

Studs and Buttons.

No. 213,690.

Patented Mar. 25, 1879.

Fig. 1.

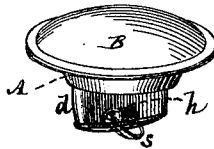


Fig. 2.

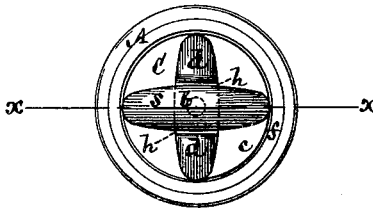


Fig. 5.

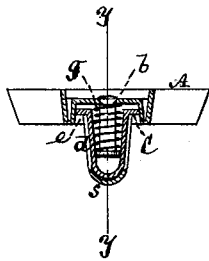


Fig. 4. $\frac{2}{1}$

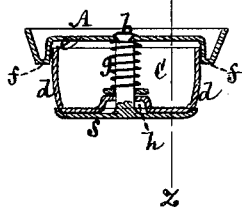
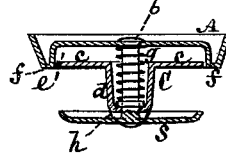


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

OTTO RAFFLENBEUL AND ALFRED KAHL, OF HAMBURG, GERMANY.

IMPROVEMENT IN STUDS AND BUTTONS.

Specification forming part of Letters Patent No. **213,690**, dated March 25, 1879; application filed August 23, 1878; patented in England, August 19, 1878.

To all whom it may concern:

Be it known that we, OTTO RAFFLENBEUL and ALFRED KAHL, of Hamburg, Germany, have jointly invented certain Improvements in Studs and Buttons, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to studs and detachable buttons in which the head of the stud or button controls a locking or holding cross-bar; and the invention consists in certain novel constructions and combinations of parts, whereby said cross-bar and a hollow shank attached to a loose back, and containing a spring which presses said shank against the cross-bar, are securely held in position to facilitate entry and a firm attachment of the stud; likewise, whereby the working parts of the stud or button are protected by the head or shell portion thereof against dirt or foreign matter.

In the accompanying drawings, Figure 1 represents a view, in perspective, of a stud constructed in accordance with our invention. Fig. 2 is an inverted plan or rear view, upon a larger scale, of the same, with the head of the stud removed. Fig. 3 is a transverse section on the line *x x* in Fig. 2, showing the parts in position for securing the stud. Fig. 4 is a further transverse section on the line *y y* in Fig. 5, with the parts in position for attaching or detaching the stud; and Fig. 5, a section on the line *z z* in Fig. 4.

A is a shell or cup for receiving the head B of the stud, and virtually forming a part of said head. Secured to said shell or head portion of the stud is a pin, *b*, arranged to centrally project from the back of the shell, and having permanently attached to its rear extremity a cross locking-bar, *s*. Fitted to the shell A, so as to be capable of turning around the pin *b* and of longitudinal movement thereon, is a back, C, consisting of a disk, *c*, and oblong hollow shank *d*. The disk *c* is arranged to enter a recess, *e*, in the back of the shell A, whereby its edges are under cover of an inclosing-rim, *f*, which serves to keep dirt and foreign substances from entering the stud.

The oblong hollow shank *d*, which incloses the pin *b*, projects backward as far as the cross-bar *s*, and is held or forced against said cross-bar by a spring, *g*. A notch or opening, *h*, is made in the back end of the hollow shank *d*, to receive within it the cross-bar *s* when the parts are in the position represented in Figs. 2 and 3, which is when the stud is fastened to its place.

To enter the stud within a button-hole, or to detach it therefrom, the cross-bar *s* is brought in line with the hollow shank *d*, as shown in Figs. 4 and 5. This is done by the turning of the back C about or around the pin *b*, or of the head of the stud or its shell A relatively to said back, and when the parts are in this position they are stopped or held there by a convex rear extremity of the hollow shank *d* entering a concave face of the cross-bar *s*, as shown in Fig. 5, the spring *g* serving to keep the hollow shank *d* up against the cross-bar *s*. After the stud has been inserted in the button-hole, it is only necessary to turn the head in either direction to clear the convex end of the hollow shank *d* from out of the concave face of the cross-bar *s*, and to continue turning the head until the cross-bar reaches a transverse position, as shown in Figs. 1, 2, and 3, in relation with the hollow shank *d*, when the spring *g* will cause the cross-bar *s* to enter the notch or opening *h* in the hollow shank *d*, and the stud will be locked or secured in its fastened position.

- We claim-

The shell or cup A, adapted to receive the head B, and having a central pin, *b*, provided with a spring, *g*, and a cross locking-bar, *s*, in combination with the disk *c* and oblong hollow shank *d*, having a notch or opening in its end to receive the cross-bar, said disk *c* being arranged within a recess, *e*, in the shell, all substantially as and for the purpose described.

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Witnesses:

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