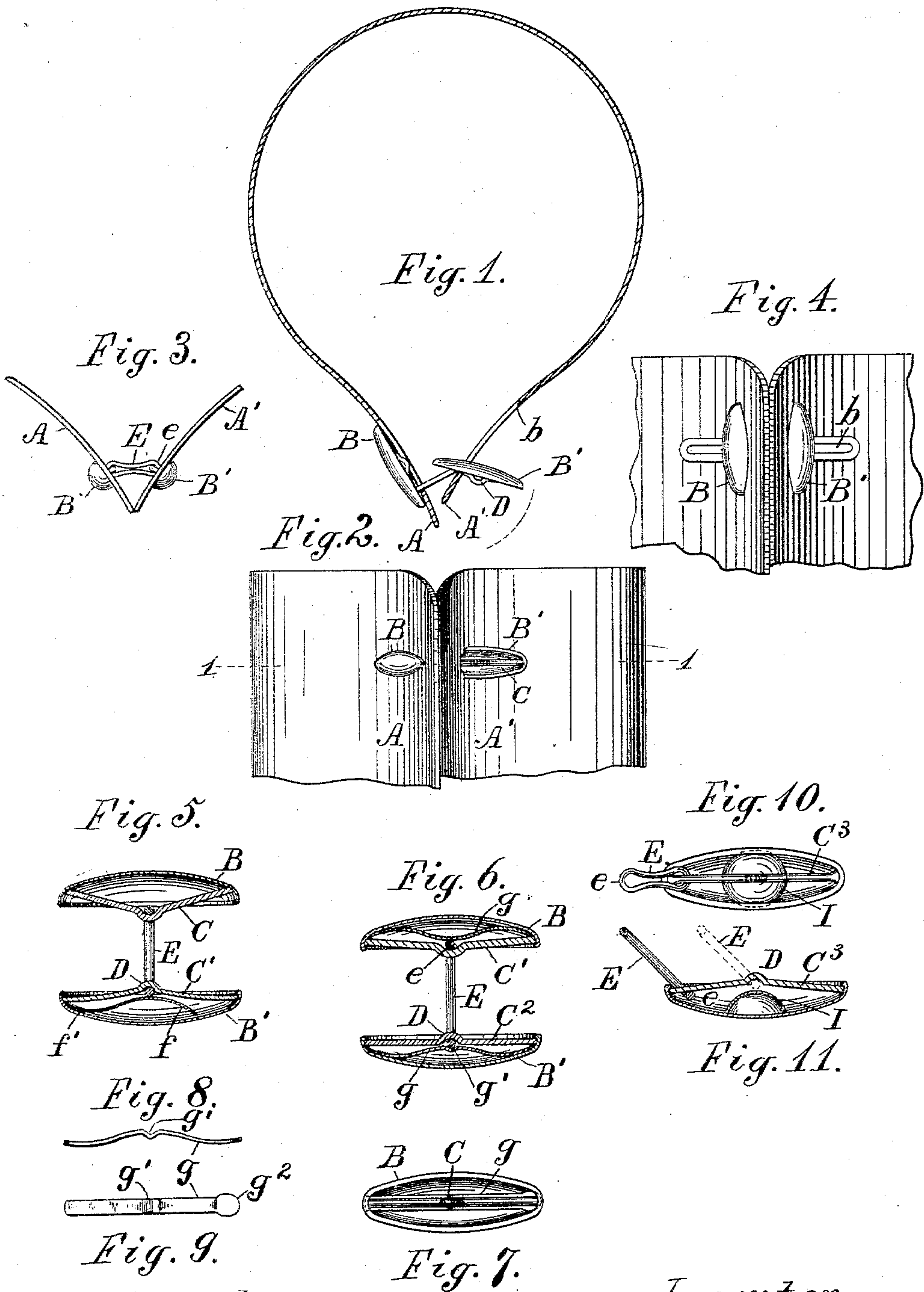


(No Model.)

A. BIPPART.
LINK BUTTON WITH SHIFTING LINK.

No. 564,963.

Patented Aug. 4, 1896.



Attest:
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UNITED STATES PATENT OFFICE.

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LINK-BUTTON WITH SHIFTING LINKS.

SPECIFICATION forming part of Letters Patent No. 564,963, dated August 4, 1896.

Application filed December 11, 1895. Serial No. 571,818. (No model.)

To all whom it may concern:

Be it known that I, ACHILL BIPPART, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Link-Buttons with Shifting Links, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to that class of cuff-buttons in which a link is hinged at opposite ends to two separate buttons, one of the buttons being passed through the buttonholes in both edges of the cuff to secure the edges of the cuff together and to dispose the cuff-buttons upon the outer side of the same.

This invention is an improvement upon that class of link-buttons in which the link is movable toward the edge of the button for inserting it through the buttonhole; and its object is to furnish a simple and effective means of securing such adjustment of the link. Such adjustment of the link permits the employment of a shorter link than is possible when the ends of the link are hinged to the center of the button. To secure the use of such a shorter link, I employ a hollow or concave button and extend a round-wire bridge or slide-bar across the rear edges of the same, providing a depression at the center of such slide-bar and forming the ends of the link with eyes which are hinged loosely upon such wire slide-bar, and thus adapted to turn freely in any direction. By making the slide-bar of round wire the link can be turned around freely upon it, and the link is also preferably formed of wire and its eyes fitted loosely upon the slide-bar to turn with great freedom.

In practice the button is always passed through the buttonholes edgewise, and afterward turned at right angles, so as to prevent its retraction; and any increase of distance between the edges of the buttons thus facilitates the pressing of one button through the buttonholes, while the restoration of the link to the center of the button operates to draw the buttons into a closer relation, and thus holds the edges of the cuffs from gaping in the desired manner.

The slide-bar is preferably formed with a depression opposite the center of the button

to retain the link at such point when adjusted therein; and a spring may, if desired, be used to hold the end of the link in such depression. Instead of a spring to hold the link central, the slide-bar may be inclined from its ends to the central point, and the natural tension of the cuffs may thus serve to draw the link to the center.

A block with round or sloping ends may be fixed within the button adjacent to the central depression and the slide-bar made sufficiently elastic to permit the bar to spring outwardly when the end of the link is forced between such block and the bar to fit it to enter such depression, the elasticity of the bar and the contiguity of the block thereafter holding the link in its adjusted position. These constructions are shown in the annexed drawings, in which—

Figure 1 is a plan of a cuff in section on line 1 1 in Fig. 2 with the cuff-buttons partly inserted in place. Fig. 2 is an elevation of one end of the cuff, showing the same adjustment of the buttons. Fig. 3 is a plan of the edges of the cuffs with the buttons fully adjusted in place, and Fig. 4 is a front view of the same parts. The remaining figures are drawn upon twice the scale of Figs. 1 to 4, so as to exhibit the construction more clearly. Fig. 5 is a longitudinal section of a pair of cuff-buttons and their link, one of the buttons being provided with the slide-bar having inclined ends and the other with a spring fastened at one end only within the button. Fig. 6 is a similar section showing springs fitted at both ends within the buttons and one of the springs provided with a central depression to engage the link-head. Fig. 7 shows the inner side of one of the buttons, as represented in Fig. 6, with the link removed. Fig. 8 is an edge view, and Fig. 9 a plan, of the spring with central notch. Fig. 10 shows the inner side, and Fig. 11 a longitudinal section, of a button provided with a block to retain the link head or eye in the central depression.

A and A' designate the edges of the cuff; B and B', the buttons shown in Figs. 1 to 4, inclusive; C C', &c., the slide-bar provided upon its inner side with central depression D, and E the loop-shaped link having eyes e at its opposite ends.

The buttons are shown in the drawings of

oblong shape with hollow body formed by turning the edges backwardly, and the slide-bar is extended longitudinally upon the longer axis of the button and its ends secured within the opposite edges of the same, with space beneath such edges to admit the eye *e*, as shown in Fig. 11.

Fig. 1 shows the link drawn toward the edges of both buttons, and the aggregate length of the link and buttons thereby greatly increased, so that the button *B'* may be readily reached and grasped by the fingers when pushed through both of the buttonholes *b*, as shown in Figs. 1 and 2. The buttons are afterward adjusted over the buttonholes by slipping the center of each button to the head of the link, as shown in Figs. 3 and 4, the elasticity of the cuff serving to draw the head *e* into the depression *D* in each slide-bar, and thus holding the links from displacement.

The button *B* in Fig. 5 shows the simplest construction to embody the invention, the slide-bar *C* having the ends sloped inwardly or the middle sloped outwardly toward the depression *D*, so that the tension upon the link tends automatically to slide it toward the depression and to retain it therein.

The slide-bar is formed of a smooth round wire pressed outwardly at the middle of its length to form the depression upon its inner side. Upon the button *B'* in Fig. 5 is shown a spring *f*, attached by one end to the inner side of the button and bent convexly toward the depression, so that the head or eye of the link may be readily slid toward the depression from either end of the slide-bar, the spring then pressing it into the depression and preventing it from displacement.

In Fig. 6 the button *B* is shown with a leaf-spring *g* of sufficient length to crowd in at the ends behind the ends of the slide-bar, the elasticity of the spring then holding it in place and the middle being curved toward the depression like the spring *f*. Upon the button in Fig. 6 a similar spring is shown, with a notch *g'* opposite to the depression *D* to assist in arresting the link head or eye as it is moved toward the depression and to hold it more firmly therein. The leaf-spring with the central notch *g'* is shown detached in Fig. 8, and is also shown in Figs. 7 and 9 with a head *g²* of greater width than the slide-bar to fit the inner end of the sleeve-button laterally and thus hold it from displacement. The opposite end of the spring is left narrow to facilitate its introduction into the button after the slide-bar is soldered therein at the ends.

In Figs. 10 and 11 a block *I* is shown secured within the center of the button opposite to the depression, being formed of a thin shell of metal soldered within the center of the button and having a surface sloped in all directions toward the depression *D*.

To secure the link elastically in the depression *D*, the slide-bar *C³* is for this construction made thin enough to spring outwardly, and

is adjusted to press elastically toward the block *I*. The link *E* is shown slipped to the end of the button, as would be the case when inserting it through the buttonhole, and is also represented in dotted lines with the head *e* in the depression *D* and pressed thereby firmly upon the crown of the block *I*. All these constructions serve precisely the same purpose to facilitate the slipping of the link toward the end of the button to extend the distance between the buttons when desired, and finally to retain the link head or eye at the center of the button when the buttons are adjusted in the cuff, as shown in Fig. 4. The sleeve-buttons are shown in the drawings of oblong form, which is a form in very common use, and serves especially to conceal the slide-bar or other fixtures which are employed to practice my invention.

The invention may also be applied to circular cuff-buttons, or those of any other desired shape.

By making the bridge or slide-bar of round wire *I* avoid the formation of any edges or angles to chafe the cuff in passing through the buttonhole, and *I* facilitate the turning of the link-eye *e* in every direction, as is required not only to insert the button through the buttonhole, but to permit the automatic adjustment of the buttons to the varying movements or adjustments of the cuff.

The object of the invention may be substantially attained (as is shown in the button *B* in Fig. 5) by attaching a single wire to the inner side of the button to engage the link, and the simplicity of the invention is thus very apparent.

The leaf-spring *g* or the block *i* is exceedingly inexpensive, and serves, if desired, to hold the link upon the middle of the slide-bar.

I am aware that solitaire sleeve-buttons have been formed with a projecting shank upon the back and the shank provided with a sliding head, and that devices have been employed for facilitating the introduction of link-buttons into the cuff; but

What I claim, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, the pair of link-buttons connected by link *E* having eye *e* at each end, one or both of said buttons having a hollow body and wire slide-bar extended between the edges of such body and provided with a central depression, and the eye of the link being fitted to such wire slide-bar and thereby adapted to turn freely in any direction thereon, as herein set forth.

2. As a new article of manufacture, the pair of link-buttons connected by link *E* having eye *e* at each end, each of said buttons having a hollow body with a wire slide-bar attached to its edges and sloped outwardly from the ends toward the middle, and the eyes of the link being fitted to such wire slide-bars and thereby adapted to turn freely in any direction thereon, substantially as set forth.

3. As a new article of manufacture, the link-buttons connected by link E having eye e at each end, each of said buttons having a hollow body and wire slide-bar extended between the edges of such body and provided with a central depression, and a spring crowded within the body behind the slide-bar and arched toward such depression, and the eyes of the link being fitted to such wire slide-bars and adapted to crowd between the spring and the slide-bar to enter such depression, substantially as herein set forth.

4. As a new article of manufacture, the link-buttons connected by link E having eye e at each end, each of said buttons having a

hollow body and wire slide-bar extended between the edges of such body and provided with a central depression, and the leaf-spring g having notch g' in the center, and fitted into the hollow body of the sleeve-button with its ends secured by insertion behind the ends of the slide-bar, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ACHILL BIPPART.

Witnesses:

C. G. SCHWARZ ROZY,
THOMAS S. CRANE.