(No Model.)

F. A. SMITH, Jr.
Separable Button.

No. 239,627. **Patented April 5, 1881.**

Fig. 1.

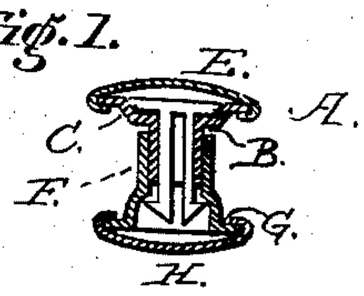

Fig. 2.

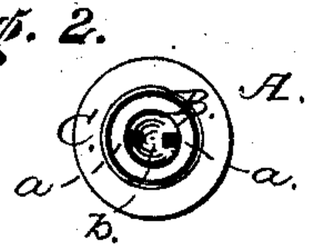

Fig. 3.

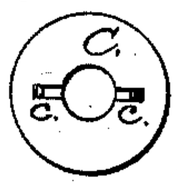

Fig. 4.

Fig. 5.

WITNESSES

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FRANKLIN A. SMITH, JR., OF PROVIDENCE, RHODE ISLAND.

SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 239,627, dated April 5, 1881.

Application filed February 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN A. SMITH, Jr., a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, 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 the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in separable buttons; and it consists of an improved construction and arrangement of the spring which connects together the front and rear portions of the button.

It further consists of an improved construction of the front and rear portions, which form the complete button, all as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is an enlarged vertical section of my complete device; Fig. 2, a top-plan view of the inner face of the front portion with the spring removed; Fig. 3, a bottom-plan view of the same, and Figs. 4 and 5 detail views of the spring.

Similar letters of reference occurring on the several figures indicate like parts.

My present invention is composed of the front and rear portions, held together by a spring of novel construction and arrangement.

A represents the front portion, formed of the tubular post B, provided with the flange C, the post B being rounded or beveled upon its inner end, and having two holes or openings, *a*, punched therein, leaving a bridge or bar, *b*, between the two, as shown in Fig. 2 of the drawings. The upper face of the flange C, over the opening in the tubular post B, is provided with a slot or indentation, *c*, as shown in Fig. 3, the object of which is such that the upper part of the spring connecting the two parts may be snugly fitted therein.

The spring D may be formed of any suitable metal or wire bent or cut into shape not unlike that of a pair of tongs, and having a cross-bar, *d*, at the upper end and two downwardly-depending legs, *e*, terminating in curved or barbed ends *f*, as fully shown in Figs. 4 and 5. The spring thus formed is connected to the front portion A by passing the legs *e* down through the post B and out the openings *a* in the end of the same until the cross-bar *d* rests in the slot *c* in the flange C, where it may be secured in place by soldering, or by having the button-front E rolled down upon it and over the edges of the flange C, as shown in Fig. 1.

The rear portion of the button is formed of a hollow tube or post, F, connected to the flange G, the opening in said tube being large enough to receive the spring D and post B of the front portion, A, as shown in Fig. 1. The lower portion of this post F is made flaring, so as to provide an enlarged recess to receive the ends of the spring D, which, spreading apart in said recess, serves to hold the front and rear portions of the button together.

A back plate, H, may be rolled over upon the flange G, as shown in Fig. 1, to complete the finish of the button.

By means of my present invention it will be observed that the legs *e* of the spring D are protected by the post B, in which they are placed, the slotted end of the post allowing the ends of the spring to expand sufficiently to permit of its being pushed into or withdrawn from the rear portion, F.

The bridge *b*, between the two projecting ends of the spring, prevents the legs *e* of the spring from being pressed too closely together, thus obviating a serious defect in the ordinary construction of separable buttons, wherein the legs of the springs, being unprotected, soon lose their elasticity by repeated use, and, becoming pressed together, renders them useless.

Having thus described my invention, what I claim as new and useful is—

1. As an improved article of manufacture, a separable button consisting of the front portion, A, composed of the post B, provided with openings *a*, flange C, provided with slot *c*, and spring D, having cross-bar *d* and legs *e*, connected to flange C by the front E, rolled

thereon, and the rear portion formed of the post F, with flaring base, flange G, and rear plate, H, rolled thereon, substantially as specified.

2. In a separable button, the spring D, having cross-bar *d* and legs *e*, in combination with the post B, having openings *a*, separated by bridge *b*, and flange C, having slot *c* and front E rolled thereon, substantially as and for the purpose specified.

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

FRANKLIN AUGUSTUS SMITH, JR.

Witnesses:

D. G. BODMAN.

GEO. W. PRENTICE.