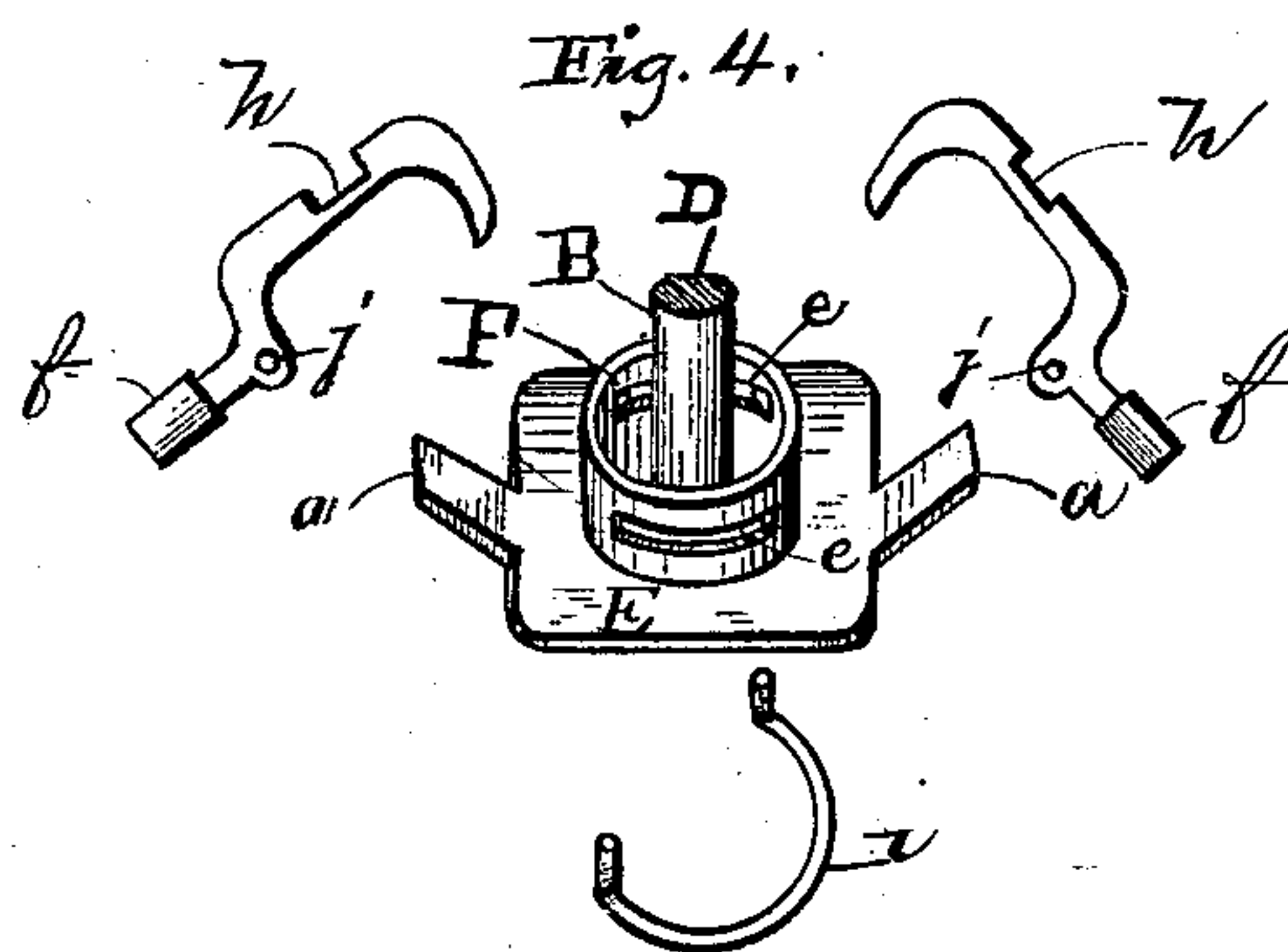
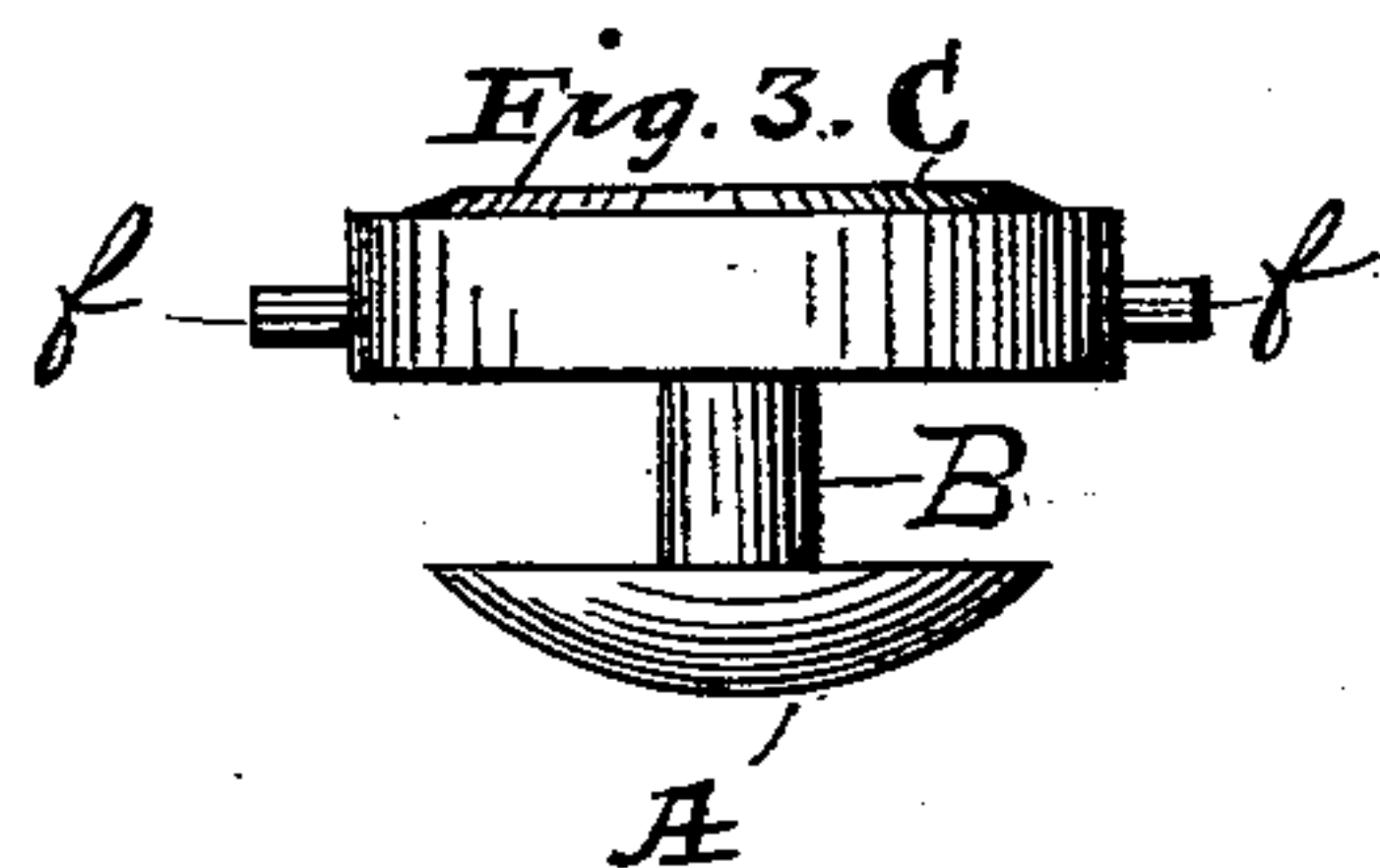
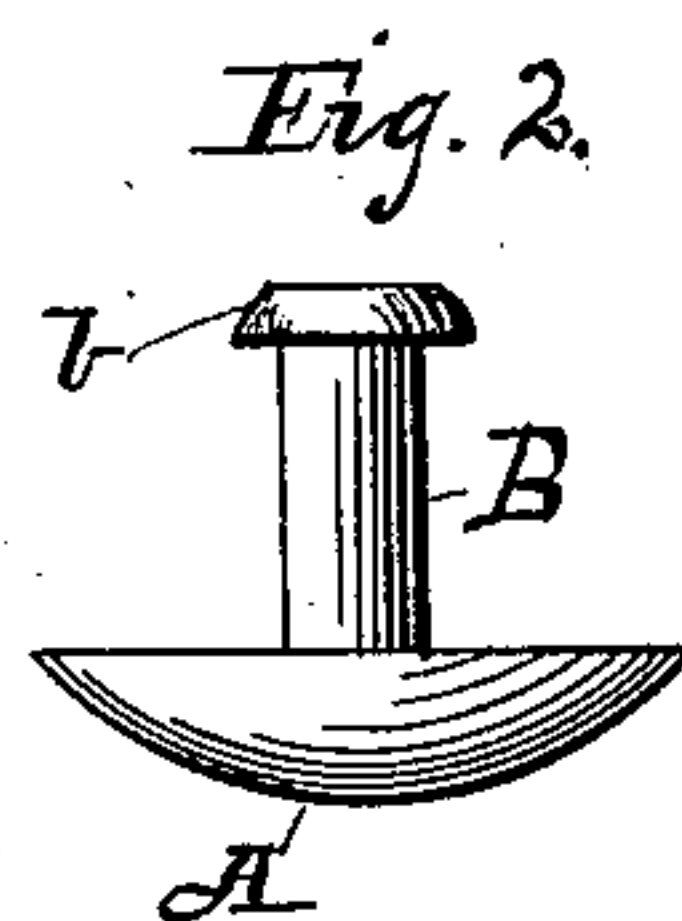
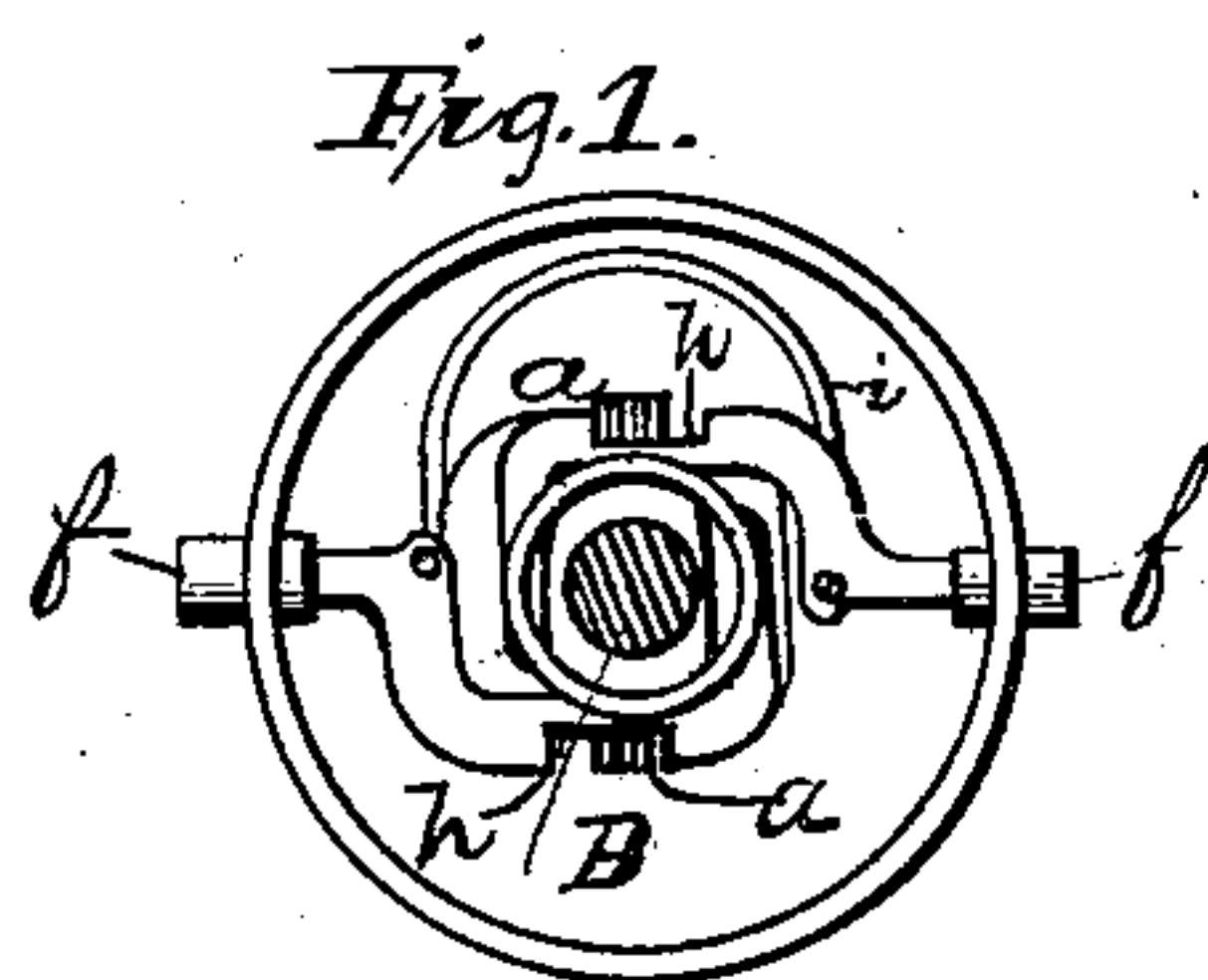


(No Model.)

F. E. WILLIAMS.  
Separable Button.

No. 234,933.

Patented Nov. 30, 1880.



Witnesses:

Chas. G. Page  
D. C. Allen

Inventor:

Frank E. Williams.  
By his Atty, Joel C. Lathrop.

# UNITED STATES PATENT OFFICE.

FRANK E. WILLIAMS, OF NEW YORK, N. Y.

## SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 234,933, dated November 30, 1880.

Application filed June 16, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK E. WILLIAMS, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Separable Buttons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of inventions known as "separable buttons, studs," &c., which are made in two parts, said parts being held together by means of spring-fasteners; and it consists in mechanism employed for retaining the parts of the button in combination, as will be hereinafter more fully set forth and described.

Figure 1 represents a plan view, showing the pushers and locking device, &c. Fig. 2 is a side view of the shoe. Fig. 3 is a side view, showing the button ready for use; Fig. 4, detail views of the several parts.

A designates the inner disk of the button, and B the hollow post secured thereto, and having a shoulder-head, *b*, which engages with the locking device to prevent the parts from separating.

C shows the head of the button, and D the solid post attached to the plate E, which plate is rigidly secured to the head of the button-head C.

F represents a ring, which is secured to the plate E, and provided with slots *ee*, located on opposite sides, and into which the hooked ends of the pusher-locks *ff* enter, and are held by pressure of spring *i*. These slots *ee* are located a sufficient distance from the plate E to allow the hooked end of the pusher-locks *ff* to engage the shoulder-head *b* on the under side thereof.

The plate E is provided with the oppositely-located lugs *aa*, which are partially turned up when said plate is soldered or otherwise secured to the head of the outer disk, C.

The pusher-locks *ff* are made as clearly

shown in Fig. 4 of the drawings, which are provided with notches *hh*, into which the lugs *aa* are bent in order to hold said pushers *ff* in place. Said notches are made somewhat larger than the width of the lugs *aa*, to allow sufficient play of the pushers *ff*, as shown in Figs. 1 and 4 of the drawings.

The bent ends of the spring *i* engage with a hole or notch in said pushers at *jj*. The outer ends of the pushers extend through the rim of the button-head, and the inner hooked ends are entered into the slots *ee*, and the lugs *aa* are bent up so as to allow just room for the pushers to slide between said lugs and the sides of the ring F. The notches *hh* in the pushers allow the hooked ends of said pushers to be separated sufficiently to disengage the shouldered hollow post B, but lugs *aa* and notches *hh* are so arranged and constructed as not to allow of the escape of the pushers from the slots *ee*.

It will thus readily be seen that when the pushers are inserted in place, by the simple bending upward of the lugs *aa* into the notches *hh*, said pushers, springs, &c., are all securely held in place without the addition of any cover, caps, &c.

I am aware that buttons having pushers operated by springs and held in place by means of locking devices of various forms of construction have heretofore been employed, and therefore do not claim such, broadly; but

What I do claim is—

1. In a button, the plate E, having lugs *aa*, adapted to receive and hold the notched pushers *ff* and allow them to move laterally a certain distance to lock and unlock the intermediate post, D, substantially as and for the purpose set forth.

2. In a button, the combination of the plate E, having lugs *aa*, slotted ring F, post D, notched pushers *ff*, and spring *i*, all constructed and arranged to operate in the manner shown and described.

In testimony whereof I herewith affix my signature in presence of two witnesses.

FRANK E. WILLIAMS.

Witnesses:

WM. BAGGER,

THEODORE MUNGEN.