

(No Model.)

J. F. BLOOD.  
Separable Button.

No. 238,638.

Patented March 8, 1881.

Fig. 1.



Fig. 2.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 238,638, dated March 8, 1881.

Application filed January 12, 1881. (No model.)

*To all whom it may concern :*

Be it known that I, JOSEPH F. BLOOD, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Separable Buttons; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

My said improvements relate, broadly, to that large class of separable buttons which embody springs for maintaining union of the parts, without such locking action as necessitates the use of push-rods or equivalent devices for controlling the springs in effecting a separation of the parts.

Buttons of this class may properly be subdivided into two divisions, in one of which the springs are attached to or form a part of the shank of the button, and in the other they are located within a hollow post, and it is to this latter division that my improved button belongs.

Heretofore, so far as my knowledge extends, all such buttons have had a solid shank, which enters between the arms of a spring and expands them, their retractile force being that which maintains the union of the parts.

The characteristic features of my button are a cam-slotted shank and a bow-spring, located centrally within the post and parallel therewith, so that the shank when inserted into the post contracts the arms of the spring by means of the front portion of the cam-slot, and thereafter permits them to expand within the rear end of said cam-slot, the spring taking bearing against the outwardly-inclined sides of the slot, and thereby drawing the shank inward.

To more particularly describe my invention, I will refer to the accompanying drawings, in which—

Figure 1 is a side view of the front of a button having a shank cam-slotted in accordance with my invention. Fig. 2 is a similar view of the back of a button having a hollow post, partially broken away to disclose its spring.

The hollow post A is substantially as heretofore in its form. The bow-spring *a* stands vertically in the post, is located centrally therein, and is secured at its lower or inner end to the side walls of the post, so as to be firmly fixed

against longitudinal displacement. A pin passing laterally through the post, above and in contact with the spring at its inner end, will serve a good purpose without objectionably confining the spring, so as to interfere with its freedom of action. A cheap and effective method of securing said spring is to provide a tongue in each side of the post, near its base, by means of two parallel slots, and forcing these tongues inward, so as to bear upon the upper surface of the lower or inner end of the spring.

The shank B is flat, wholly rigid, has straight and parallel edges, and is accurately fitted in thickness and width to the interior dimensions of the hollow post, so that when inserted in said post no lateral movement of the shank is possible. The cam-slot in the post is provided with two sets of effective or working surfaces. The outer end of said slot, at *b*, converges from the end in slightly-curved lines, as shown, to correspond with the outline of the lower portion of the spring. This portion of the slot operates to contract the spring *a* to a degree corresponding to the width of the narrowest portion of the cam-slot. The inner end of said slot, at *c*, has inclined sides, which diverge from said narrowest portion, so as to permit the expansion of the spring, and the inclined sides, being engaged by the arms of the spring, cause it to firmly draw the shank inward.

A button thus constructed possesses a degree of security equal to that attainable with the best type of buttons of this general class. When the shank is inserted the spring is in no manner subjected to lateral strains, and the button as a whole can be economically constructed.

Having thus described my invention, I claim as new—

In a separable button, the combination of a hollow post, a bow-spring located centrally within the post and parallel therewith, and a rigid shank provided with a cam-slot, which embraces the spring and permits it thereafter to expand within and engage with the sides of said slot, substantially as described.

JOSEPH F. BLOOD.

Witnesses:

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