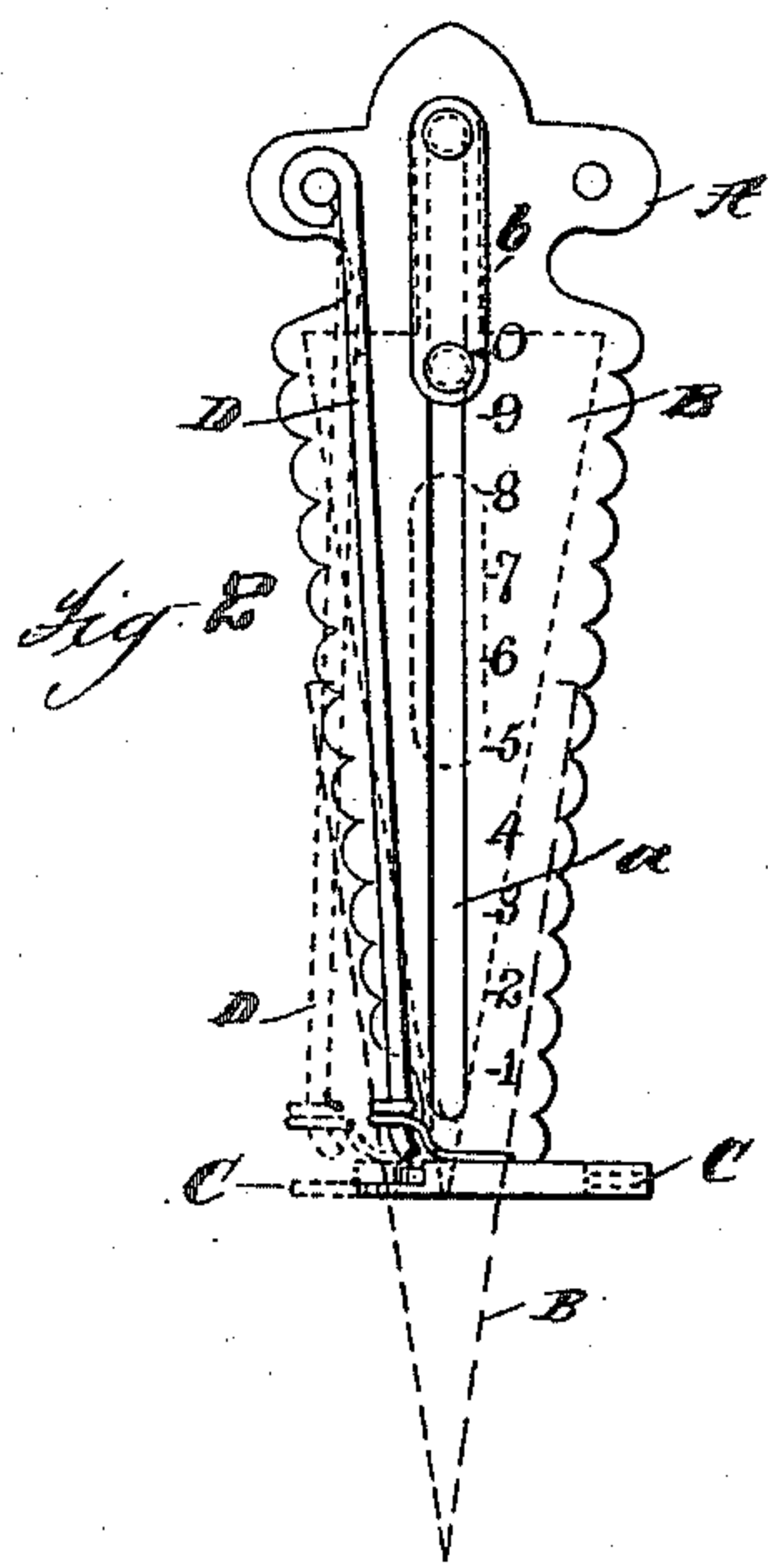
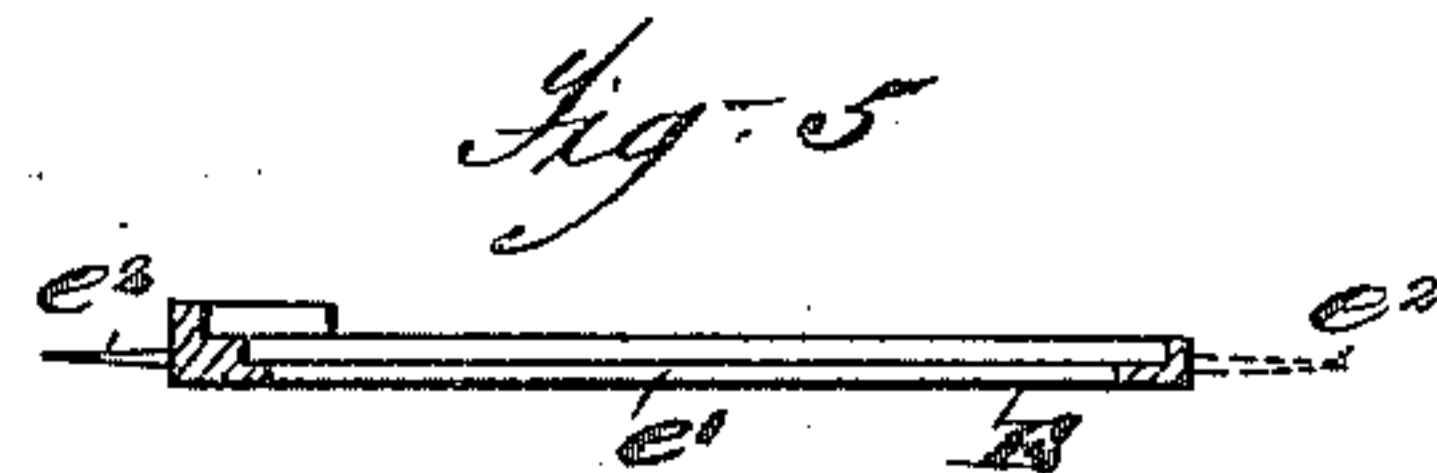
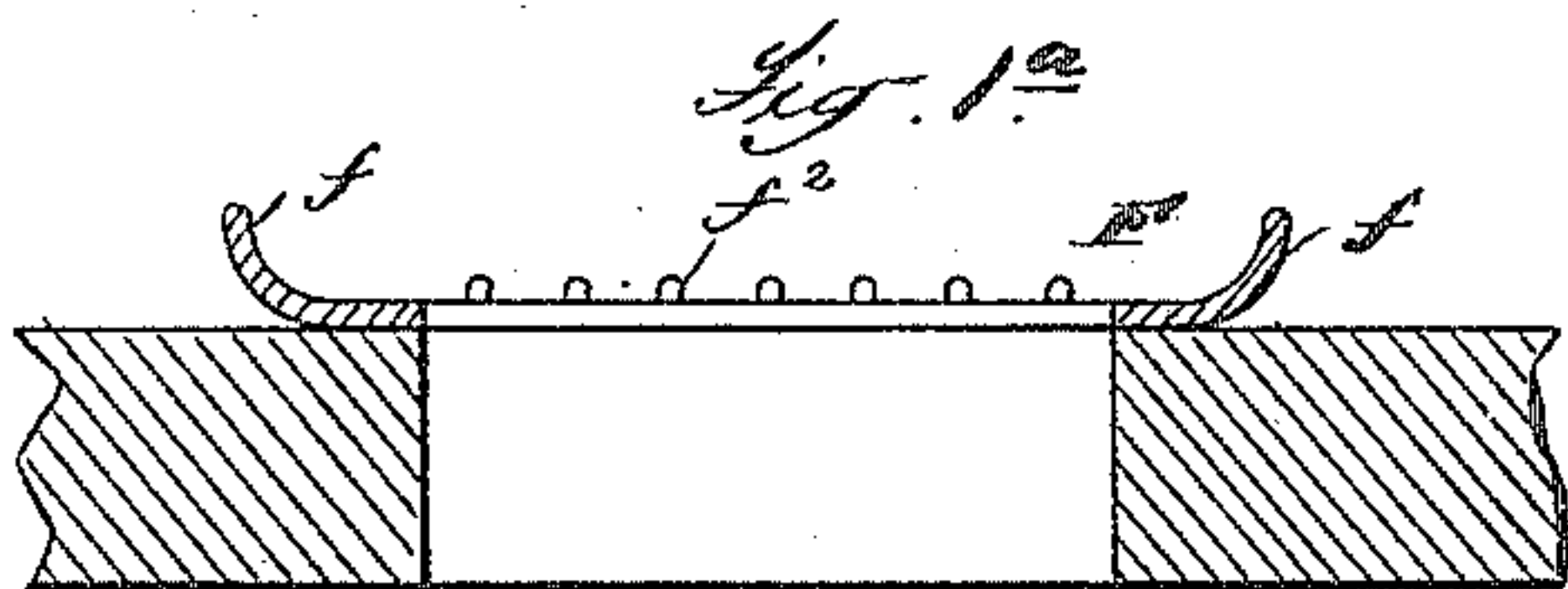
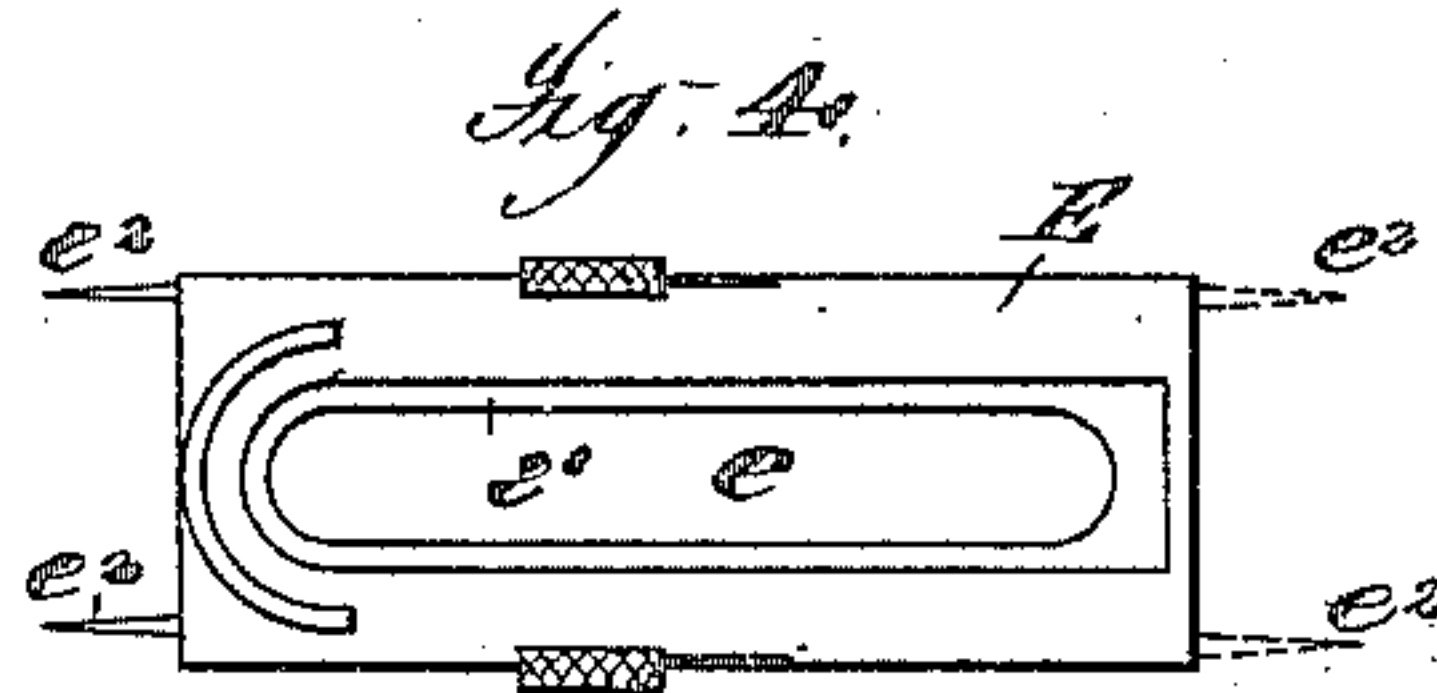
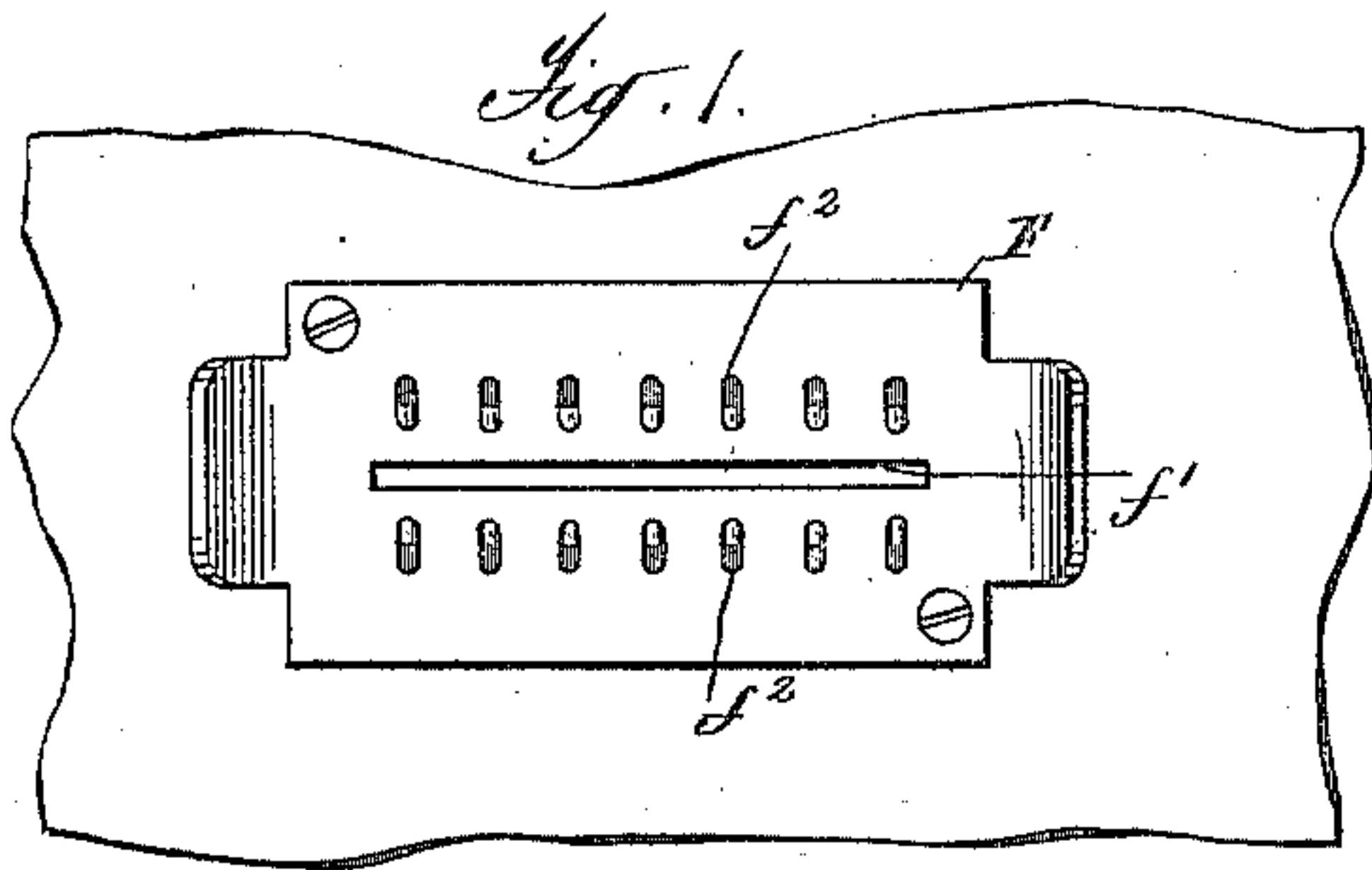


(No Model.)

E. J. TOOF.
BUTTON HOLE CUTTER.

No. 446,484.

Patented Feb. 17, 1891.



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UNITED STATES PATENT OFFICE.

EDWIN J. TOOF, OF NEW HAVEN, CONNECTICUT.

BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 446,484, dated February 17, 1891.

Application filed June 26, 1889. Serial No. 315,666. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. TOOF, a citizen of the United States, and a resident of the city and county of New Haven, State of Connecticut, have invented an Improved Apparatus for Cutting Button-Holes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to button-hole cutters more especially adapted for use in connection with a cloth-holder used in connection with the material to be operated upon to make a button-hole slit when the latter is supported by said cloth-holder, to make the slit of the desired length and in a central line with the opening in said holder; and it consists of a suitable frame or casement in which a cutting-blade is supported and adapted to slide or operate and is provided with an adjustable foot or attachment for connection with the cloth-holder and adapted to support and guide said frame or casement, substantially as and for the purpose as will hereinafter be more fully set forth, the object of my invention being to provide means for cutting the button-hole slit in the material when the latter is held or supported by a cloth-holder to make the said slit of the desired length and in a line central with the opening in its holder.

Referring to the drawings, Figures 1 and 1^a represent a top and sectional view, respectively, of a plate located in the present instance on a section of the upper surface of a sewing-machine stand forming a supporting-base on which the cutting apparatus is supported and operated. Figs. 2 and 3 represent a face and vertical sectional view, respectively, of the cutting apparatus. Figs. 4 and 5 represent a top view and a sectional view through the center of the cloth-holding device, and Fig. 6 represents my improved cutting apparatus in connection with a cloth-holder in position on its supporting-base for operation.

In said drawings, A represents a frame or casement, consisting in the present instance of two plates secured together provided with a suitable space or opening between the same, in which a wedge-shaped cutting-blade B is located and adapted to slide. It is obvious, however, that the said frame or casement may be formed in one piece and be provided

with a suitable opening therein for the cutting-blade to operate. The said cutting-blade is adapted to be operated in the instance shown by means of two plates *b b*, located on the opposite sides of the supporting-frame, as more clearly shown in Fig. 3, and connected with said cutting-blades by rivets or other suitable means connecting therewith through a vertical slot *a*, located in said frame. It is obvious, however, that said cutting-blade may be operated by any suitable knob or handle projecting therefrom through the said slot *a* in the supporting frame or casement. Said supporting frame or casement is provided at its lower end or base with a horizontally-arranged foot *a'*, formed thereon, being provided with a central slot or opening for the passage of the cutting-blade, and said foot is adapted to slide and be guided in a horizontally-arranged groove in an adjustable guide C, as shown in Fig. 3, and for the purpose to be hereinafter more fully set forth. Said guide C is connected to the supporting frame or casement by means of a spring-arm D in a manner to hold the same in a horizontally-adjustable position in its relation to the base of said casement, and the said guide C is of the proper shape and dimensions to correspond with the central opening *e* in the cloth-holder E, and is adapted to be placed or seated on the flange *e'*, surrounding said opening when in position for operation. The said cloth-holder shown in the present instance (which my improved cutting device is shown and described as operating in connection with) is shown and described in an application of mine now pending, although it will appear obvious to those skilled in the art that my herein-described cutting device may be adapted and used in combination with different styles of holders and in varied ways without departing from the spirit of my invention.

F represents a plate adapted to be secured on the upper surface of a sewing-machine stand or other suitable object, and is provided at its opposite ends with raised or up-turned ears or projections *f f*, adapted to project between the projecting pins *e²* on the cloth-holder when the latter is placed in position on said supporting-base, as shown in Fig. 6, to hold said cloth-holder in position

and bring the cutting-blade in a central position over the slot f' therein, which slot is adapted to extend into or through the frame proper, as shown in Fig. 1^a, for the passage
 5 of the cutting-blade, and said plate F is also provided with a roughened surface, as shown at f^2 , to engage the material supported on the lower side of said cloth-holding device, as shown in Fig. 6, and serve to hold the holding
 10 device and cutter stationary in their proper position, as will be readily understood by those skilled in the art.

The operation of my improved button hole-cutting apparatus is as follows: When the material to contain the button-hole slit is properly secured on its holding device E, the latter is placed in position on its supporting-plate F, with its projecting pins e^2 spanning the projections or ears f' at the opposite ends of said
 20 plate. The cutting device is then placed in position on the said cloth-holder E, the guide C resting on the flange e' , surrounding the opening e therein at one end of the latter. The operator then pushes down the cutting-
 25 blade B through the material, the length of the button-hole being determined by a scale located on the face of the frame or casement A at either side of the vertical slot therein, as clearly shown, and one of the inclined
 30 sides of the cutting-blade, engaging with the end of the slot in the said guide C at the downward stroke of said cutting-blade, serves to push the opposite cutting-edge of said blade forward to cut the material, as will be readily
 35 understood by those skilled in the art, and its supporting frame or casement is guided, when carried forward, by the downward stroke of the cutting-blade in the said guide C, as hereinbefore described, the latter re-
 40 maining stationary.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A button-hole-cutting apparatus consisting of a cutting-blade operating vertically
 45 within a case, the lower end of the latter provided with a foot, and an adjustable guiding device in which said foot operates, adapted

to operate in conjunction with a cloth-holder to guide and support the cutting apparatus, 50 substantially as set forth.

2. A button-hole-cutting apparatus consisting of a vertically-operating cutting-blade supported within a case or casement provided with a foot and guiding device, and a graduated scale located on said casement, adapted 55 to act in conjunction with a cloth-holder, in a manner substantially as described, and for the purpose set forth.

3. The combination, with a cloth-holding 60 apparatus or guide adapted for use in button-hole stitching, provided with a central opening therein, of a cutting-blade, and a casement provided with a foot, and a guide for the latter adapted to rest and slide upon said 65 cloth-holding apparatus, in a manner substantially as specified, and for the purpose set forth.

4. A button-hole-cutting apparatus consisting of a cloth-holding device provided with 70 a central opening, and means for fastening the same to the material within which the button hole is to be formed, and a cutting-blade adapted to operate vertically within a case or casement provided with a graduated 75 scale on the face thereof, whereby the desired length of button-hole is determined, a foot, and a guide adapted to rest and slide upon said cloth-holder, through which the said cutting-blade operates, substantially as 80 and for the purpose set forth.

5. The combination, with a table or other support provided with a holding-plate having a roughened surface and slitted opening, of a cloth-holding device adapted to unite with 85 and be held in place by said holding-plate, and a cutting-blade supported in a suitable frame provided with a foot and guide, for the purpose set forth, adapted to operate in conjunction with said holders and plate, sub- 90 stantially as and for the purpose set forth.

EDWIN J. TOOF.

Witnesses:

CHAS. F. DANE,
 JOSEPH M. CRANE.