G. B. ROWE.

SEPARABLE BUTTON.

APPLICATION FILED FEB. 21, 1918.

1,274,787.

Patented Aug. 6, 1918.

2 SHEETS—SHEET 1.

FIG. 1.

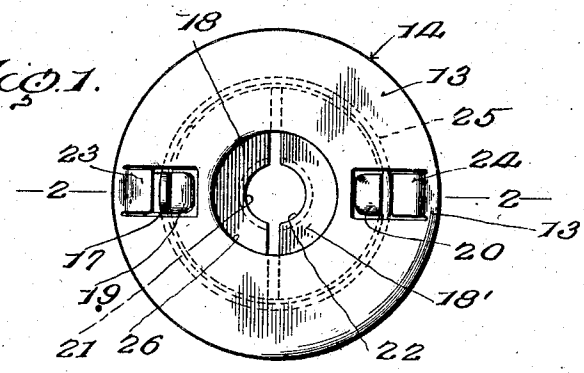


FIG. 2.

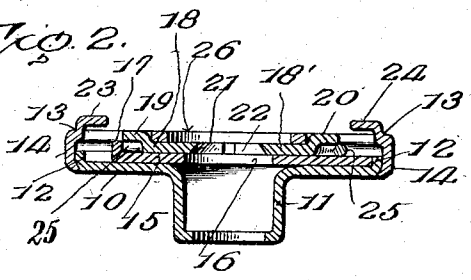


FIG. 3

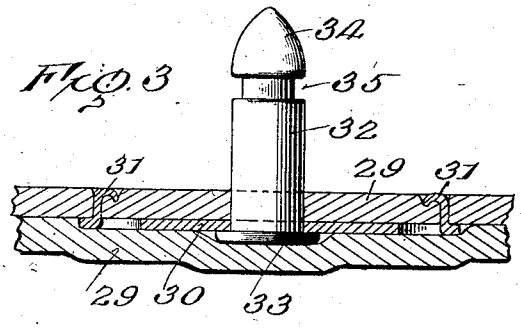
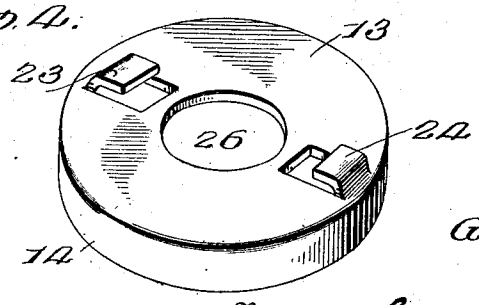


FIG. 4.



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2 SHEETS—SHEET 2.

FIG. 5.

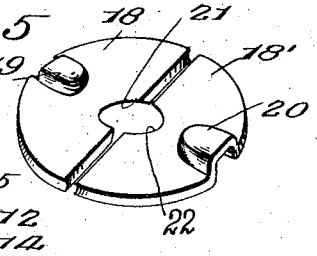


FIG. 9.

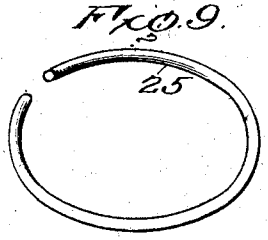


FIG. 11.

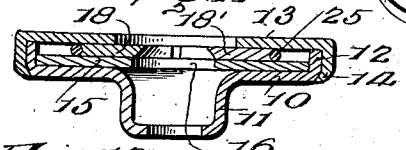


FIG. 14.

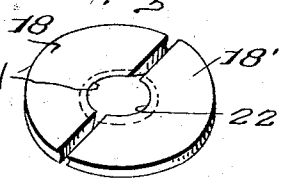


FIG. 6.

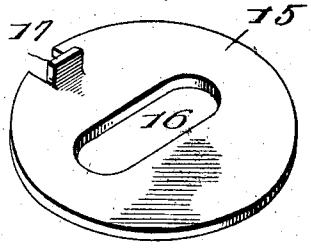


FIG. 12.

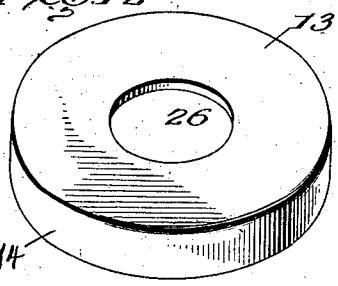


FIG. 7.

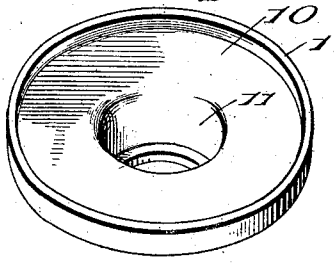


FIG. 13.

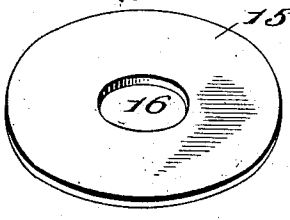


FIG. 10.

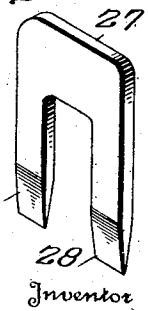


FIG. 15.

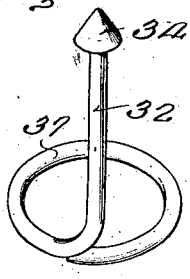
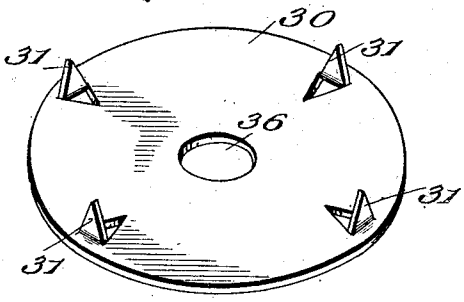


FIG. 8.



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SEPARABLE BUTTON.

1,274,787. Specification of Letters Patent. Patented Aug. 6, 1918.

Application filed February 21, 1918. Serial No. 218,558.

To all whom it may concern:

Be it known that I, GEORGE B. ROWE, a citizen of the United States, residing at Oklahoma, in the county of Oklahoma and State of Oklahoma, have invented certain new and useful Improvements in Separable Buttons, of which the following is a specification.

This invention relates to improvements in separable buttons, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character wherein provision is made for separating the parts by means of a key device.

With these and other objects in view, the invention consists in certain novel features of construction, as hereinafter shown and described and then specifically pointed out in the claims; and in the drawings illustrative of the preferred embodiment of the invention—

Figure 1 is a plan view of the outer or buttonhole engaging portion of the device.

Fig. 2 is a transverse section on the line 2—2 of Fig. 1.

Fig. 3 is a side elevation of the locking pin or stud which is attached to the garment, the attaching means and the material of the garment being in section.

Fig. 4 is a detached perspective view of the cap portion of the improved device.

Fig. 5 represents the spring supported locking members in perspective.

Fig. 6 is a detached perspective view of the supporting plate whereby the spring controlled locking members are supported and retained in position.

Fig. 7 is a perspective view of the body portion of the improved device.

Fig. 8 is a detached perspective view of the supporting member for the locking stud.

Fig. 9 is a detached perspective view of the controlling spring of the locking members.

Fig. 10 is a detached perspective view of the releasing key.

Fig. 11 is a view similar to Fig. 2 illustrating a modification in the construction.

Fig. 12 is a detached perspective view of the form of cap employed in the modified structure shown in Fig. 11.

Fig. 13 is a detached perspective view of the form of supporting plate employed in the modified structure shown in Fig. 11.

Fig. 14 is a detached perspective view of the form of locking members employed in the modified structure shown in Fig. 11.

Fig. 15 is a detached perspective view illustrating a modification in the construction of the locking pin.

The improved device comprises a body represented as a whole at 10 and having a tubular stock or shank 11 extending therefrom and with an outstanding marginal rim or flange 12, the outer face of the body portion 10 and of the flange 12 converging slightly toward the shank 11, as illustrated in Figs. 2 and 11.

Bearing over the body 10 and its flange 12, is a cap member 13 having a depending rim 14 adapted to be "clenched" or compressed against the beveled face of the members 10—12. By this means the cap 13 is firmly connected to the body after the parts are assembled. The cap member 13 is spaced for a considerable distance from the flat portion 10 of the body and its rib 12, and bearing upon the inner face of the flat portion 10 is a disk 15 having a central slot 16. When the structure shown in Figs. 1 and 2 is employed the disk is provided with an outturned lug 17, the latter preferably produced by forming radial clefts in the edge of the member 15 and turning the material between the clefts substantially at right angles to the plane of the disk, as shown in Fig. 6. Bearing upon the disk 15 are locking members or plates 18—18′. The members 18—18′ are semicircular in outline and are normally supported slightly spaced as shown in Figs. 1, 2, 5, 11, and 14. The member 18 is provided with a semicircular recess 21 centrally of its radial side, while the member 18′ is provided with a similar recess 22, the recesses coacting to engage the neck portion of the locking pin, as hereafter explained. The faces of the recesses 21—22 are beveled toward the shank 11, as shown in Fig. 2 to facilitate the entrance of the locking pin. When the structure shown in Figs. 1, 2, and 5 is employed, the member 18 is provided with a projection 19, while the member 18′ is provided with a similar projection 20. The material of the member 18 externally of the projection 19 is cut out to provide a recess through which the stop member 17 projects when the parts are assembled, to hold

the members 18 and 18′ from rotation upon the member 15. When the structure shown in Figs. 1, 2, and 5 is employed, the outer face of the cap member 13 is provided with oppositely disposed U-shaped clefts whereby tongues 23—24 are adapted to be bent outwardly as shown more particularly in Fig. 4, the projections 19—20 engaging in the recesses beneath the tongues, as shown. When the form of structure shown in Figs. 11 to 14 is employed, the guard members 23—24, guide lugs 19—20, and the lug 17 are dispensed with. Bearing around the members 18—18′ is a divided ring indicated at 25, the terminals of the ring bearing upon opposite ends of the stop member 17 when the plate 15 having the latter is employed. The spring member thus operates to hold the members 18—18′ yieldably in closed position as illustrated more particularly in Fig. 1. The portion 13 of the cap member is provided with a relatively large aperture 26 through which the central portions of the members 18—18′ are visible and accessible by the key member, the key being illustrated more particularly at 27 in Fig. 10, and including dividing prongs 28, the latter being wedge-shaped as shown, and adapted to enter the relatively narrow spaces between the adjacent edges of the members 18—18′ and thus distend them against the resistance of the spring 25 to release the locking pin.

The portion of the device thus far described constitutes the buttonhole engaging portion.

A portion of the garment to which the device is applied is represented at 29, and bearing between the layers of the material is a holding plate 30 having a plurality of garment engaging projections 31 produced by forming V-shaped clefts in the member 30 and bending the material between the clefts substantially at right angles to the member 30 as shown in Fig. 8. The locking pin comprises a body portion 32 with a laterally extended flange 33 at one end and a pointed or barb-shaped head 34 with a reduced neck 35 between the portions 32—34. The member 30 is provided with a central aperture 36 through which the pin 32 is inserted and prevented from movement in one direction by the flange 33 as shown in Fig. 3. One of the locking pins 32 will be located in the garment opposite each buttonhole, and when thus arranged the buttonhole engaging portion of the device may be quickly coupled to the pin by simply forcing the shank 11 over the barbed end of the pin, the barbed portion 34 operating against the beveled faces of the recesses 21—22 to force the members 18—18′ away from each other until the barbed portion passes beyond their outer faces, or until the neck portion 35 is in position to receive the adjacent edges of the recesses 21—22. The buttonhole engaging portion is thus firmly and quickly locked in position upon the pin and can be detached only by separating the members 18—18′ by employing the key member 27, as before described. After the buttonhole engaging portion of the device has been locked in position upon the pin, it will not be necessary to remove it therefrom unless the parts are broken or otherwise impaired. The pin 32 and its holding plate 30 may be readily detached to enable the device to be transferred from one garment to another, thus providing for the repeated use of the device.

The pin 32 may be constructed from a single section of wire with a portion of the wire bent into a coil as shown at 37 in Fig. 15, the coil serving the same purpose as the enlargement 33.

The improved device is simple in construction, can be inexpensively manufactured wholly by machinery, thus obviating expensive hand labor.

Having thus described the invention, what is claimed as new is:

1. A separable button comprising a hollow body having an outstanding rim and a tubular shank and with an opening communicating with the shank, a cap member bearing upon the rim of the body and having a central opening, coacting locking members spring controlled and disposed beneath the cap member, said locking members having opposing sockets in their confronting edges and accessible through the opening of the cap, and a locking pin adapted to be attached to one flap of a garment and having a barbed outer end and an annular seat to receive the sockets.

2. A separable button comprising a hollow body having an outstanding rim and a tubular shank and with an opening communicating with the shank, a cap member bearing upon the rim of the body and having a central opening and radial guideways, coacting locking members spring controlled and disposed beneath the cap member, said locking members being provided respectively with projections extending into said guideways and having opposing sockets in their confronting edges, and accessible through the opening of the cap, and a locking pin adapted to be attached to one flap of a garment and having a barbed outer end and an annular seat to receive the sockets.

3. A separable button including a hollow body having a cap member provided with a central opening and a tubular shank, a supporting member within the body, coacting locking members spring controlled between the supporting member and the cap, said coacting members being accessible through the opening of the cap and having opposing sockets in their confronting edges, and a locking pin adapted to be attached to one

flap of a garment and having a barbed outer end and an annular seat to receive the sockets.

4. A separable button including a hollow body having a cap member provided with a central opening and a tubular shank and with radial guideways, a supporting member within the body and provided with a holding lug, coacting locking members spring controlled between the supporting member and the cap, said coacting locking members being accessible through the opening of the cap and provided respectively with projections extending into said guideways and one of said locking members having a recess to receive the lug of the holding member and likewise having opposing sockets in their confronting edges.

In testimony whereof I affix my signature.

GEORGE B. ROWE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."