

No. 861,873.

PATENTED JULY 30, 1907.

P. MACGREGOR.
FASTENING BUTTON.
APPLICATION FILED OCT. 29, 1906.

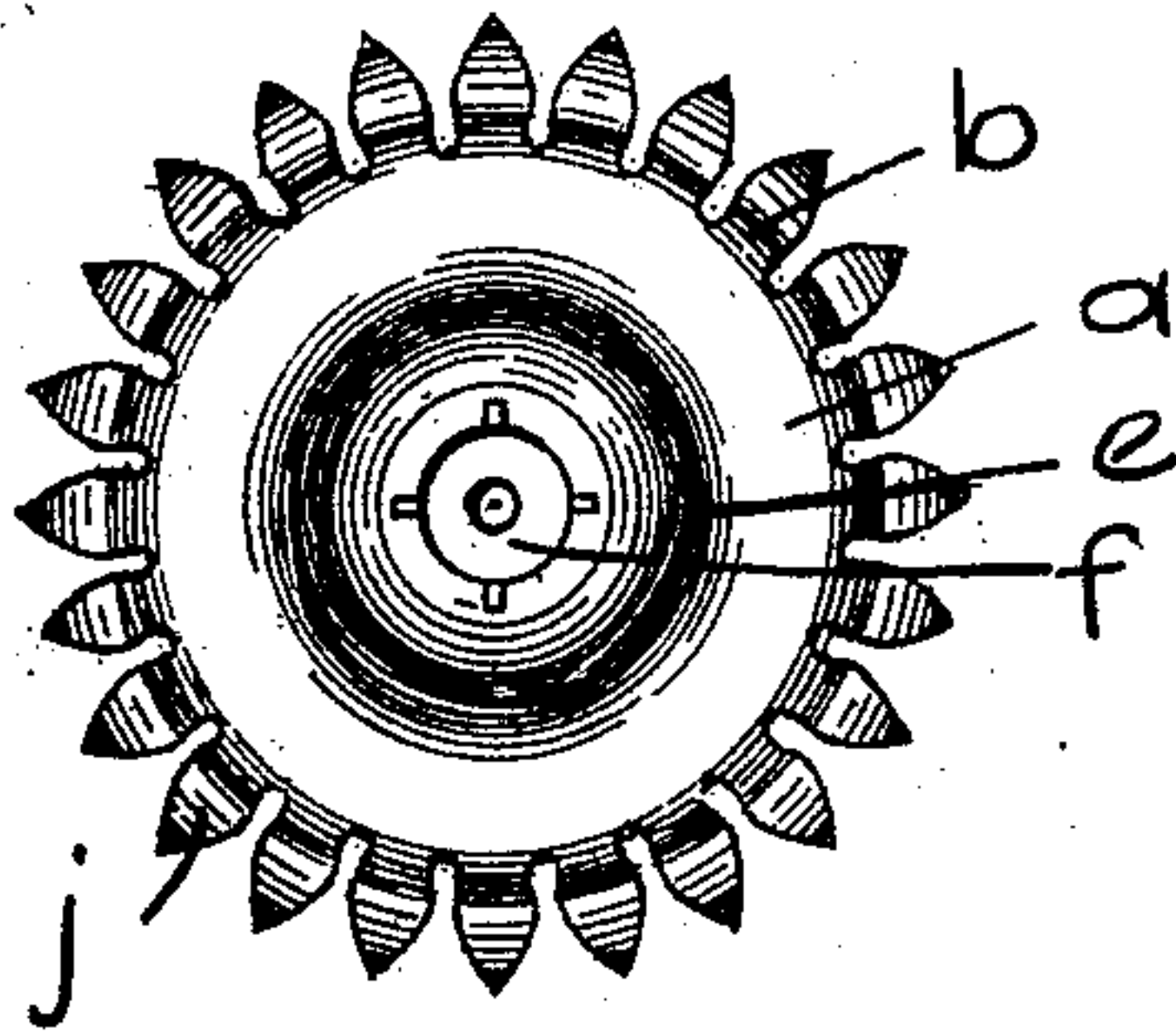


FIG. 1.

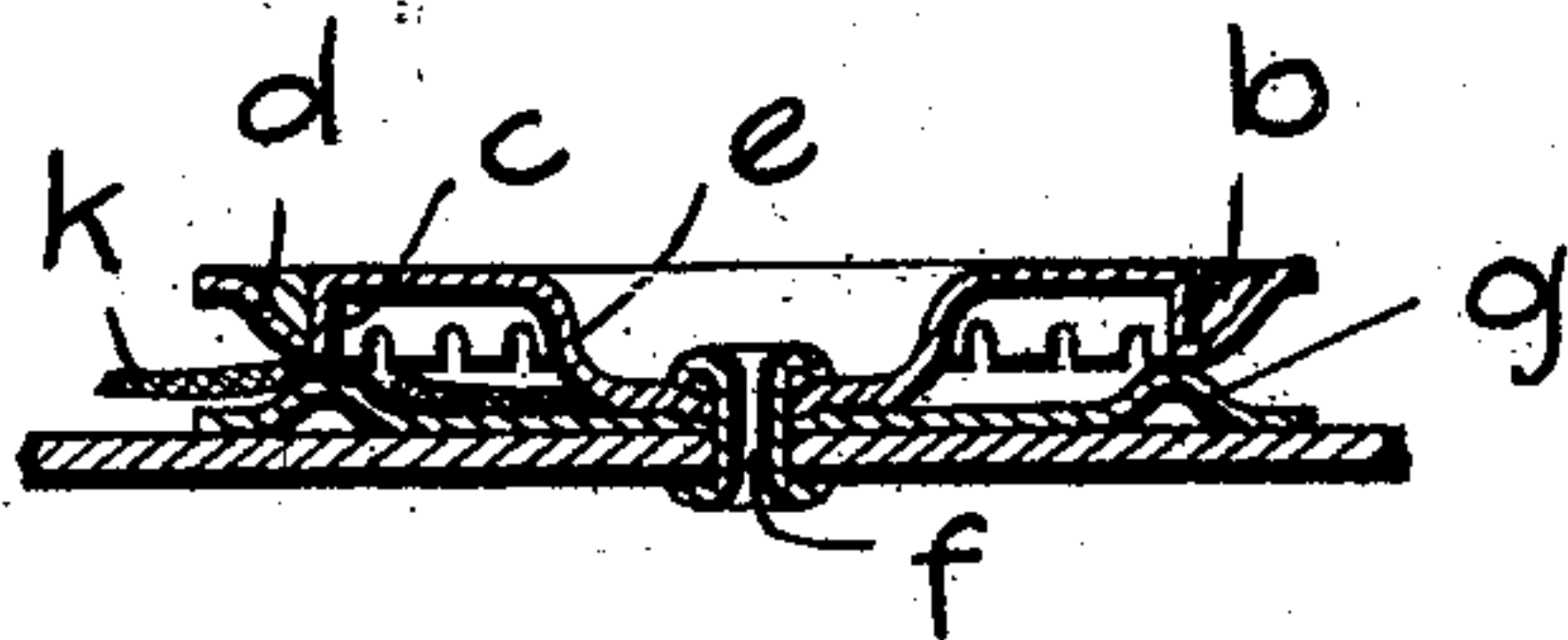


FIG. 2.

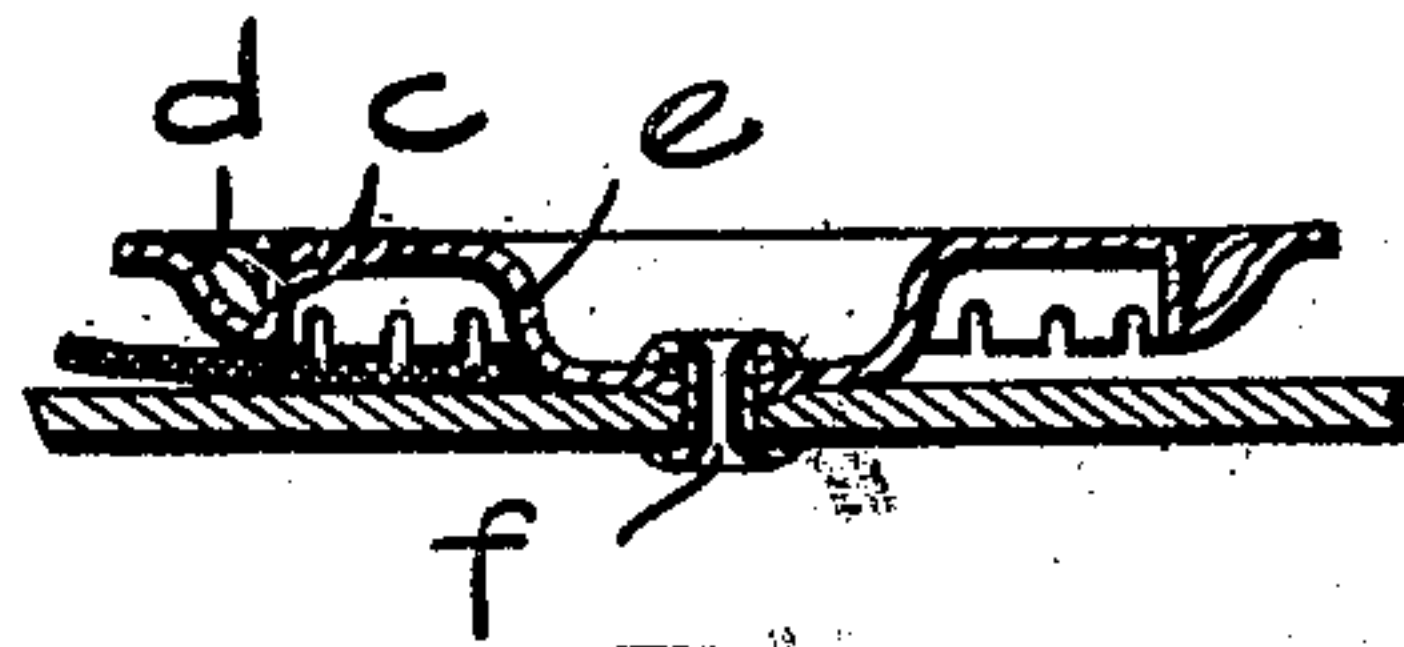


FIG. 3.

FIG. 6.

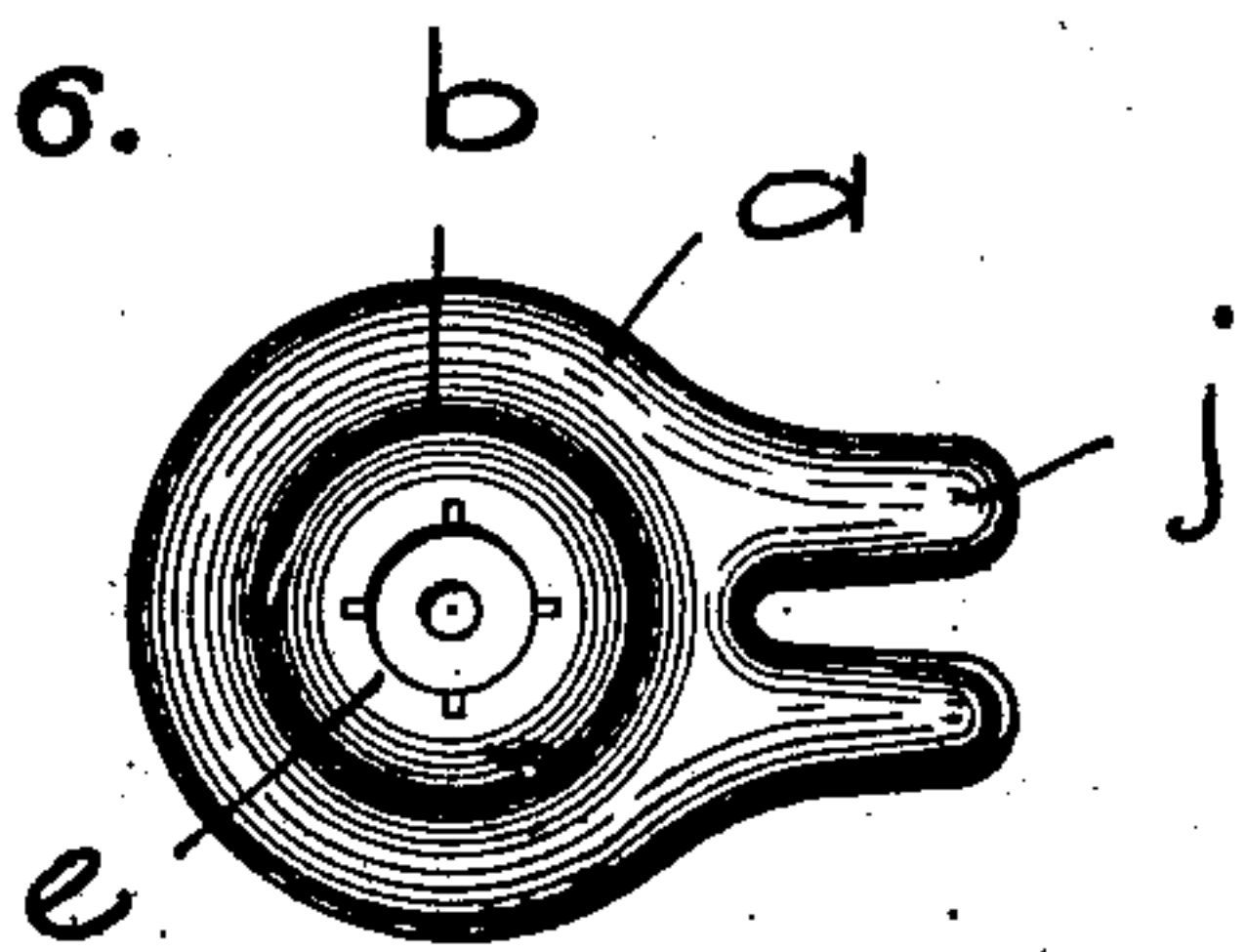


FIG. 7.

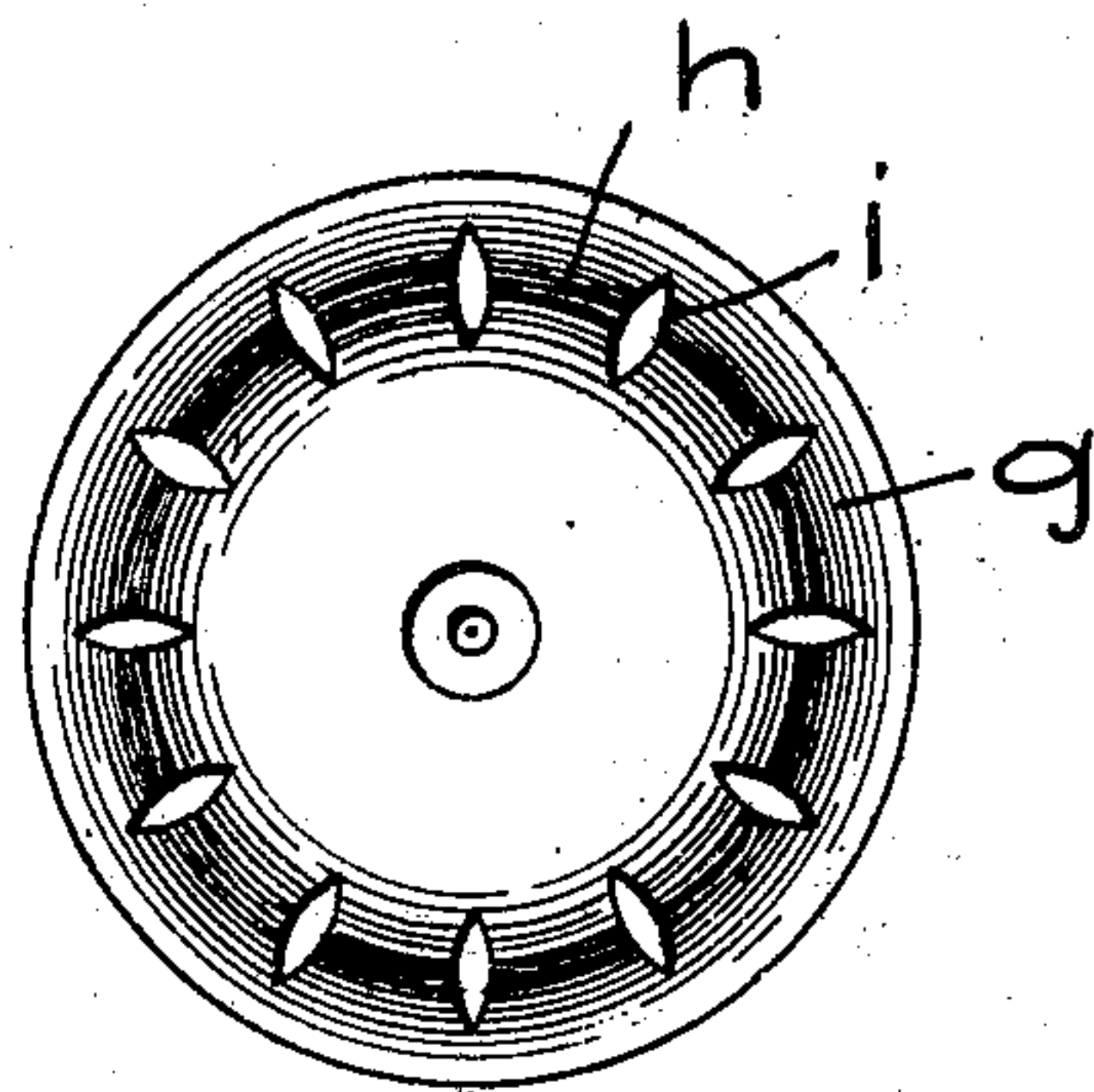
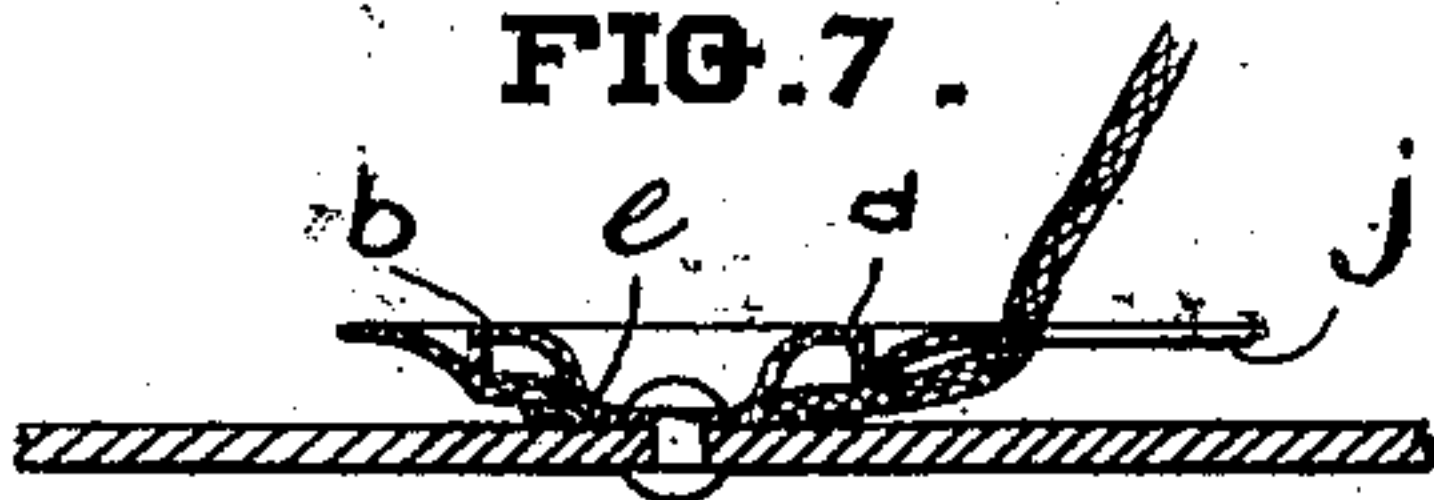


FIG. 4.



FIG. 5.

WITNESSES

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PETER MACGREGOR, OF OTTAWA, ONTARIO, CANADA.

FASTENING-BUTTON.

No. 861,873.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed October 29, 1906. Serial No. 341,174.

To all whom it may concern:

Be it known that I, PETER MACGREGOR, of the city of Ottawa, in the county of Carleton, Province of Ontario, Canada, have invented certain new and useful Improvements in Fastening-Buttons, of which the following is a specification.

My invention relates to improvements in fastening buttons of the type in which a fastening cord is wound around the button and the objects of my invention are to provide an exceedingly cheap and simple button for a fastener of this type in which the cord will be held with great rigidity and which will have means thereon to enable the cord to be easily wound into position; and it consists essentially of the improved construction hereinafter more fully set forth and described in the accompanying specifications and drawings and specifically set forth in the accompanying claims.

Figure 1 is a top view of the button. Fig. 2 is a sectional view through the same. Fig. 3 is a sectional view through an alternative form in which the washer is omitted. Fig. 4 is a plan view of the washer employed in conjunction with the button. Fig. 5 is a sectional view through a washer. Fig. 6 is a plan view of an alternative form of button. Fig. 7 is a section through the form of button shown in Fig. 6, the cord being shown.

In the drawings like letters of reference indicate corresponding parts in each figure.

a is the button which is in the form of a metallic disk stamped from a single blank and formed with an annular groove *b* near the periphery thereof. The inner wall *c* of this groove is made substantially vertical while the outer wall *d* is inclined thereto, the juncture of the two walls thus forming an acute angle. The central portion *e* of the disk is depressed and is secured to a suitable base by any means such as the rivet *f*. While this base may, as shown in Fig. 3, be the material to which the button is secured, yet in cases where the button is employed on fabric or other soft material, it is necessary to employ an auxiliary washer *g* formed with a raised annular portion *h* which possesses a certain amount of resiliency and is adapted to bear against the juncture of the two walls of the annular groove *b*. Preferably the raised portion on this washer is divided by means of radial slots *i* thus increasing its resiliency. It will be seen that these slots are open and are entirely surrounded by the material of the washer. These slots cooperate with the slots between the tongues *j* of the washer, now to be described, in facilitating the positioning of the terminal of the cord between two of the tongues, at the conclusion of the winding operation. An advantage in having the slots *i* entirely surrounded by the material of the washer is that, while the resiliency of the washer is increased by the presence of the slots, this member is not so yielding as the button *a*.

As will be presently pointed out, it is important that the button be the more yielding member of the two.

To assist in securing the cord in position I form in the periphery of the disk *a* a plurality of consecutively placed tongues *j* spaced from each other by open slots. These tongues perform three functions the first being to provide upwardly extending projections adapted to engage the cord conveniently when starting to wind it around the button, the second being to give resiliency to the disk *a* whereby the undersurface of the groove *b* will bear resiliently on the cord wound around the button and the third being to hold the cord from slipping on the periphery of the button whereby it may be crossed and a more secure bite produced. When it is not desired to have the resiliency increased in this manner I may provide only one or two of these tongues as shown in Fig. 6 in which case they will perform the first function above indicated only.

In using my button the cord *k* is wound around the same and crossed. The acute angle formed by the junctures of the walls *c* and *d* will bear on the cord forming a pressure thereon which will prevent it from slipping. I have found that in order to secure the most satisfactory results from the button it is absolutely essential to have the walls of the groove *b* at an angle to each other whereby an angle will bear on the cord. The resilient raised portions on the washer *g* assist considerably in holding the cord. It will be seen that the inclined wall *d* of the groove operates, during the winding operation, to facilitate the passage of the cord beneath the basal angle of the groove. When the cord is wound, however, and its terminal portion drawn into the base of one of the slots between the tongues *j*, accidental unwinding is effectually guarded against by the vertical inner wall of the groove. During winding the tongues yielded upward successively to permit the passage inward of the successive portions of the cord, and then sprang downward again, blocking the return of the cord by reason of the vertical inner face of the groove. This, of course, is an action which would not obtain with a rigid button. The importance of rendering the button more yielding than the washer will now be recognized, since, otherwise, the vertical wall of the groove would be deprived of its locking action with reference to the cord as the washer would tend to yield first, on the application of a force tending to unwind the cord.

The fastener might be used for any purpose in which it is desired to temporarily hold a free cord in a fixed position.

What I claim as my invention is:—

1. A fastening button consisting of a resilient disk of metal having a depressed central portion constructed for attachment to a suitable base, and an annular groove near its periphery, the inner wall of this groove being vertical and the outer wall being upward and outward inclined,

forming an acute angle with the vertical wall, whereby a cord in winding is readily passed inward beneath the angle, forcing the resilient disk upward in the operation, and afterwards retained against accidental unwinding by reason of the vertical inner wall of the groove being opposed to the cord.

2. A fastening button consisting of a resilient disk of metal constructed to be secured centrally to a suitable base and having peripherally a series of projecting tongues spaced from each other by open slots, and having also an annular groove crossing the tongues transversely and having its inner wall vertical and its outer wall upward and outward inclined, whereby each tongue yields readily to permit the passage inward of the cord during winding and then springs backward opposing by its vertical wall the return of the cord.

3. A fastening button consisting of a resilient disk of

metal constructed to be secured centrally to a suitable base and having peripherally a series of radially projecting tongues spaced from each other by open slots, and having also an annular groove near its periphery between which and the middle portion of the disk a cord is adapted to be wound, in combination with a washer underlying said disk and having an annular raised portion immediately underlying said groove, the ridge being provided with a series of radial open slots entirely surrounded by the metal of the washer.

Signed at Ottawa, in the Province of Ontario, Canada, this 24th day of October, 1906.

PETER MACGREGOR.

In the presence of—

RUSSELL S. SMART,

WM. A. WYMAN.