F. E. WILLIAMS, H. E. COOK & J. A. KLINE.

FASTENINGS FOR BUTTONS. &C.

No. 170,144. Patented Nov. 16. 1875.

Fig. 1.

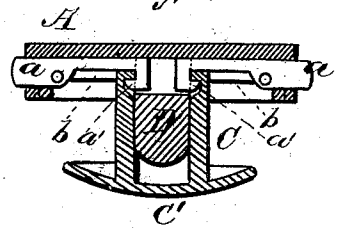


Fig. 2.

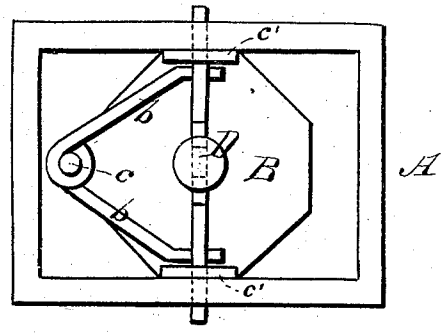


Fig. 3.

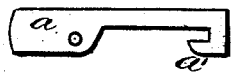


Fig. 4.

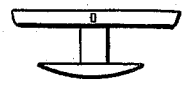


Fig. 5.

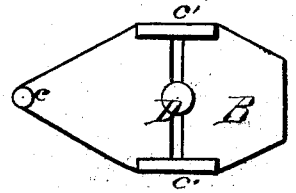


Fig. 6.

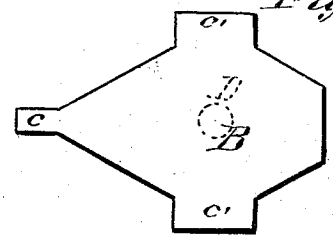


Fig. 7.

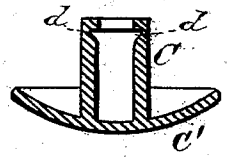


Fig. 8.

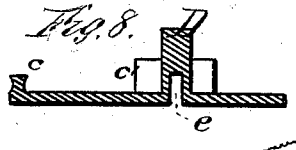


Fig. 9.

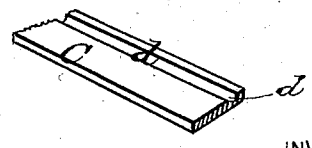
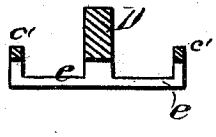


Fig. 10.



WITNESSES

E. F. Bates

J. C. Sattrup

INVENTORS

Frank E. Williams

Henry E. Cook

Jno A. Kline

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK E. WILLIAMS, HENRY E. COOK, AND JOHN A. KLINE, OF NEW YORK, N. Y.

IMPROVEMENT IN FASTENINGS FOR BUTTONS, &c.

Specification forming part of Letters Patent No. **170,144**, dated November 16, 1875; application filed November 6, 1875.

To all whom it may concern:

Be it known that we, FRANK E. WILLIAMS, HENRY E. COOK, and JOHN A. KLINE, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Fastenings for Buttons, Studs, &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 the letters of reference marked thereon, which form a part of this specification.

Our invention relates to that class of sleeve-buttons, studs, and similar articles which are made principally of two parts, and connected together by spring-fastenings; and it consists in the construction and arrangement of the spring-pushers for fastening the two parts of the button together, and also in the combination of parts, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a longitudinal section of a sleeve-button embodying our invention. Fig. 2 is an enlarged bottom view of the top part of the button. Fig. 3 is a side view of one of the pushers. Fig. 4 is a side view of the complete button. Figs. 5 to 10 are detailed views of parts, showing the construction thereof.

A represents the top part of a sleeve-button, made in any desired form and size, and with or without a rim around its edges on the under side. On the under side of the part A is soldered, or otherwise permanently attached, a plate B, from the center of which projects a round post, D. The plate B is cut or stamped in the form shown in Fig. 6, with a tongue, *c*, at one end, and flanges *c' c'* at the sides. The flanges *c'* are turned upward, and the tongue *c* formed into a round post, as shown in Fig. 5, after which a slot, *e*, is made across the plate and flanges, and through the lower or bottom end of the post, as shown in Figs. 8 and 10.

In the slot *e* are placed two pushers, *a a*, the inner ends of which form hooks *a' a'*, and are located within the post D. These pushers are pressed outward by the ends of a wire spring, *b*, the center of which is coiled around the post C. The outer ends of the pushers *a* project through the flanges *c' c'* and rim of the button A sufficiently to be pressed inward for a suitable distance to disengage the post C of the inner button C'. This post C is made hollow, with an interior circumferential groove, *d*, into which the hooks *a'* of the pushers fasten when said post is passed over the post D of the button A.

The hollow grooved post C is, preferably, made in the following manner: A long strip of sheet metal is rolled with a longitudinal groove, as shown in Fig. 9, and this strip afterward cut into smaller pieces, which are turned to form a tube with the groove on the interior, and said tube then soldered to the button C'.

This invention is equally applicable to studs and other buttons, as well as to sleeve-buttons.

We are fully aware that sleeve-buttons, shirt-studs, and similar articles have been made in two parts, fastened together by a spring-fastening, and hence we do not claim such as being broadly our invention. With our invention the plate B is first fastened by soldering or otherwise to the button, and afterward the pushers and spring are placed in their proper position, thus preventing any injury to these parts when the plate is being soldered to the button.

This feature of our invention may be applied to other fastenings, if desired, and will be found of great advantage for the purpose named.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a button, the combination of the plate B, with post D, slotted as described, the pushers *a a*, with hooks *a' a'*, and the spring *b*, all substantially as and for the purposes herein set forth.

2. In a button, the plate B, constructed substantially as described, with the lugs *c' c'*, the post C, and the shank-post D, and adapted to receive the spring and pushers after the said plate is secured to the button, for the purposes herein set forth.

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

FRANK E. WILLIAMS.
HENRY E. COOK.
JNO. A. KLINE.

Witnesses as to HENRY E. COOK and JOHN A. KLINE:

HENRY SCHMITT,
W. E. GILHOODY.

Witnesses as to FRANK E. WILLIAMS:

H. S. INGERSOLL,
D. T. AMES.