(No Model.)

F. E. WILLIAMS.

Button and Stud.

No. 243,335. Patented June 21, 1881.

Fig. 1.

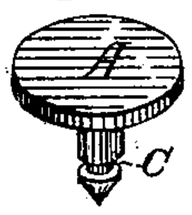


Fig. 2.

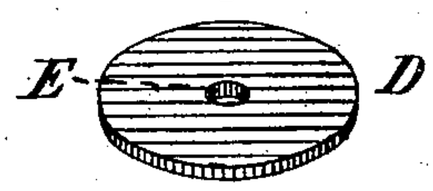


Fig. 3.

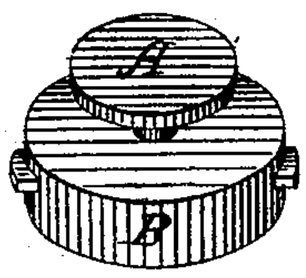


Fig. 4.

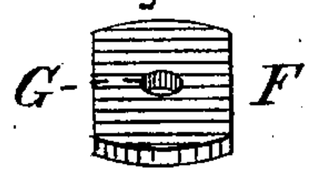


Fig. 5.

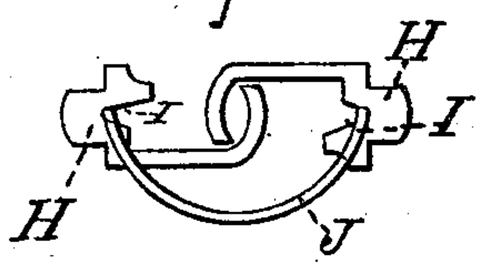


Fig. 6.

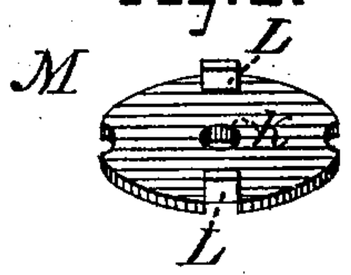
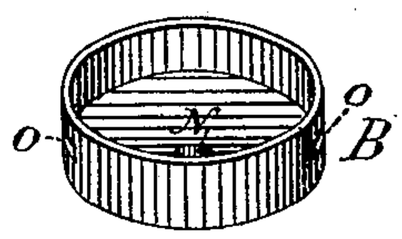


Fig. 7.



ATTEST:

Julian A. Hurdle.

E. E. Perkins

INVENTOR:

Frank E. Williams

UNITED STATES PATENT OFFICE.

FRANK E. WILLIAMS, OF NEW YORK, N. Y.

BUTTON AND STUD.

SPECIFICATION forming part of Letters Patent No. 243,335, dated June 21, 1881.

Application filed November 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. WILLIAMS, of the city, county, and State of New York, have invented a new and useful Improvement in Buttons, Studs, &c., of which the following is a specification.

The invention relates to the class of buttons, studs, &c., consisting of two parts held together by spring-fastening, and is an improvement on an "improvement in buttons, studs, &c.," for which I filed an application for Letters Patent on November 6, 1879.

In the accompanying drawings, Figure 1 shows the outer disk or stud with connecting-post attached. Figs. 2, 4, 5, 6, and 7 show the construction of the inner disk in detail, and Fig. 3 shows the completed stud.

In Fig. 1, A is the outer disk or front of the stud, to which is affixed a pointed post, having at its lower end the circumferential groove C, to engage with catches in the inner disk.

In Fig. 7, B is the box or shell of the inner disk, in the center of the bottom of which is a round hole, N, which is just large enough to admit the post of the outer disk, A. The plate M, Fig. 6, is made to fit into the bottom of the shell B. This plate has also a hole, K, in its center, which comes directly over the hole N in the shell B, and is of the same size. Short lugs L L are turned up in plate M as guides to the hooked catches H H, Fig. 5, and also as supports to the cross-bar F, Fig. 4, as will be seen. After the plate M is placed in the shell B the hooked catches H H, Fig. 5, are laid on said plate M, between the lugs L L, the outer or push ends of said catches extending out through the slots O O in the shell B, and the inner hooked ends of the catches thus lie partially over the hole K in the plate M. The hooked ends of the spring J, Fig. 5, are pushed into the notches I I of the catches H H, thus keeping the hooked ends of the said catches nearly closed by spring-pressure. After the plate M, catches H H, and spring J are in place in the shell B, the cross-bar F, Fig. 4, which also has a hole, G, in its center of the same size as that in plate M and shell B, is fitted in shell B, resting upon the lugs L L, thus holding the parts in place, but allowing the free lateral movement of the pushers H H. The top or cover D, Fig. 2, (which also has a hole, E, in its center corresponding to those in the shell B, the plate M, and the cross-bar F,) is placed upon the cross-bar F in the top of shell B and swaged therein.

It will thus be seen that the post of the outer disk, A, can enter into either side of the inner disk and the groove C engage with the catches H H, and that the parts of the inner disk are all cheaply made and put together without the necessity of any soldering whatever.

What I claim as new, and an improvement on my invention for which I filed an application for Letters Patent on November 6, 1879, is—

In a stud or button, the plate M, having hole K and lugs L L, and the cross-bar F, having hole G, in combination with the shell B, hooked catches H H, spring J, and cover D, all substantially as and for the purpose set forth.

FRANK E. WILLIAMS.

Witnesses:

E. E. PERKINS,

MAX LEITZBACH.