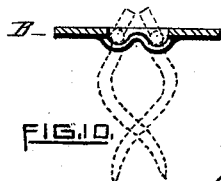
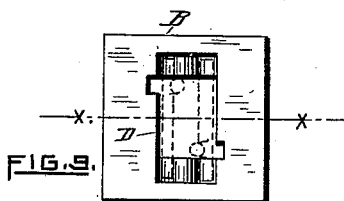
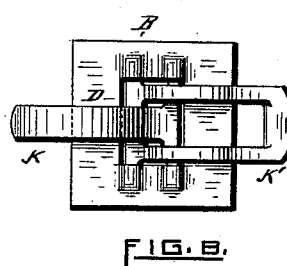
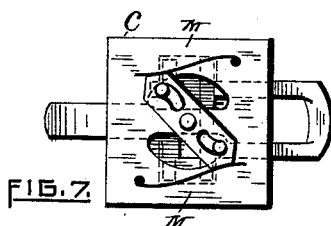
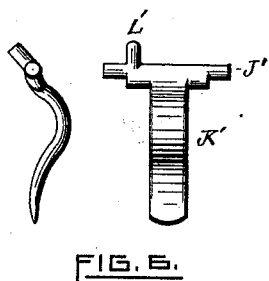
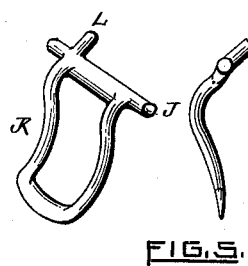
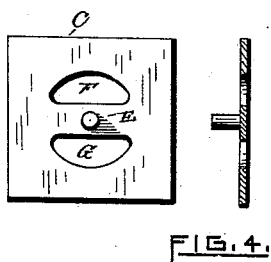
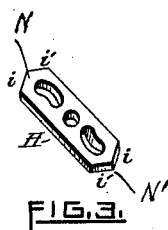
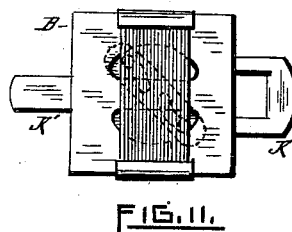
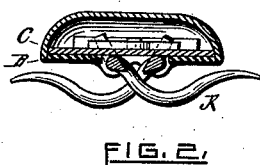
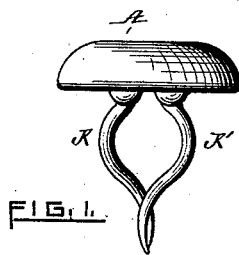


(No Model.)

G. E. ADAMS.  
BUTTON.

No. 420,650.

Patented Feb. 4, 1890.



WITNESSES.

*David L. Grauger*  
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INVENTOR.

*George E. Adams*  
*By Walter B. Vincent Atty*

# UNITED STATES PATENT OFFICE.

GEORGE E. ADAMS, OF PROVIDENCE, RHODE ISLAND.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 420,650, dated February 4, 1890.

Application filed October 12, 1888. Renewed October 29, 1889. Serial No. 328,522. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. ADAMS, of Providence, in the county of Providence and State of Rhode Island, have made certain  
5 new and useful Improvements in Buttons or Studs; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

10 Figure 1 is an elevation of my device. Fig. 2 is a vertical section of same with arms closed. Fig. 3 is a rotary-acting bar. Fig. 4 is a top and sectional view of stud-plate. Fig. 5 is a plan and side view of double arm. Fig. 6 is  
15 a plan and side view of single arm. Fig. 7 is a top view of stud-plate and bar. Fig. 8 is the reverse of Fig. 7, with arms closed. Fig. 9 is a top view of back plate. Fig. 10 is a section of same on line *x x*, with arms partially closed. Fig. 11 is a top view of stud  
20 and bar, showing another form of spring.

The object of my invention is to produce a button or stud which shall be both durable and simple in construction and at the same  
25 time capable of being easily and quickly introduced into and withdrawn from the cuff; and it consists in the construction and arrangement of devices, whereby the retaining-arms may be caused to operate in unison, as  
30 hereinafter described.

In the drawings, A is the top or front of the button or stud.

35 B is the back plate having an opening D, and C is an intermediate plate having an upwardly-projecting stud E and two openings F and G.

H is a bar having a hole in the center for the reception of the stud E, and two eccentrically-formed slots *i i'* at either end.

40 Extending across the opening D and working in suitable bearings are two parallel arbors J J', to which are attached curved locking arms or levers K K', one of which passes and works through a slot in the other, as  
45 shown in Figs. 5, 6, and 8, the free ends being so formed that they will, when open, come together and form a single edge before insertion in the button-hole, as shown in Fig. 1.

Attached to the arbors J J' and projecting 50 therefrom in a direction opposite to that of the arms or levers K K' are pins L L', which pass through the openings F and G in the plate C and enter and work in the eccentric slots *i i'* of the bar H.

55 M M are springs which control and regulate the movement of the bar H, and against the resistance of which said bar operates.

Commencing with the parts in the position shown in Fig. 1, the free ends of the arms K 60 K' are inserted in the button-hole and the button pressed downward. As soon as the thicker or curved parts of the arms come in contact with the edges of the button-hole, the continued pressure will cause them to spread 65 upon the inside of the cuff, as shown in Figs. 2, 7, and 8. During the closing movement described a uniform and simultaneous action of the arms is secured by means of the bar H, which unites them, and through its rotary 70 movement compels them to retain at all times a corresponding position to the back plate B and to each other. The bar H is flat and is pointed or provided at each end with inclined surfaces N N', which are successively pre- 75 sented to the springs M M as the arms K K' are opened or closed. As the bar H turns upon its pivot E, the projecting points at either end expand or raise the springs until they pass by, when the springs again adjust 80 themselves to the opposite inclined surfaces, as will be readily understood, and thus hold the arms in their new position.

Instead of the arrangement of the springs shown in Fig. 7, a flat spring may be used, if 85 desired, as shown in Fig. 11, which will be raised by the pins L L', as they follow the movement of the arms K K' in the same manner as the pointed ends of the bar H raise or spread the springs M M. 90

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In the herein-described button, the combination of the arms K K', arbors J J', having pins L L', and the pivoted bar H, the 95 whole constructed and operating to secure the corresponding simultaneous movement of said arms, as and for the purpose specified.

2. In the herein-described button, the intermediate plate C, having a stud E, in combination with the bar H, and the arms K and K', the whole constructed and operating in the manner substantially as described.
- 5 3. In the herein-described button, the combination of the bar H, the springs M M, the intermediate plate C, and the arms K K', the whole constructed and operating in the manner substantially as described.

GEORGE E. ADAMS.

Witnesses:

WALTER B. VINCENT,  
THOMAS H. ADAMSON.