(No Model.)

R. E. KELSEY & C. H. SHUTTLEWORTH.

SEPARABLE BUTTON.

No. 270,593. Patented Jan. 16, 1883.

Fig. 2.

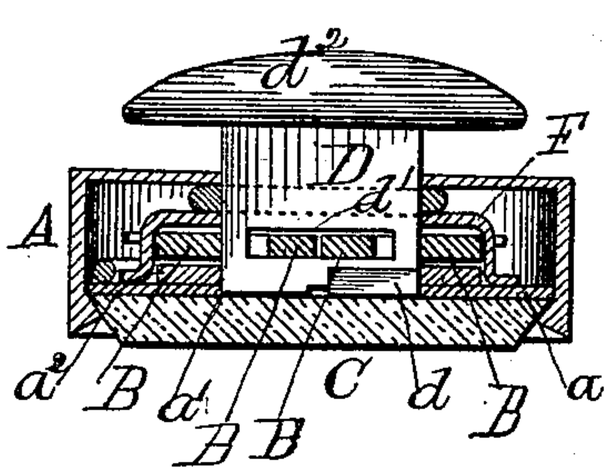


Fig. 1.

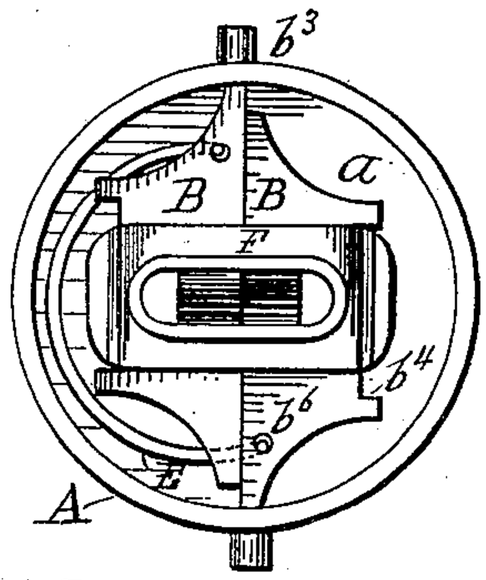


Fig. 3. Fig. 4.

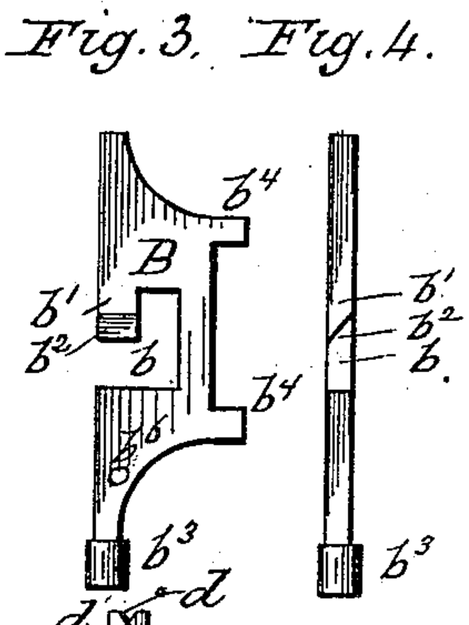


Fig. 5.

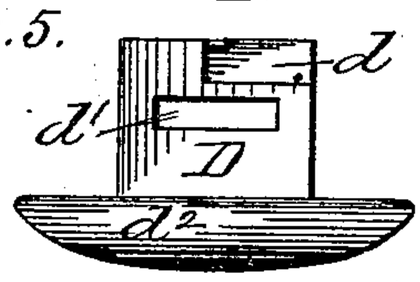


Fig. 6.

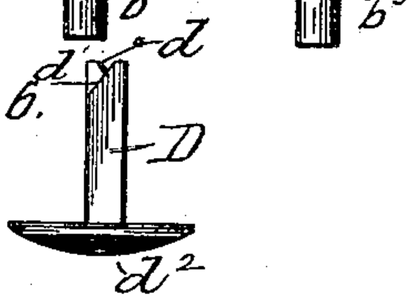


Fig. 7.

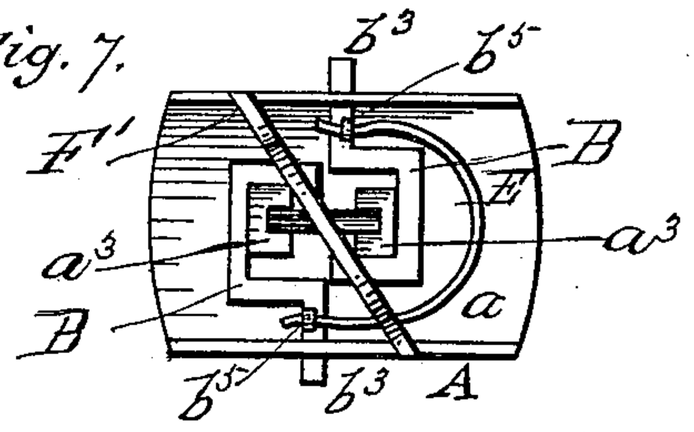
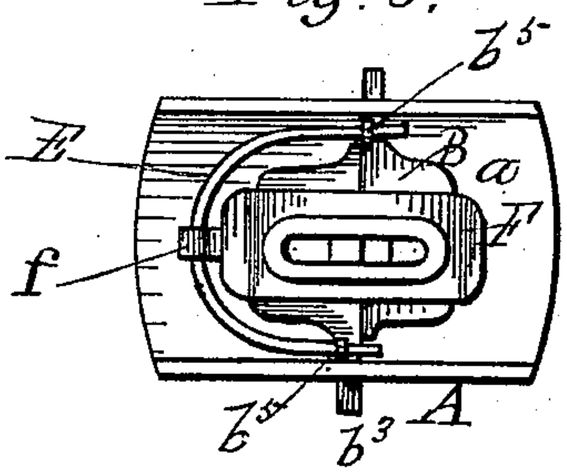


Fig. 8.



Witnesses:

W. B. Masson

J. H. Paine.

Inventors

R. E. Kelsey & C. H. Shuttleworth

By E. B. Stocking

Atty.

UNITED STATES PATENT OFFICE.

ROLLIN E. KELSEY AND CHARLES H. SHUTTLEWORTH, OF CORUNNA, MICHIGAN.

SEPARABLE BUTTON.

SPECIFICATION forming part of Letters Patent No. 270,593, dated January 16, 1883.

Application filed November 11, 1882. (No model.)

To all whom it may concern:

Be it known that we, ROLLIN E. KELSEY and CHAS. H. SHUTTLEWORTH, citizens of the United States, residing at Corunna, in the county of Shiawassee and State of Michigan, have invented certain new and useful Improvements in Separable Buttons, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a bottom view of a separable button constructed in accordance with our invention. Fig. 2 is a central transverse section of Fig. 1; Fig. 3, a plan of one of the push-bolts; Fig. 4, an edge view of the same; Fig. 5, a side view of the stud and cap; Fig. 6, an edge view of the same; and Figs. 7 and 8 are bottom views of modifications.

Like letters indicate like parts in all the figures.

A represents the usual shell of the button proper, through the walls of which project an end of each of the push-bolts B.

C represents the ordinary stone or other facing of the button, and *a* a base or bottom plate, which is perforated centrally at *a'* to receive the end of the stud D, which in this instance is a thin, wide strip of metal, and thus is adapted for ready insertion into and through the button-holes of cuffs, and, conforming more nearly to the shape of the same, effects less injury or wrinkling than when constructed of cylindrical or tubular stock. The stud D is beveled at its end in opposite directions, as at *d d*, and is slotted at *d'*, just below the inner edges of the bevels, for a purpose hereinafter stated.

d^2 is the stud-cap, which is secured to the end of the stud-stem in the usual manner. The push-bolts B are flat pieces of metal, the requisites of the outline of the same being a recess, *b*, a bar, *b'*, projecting into said recess and beveled, as at b^2, any suitable means for the attachment thereto of a spring, E, and a projecting end, b^3. In Fig. 3 stops b^4 are added, which abut against the edges of a bridge-piece, F, which is slotted for the passage therethrough of the stud D, said bridge-piece being secured to the base-plate *a*, and may be provided with an integral tongue or loop, *f*, to hold the spring E, as shown in Fig. 8.

We may use a riser, a^2, beneath the push-bars to raise them up level with the top surface of the spring, or may omit this feature and insert the free ends of the spring into eyes b^5, formed on the push-bars, (see Figs. 7 and 8,) instead of passing said ends vertically into holes b^6 therein, as shown in Fig. 1. Instead of a flat bridge-piece, we may use a bar, F', disposed diagonally, so as to bear upon both push-bolts at the ends thereof, opposite to that which projects through the walls of the button, and thus serving to hold them against the base-plate, as clearly shown in Fig. 7, wherein, also, will be seen guide-posts a^3, having grooves in which the edges of the stud may slide. In these modifications we omit the stops b^4, and rely upon either the abutment of the edge of the recess *b* against the guide-posts a^3 or the same action of the eyes b^5 against the walls of the button; or both of these expedients may be employed. It is apparent when two of these push-bars are placed opposite each other, with their ends b^3 pointing in opposite directions, that the two beveled bars *b'* will lie side by side, and that when the spring is applied it will hold the bars in that position and across the slot in the bridge-piece. Now, if the stud be forced through the bridge-piece, its beveled end will act wedge-like upon the beveled bars *b'* and force them asunder, and as soon as the slot *d'* is reached the bars, through the action of the spring, are thrown quickly into the slot, and the stud and button are firmly locked together. In order to unlock and separate them, force must be applied to the ends b^3, when the bars *b'* are thrown out of the stud and it may be easily removed.

It will be noticed that under no probable circumstances would force be accidentally applied at the ends b^3 and in opposite directions, and thus greater safety is secured than in fastenings which are dependent upon only a single application of force in one direction to separate the parts, and by the closeness of arrangement of the parts a low, snugly-fitting button is produced.

It is evident that one of the bars B alone

would operate to lock the slotted stud, whichever beveled end edge *d* were presented to it, and therefore we deem such as of our invention.

Having described our invention and its operation, what we claim as new, and wish to secure by Letters Patent, is—

1. In a separable button, the thin, solid, flat, slotted, and oppositely-beveled stud, in combination with beveled push-bars, substantially as shown and described.

2. In a separable button, the combination of a thin, solid, flat, double-beveled stud, a slotted bridge-piece oppositely arranged, recessed push-bars arranged to slide against each other, and having beveled locking-bars in a common plane with said push-bars, and a spring, substantially as shown and described.

3. The combination of the shell A, push-bars B B, arranged to slide against each other and recessed, as described, the bridge-pieces F, and the spring E, substantially as shown and described.

4. The combination of the stud D, slotted at d', and oppositely beveled at *d d*, and the cap d^2, substantially as shown and described.

5. The combination of the bars B B, having recesses *b*, beveled bars b', and stops b^4, the slotted bridge F, spring E, and the double-beveled, thin, flat, slotted stud D, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ROLLIN E. KELSEY.
CHARLES H. SHUTTLEWORTH.

Witnesses:
C. T. ARMSTRONG,
ROBT. E. HELMORE.