No. 842,782. PATENTED JAN. 29, 1907.

F. W. GOERDES.

BUTTON.

APPLICATION FILED JUNE 1, 1904. RENEWED NOV. 10, 1906.

Fig. 1.

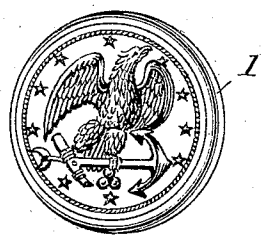


Fig. 4.

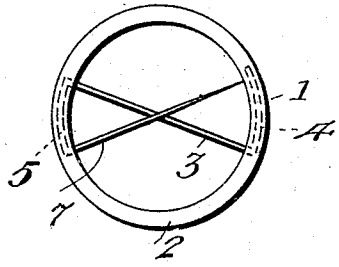


Fig. 2.

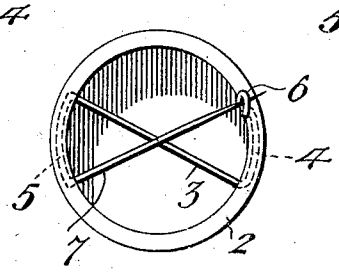


Fig. 5.

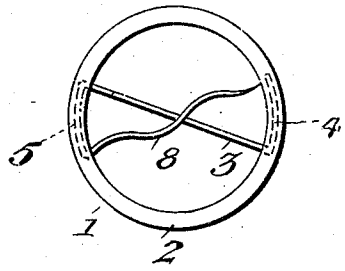
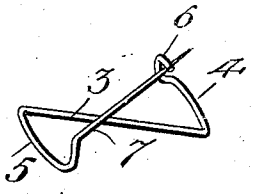


Fig. 3.



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FREDERICK W. GOERDES, OF NEWARK, NEW JERSEY.

BUTTON.

No. 842,782. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed June 1, 1904. Renewed November 10, 1906. Serial No. 342,907.

To all whom it may concern:

Be it known that I, FREDERICK W. GOERDES, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Buttons, of which the following is a specification.

My invention relates to new and useful improvements in buttons, and more particularly to military buttons; and its object is to provide a detachable button having a securing-pin which is so shaped as to be readily inserted into the button and retain its position therein during the operation of compressing the flange of the button. Heretofore in the manufacture of detachable buttons of this character it has been found difficult to keep the pin in proper position upon the back of the button while the flange thereof is being compressed.

My invention consists of a fastener having a Z-shaped cross-bar which is adapted to be sprung into the back of the button and the ends of which are bent to form a hook and a pin, respectively. By employing a Z-shaped cross-bar the securing-pin assumes a position across the center of the bar. Moreover, by reason of the peculiar shape of the cross-bar the displacement thereof is resisted without the necessity of running an extension of the cross-bar around the entire button.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a front elevation of a button having my improved fastener thereon. Fig. 2 is a rear elevation thereof. Fig. 3 is a perspective view of the fastener detached. Fig. 4 is a rear elevation of a modified form of pin in which the hook is dispensed with, and Fig. 5 is a rear elevation of another modification.

Referring to the figures by numerals of reference, 1 is a metal button, having an inwardly-extending flange 2 at its edge and which is adapted to retain in position a Z-shaped cross-bar which comprises an intermediate portion 3 and oppositely-extending curved arms 4 and 5 at the ends thereof. These arms are of substantially equal length and concentric with the periphery of the button and are adapted to fit snugly between the face of said button and its flange 2, and the free end of arm 4 is bent inward and outward to form a hooked keeper 6, which projects slightly beyond the surface in which flange 2 is located. The free end of arm 5 is also bent inward and outward and merges into a pin 7, which extends across the intermediate portions 3 and is adapted to engage the hook 6. The cross-bar 3 and pin 7 therefore extend diagonally with respect to the diameter of the fastener and cross substantially in the form of the letter X. At their points of junction with the respective arms the pin and keeper are offset to project beyond the flange 2.

In assembling the parts of the button the intermediate portion 3 is bowed, so as to draw the ends thereof together a sufficient distance to permit the arms 4 and 5 to be sprung between the face of button 1 and its flange 2. The hook 6 and the free end of arm 5 will assume diametrically opposite positions, and pin 7 will be free to engage the hook 6 or to be disengaged therefrom. The great difficulty heretofore experienced in producing metal detachable buttons has been the operation of holding the fastener securely in place during the compression of the flange 2. Most of the fasteners will slip from position beneath the flange 2 unless extreme care is exercised in properly clamping the flange thereover. With this form of fastener, however, it is impossible for the fastener to become displaced after it has once been inserted in the flange 2, and therefore no extreme care is necessary during the operation of bending the flange 2 inward against the face of button 1. After this flange has been compressed at points between the arms 4 and 5 the fastener cannot rotate and, moreover, cannot be detached under ordinary conditions.

In Fig. 4 I have shown a modified form of button in which the hook 6 is dispensed with, and in Fig. 5 is shown a further modification in which a waved pin 8 is utilized.

Having thus fully described the invention, what is claimed as new is—

1. A button having an inturned integral marginal flange, and a fastener therefor comprising a straight, rigid cross-bar provided at its ends with oppositely-extending rigid arms, said arms being of substantially equal length and curved on arcs of substantially equal degrees and arranged beneath said flange and bearing throughout their length directly against the rim of the button, the bar thus being arranged to extend on a

straight diagonal line to the diameter of the fastener between the ends of the arms connected thereby and being incapable of longitudinal compression or spring action, whereby in the process of manufacture the arms are adapted by their elongated bearing on the rim to hold the fastener in position while the flange is being inturned over upon the same without liability of displacement of the fastener, and a pin connected at one end to the outer end of one arm and extending across the center of the cross-bar and having its free pointed end terminating contiguous the free end of the other arm, the fastener as thus constructed closely approximating the form of the letter **X** with the extremities of the arms thereof joined by directly-opposite curved portions of equal length and radii, substantially as described.

2. A button having an inturned integral marginal flange, and a fastener therefor comprising a straight, rigid cross-bar provided at its ends with oppositely-extending rigid arms, said arms being of substantially equal length and curved on arcs of substantially equal degrees and arranged beneath said flange and bearing throughout their length directly against the rim of the button, the bar thus being arranged to extend on a straight diagonal line to the diameter of the fastener between the ends of the arms connected thereby and being incapable of longitudinal compression or spring action, whereby in the process of manufacture the arms are adapted by their elongated bearing on the rim to hold the fastener in position while the flange is being inturned over upon the same without liability of displacement of the fastener, and a pin connected at one end to the outer end of one arm and extending across the center of the cross-bar and having its free pointed end terminating contiguous the free end of the other arm, the latter being provided with a hooked keeper to receive the pointed end of the pin, said pin and keeper being offset at their points of juncture with the respective arms to project beyond the flange, the fastener as thus constructed closely approximating the form of the letter **X** with the extremities of the arms thereof joined by directly-opposite curved portions of equal length and radii, substantially as described.

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

FREDERICK W. GOERDES.

Witnesses:

ALBERT W. HARRIS,

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