

(No Model.)

P. H. LONG.  
Separable Button.

No. 238,043.

Patented Feb. 22, 1881.

Fig: 1.

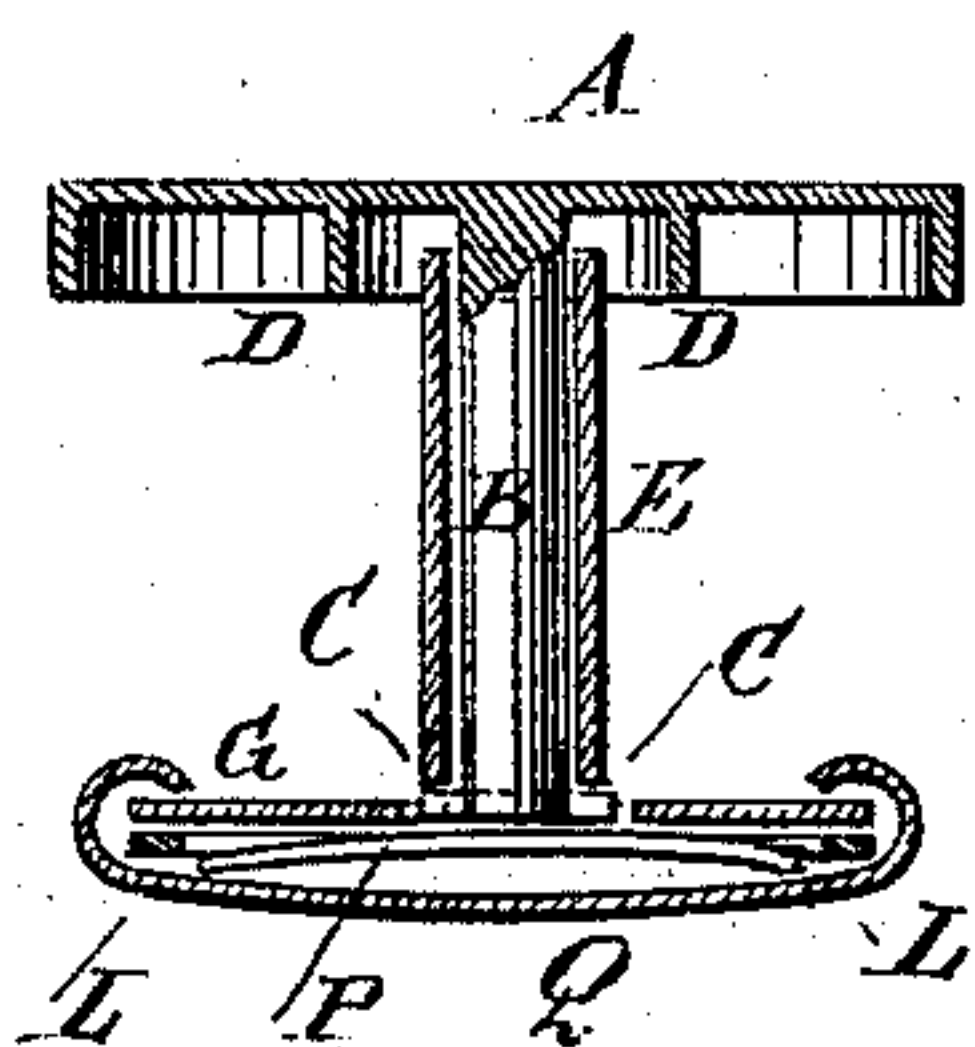


Fig: 3.

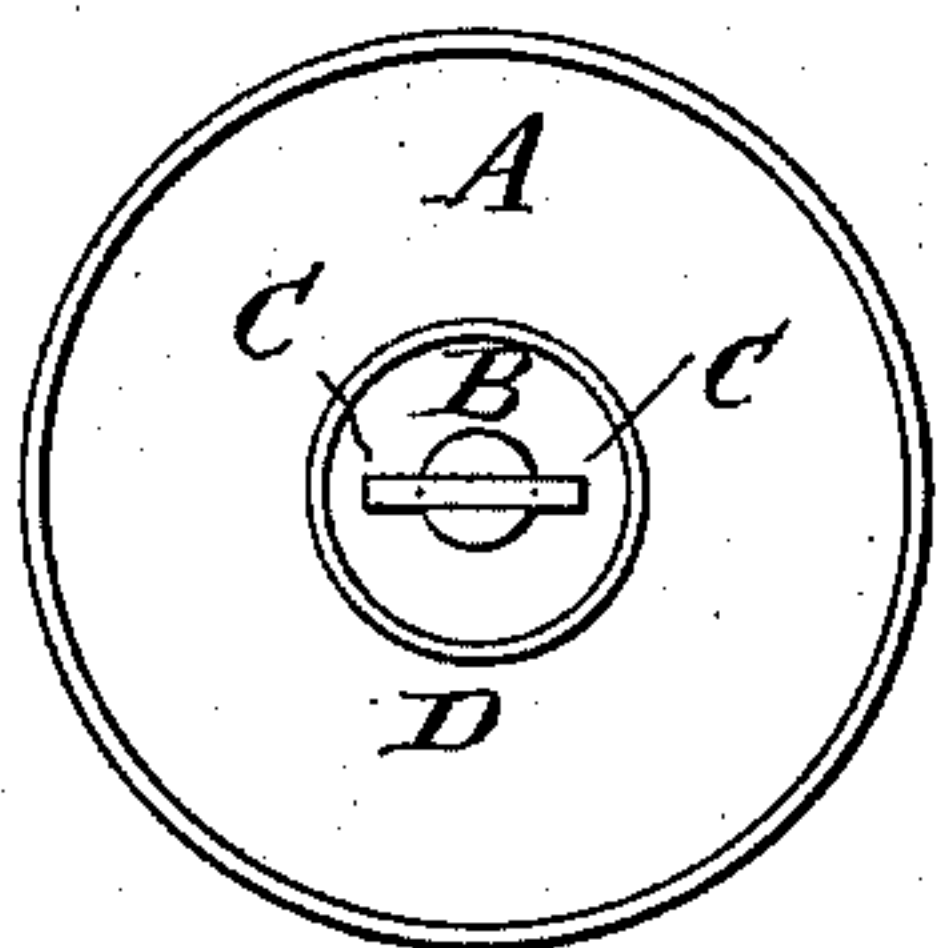


Fig: 4.

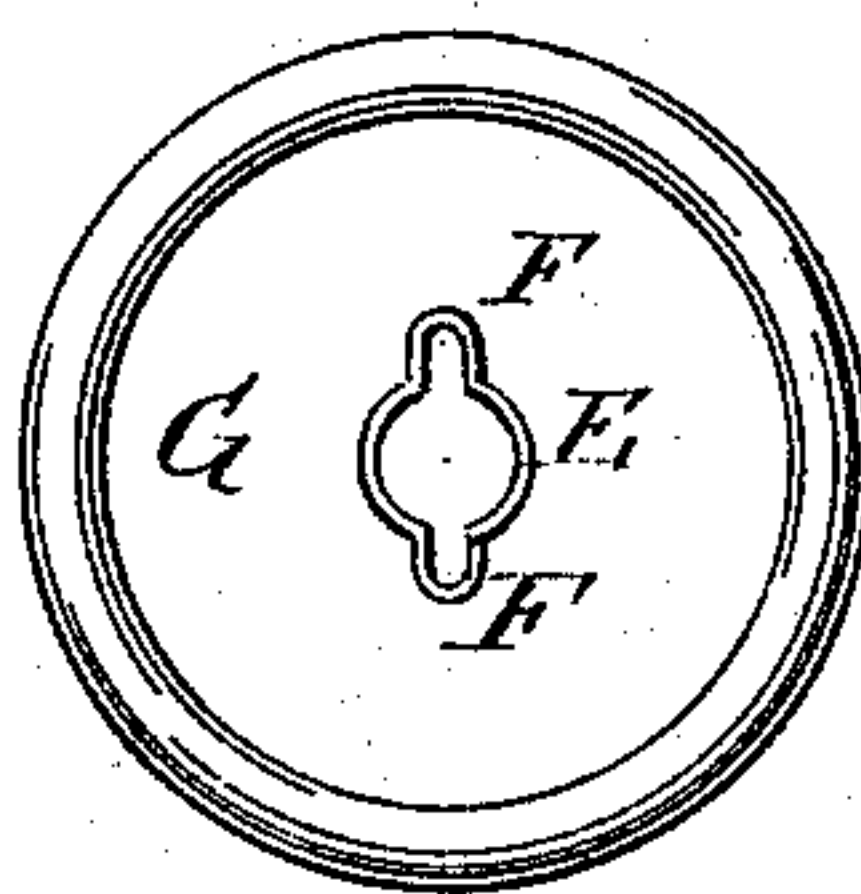


Fig: 2.

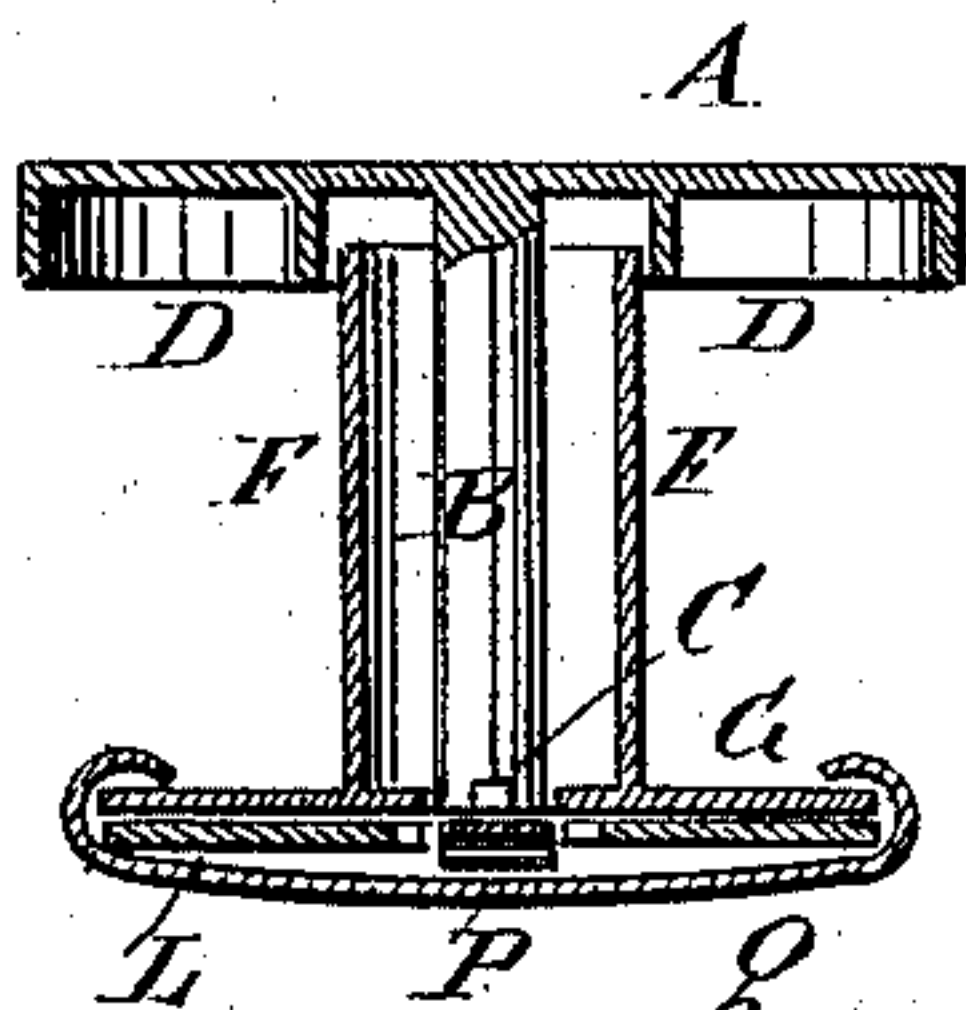


Fig: 5.

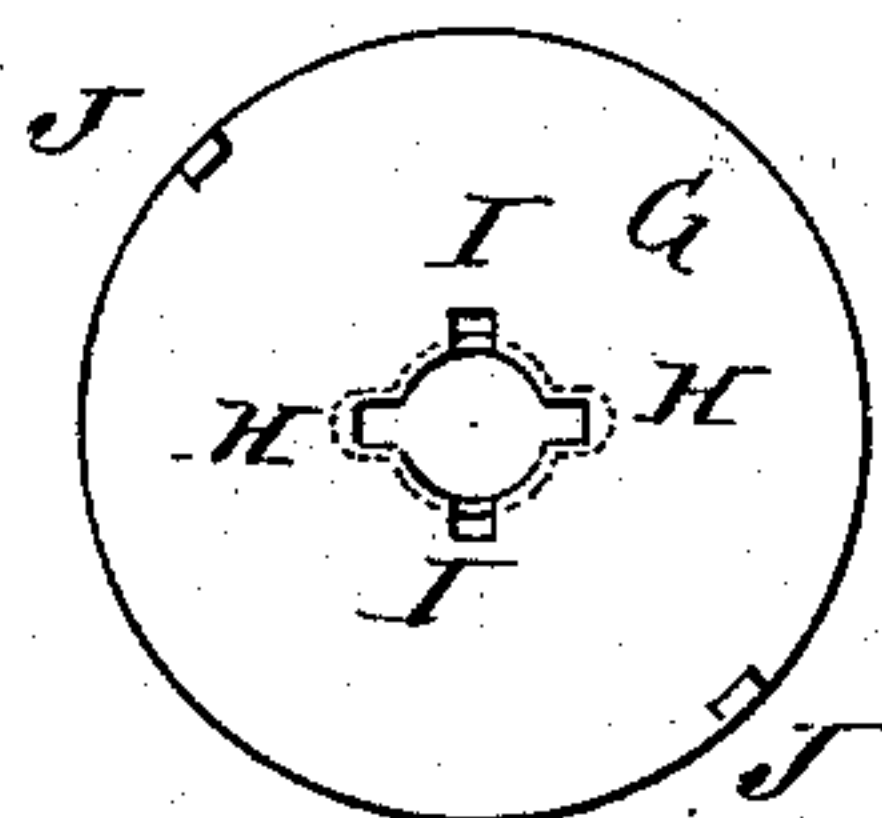


Fig: 7.

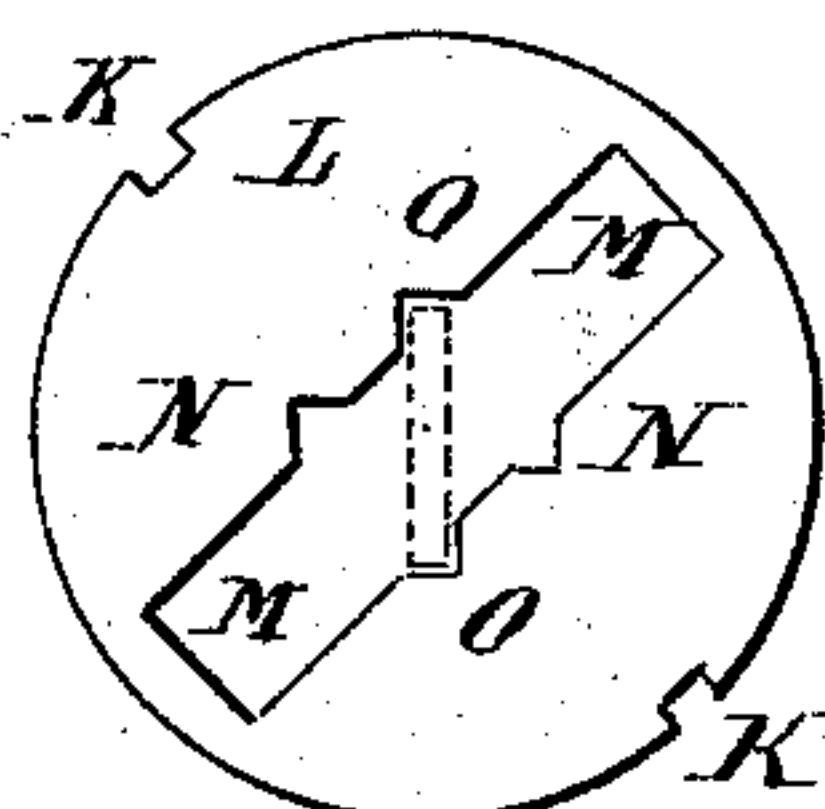


Fig: 10.

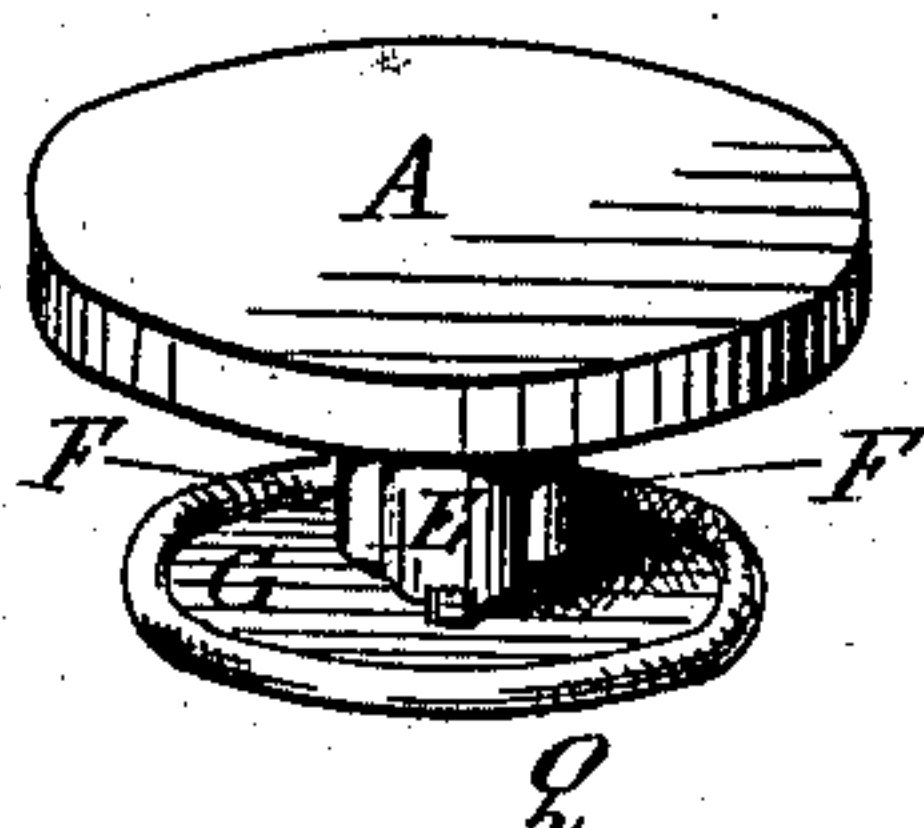


Fig: 6.

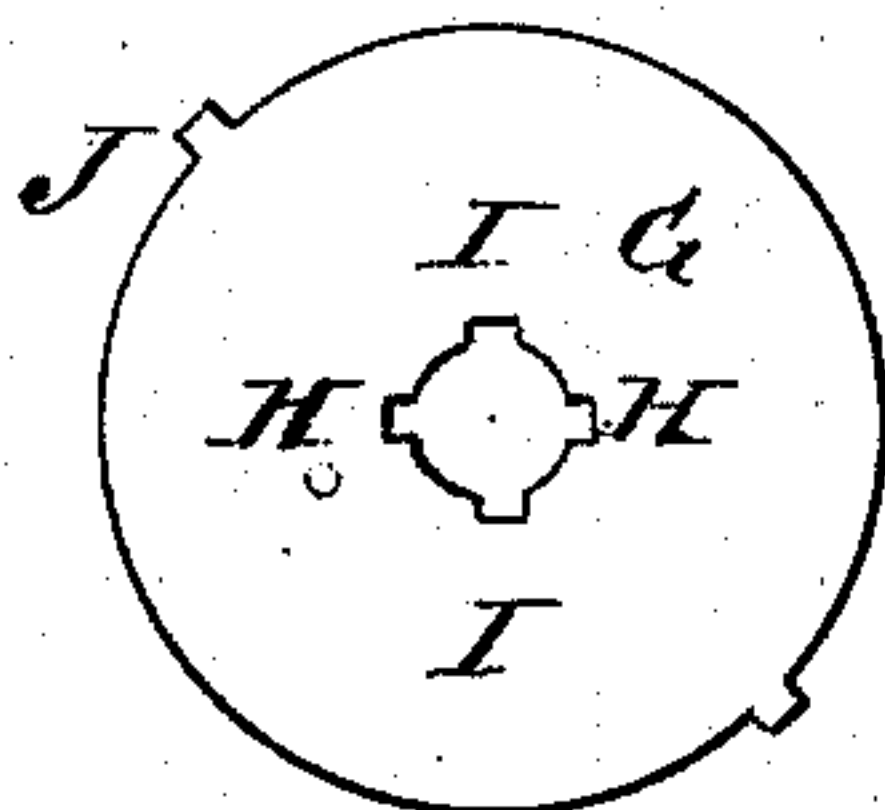


Fig: 8.

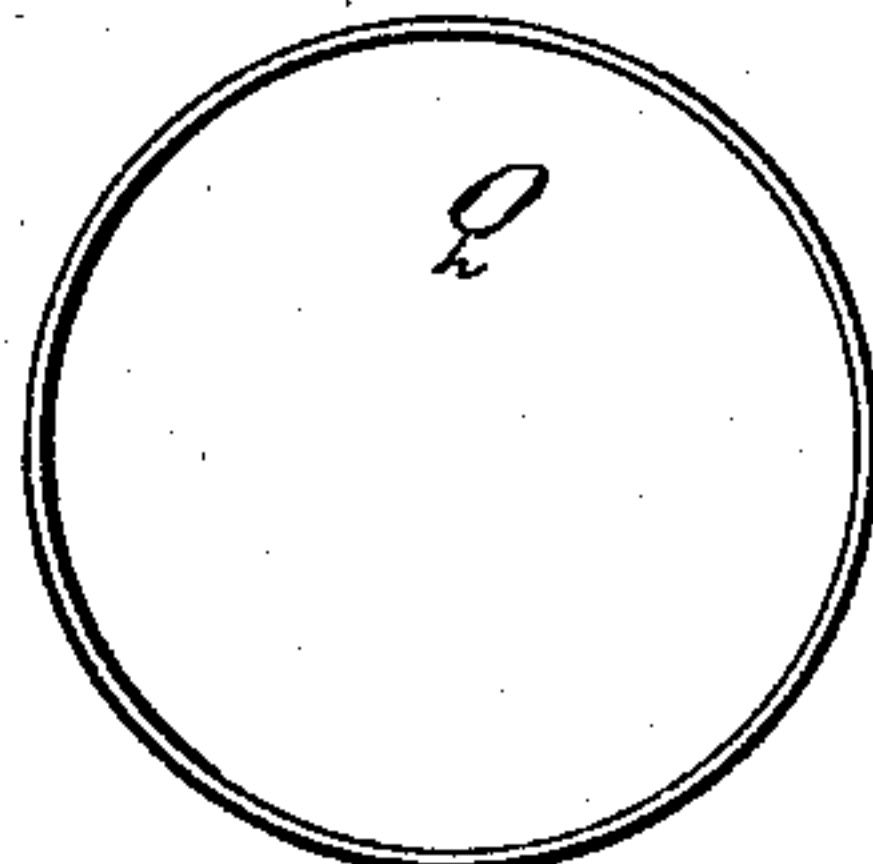
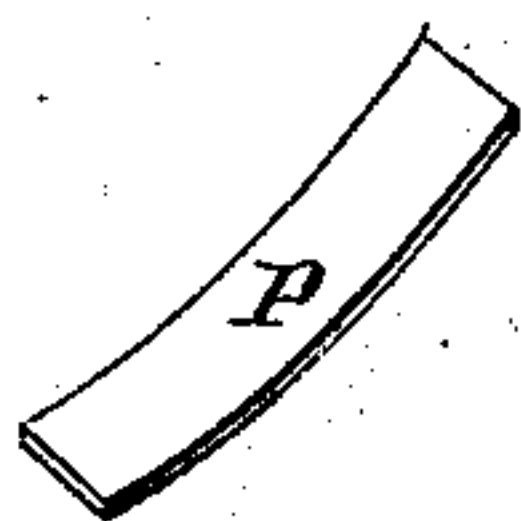


Fig: 9.



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# UNITED STATES PATENT OFFICE.

PHILIP H. LONG, OF NEWARK, ASSIGNOR TO HIMSELF AND CHRISTOPHER D. MARSH, OF RAHWAY, NEW JERSEY.

## SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 238,043, dated February 22, 1881.

Application filed December 10, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP H. LONG, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Separable Buttons, of which the following is a full, clear, and exact description.

Figure 1 is a sectional elevation of the improvement. Fig. 2 is a sectional elevation taken at right angles with the section shown in Fig. 1. Fig. 3 is an under-side view of the head and its shank. Fig. 4 is an under-side view of the foot and its shank. Fig. 5 is a plan view of the inner side of the plate to which the tubular shank is attached. Fig. 6 is a plan view of the plate shown in Fig. 5 before the points have been bent up. Fig. 7 is a plan view of the spring holding and stop plate. Fig. 8 is a plan view of the foot-plate. Fig. 9 is a perspective view of the spring. Fig. 10 is a perspective view of the button.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish separable buttons so constructed that the head and foot can be readily connected and disconnected, that the buttons will not turn in the button-holes, and in which the fastening mechanism shall be connected with the foot, so that any kind of heads can be used.

The invention consists in the combination, with the head and foot, in a separable button, of a shank having a cross-head, a tubular shank having semi-tubular wings to receive the ends of the cross-head, a plate having notches and recesses to receive the ends of the cross-head, and a spring to hold the ends of the cross-head in the recesses of the plate, so that the parts of the button can be readily connected and disconnected, and will be securely held in place; also, in the combination, with the plate carrying the tubular shank and having notches and recesses, of the plate having a slot to receive the spring, and notches to receive and serve as stops for the ends of the cross-head, to keep the spring in place and limit the rotary movement of the head and foot; and, also, in constructing a separable button with the locking mechanism arranged in its foot, as will be hereinafter fully described.

A represents the head of the button, which can be made of any kind, size, and shape, and to the back of which is soldered or otherwise secured a shank or post, B, having a cross-head, C, formed upon or attached to its lower end.

To the back of the head A, around the base of the shank B, is soldered or otherwise secured a ring-flange, D, to overlap the end of the tubular shank and prevent the cuff or other article to which the button is applied from getting in between the head A and the end of the tubular shank, and impeding the detachment of the button. E is the tubular shank, the cavity of which is made of such a size as to receive the shank B, and which has internally-grooved or semi-tubular wings F formed upon its opposite sides, to serve as ways for the ends of the cross-head C to pass through, and as guards to prevent the button from turning in the button-hole. The end of the tubular shank E is secured in a hole in the plate G, which forms the back of the foot, and which has notches H formed in it, corresponding in shape and position with the wings F, so that the cross-head C can pass through the said plate G.

In the plate G, upon the opposite sides of the hole formed through it, and midway between the notches H, are formed notches or recesses I, to receive the cross-head C when the shank B has been turned one-quarter around. Upon the opposite edges of the plate G are formed two points, J, as shown in Fig. 6, which are bent up at right angles, as shown in Fig. 5, to enter notches K, formed in the edge of the plate L, placed upon the inner side of the plate G, to prevent the plates G L from turning upon each other.

In the plate L is formed a slot, M, in such a position as to be diagonal to the lines joining the notches H and the recesses I, as indicated in Fig. 7.

In the plate L, upon the opposite sides of the slot M, and in such positions as to be directly over the notches H and recesses I of the plate G, are formed notches N O, to receive the ends of the cross-head C, and serve as stops to prevent the shank B from being turned farther than a quarter-revolution.

P is the spring, which is slightly curved, and is placed in the slot M in such a position



that the end of the shank B will rest against the convex side of the said spring.

Q is the cap or outer plate or foot, the edge of which is turned over, as shown in Figs. 1 and 2, so as to rest upon the back plate, G, and fasten all the parts of the foot together.

To connect the parts of the button the shank B is inserted in the tubular shank E, and the head and foot are pressed toward each other with sufficient force to compress the spring P, and are then turned through a quarter-revolution, to bring the ends of the cross-head C into the recesses I, where they will be held by the elasticity of the spring P. The parts of the button are disconnected by pressing the head and foot toward each other and then turning one or the other of the said parts through one-quarter of a revolution.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a separable button, the combination,

with the head A and foot G, of the shank B, having cross-head C, the tubular shank E, having semi-tubular wings F, the plate G, having notches H and recesses I, and the spring P, substantially as herein shown and described, whereby the head and foot can be readily connected and disconnected, and when connected will be securely held in place, as set forth.

2. In a separable button, the combination, with the plate G, carrying the tubular shank E, and having notches H and recesses I, of the plate L, having slot M, to receive the spring P, and notches N O, to receive and serve as stops for the cross-head C, substantially as herein shown and described, whereby the spring is kept in place and the rotary movement of the head and cap is limited, as set forth.

PHILIP H. LONG.

Witnesses:

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