(No Model.)

T. B. CLEVELAND.

BUTTON OR STUD.

No. 334,349. Patented Jan. 12, 1886.

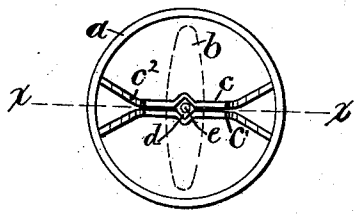


Fig. 1.

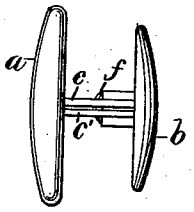


Fig. 2.

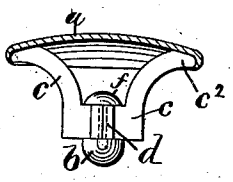


Fig. 3.

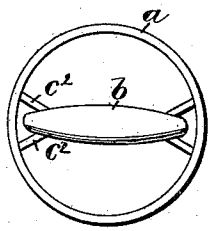


Fig. 4.



Fig. 5.

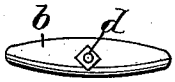


Fig. 7.

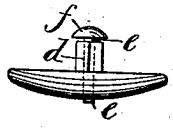


Fig. 6.

Witnesses:
L. Lee
Henry J. Theberath.

Inventor.
Thos. B. Cleveland, per
Crane & Miller, Attys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS B. CLEVELAND, OF NEWARK, NEW JERSEY.

BUTTON OR STUD.

SPECIFICATION forming part of Letters Patent No. 334,349, dated January 12, 1886.

Application filed May 15, 1885. Serial No. 165,586. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. CLEVELAND, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Buttons or Studs, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention consists in the combination, with the front, of a shank constituted exclusively of two elastic parts forming a square spring-socket, and a cross-bar having a square stem fitted to such spring-socket.

My invention will be understood by reference to the accompanying drawings, in which Figure 1 is a plan showing the construction of the shank and its socket, the cross-bar being shown in dotted lines in a transverse position, as when the button is locked in the button-hole. Fig. 2 is an edge view of the button. Fig. 3 is a section on the line *x x* in Fig. 1, the cross-bar and its connections with the shank not being shown in section. Fig. 4 is a plan showing the cross-bar parallel with the shank, as when ready to be inserted in the button-hole. Fig. 5 is a diagram showing the action of the stem of the cross-bar with its spring-socket. Fig. 6 is a side view of the cross-bar, its stem, and a pin or rivet extending through both; and Fig. 7 is a plan of the same with the exception of the pin.

a is the front of the button, and *b* is the cross-bar by which it is secured in the button-hole. The shank of the button is formed in two parts, *c c'*, each having feet c^2 at the ends, by which it is attached to the inner side of the front *a*, and being bent at the middle to form one-half of a rectangular socket at right angles to the center of the front *a*.

d is a square stem affixed to the center of the cross-bar and fitted to the rectangular socket. The parts *c c'* are formed with sufficient flexibility to spring when the stem *d* is turned therein, and the socket is therefore expanded during the turning of the cross-bar, as shown in Fig. 5, but at other times serves to clamp the stem *d* elastically and to hold the cross-bar in either of the two positions parallel with or at right angles with the plane of the shank *c c'*. The stem may be held in the socket by means of a rivet-head, and is shown perforated throughout to receive a pin, *e*, to which the rivet-head *f* is attached, the pin being secured in the stem by solder or otherwise when the parts are all connected.

To insert the button in the button-hole the cross-bar is turned parallel with the shank, as in Fig. 4, and is then turned at right angles thereto, as in Figs. 1, 2, and 3, the parts *c c'*, being strained apart by the rotation of the stem *d* in the square socket, and the stem being firmly held thereby when left in the required position.

To afford a means of securing the stem in the spring-socket by means of a rivet head or washer, the socket is not extended to the front *a*, but the parts *c c'* are provided at their opposite ends with feet bent in such manner as to project the socket from the front and to form an open arch between the same and the socket.

The arch is plainly shown in Fig. 3, and the object of inserting the pin *e* through the stem *d* is to furnish a means of securing the stem in the elastic socket by first inserting the point of the rivet through the socket from within, and then applying the stem to the same. The outer end of the pin being then secured at the face of the cross-bar, as by solder or riveting into a countersink, the stem is securely held in the socket by the rivet-head *f*.

I am aware that it is not new to use a rotating cross-bar to lock the shank of a button in a button-hole, and that various constructions have been devised to secure the cross-bar in position, one of which is shown in United States Patent No. 299,099. In this patent a hollow shank having a spring within it which engages the stem attached to the cross-bar is shown. I therefore disclaim the construction shown in said patent and any other construction not having a shank independent of the spring-socket.

Having thus described my invention, I claim the same in the following manner:

1. In a button or stud, the combination, with the front *a*, having the spring-socket formed of the two parts *c c'*, constructed and attached to the front, as described, of the cross-bar *b*, having a square stem fitted to the spring-socket, and operating substantially as and for the purpose set forth.

2. In a button or stud, the combination of the front *a*, having the spring-socket formed of the two parts *c c'*, as described, the cross-bar *b*, having the perforated square stem *d*, and the pin *e*, provided with head *f* and secured in the stem, the whole being arranged and operated as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

THOS. B. CLEVELAND.

Witnesses:
THOS. S. CRANE,
L. LEE.