W. R. DUTEMPLE.

Buttons and Studs.

No. 219,350. Patented Sept. 9, 1879

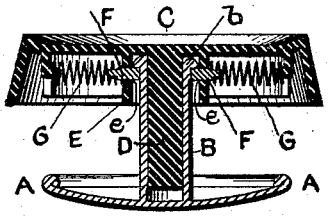

FIG. 1.

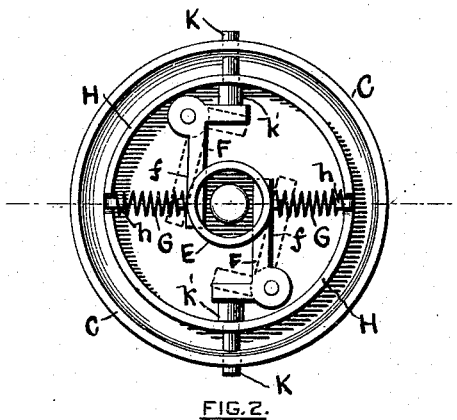

FIG. 2.

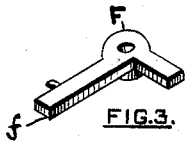

FIG. 3.

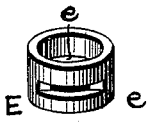

FIG. 4.

WITNESSES.

Edson Salisbury Jones.

Wm A Cady

INVENTOR.

Wm R Dutemple

UNITED STATES PATENT OFFICE

WILLIAM R. DUTEMPLE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO ISRAEL M. HOPKINS, OF SAME PLACE.

IMPROVEMENT IN BUTTONS AND STUDS.

Specification forming part of Letters Patent No. **219,350**, dated September 9, 1879; application filed July 28, 1879.

To all whom it may concern:

Be it known that I, WILLIAM R. DUTEMPLE, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Buttons and Studs; and I do hereby declare that the following specification, taken in connection with the accompanying drawings, forming a part of the same, is a full, clear, and exact description thereof.

My invention relates to that class of buttons and studs which are made in two separable parts for convenience of application and removal, and to that variety in which the parts are retained in combination while in use by positive locking devices, which are controlled by springs, the said devices being operated, when the parts of the button are to be separated, by pushers extending radially beyond the button-head.

My improvement consists in the means employed for retaining the parts of the button in combination, as will hereinafter appear, and is applicable to collar-buttons, sleeve-buttons, studs, &c.; but for the purpose of illustrating my invention I have chosen a sleeve-button, which is represented at Figure 1 of the drawings in vertical section. Fig. 2 shows a view of the under side of the head. Fig. 3 represents one of the locking-levers in perspective; and Fig. 4 shows, in perspective, the slotted ring which receives and accommodates the headed end of the post and the long arms of the locking-levers.

Referring to the drawings, A denotes the shoe of the button, and B the tubular post secured thereto and having a shouldered head, *b*, with which the locking devices engage to prevent the parts of the button from separating.

C denotes the head of the button, and D the stem attached thereto.

E denotes a ring, which is secured to the head C, and provided with oppositely-located slots *e*, into which the long arms *f* of bell-crank locking-levers F enter by the force of springs G. These slots *e* are located a sufficient distance from the top of the button to allow the locking-levers to engage the shouldered head *b* of the post on the under side, as shown in Fig. 1.

The locking-levers F are pivoted to the head C, and each arm *f* is provided with a projecting stud, which receives and retains in position one end of its actuating-spring, the other end of said spring being received and retained in position by projections *h* on a ring, H, which is secured to the head of the button, as shown in Figs. 1 and 2.

For operating the locking-levers when the parts of the button are to be separated, the head C is provided with two pushers, K, located in a diametrical line, and having enlarged ends *k'*, which engage the short arms of the bell-crank locking-levers, and also prevent the pushers from being displaced.

The pushers K extend radially outward through the ring H and rim of the button-head, so that they may be pressed by the fingers.

Although I have employed a member, H, in the form of a ring, to receive the ends of the springs G and assist in guiding and supporting the pushers, yet said member may be changed in form, or may be dispensed with, and the springs take bearing against the rim of the button-head, and the pushers be guided and supported by projections therefrom, if desired.

The advantages of my improved construction are, that the parts of the button are doubly positively locked against separation when combined; a cap-plate is unnecessary to retain the locking-plates within the head of the button; but little depth of rim is required to accommodate said devices; and the button is inexpensive, and the parts can be hard-soldered.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a separable button or stud, the combination, with the shoe A and post B, of a head, C, provided with a stem, D, and a slotted ring, E, which is secured to the head and adapted to receive the end of the post and

the arms of the locking-levers, the bell-crank locking-levers F, actuating-springs G, and pushers K, substantially as herein set forth.

2. In a separable button or stud, the combination, with the shoe A and post B, of a head, C, provided with a stem, D, and a slotted ring, E, constructed as and adapted for the purposes described, the bell-crank locking-levers F, actuating-springs G, ring H, adapted to receive the springs and guide the pushers, and the pushers K, substantially as described and shown.

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Witnesses:

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WM. A. CADY.