

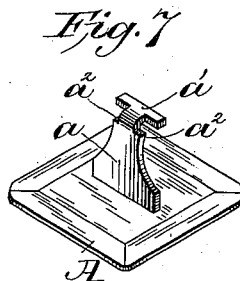
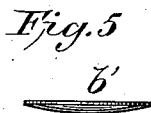
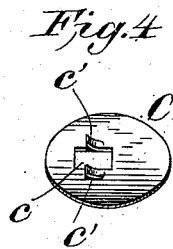
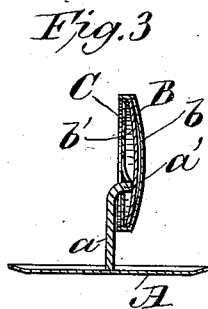
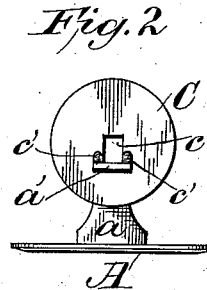
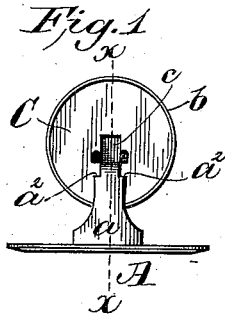
(No Model.)

F. P. BARNEY.

BUTTON.

No. 381,319.

Patented Apr. 17, 1888.



Witnesses
C. M. Gallahan
J. H. Schott

Inventor:
Frank C. Barney,
per *[Signature]*
his Atty.

UNITED STATES PATENT OFFICE:

FRANK P. BARNEY, OF CHARTLEY, MASSACHUSETTS, ASSIGNOR TO ENGLEY,
WETHERELL & CO., OF SAME PLACE.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 381,319, dated April 17, 1888.

Application filed January 30, 1888. Serial No. 262,330. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. BARNEY, a citizen of the United States, residing at Chartley, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Buttons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of cuff-buttons in which the shoe is pivotally connected with the shank or post, so that said shoe may be brought in line with said post for passing it through the button-holes, proper stops being provided to prevent the shoe from tilting in both directions.

The invention has for its object to simplify the construction of such buttons, thereby reducing the labor connected with their manufacture; and said invention consists in structural features and combinations of parts, substantially as hereinafter fully described and claimed.

In this class of buttons as heretofore constructed—as, for instance, the button described in Letters Patent No. 358,384, of February 21, 1887—the shoe is composed of an outer shell, an inner plate or disk, in or on which are formed four abutments or shoulders between which the cross-head of the shank or post is confined, and a spring plate or disk slotted from its center toward the periphery, through which the cross-head of the post or shank passes and that serves to hold the shoe in the position into which it is brought relatively to the shank.

I have found that equally as good results can be attained by using a plain concavo-convex intermediate or abutting disk and by dispensing with two of the shoulders or abutments for the cross-head of the shank. This I attain by forming two abutments on opposite sides of the slot in the spring plate or disk, at such a distance from that end of the slot nearest the periphery of the disk to accommodate the neck of the shank, the bearings on one side of the cross-head being formed by said two projec-

tions or shoulders, and for the other side by the end of the slot—that is to say, the end of the slot and the shoulders or abutments hold the post against displacement in the slot of the spring-plate, which slot has to be sufficiently long to permit of said spring-plate being slipped over the cross-head onto the shank. In this manner at one operation I am enabled to slot the spring plate or disk and form the two abutments thereon by transverse slitting and forcing out the metal. But that my invention may be better understood I will describe the same with reference to the accompanying drawings, in which like letters indicate like parts wherever such may occur in the various figures.

Figure 1 is an elevation of the button, showing the shoe tilted on a line with the shank. Fig. 2 is a like view, the outer shell and intermediate concavo-convex disk being removed, showing the position of the cross-head of the shank in its bearings in the spring disk or plate. Fig. 3 is a vertical section on line *x x* of Fig. 1. Fig. 4 is an isometric view of the spring plate or disk. Figs. 5 and 6 are elevations of the intermediate disk and shell of the shoe; and Fig. 7 is an isometric view of the button-head and shank.

A indicates the button-head; *a*, the post or shank that is provided with a cross-head, *a'*, bent over at right angles to the shank, or nearly so.

The upper end of the post on which the cross-head *a'* is formed is of reduced width, so as to form shoulders *a''*, upon which the shoe rests when brought into a position at right angles to the shank *a*, as is usual.

The shoe B consists of a shell, *b*, a concavo-convex disk, *b'*, fitting into said shell, and on which the cross-head *a'* of the shank *a* bears, and of the spring plate or disk C. This disk has formed in it a longitudinal slot, *c*, extending from the center of the disk toward the periphery thereof, and is of such length as to admit of the plate being slipped over the cross-head onto the shank *a* of the button-head A, then turned to bring the slot on a line with the upper reduced and bent-over portion of the shank *a*, which in its normal position lies in that end of the slot *c* nearest to the periphery of the disk C.

To prevent the shoe from slipping or sliding on the cross-head, and also to prevent said shoe from tilting to both sides of the shank *a*, I form on opposite sides of the slot *c* a shoulder; 5 *c'*, by slitting the disk and forcing out the metal. These shoulders are at such a distance from that end of the slot nearest to the periphery of the disk *C* as to leave sufficient space to accommodate the cross-head *a'*, and thus 10 confine the shoe to the shank, as hereinbefore stated, and prevent said shoe from slipping on said shank when tilted.

It is obvious that the construction of the tilting shoe is an exceedingly simple one; yet 15 the shoe is firmly held to the shank whatever position it may be brought in, the cross-head being, as usual, rectangular in cross-section, or provided with a flat bearing-surface, *a''*, against which bears the intermediate concavo-convex 20 disk, *b'*.

In the assembling of the parts of the shoe the spring-plate is slipped on the shank *a* of the button-head *A*, as above described. The plain disk *b'* is inserted into the shell *b*. Then 25 the spring plate or disk *C* is inserted and the

edges of the shell turned over onto the latter plate or disk to secure the parts together, as shown in Fig. 3.

The convexity of the disk *b'* is preferably made slightly less than that of the shell *b*, so 30 that said disk also acts as a spring-disk; but this is not absolutely necessary.

Having described my invention, what I claim is—

In a button of the class described, the combination, with the shank *a*, having the shoulders *a''* and cross-head *a'*, of a shoe, *B*, composed 35 of the shell *b*, the concavo-convex disk *b'*, and the slotted disk *C*, provided with the two shoulders or abutments *c'*, formed by slitting 40 the disk on opposite sides of the slot *c* and forcing out the metal, said parts being constructed and arranged substantially as described, for the purposes specified.

In testimony whereof I affix my signature in 45 presence of two witnesses.

FRANK P. BARNEY.

Witnesses:

WM. H. FOX,

EDWARD KING.