

(No Model.)

F. E. CHILD.  
BUTTON.

No. 348,658.

Patented Sept. 7, 1886.

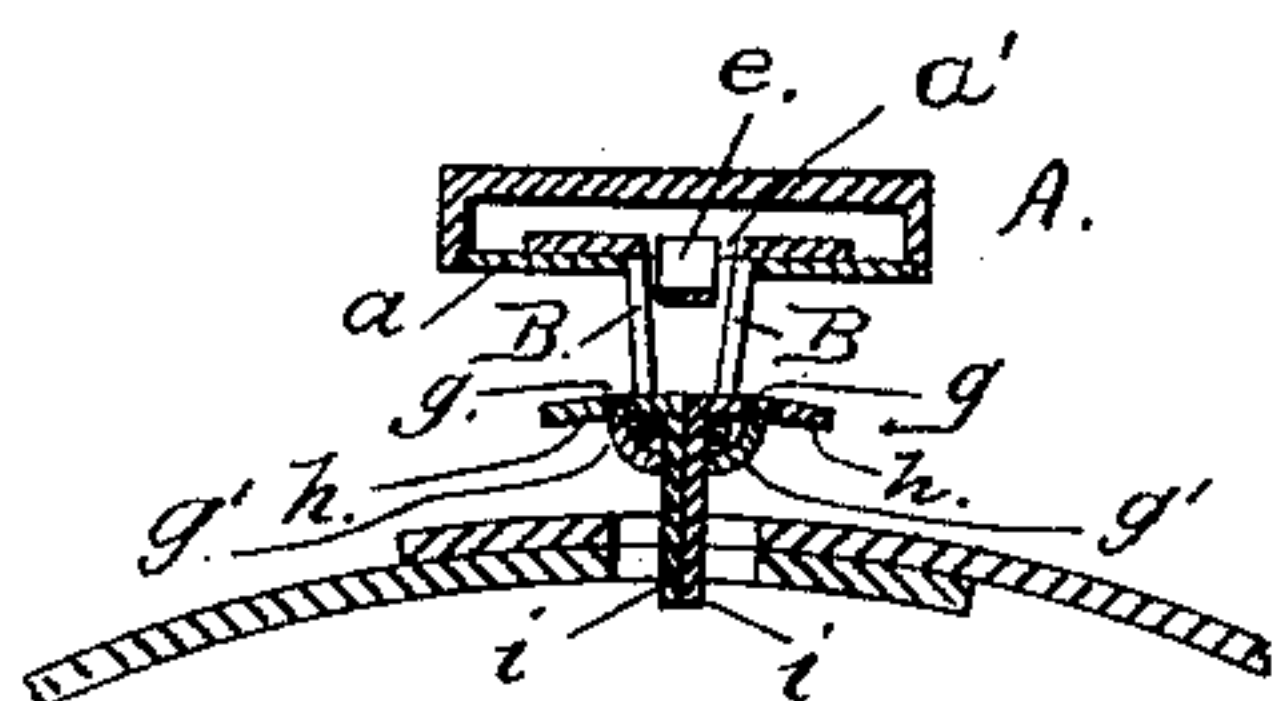


FIG. 1

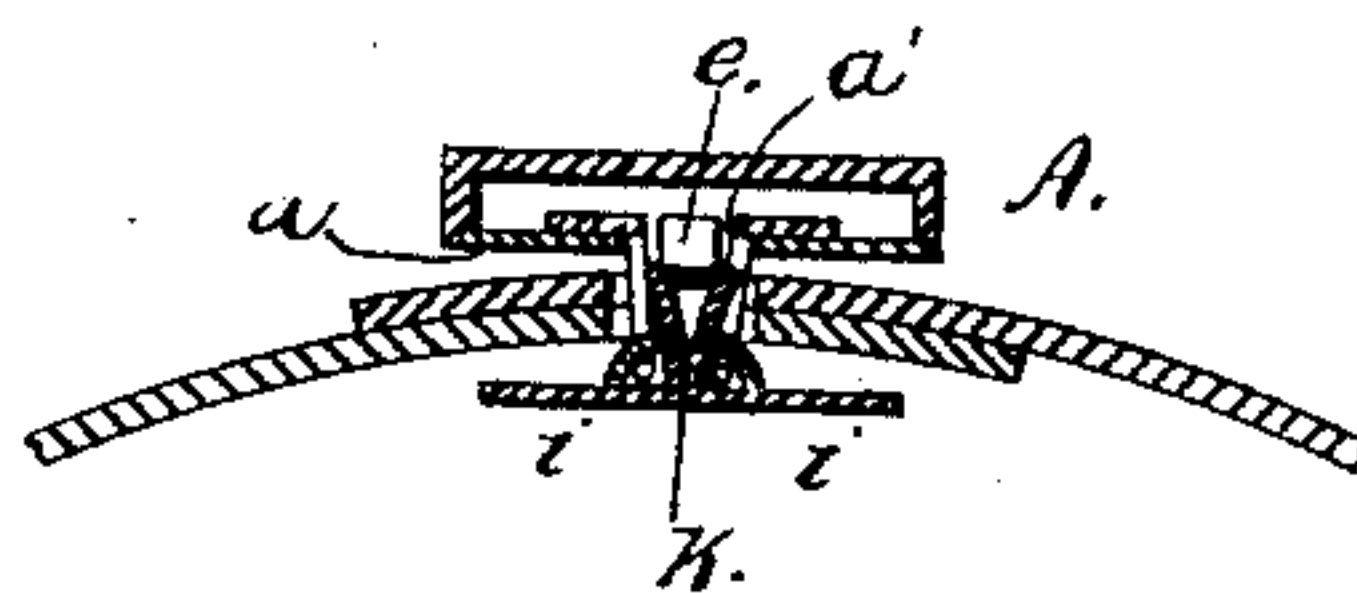


FIG. 2.

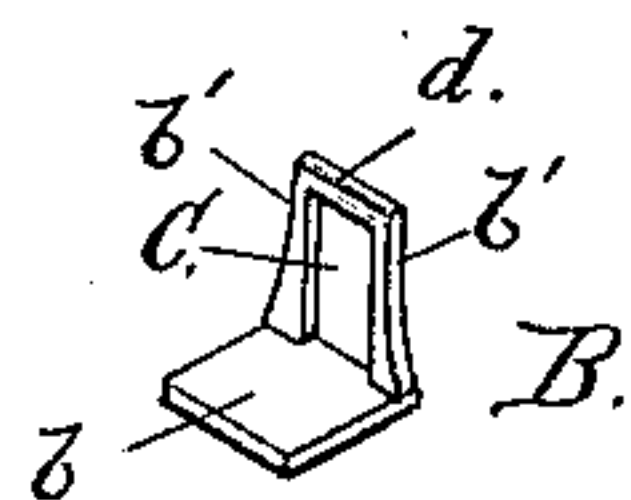


FIG. 3.

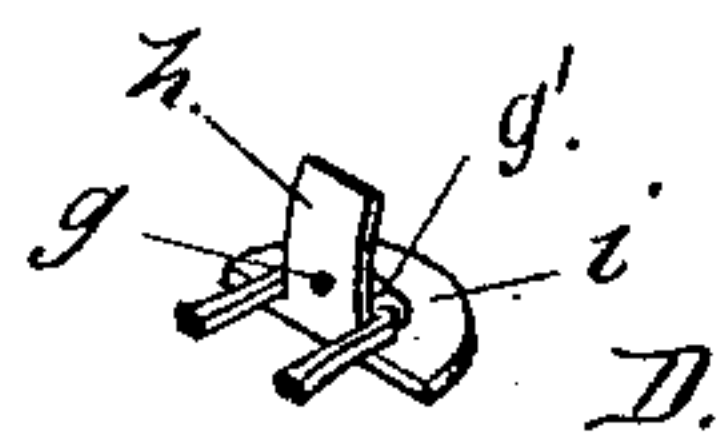


FIG. 4.

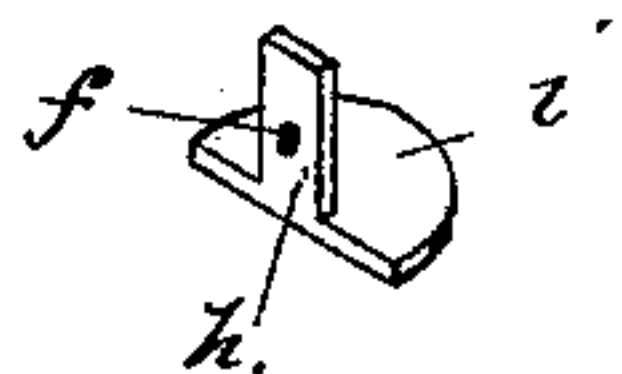


FIG. 5.

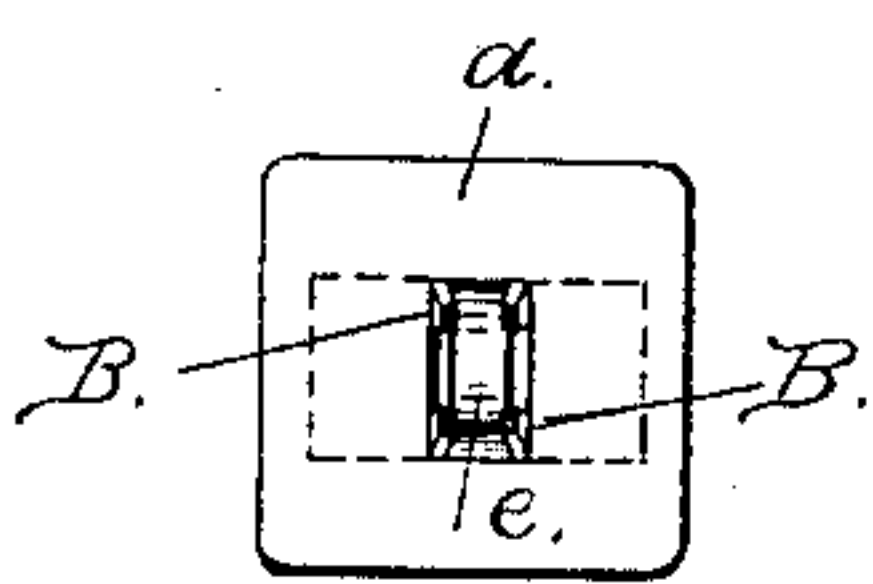


FIG. 6.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

FRANK E. CHILD, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIRAM HOWARD, OF SAME PLACE.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 348,658, dated September 7, 1886.

Application filed April 15, 1886. Serial No. 199,006. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK E. CHILD, a citizen of the United States, and a resident of the city and county of Providence, and State of Rhode Island, have invented an Improvement in Buttons, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates more especially to that class of buttons designed for use as sleeve-buttons, and which employ a divided or two-part spring post or shank and a two-leaf shoe operating in connection with the post, so that the parts or leaves of the shoe may be retained in open or closed position. To produce the best results, buttons of the kind referred to should be constructed without the employment or use of hard solder in the construction of the post or the pivotal connection with the two-leaved or sectional shoe, or in the construction of said shoe, for the reason that when hard solder is so employed in providing the pivotal connection between the shoe and post the parts of the shoe and divided post must be heated to a degree sufficient to take the temper or spring-like quality and hardness therefrom, thus rendering them comparatively useless for long or continued wear and usage. Soft solder cannot be used, because of its insecurity and want of holding power.

My invention has for its object to construct a button of the class designated without the employment of solder in the construction of the shoe, or its connection with the divided or spring post.

My invention has for its further object to connect the two-part or divided post with the head of the button without the employment of hard solder, and without detracting from the hard and spring-like quality of the metal in the said two-part post.

Figure 1 shows in vertical section my improved button with the parts open or in position to be inserted into the cuff. Fig. 2 is a similar view with the parts closed when the button is in use; Fig. 3, a detail, in perspective, of one of the angle-pieces, constituting a part of the two-part shank or post. Figs. 4, 5, and 6 are details, to be referred to.

A is the head of the button, of usual or pre-

ferred construction, and having a back plate, *a*, provided with a slot, *a'*, shown in this instance (see Fig. 6) as oblong. To provide the two-part post or shank, I take two pieces of metal of proper shape, which are bent at a right angle, and then a section cut therefrom to form the angle-pieces B with the opening *c*, as shown in Fig. 3, and consisting of the base *b*, the uprights *b'* *b''*, and pivot-bar *d*. The two angle-pieces B are inserted into the oblong slot *a'* of the back piece at each side thereof, so that one side of the bases *b* are brought up against the inner or under side of the back plate, and then soldered thereto with soft solder, which does not require a degree of heat that would affect the temper or hardness of the metal composing the said angle-pieces B. A stop-bar, *e*, is inserted in the slot *a'*, between the angle-pieces B, and soft soldered therein, a portion of said stop-bar projecting beyond the back plate, *a*, as clearly shown in Figs. 1 and 2.

To provide the angle-levers D, which compose the shoe, I take two pieces of metal, substantially like that shown in Fig. 5, each having an eye, *f*, with the arm *h* of each angle-lever substantially at a right angle to the arm *i*, whereupon the tongue *g* (see Fig. 1) of the bent hinged or bearing-plate *g'* is riveted in the opening or eye *f*, with the free edge of said bent bearing-plate *g'* adjacent to the under side or back of the said arm *i*, to form an opening or eye at the angle or bend in said levers for the reception of the pivot-bar *d* of the standards, forming part of the two-part spring post or shank as clearly illustrated in Figs. 1, 2, and 3. The bridge-pieces or pivot-bars of the two-part shank or post are placed in connection with the bent bearing-plates before the two-part shank or post is secured to the back plate of the button, as well as before the bearing-plate *g'* is riveted to the angle-levers D. By this construction the angle-levers forming the two-part shoe are firmly and securely hinged or pivoted to the two-part shank, whereby all use of hard solder, which detracts from the temper and hardness of the metal composing the shoe and shank, is avoided. As shown, the adjacent or meeting edges of the arms *i* of the angle-levers are squared, so that the two-part shank or post will be



forced apart, when the said angle-levers are turned on the pivots-bars or bridge-pieces, to assume an open or closed position. It is necessary in this instance to have the slot in the back plate of greater width than the thickness of the post or double shank, since the bases of said shank, bent at right angles to the shank proper, must be inserted in said slot after the angle-levers have been hinged to the bridge-pieces.

What I claim is—

1. The combination, substantially as described, with a post or shank having a base-plate integral therewith and bent substantially at right angles thereto, of a head or body having a back plate provided with a slot of greater width than the thickness of that part of said post inserted in said slot, for the purpose set forth.

2. The combination, substantially as described, with a button-body provided with a pair of spring-arms, each having a pivot-bar,

of a pair of angle-levers, each having an eye at one side of the bend, and provided with a bent or curved bearing-plate having a tongue riveted in the eye, said plate embracing one of the pivot-bars of the spring-arms, as and for the purpose set forth. 25

3. The combination, substantially as described, with a body provided with a pair of arms, of a pair of angle-levers, each provided with a bent or curved bearing-plate fastened thereto and extending from one arm of the angle-lever to the other at the bend thereof, as specified, and retaining in the socket or opening thus formed a portion of one of the spring-arms to provide a hinge-joint. 30 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK E. CHILD.

Witnesses:

JAS. H. LANGE,

HOWARD GREENE.