(Model.)

A. H. ALDERMAN.

SEPARABLE BUTTON.

No. 259,972. Patented June 20, 1882.

Fig. 1.

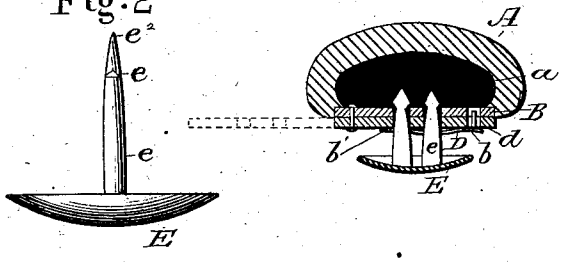


Fig. 2

Fig. 3.

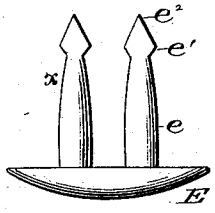


Fig. 4.

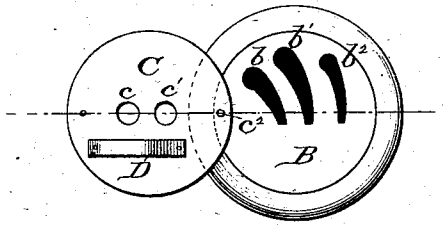


Fig. 5.

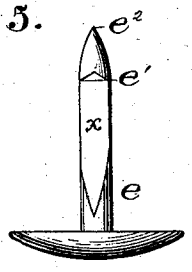


Fig. 6.

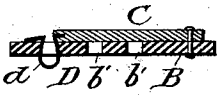
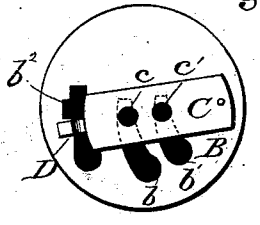


Fig. 7.



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UNITED STATES PATENT OFFICE.

ASAHEL H. ALDERMAN, OF MARIETTA, OHIO.

SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 259,972, dated June 20, 1882.

Application filed January 31, 1882. (Model.)

To all whom it may concern:

Be it known that I, ASAHEL H. ALDERMAN, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Separable Buttons; and I do 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to separable buttons for garments, shoes, or the like; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The object of the invention is to provide a button which may readily be attached to a garment and locked in such attached position—one in which the shank forms its own way of passage through the fabric or material without injuring the threads of the same, the said shank locking the front and back disks automatically, and enabling the parts to be unlocked and separated at will without injuring the button or interfering with its future use, the locked position of the parts being controlled by the constant force of a spring, as will be explained.

To these ends the invention consists essentially in a button-front of rubber, metal, ivory, or other proper material, ornamented or otherwise, having a chamber upon its back surface covered by a plate having curved slots, which slots receive barbed shanks rigid with and upon the button-back, the slots describing approximately the segment of a circle in relation to the pivot of a disk having perforations which correspond with the barbed shanks in number and location, and with the curved slots.

The barbed shanks pass through the apertures in the pivoted disk and enter the curved slots at their larger ends, and are forced into locked positions as the disk assumes its proper operative position. This disk is locked in such position by a spring-catch or click which carries a headed pin, said pin entering a curved inclined slot in the chamber-cap, similar to those which receive the shanks, and having convenient means for disengagement at will; or a spring may be received into a socket located in the said cap in other locality for this purpose.

The barb is formed upon the shank by beveling from opposite sides and terminating the inclines with a shoulder, from the said shoulders the said shanks being inclined to a sharp point, the sides of the shanks at right angles thereto being inclined from a point behind the shoulders. The portion of the shank immediately behind the shoulders forms the part which locks in the curved slots, and the inclines are made so gradual as to be readily passed through the material without injuring the same.

It will be understood that the barbed points may be secured in the button-front, forced through the garment from the outside, and securely locked in the slotted plate in the hollow back, if such an arrangement should be desired.

The invention is fully illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a central vertical section, showing the pivoted disk in two positions and the shanks in place; Figs. 2 and 3, elevations of the back and shanks, taken at right angles to each other; Fig. 4, a bottom plan view of the button-front with the pivoted disk out of operation; Figs. 5, 6, and 7, detail views, showing the spring-catch in and out of operation in a side recess.

To enable others skilled in the art to which the invention relates to make and use the same, I will describe the construction and mode of operation, reference being had to the accompanying drawings, in which similar letters of reference indicate like parts in all the figures. Thus:

A represents the button-front, having chamber *a*, and B the chamber-cap, having curved slots *b b'*, which receive the barbed shanks *e* upon the back E, and a recess, b^2, which receives the spring-catch D upon the pivoted disk or plate C. This disk C is pivoted at c^2, and is provided with apertures *c c'*, which correspond in number and location with the curved slots *b b'*, said slots having a common center at the pivot c^2.

The shanks *e* are beveled upon opposite sides to form the shoulders *e'*, and to a needle-point at e^2, as shown, the flat beveled surfaces being designated by *x*.

The spring D has a catch portion, *d*, which engages a recess, b^2, to lock the shanks in contact with the button-front, and the said catch may be readily unlocked at will and the parts separated by simply overcoming the force of the spring and turning the disk in the direction of the larger ends of the curved slots *b b'* until the barbs are disengaged. This flat portion, in connection with the spring force in opposite directions, prevents the displacement of the said shank, and it will remain thus locked until the shank is forced around to a distance approximately equal to ninety degrees, when the barbs will easily be disengaged and the back withdrawn.

Modifications in details of construction may be employed without departing from the principle or sacrificing the advantages of my invention, the essential features of which are the barbed shank or shanks, the locking-slots, and the locking and unlocking spring or springs, when serving in relation to a separable button front and back, and the shank or shanks being adapted to form its own way of passage through the material and to lock automatically.

Of course it will be obvious that the device will serve with equal efficiency in other relations, such as glove-fastenings, boot or shoe securing means, &c.

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

1. In a separable button, the back or shoe E, having barbed shanks, needle-pointed so as to make their own perforations, in combination with the button-front having curved slots adapted to receive and removably hold the shanks, all substantially as set forth.

2. The spring-catch D *d*, combined with the back E, having barbed shanks *e e'*, and front A *a*, having locking-recess b^2, as set forth.

3. The back E, having shanks *e*, beveled, as shown, to form shoulders *e'*, points e^2, and flattened surfaces *x*, combined with the front A *a*, having cap B, with curved slots *b b'*, and with a spring-catch, D, adapted to lock or liberate the said shanks at will, as specified.

4. The pivoted disk C, having apertures *c c'*, the cap B, having curved slots *b b'*, and spring-catch D, combined with the back E, having shanks *e e'* e^2, as set forth.

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

ASAHEL H. ALDERMAN.

Witnesses:

H. CLAY SMITH,

J. R. SIDDALL.