

J. N. ALLEN.
Buttons.

No. 139,991.

Patented June 17, 1873.

Fig. 1.

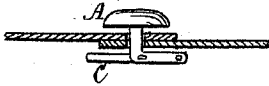


Fig. 2.

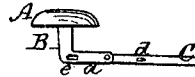


Fig. 3.

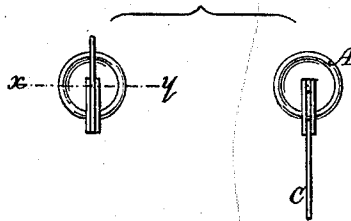


Fig. 4.

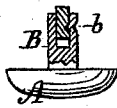
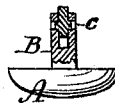


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES N. ALLEN, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN BUTTONS.

Specification forming part of Letters Patent No. **139,991**, dated June 17, 1873; application filed May 24, 1873.

To all whom it may concern:

Be it known that I, JAMES N. ALLEN, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Stud or Button; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear and true description thereof.

My improvements relate to that class of studs or buttons which are provided with locking-bars, so arranged on the shank that they can at will be set on a line parallel with the longitudinal center of the shank or post, and at right angles to the face of the stud, or on a line at right angles to the shank and parallel with the face of the stud, and while in this latter position be locked or secured so that special manipulation will be requisite to disengage them. My invention consists in combining a shank which has a rectangular recessed arm with a holding-bar which is hinged to the outer end of said arm, and in arranging coincident engaging surfaces on the recessed arm and the bar whereby the two can be interlocked when required.

But more particularly to describe my invention I will refer to the accompanying drawings, in which—

Figure 1 represents in side view one of my studs as applied in the way of its use. Fig. 2 represents the same as if just inserted, or ready to be withdrawn. Fig. 3 represents the same as if viewed from below. Fig. 4 represents, on an enlarged scale, the same in section on line *xy*, Fig. 3. Fig. 5 represents in section a modification of the same.

In each of the figures A denotes the head or face-plate of the stud. The shank B is provided with a rectangular arm, *a*, which is parallel with the face-plate. The rectangular arm is longitudinally slotted or recessed, and at that portion adjacent to the junction of the arm with the shank the sides of the slot are so proportioned, and of such a character, that they can operate laterally as springs. C denotes the holding-bar; it is of metal, straight and slender, well fitted to enter, with slight friction, the recess in the arm, and is hinged or pivoted thereto at the end farthest from the junction with the shank, as illustrated in the

drawings. When extended from said arm, as if it were a continuation thereof, it is readily inserted into a so-called eyelet-hole, and may be secured therein by turning it back so that it will occupy the recess or slot in the arm. The length of the holding-bar will preferably be a little more than double the length of the arm *a*, so that when pressed into the recess the bar will extend in the clear as far in one direction as the arm and the bar do in the opposite direction. In order to secure the bar in the recess when pressed therein, certain engaging surfaces are required, and therefore projections and recesses are formed, either as at *b*, in Fig. 4, or at *c*, in Fig. 5. In the former instance recesses are provided in the bar, as shown in Fig. 2, at *d*, and on the sides of the slot, in the arm, are projections *e*, which enter the recesses *d* in the bar. In Figs. 3 and 5 the bar is provided with the projections, and the sides of the slotted arm with the recesses. In both cases the result is the same, as the coincident engaging surfaces on bar and shank are brought into contact in such a manner that special manipulation will be required to disengage them.

By having the slotted shank and the single bar, as shown, the stud is readily inserted into the so-called eyelet of a shirt-front, and is but little liable to wear or cut the same in ordinary usage. When properly inserted and secured, if a drawing force is applied to the head of the stud, it can only affect that portion of the bar which projects beyond the arm, as the pressure on the other side of the shank is borne wholly by the arm. It is for this reason that in ordinary use the bar is but little liable to become displaced except by special manipulation. Whenever it is desirable to remove the stud from a shirt-front, it is preferable that a hand be placed on both front and rear, but it can be effected from the front alone by tilting the head of the stud in the direction of the arm, and then drawing out on the head. This latter operation detaches the bar from the catches and it can then offer no obstacle to a free withdrawal.

In the manufacture of my improved studs it will be advisable to select fine alloys and to have them well hardened in dies, or by

hammering in the usual manner. Practicable methods of economically manufacturing my studs will be obvious to practical jewelers.

It will be seen that by the employment of the slotted spring shank-arm the bulk of the shank and the bar may be reduced to a minimum without sacrificing the requisite strength of any of the parts.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the shank B, having a rectangular arm which is provided with a spring-slot, and a holding-bar pivoted to the end of the arm, and arranged to enter the spring-slot and be retained therein by the coincident engaging surfaces, substantially as described.

JAMES N. ALLEN.

Witnesses:

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