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L. S. HAPEMAN

BUTTON TOGGLE

Filed April 4, 1923

Fig. 1

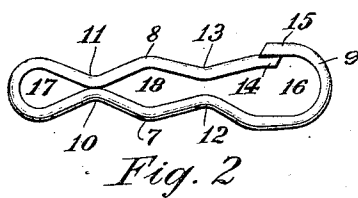
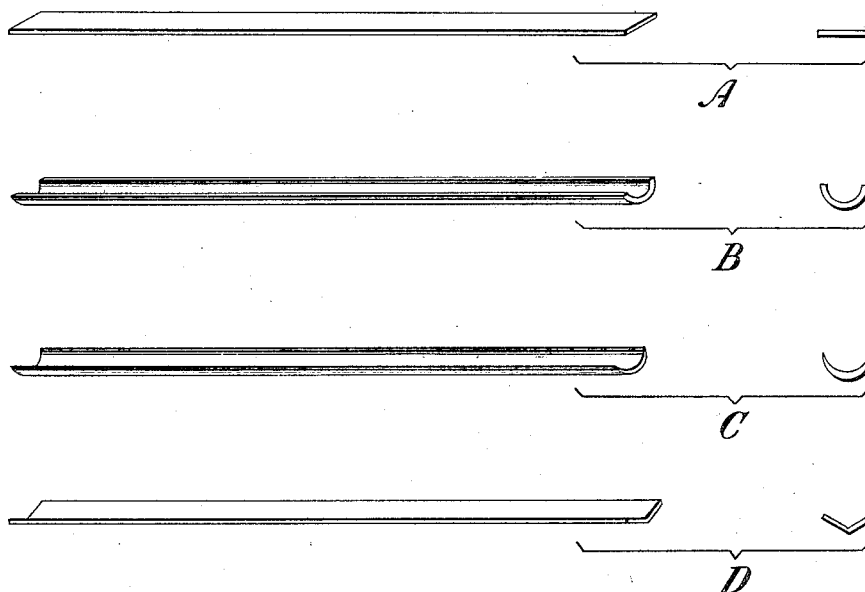


Fig. 2

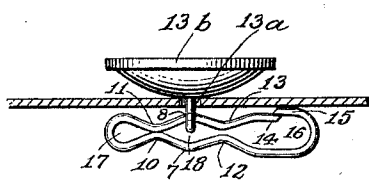


Fig. 3

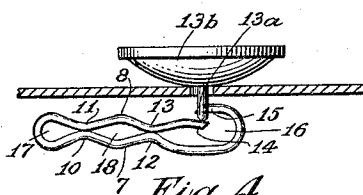


Fig. 4

INVENTOR.

Lincoln S. Hapeman

BY *H. E. Manning*

ATTORNEY

UNITED STATES PATENT OFFICE.

LINCOLN S. HAPEMAN, OF WATERBURY, CONNECTICUT.

BUTTON TOGGLE.

Application filed April 4, 1923. Serial No. 629,832.

To all whom it may concern:

Be it known that I, LINCOLN S. HAPEMAN, a citizen of the United States, and a resident of Waterbury, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Button Toggles, of which the following is a specification.

This invention relates to button fasteners, and more particularly to an improved form of snap toggle for detachably holding a button upon a garment.

One object of this invention is to produce a snap toggle which may be passed through the garment without separating the button from the toggle.

A further object is to provide a snap toggle having a base and a flexible tongue adapted to press outwardly upon a turned-over portion of the base to form a closed loop within which the eye of a button may be secured.

A further object is to provide a snap toggle of the above nature having an eccentric locking loop for causing the heavier end of the toggle to hang downwardly in a vertical position and thereby hold the button from twisting into an inartistic or unreadable position.

A further object is to provide a snap toggle of the above nature which will be simple, cheap to manufacture, easy to manipulate, and very efficient and durable in use.

With these and other objects in view, there have been illustrated on the accompanying drawing several forms in which the invention may be conveniently embodied in practice.

Fig. 1 represents a series of perspective and end views of four different shapes of metal strip from which the snap toggle may be constructed.

Fig. 2 is a side view of the preferred form of toggle after it has been bent up into final shape.

Fig. 3 is a side view of the toggle as it appears in locking position upon a garment with the eye of the button extending through the garment.

Fig. 4 is a side view of the toggle as it appears when it is being released from the eye of the button.

In the use of previous types of detachable button fasteners, the buttons had a tendency to twist around from their normal upright positions causing the inscriptions on the face

of the buttons to assume inartistic or unreadable positions. Moreover, many of such fasteners had sharp pointed extremities or projections which would often catch in the material of the garment causing the fastener to move out of the button eye, thus allowing the button to fall from the garment and become lost.

By means of the present invention, the above and other difficulties have been entirely avoided. This has been accomplished by providing a toggle having a central locking loop eccentrically arranged so that the toggle will always hang from the eye of the button in a vertical position. The improved toggle also comprises a base having a tongue adapted to snap under a catch on the base, and hence the toggle will be positively prevented from slipping out of the button eye and allowing the button to fall off.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the preferred form of toggle is made from a metal strip of crescent-shaped cross section as shown at C in Fig. 1. This strip is then bent in suitable dies into the form illustrated in Figs. 2, 3, and 4. The completely formed toggle comprises a base 7 having a flexible tongue 8 at one end and a catch 9 upon its other end. The tongue and base are convoluted to provide inwardly bent sections 10 and 11 preferably arranged in contact, and inwardly bent sections 12 and 13. The sections 12 and 13 do not lie in contact but are spaced apart sufficiently to enable the eye 13^a of the button 13^b to be slipped out between the beveled tip 14 of the tongue and the beveled extremity 15 of the catch 9 when the tongue is flexed downwardly. The convolutions of the tongue and base form three loops 16, 17, and 18, the catch-loop 16 at one end of the toggle being longer than the other end loops 17. By means of this construction, when the toggle is secured in locking position as shown in Fig. 3, with the eye 13^a of the button located within the locking loop 18, there will be a tendency for the heavier catch-loop 16 to move downwardly and cause the toggle to assume a vertical position. The eye of the button will thus tend to assume an approximately horizontal position and the inscriptions on the button to remain in fixed position without twisting around into an inartistic and unreadable position, as is

the case with buttons fastened by the toggles now in common use.

While the toggle is preferably constructed of crescent-shaped metal stock as shown at C in Fig. 1, it is also within the scope of the invention to employ metal strips of flat cross-section, circular cross section, or V-shaped cross section as shown at A, B, and D, Fig. 1. If the flat strip stock is chosen, a somewhat harder metal must be employed, since in this case, the strip is subjected to a less degree of hardening when being bent into shape.

In operation, assuming the toggle to be in locking position with respect to the button, as shown in Fig. 3, when it is desired to remove the button from the garment, it is merely necessary to slide the toggle by hand to the left relative to the fabric and button as viewed in Fig. 2, until the eye of the button comes into the catch-loop 16. The toggle may then be rotated through ninety degrees so that it becomes perpendicular to the face of the button, whereupon the toggle may be pulled directly through from the fabric without separating the toggle from the button. The connected button and toggle may then be laid aside while the garment is being laundered or until it is desired to again attach the button to the fabric.

In order to separate the toggle from the button, as when it is desired to clean the old button or replace it with a new one, it is merely necessary to press the tongue 8 downwardly until the section 13 of the tongue comes into contact with the section 12 of the base, as clearly shown in Fig. 4. With the parts in this position, the eye 13^a of the button may be readily moved out through the opening between the end of the tongue and the extremity 15 of the catch. When it is desired to re-connect the button and toggle, and attach the button to the garment, the operations just described will be reversed.

As will be noted from Figs. 3 and 4 of the drawing, when the toggle is in use, the tongue 8 thereof will lie adjacent and will usually be embedded in the cloth or other sheet material to which the button is attached. This engagement of the tongue with the cloth makes it more difficult for the toggle to slip or twist.

While there has been disclosed in this specification several forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosures, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and

embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a button fastener, a base having a flexible tongue connected therewith at one end, and a catch for said tongue upon the other end of said base, said tongue and base being convoluted to enclose a plurality of loops, said loops being adapted to interchangeably receive the eye of a button, said tongue and catch being formed from an integral strip of grooved metal whereby said tongue will be detachably locked in said catch in curved contact therewith.

2. In a button fastener, a base having a flexible tongue connected therewith at one end, and a catch for said tongue upon the other end of said base, said catch and said tongue lying in curved contact whereby said tongue will be detachably locked in said catch.

3. In a button fastener, a base having a flexible tongue connected therewith at one end, and a catch for said tongue upon the other end of said base, said base catch and tongue being formed from an integral strip of channeled metal, and lying in curved contact whereby relative lateral movement of said tongue and said catch will be prevented.

4. In a button fastener, a base having a flexible tongue connected therewith at one end, and a catch for said tongue upon the other end of said base, said base catch and said tongue being formed from an integral strip of grooved metal, and lying in curved contact whereby the end of said tongue will detachably interfit in said catch.

5. In a button fastener, a base having a flexible tongue connected therewith at one end, a catch adapted to lie in curved contact with said tongue upon the other end of said base, said tongue and base being formed by bending from a single strip of metal of curved cross section whereby lateral movement of said tongue and catch will be prevented.

6. In a button fastener, a base, a flexible tongue, said base and tongue being bent toward one another at two points to form three loops, the middle loop comprising a locking section and being eccentrically arranged between the outer loops whereby when the fastener is engaged about the eye of a button, the fastener will hang in a vertical position and hold the button in a fixed position, said button eye being readily detachable from said fastener by flexing said tongue inwardly.

In testimony whereof, I have affixed my signature to this specification.

LINCOLN S. HAPEMAN,