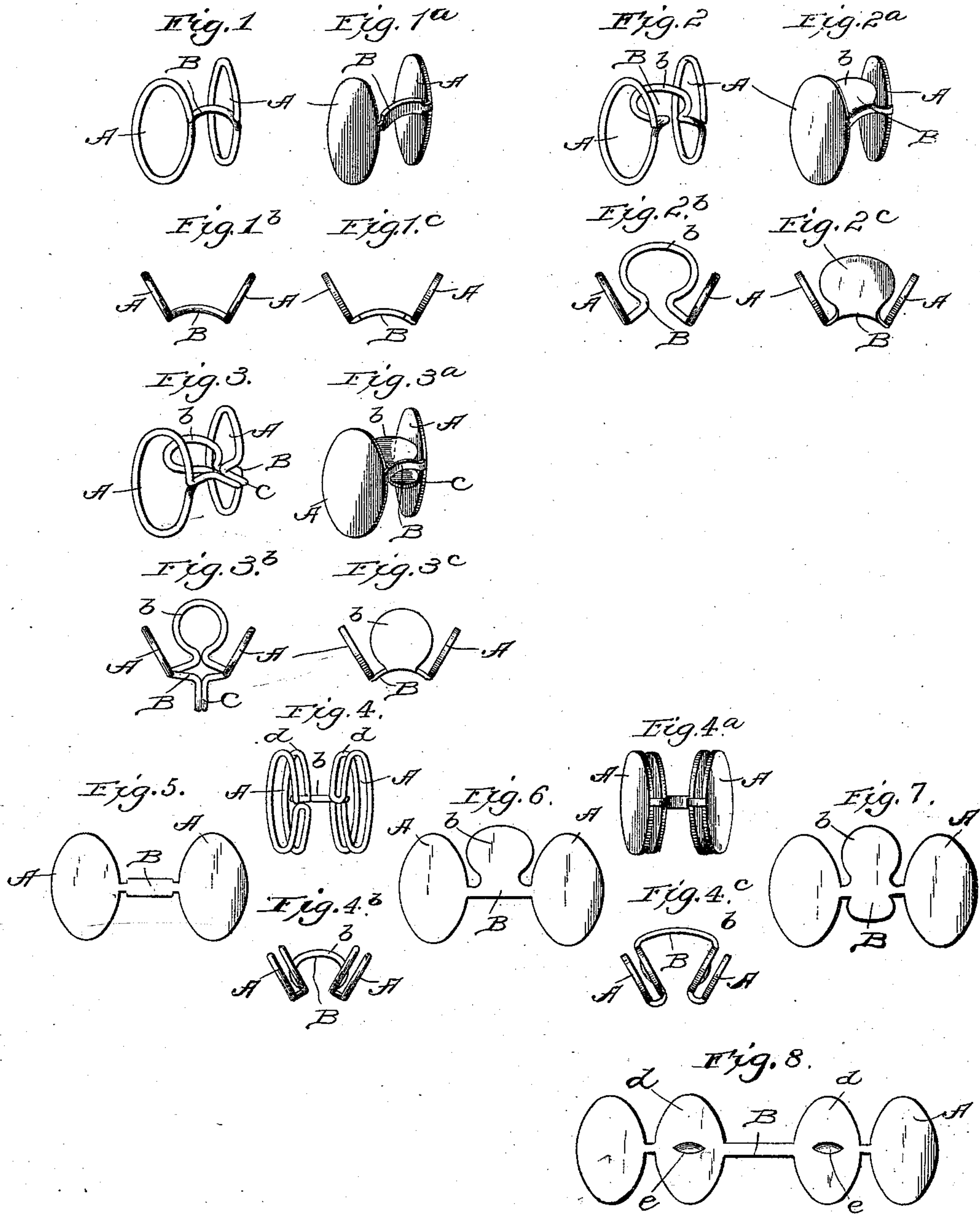


(No Model.)

J. E. HILLS.
CUFF BUTTON.

No. 543,244.

Patented July 23, 1895.



witnesses:

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UNITED STATES PATENT OFFICE.

JAMES E. HILLS, OF NEW YORK, N. Y.

CUFF-BUTTON.

SPECIFICATION forming part of Letters Patent No. 543,244, dated July 23, 1895.

Application filed February 20, 1895. Serial No. 539,078. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. HILLS, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Cuff-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.

The invention has reference to certain new and useful improvements in cuff-buttons, and relates especially to what are known in the art and to the trade as "link-buttons," although applicable to all kinds of buttons for securing parts together where the edges do not overlap.

The objects of the invention are to economize material and labor in the construction of the buttons and correspondingly reduce the cost of manufacture; to reduce the number of parts going to make up the buttons and thereby to adapt the same to be worked up in gold or silver; to dispense with the use of eyes or other projections on the heads of the buttons, which interfere with the free insertion into and withdrawal of the same from the buttonholes; to do away with springs, catches, clips, and all other movable or detachable parts, and to provide buttons that can be quickly and easily adjusted to and removed from the cuffs, and that will at the same time keep their position and hold the cuffs in proper shape.

It is characteristic of the invention that it admits of a great variety of modifications without departing from the generic features of construction, and that the buttons can be made out of a single piece of plate metal or a single strip of wire; also, that in most forms of the same the use of solder, brazes, or weldings is unnecessary, and that the usual "shoes," as they are called, are dispensed with.

The invention is illustrated generically and in a variety of species in the accompanying drawings, forming part of this specification, wherein—

Figures 1 and 1^a are perspective views of the simplest form of button comprehended by the invention, the former view showing a but-

ton made out of a single strip of wire and the latter one made out of a single piece of plate or sheet metal. Figs. 1^b and 1^c are edge views of the two constructions shown in the former figures, illustrating more clearly the angular positions of the heads. Figs. 2 and 2^a are perspective views of the form of button shown in Figs. 1 and 1^a, with the additional feature of an inward or backward extension or projection of the connecting-bar, the purpose of which will be explained farther on. Figs. 2^b and 2^c are respectively edge views of the same, illustrating more clearly the form of the extension and its relation to the angular heads. Figs. 3 and 3^a are perspective views of the form of button shown in Figs. 2 and 2^a, with the additional feature of an outward or forward extension or projection of the connecting-bar, the object of which will appear later on. Figs. 3^b and 3^c are respectively edge views of the same, illustrating more clearly than can be done in perspective the relative positions of the parts. Figs. 4 and 4^a are perspective views of a further development of the form of button shown in Figs. 2 and 2^a, and wherein the rearward extensions or projections of the connecting-bar are formed into shoes, serving to more securely hold the edges of the cuff. Figs. 4^b and 4^c are respectively edge views of the above two forms; and Figs. 5, 6, 7, and 8 are respectively plan views of the blanks out of which the constructions shown in Figs. 1^a, 2^a, 3^a, and 4^a are made.

In these several views corresponding parts are denoted by the same letters of reference.

A A indicate the heads of the button, and may be oval, as shown in the drawings, circular, or of any other shape that the taste or fancy of the designer may suggest.

B indicates the connecting post or bar connecting the heads rigidly together and securing them in fixed relative positions at an angle to each other, as indicated in the several views. Instead of extending from the center of one head to the other, this connecting-bar extends from the edge, or a point very near the edge, of one head to a corresponding point on the other head, the place of connection between the heads and the bar being at substantially that point on the edge of the heads where the same come nearest together.

The particular angle of the heads relatively to each other is a matter of small importance and is variable with the style and variety of cuffs with which the button is worn, as well as with the fashion prevailing for the time being in wearing cuffs of any given variety. Thus, for example, by widening the angle between the heads shown in Fig. 1^b and bringing said heads more nearly into the same plane the button may be adapted for the old-fashioned round or "barrel" shaped cuffs, and by narrowing the angle of the heads or bringing them into more nearly parallel relation the button is applicable to what are known as "link" cuffs and will hold the sides of the cuffs in the form of a flattened oval, which is now the prevailing fashion.

In all the forms of the invention shown in the drawings the stiffness and springiness of the cuffs will hold the connecting-bar between the heads in the outer end of the buttonholes, the body of the heads extending back and occupying a central position over the holes, giving a neat appearance. Were not some provision made to prevent the turning or other displacement of the buttons in the buttonholes there might be liability, especially with limp or poorly-starched cuffs, for the heads to work around out of position. The point of connection between the heads and the connecting-bar permits of a simple and effective provision against this liability, and to this end I provide the connecting bar or post B with an inwardly or backwardly extending part or projection *b* in the line of the buttonhole, which when the button is in position engages or fits into the rear part of the buttonhole and effectually prevents the buttonheads from working out of position. This projection or extension of the connecting-bar may be made in any form or shape effectual for the purpose, the invention not being limited to any particular construction or arrangement thereof, so long as it secures the heads of the button against liability to turn or work around by engagement with the buttonhole at a point in the rear of the edge connection between the heads and their connecting-bar. This inward or backward extension of the connecting-bar serves also the useful function of holding the sides of the cuffs in place, it not being intended to pass clear through the buttonhole. To further aid this part in holding the sides of the cuffs and particularly the outer edges thereof in proper position I provide the connecting-bar with an outwardly or forwardly extending part or projection *c*, the special office of which is to keep the outer edges of the cuffs slightly apart, and is useful mainly when the cuffs are of thin material or not stiffly starched.

In the construction of button shown in Figs. 3 and 3^a the rearward projection *b*, inasmuch as it bears on the sides of the cuffs at a point behind the connecting-bar B, has a tendency to close the front or outside edges, and it is only with this construction that I desire to

use the outward projection *c*, so as to counteract this tendency.

In the constructions thus far described the absence of anything like a shoe is noticeable and characterizes all the forms. Should it be desired, however, to use a shoe or shoes, one of the advantages of the invention is that it is capable of being worked up in this form without sacrificing the beneficial features of the other constructions. I show such development of the invention in Figs. 4 and 4^a, where A A indicate the heads, the same as in all the other varieties, and B is the connecting bar or post, also as in the other forms; but instead of forming this connecting-bar immediately into the projection *b*, as in all the others, I give it a coil *d* in the case of the wire form and widen it out in the form of a disk *d* in the plate-metal construction, in either case making the part *d* correspond in form and size substantially to the heads and providing one of these parts for each head, thus giving to the button two heads and two shoes with a connecting-bar between. In each of these forms the shoe is a mere local enlargement of the same connecting-bar used in all the other forms. As will be noted in Figs. 4^b and 4^c, the shoes thus formed lie substantially parallel with the heads and are connected therewith only at the front edge, being entirely unconnected with them at the rear, which is left open for the entrance of the sides of the cuffs. Although the use of such shoes would probably prevent the turning or working around of the button, I deem it advisable to use in this connection the projection *b* of the other forms. In the case of the wire form, it is precisely like that shown in Figs. 2 and 3, and requires no further description; but in the case of the plate-metal construction it is preferably formed by striking up a small ridge *e* in the shoe, as shown in Figs. 4^c and 8.

The above are only a few of the forms of button in which my invention can be worked out, but I do not deem it necessary to illustrate or describe further possible constructions for the reason that those already explained are typical of all the forms at present known to me.

No particular description of the manner of making the constructions in wire seems necessary, as the curves, angles, and convolutions are so clearly shown in the drawings that any one skilled in the art can with the use of proper tools work them out from a single piece or strand of wire. As to the plate-metal forms, however, I have deemed it advisable to give a specific illustration of the blank from which each is made, but the only explanation that seems necessary is to state that they are to be bent in the manners shown in the several edge views.

I have not attempted to illustrate or describe herein any sort of ornamentation for the heads, but have advisedly shown them perfectly plain. I would have it understood, however, that I contemplate making them up

in a variety of ornamental designs, either by working the designs into or upon the heads shown herein or by providing exterior heads in ornamental designs and attaching them to the plain ones herein represented, which in these cases would become the backs of such heads.

The principal reasons why few, if any, improved or patented constructions of buttons are found on the market made of gold or silver are that they are usually made in separate detachable parts that are likely to be lost, thus destroying the utility of the entire button, and are more or less complicated in construction and formed of different parts soldered together. The simplicity of construction of buttons made in accordance with the present invention is one of its characteristic features and particularly adapts them to be worked up in any of the precious metals with a minimum expenditure of material and cost of manufacture. It is also a distinguishing feature that it is entirely unnecessary to solder any of the parts together, except where it may be desired to work up the wire forms in skeleton outline, where it would, of course, be necessary to so unite the abutting ends or angles of the piece of wire.

In all link-buttons, so far as I am aware, where non-detachable heads are employed it is the custom to make one of the heads smaller and of a different shape from the other, the object being to enable the buttons to be applied to the cuffs by slipping the smaller head through the buttonholes from the outside of one side of the cuff through both holes to the outside of the other. This is oftentimes difficult and vexatious, and with heavy or stiffly-starched cuffs often results in breaking one of the heads or the link. With my improved construction, however, all this difficulty and liability to breakage and loss of the parts is obviated, and the button-heads may be easily and quickly inserted in the holes and withdrawn therefrom. In order to do this it is only necessary to insert each head through the buttonhole in its side of the cuff from the inside, and after this has been done to give the button a slight turn, so as to bring the connecting-bar into the front or outer end of the buttonhole, a very easy and simple oper-

ation. When it is desired to remove the buttons from the cuffs it may be done with equal facility by simply reversing this operation.

Although I have shown the connecting-bars herein as round or flat in cross-section, such illustration is merely for convenience, as they may be constructed in any other form. Indeed on some accounts an oval form in cross-section is preferable, and is, of course, entirely within the scope of the present invention.

Having thus illustrated and described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cuff button, the combination of two fixed heads set at an angle to each other, and a connecting post or bar, the latter being secured eccentrically to the heads at or near their outer edges and at that point on said edges where the heads come nearest together; substantially as described.

2. In a cuff button, the combination of two fixed heads set at an angle to each other, a connecting post or bar secured eccentrically to said heads at or near their outer edges and at that point on said edges where the heads come nearest together, and a projection from said connecting post or bar extending inwardly in the direction of the button hole and adapted to engage the rear part of said hole and retain the heads in position; substantially as described.

3. In a cuff button, the combination of two fixed heads set at an angle to each other, a connecting post or bar secured to said heads at or near their outer edges and at that point on said edges where the heads come nearest together, a projection from said connecting post or bar extending outwardly toward the edges of the cuff and adapted to hold said edges apart, and a projection from said connecting post or bar extending inwardly in the direction of the button hole and adapted to engage the rear part of said hole and retain the heads in position; substantially as described.

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

JAMES E. HILLS.

Witnesses:

J. A. GOLDSBOROUGH,
H. M. STERLING.