(No Model.)

T. I. SMITH.

BUTTON.

No. 314,616. Patented Mar. 31, 1885.

Fig. 1.

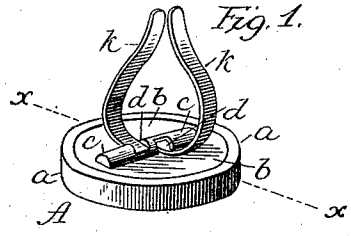


Fig. 2.

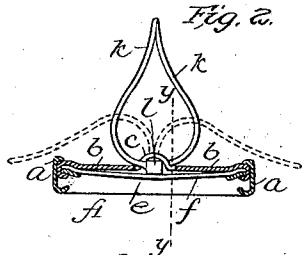


Fig. 3.

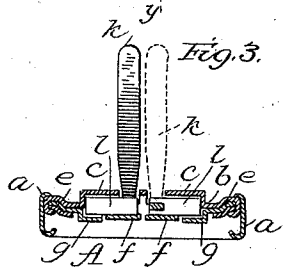


Fig. 5.

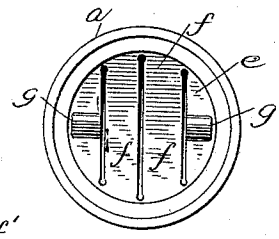


Fig. 7.

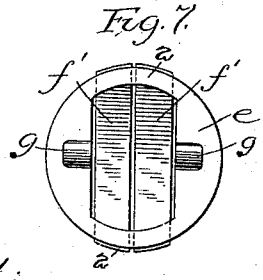
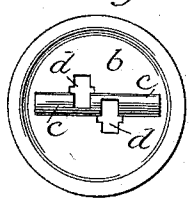


Fig. 4.

Fig. 6.



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UNITED STATES PATENT OFFICE.

THERON I. SMITH, OF NORTH ATTLEBOROUGH, MASSACHUSETTS.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 314,616, dated March 31, 1885.

Application filed January 22, 1885. (No model.)

To all whom it may concern:

Be it known that I, THERON I. SMITH, of North Attleborough, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Buttons; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in detachable buttons for sleeves, collars, and like uses. It pertains more particularly to that class of buttons in which the post and shoe are composed of bent arms turned in opposite directions and adapted to be rocked upon pivots in order to bring them together or to spread them. My invention consists in improved details, all as hereinafter explained, whereby the construction is simplified, and thereby the button is cheapened and made better in use.

In the accompanying drawings, Figure 1 represents a perspective view of the under side of the button. Fig. 2 represents a section on line *x x* of Fig. 1. Fig. 3 shows a section on line *y y* of Fig. 2. Fig. 4 shows one of the arms detached and in perspective. Fig. 5 shows a plan view of the spring-plate, and Fig. 6 the retaining-plate. Fig. 7 shows a modification of the springs and the inner back, in which they are made separate.

The head A of the button may have any ornamental face, and a rim, *a*, which holds the face and spring and retaining plates. The retaining-disk *b* is the under plate, and forms the under face of the head. It is made with a central transverse groove, *c*, formed by indentation of the metal plate, and has openings *d d* cut to admit the arms. The disk *e* is placed between the under face and the upper or ornamental face, and is split across to form springs *f f*. The outer edges or parts of the disk outside of the springs are grooved or indented, as shown at *g g*, said grooves lying directly over those in plate or disk *b*, but facing in an opposite direction, so as to form complete bearing for the pivots of the arms *k*. These pivots *l l* are made square, and bear against the springs, while turning in the bearings formed by the grooves in the disk.

The arms are made with an ogee-curve, and independent of each other, and move side by side. When turned down to hold the garment buttoned together, they bring their vertical part or parts next the pivot in line with each other, or are slightly carried by each other. In this position they are held by the tension of the springs bearing on the plane faces of the pivots and by the pressure of the edges of the button-hole. The arms are spread to insert or remove the button by raising the ends and causing the bowed parts of the arms to pass by each other. The closed position is shown in full and the open in dotted lines in Fig. 2. The arms are independent of each other.

The parts are few and of simple construction, and the button is a pratically-working button.

In Fig. 7 a modification of the plate *e* and springs *f f* is represented. In this form the plate *e* is made separate, and of such shape as will allow the springs *f f* to be slipped under it at the ends, as shown at *z z*.

I claim as my invention—

1. The combination, in a button, of the plate *e*, having grooves or indentations *g* in its inner edge, the grooved under plate, *b*, having the openings therein, the arms *k k*, having pivots *l* with plain faces, and the springs beneath the said pivots, all substantially as described.

2. The combination, in a button, of a grooved under plate, *b*, having openings therein, a spring-plate above the same, and the independent arms *k k*, both movable and independent of each other, and provided with squared shanks *l* running at right angles to the arms and serving as pivots therefor, the said shanks being adapted to the groove in the under plate and to be held in position by the spring-plate above the same, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THERON I. SMITH.

Witnesses:

LESTER I. MATHEWSON,

BENJAMIN F. LINCOLN.