W. WEST & W. F. SPITTLE.

Button.

No. 202,684. Patented April 23, 1878.

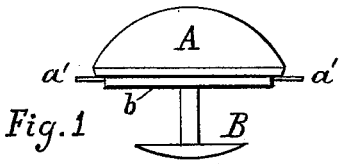


Fig. 1

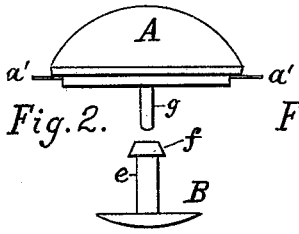


Fig. 2.

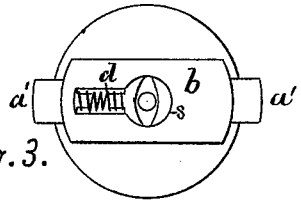


Fig. 3.

Fig. 4.

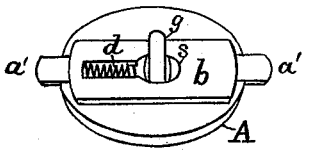


Fig. 5.

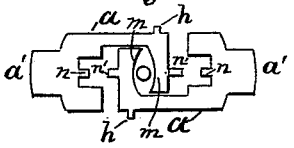


Fig. 6.

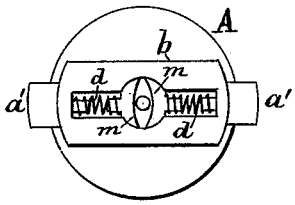


Fig. 7.

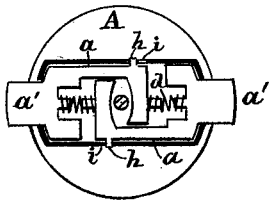


Fig. 8.

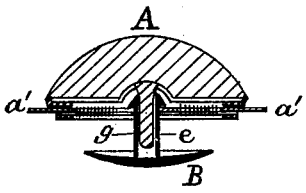


Fig. 9.

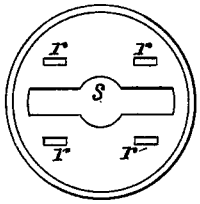


Fig. 10.

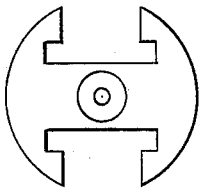


Fig. 11.

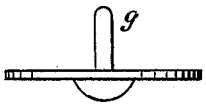


Fig. 12.

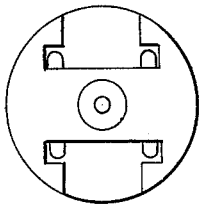
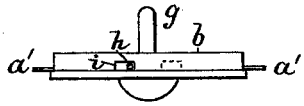


Fig. 13.



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UNITED STATES PATENT OFFICE.

WILLIAM WEST AND WILLIAM F. SPITTLE, OF BIRMINGHAM, ENGLAND.

IMPROVEMENT IN BUTTONS.

Specification forming part of Letters Patent No. **202,684**, dated April 23, 1878; application filed October 2, 1877.

To all whom it may concern:

Be it known that we, WILLIAM WEST and WILLIAM F. SPITTLE, both of Birmingham, in the county of Warwick, in England, have invented certain new and useful Improvements in Dress-Fastenings, Sleeve-Links, &c.; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which similar letters indicate similar parts.

The object of our invention is to produce dress-fastenings or other similar articles which may be readily and securely attached or detached without passing either of the main parts of the fastenings through the hole in the garment.

In the construction of fastenings which contain our improvements one part is made hollow, or, as may be generally preferable, by forming a small box or case thereon, in which is fitted a spring-catch arrangement, or equivalent, for the purpose hereinafter described. In the center of one part of the fastening is the shank or solid pin, projecting through the center of hollow plate or box. Through the ends of the hollow plate, box, or case project the ends of the pushers, each of said pushers being formed somewhat like a crescent at its inward extremity, to hook against the connecting pin or shank, and each is provided with projections, which hold the spiral springs which press the pushers against the shank. Further, the pushers are so constructed that they do not pass one over the other, both working on the same plane. The other part of the fastening has a hollow pin or shank, with collar round the outer edge, at the top part, wherein the solid pin hereinbefore mentioned fits when the spring-catches secure it in its place, and holds the two parts of the fastener firmly together. By pressing the ends of the spring-catches the hollow pin of the fastener will be released, and the two parts can be separated and removed from the person, if desired.

The drawings accompanying these presents show the details of an arrangement for carrying out our said invention.

Figure 1 is a side view of our improved device. Fig. 2 represents the button with the parts detached. Fig. 3 is a plan view of the under side of the upper part of the fastening. Fig. 4 represents, in perspective, the upper part inverted. Fig. 5 represents the pushers in plan view. Fig. 6 is a plan of the under side of the upper part, showing two springs used with the pushers. Fig. 7 represents the upper part inverted, the box containing the pushers being partially removed to show the pushers. Fig. 8 is a vertical section of the fastening, taken through the center. Figs. 9 and 10 represent plans of plates or blanks used in constructing the main portion of the fastening. Fig. 11 shows, in side view, the central pin attached to a plate. Fig. 12 represents, in plan, the main plates forming the part A, with the pin. Fig. 13 is a side elevation of the main part A, showing slots in the box and guides for the pushers.

In the drawing, A designates the upper or main portion of the fastening, and B the lower part, the latter being formed of a disk of metal, similar to those used in ordinary sleeve-links, and having fixed to it at the center a tube, *e*, with a projecting ring or collar, *f*, around the end of it. Under the upper part A of the fastener, the face of which can be made of some ornamental pattern, we attach the box or case *b*, inclosing the bolts or pushers *a* and the springs *d*. This box or case is preferably secured in position to the plate forming the under side of the main part A by means of lugs or ears passed through slots *r* in said plate, and afterward clinched. In the center of the box *b* there is a round aperture, *s*, through the center of which projects a pin, *g*, of suitable size and length to go into the tube *e*, which projects from the center of the lower part B of the fastener, as shown. Within the box *b* are the spring catches or pushers *a*, (see Fig. 5,) each of said pushers being provided with projections *n* and *n'*, which hold the springs *d*. The parts *m* of the pushers may protrude across the hole *s* up to the pin *g*, but so that when pressure is applied, either by the handles *a'* of the pushers or by the introduction of the collar *f* of the tube *e*, these parts *m* are pushed back on the springs *d*.

The hole *s* in the box or case is made of a

suitable size to receive the collar *f* of the tube *e*, fixed to the lower piece B, so that when said tube is pushed over the pin *g* of the upper part A it enters the hole *s* in the box *b*, and, a slight pressure being used on either part of the fastener, it forces back the crescent-shaped ends *m* until the collar *f* passes beyond them, when the springs force the parts *m* to close against the tube *e*, which, by means of the collar, is held fast.

It will be observed, from the form and construction of the pushers *a*, and from their relative positions, that the inward movement of each of them is properly limited.

To disengage the two parts in order to detach them from the garment, it is only necessary to use a slight pressure on the handles *a'*, which releases the tube *e*, and the parts A and B are readily separated.

In Fig. 7 is shown a plan of the inner side of the main part A of the fastening. The box *b* is shown partly in section, and two springs, *d*, with two pushers, *a*, are employed. The relative positions of the springs *d* and their action on the bolts or pushers *a* will be readily understood from Fig. 7.

As the action of each spring is the same as that of the other, one of them may be dispensed with, as shown in Figs. 3 and 4, provided the one retained be made of sufficient strength, and the two pushers may be actuated by a single spring.

In order more effectually to guide the pushers *a* in their motion, they may be provided with projections or ears *h* on their outer edges, which work in slots *i* in the sides of the box *b*. (See Figs. 7 and 13.)

Having described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The pushers *a*, with their inner ends formed to close against the central part, which connects the parts A and B, said pushers being provided with projections *n* and *n'*, to hold the spiral springs *d*, substantially as and for the purposes described.

2. In combination with the box *b*, the pushers *a*, each being provided with a projection, *h*, to extend into a slot, *i*, in said box *b*, as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

WILLIAM WEST.
WILLIAM FREDERICK SPITTLE.

Witnesses:
W. C. FOUKE,
Solicitor, Birmingham.
JAMES STOBIE,
His Clerk.