

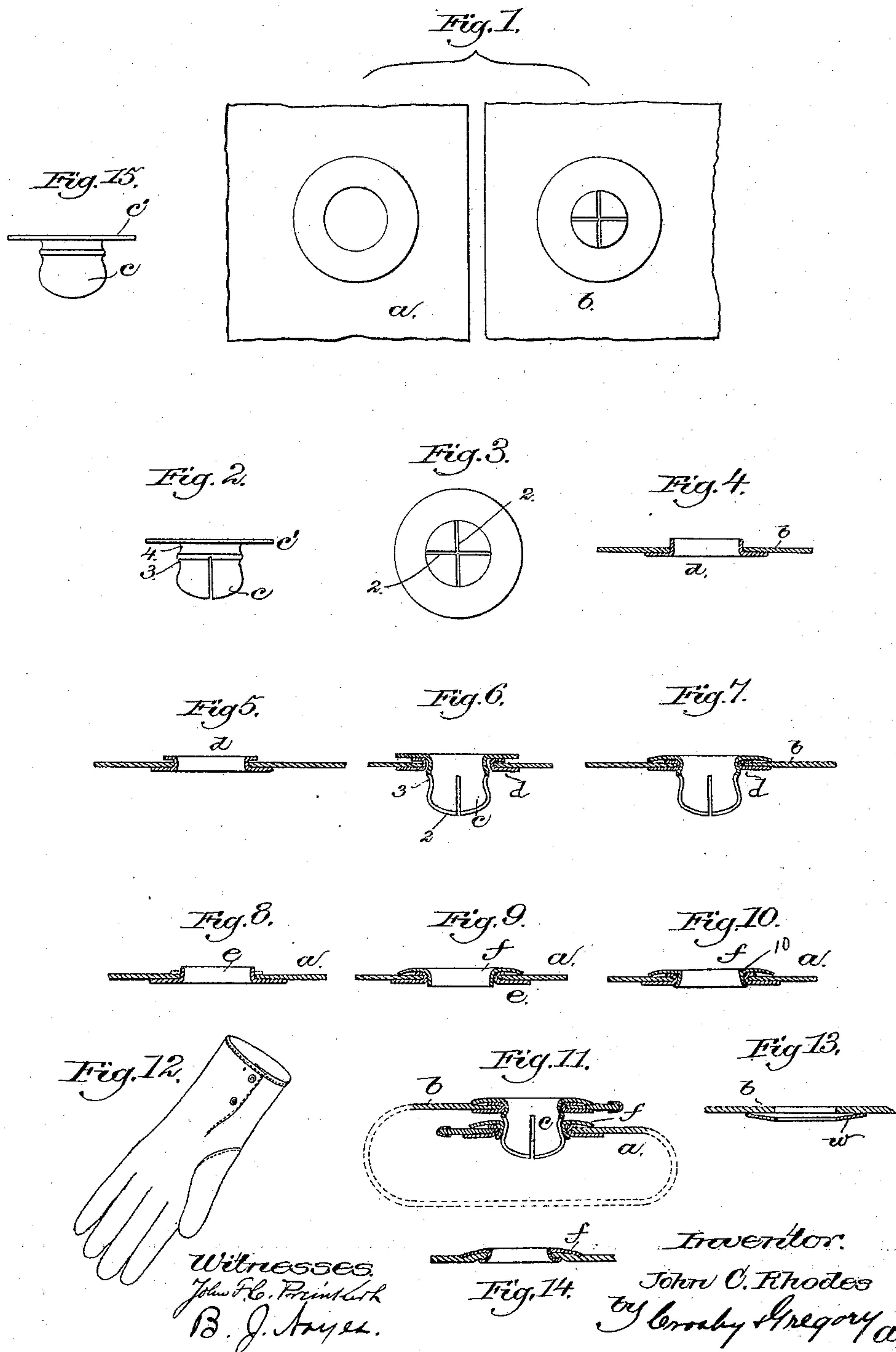
(Nō Model.)

J. C. RHODES.

FASTENING DEVICE OR BUTTON FOR GLOVES.

No. 371,975.

Patented Oct. 25, 1887.





# UNITED STATES PATENT OFFICE.

JOHN C. RHODES, OF NEW BEDFORD, MASSACHUSETTS.

## FASTENING DEVICE OR BUTTON FOR GLOVES.

SPECIFICATION forming part of Letters Patent No. 371,975, dated October 25, 1887.

Application filed August 12, 1886. Serial No. 210,700. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. RHODES, of New Bedford, county of Bristol, and State of Massachusetts, have invented an Improvement in Fastening Devices or Buttons for Gloves or other Articles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a compact, simple, strong, and serviceable button or fastener for gloves, garments, or other articles.

The post herein shown, struck up from sheet metal and made tubular, has at one end a flange, and the end of the post most remote from the flange is slitted for part of its length to thus form spring-arms—preferably four arms—the body of the post having two grooves or depressions—one a locking-groove at or near the ends of the slits in the post, and the other a post-fastening groove closer to the said flange, the former groove receiving in it and co-operating with an eyelet to be described or its equivalent attached to another part of the article or garment, while the latter groove has contracted or shrunk into it the eyelet or washer, which acts as a stay for the article or garment where the post is to be permanently attached to the said article or garment.

The eyelet herein shown as adapted to be engaged with the post and to be disengaged therefrom, as desired, is made, as I prefer, of two pieces, one clinched within the other, the innermost eyelet, or the one co-operating with the locking-groove of the post, having an acute-angled corner which from side to side presents the smallest diameter of the eyelet, the said corner enabling the contacting-points of the eyelet and post to be brought more closely to the article or garment and the flange of the post or the eyelet or washer holding it than were the inner wall of the inner eyelet simply convexed; but I desire to be understood that my improved post held as described would be serviceable with any eyelet not provided with the sharp or angular corner, and so, if desired, a single eyelet may be employed with the post.

The means herein employed to confine the post securely in position may be advantageously used with posts of other well-known or usual construction—viz., the post, whatever

its shape, will be provided near its base flange with a post-fastening groove or notch, into which the holding-eyelet or washer will be shrunk in the act of being fully set in the article.

In accordance with my invention I have provided the overlapping part of a garment or article, as a glove, with an inwardly-extended post, which enters an eyelet attached to another part of the glove or article, such construction leaving the outer side of the garment without projecting surfaces to be caught by a cuff or by lace, as in gloves worn by ladies.

Figure 1 shows a part of a glove containing a post and eyelet comprising my improved button or fastener, the view being taken from the inner side of the glove. Fig. 2 is a side elevation of the post and its attached flange. Fig. 3 is an end view of the post with its flange. Fig. 4 is a section showing a piece of a glove or other article having inserted into it an eyelet to co-operate with and hold the said post. Fig. 5 shows the said eyelet partially closed above the edge of the hole in the said article. Fig. 6 shows a post such as represented in Fig. 2 as inserted into an eyelet such as represented in Fig. 5. Fig. 7 shows an eyelet such as represented in Fig. 6 as fully set in and made to clamp the article, the operation of fully setting the said eyelet causing it to be contracted into a groove in the post. Fig. 8 represents another part of the article to be connected by my improved button or fastener, the said part having in it an eyelet. Fig. 9 represents an eyelet such as shown in Fig. 8, with a second eyelet inserted into it from the opposite side of the said article. Fig. 10 shows the said eyelets closely set or clinched together to present a tapering hole with a rather sharp angular edge. Fig. 11 shows in section a post such as represented in Fig. 7 as entering an eyelet such as represented in Fig. 10, the dotted lines representing part of the wrist of a glove to thus show the direction in which the post points. Fig. 12 represents in perspective on a smaller scale part of a glove. Fig. 13 shows a concavo-convex washer, which may be used as a modification of the eyelet represented in Fig. 5. Fig. 14 shows a modified form of my invention, a single eyelet being used in the material to engage the spring-arms of the post; and Fig. 15 shows an unslitted post.

I have in referring to the figures of the draw-



ings mentioned a glove as the article selected upon which to place my improved button or fastener; but it will be obvious that I may employ the said button or fastener upon various other articles to be caught together; so by the term "material," to be hereinafter used, I mean to designate a part of an article to be provided with a part of my button or fastener.

In the drawings, *a* and *b* represent two parts of material to be joined at times by my improved button or fastener, the material *b* being supposed to overlap the material *a*.

The post *c* herein shown, made from sheet-metal in suitable dies and left tubular with a flange, *c'*, at one end, has its end opposite the flange slitted in two directions, as at 2 2, Fig. 3, and the body of the said post at or near the ends of the said slits is provided with an annular locking groove or depression, 3, (see Fig. 6,) and between the said locking-groove and the flange *c'* of the post the body thereof has a second post-fastening groove or notch, 4. (See Fig. 2.)

In the formation of the slits 2 in the post care is taken to make them so narrow that should the spring-arms left at the outer end of the post by making the said slits be entirely shut together by pressure from the outside of the post the extent of such inward movement will be insufficient to effect a permanent set in the metal constituting the said spring-arms. In practice the said slit, if only seven one-thousandths of an inch, is sufficient to secure a requisite amount of spring for the arms of the post. The material *b* to receive the post *c* is first provided with a hole in which is inserted the eyelet *d*, the flange of the said eyelet meeting the inner side of the said article, as shown in Fig. 4. This eyelet is then subjected to the action of a suitable tool by which the eyelet is partially set, as represented in Fig. 5, and thereafter the post *c* is inserted through the said eyelet from the outer side of the material *b*, as in Fig. 6, and then the material with the post in position in the eyelet, as represented in said figure, is subjected to the action of setting-dies, which, acting upon the flange *c'* of the post at one side the said material and the flange of the eyelet *d* at the other side of the material, fully sets the said eyelet to the said material, the central opening of the said eyelet being contracted in diameter or upset into the notch or groove 4 of the body of the post *c*, the said eyelet (or it might be a concavo-convex washer, as shown in Fig. 13) being thereby forced into the said groove or notch and securing the post firmly in place against possibility of displacement except by tearing the material.

In practice I have been enabled to produce operative posts not exceeding one-eighth of an inch in length.

The material *a* is provided with a suitable hole to receive an eyelet, *e*, the flange of which, as shown in Fig. 8, rests against the inner side of the said material, and thereafter the body of the said eyelet is turned over, as shown

by dotted lines, Fig. 8. The eyelet *f* is then inserted into the eyelet *e* from the opposite side of the material, as in Fig. 9, and the two eyelets are then clinched together, the teat of the setting device employed being made tapering, to thereby form in the eyelet *f* a sharp or acute-angled corner, (see Figs. 10 and 11,) the said corner being substantially flush with the outer side of the flange of the said eyelet *f*, the diameter of the opening in the said eyelet being less at the said corner than at any other place, such construction of the eyelet permitting the post to be grasped in the locking groove or depression 3 close to the surface of the material in which the post is set. The closer the contacting-points of the eyelet and post to the material holding the post the shorter may be the post and the less the leverage thereon, and the less the liability of the post to tip out of vertical position under strain, and the less the liability of the eyelet in the material *a* to become detached from the post.

I prefer for durability to employ two eyelets, as in Figs. 10 and 11; but, if desired, only the eyelet *f* may be set into the material *a*, as in Fig. 14.

Should the concavo-convex washer *w* (see Fig. 13) be employed instead of the eyelet *d*, then the concaved side of the washer will be placed against the inner side of the material and the post be inserted through the material and then through the washer, and the washer as it is thereafter flattened has its inner edge contracted into the groove 4.

If desired, the means described to hold the slitted post in place in the material may be equally well practiced with a post unslitted, as in Fig. 15.

I have herein described a novel post, it having a post-fastening groove and a locking-groove, and I have described the said post as engaged by an eyelet; but instead of the said eyelet I might employ any usual or well-known spring device, such as shown in United States Patent No. 260,411, to surround the post and engage the said locking-groove 3, and in such event the post might be solid.

I claim—

1. In a button or fastener, a post provided with a flange and having a post-fastening groove or notch, 4, in its body close to the said flange, and a second groove or notch, 3, combined with an eyelet or washer shrunk or contracted into the said groove or notch 4, the said groove or notch 3 serving to receive in it or co-operate with the part of the fastener attached to the other part of the article to be fastened together, substantially as described.

2. In a button or fastener, a slotted post provided with a flange and having a post-fastening groove or notch, 4, in its body close to the said flange, and a second groove or notch, 3, combined with an eyelet or washer shrunk or contracted into the said groove or notch 4, the said groove or notch 3 serving to receive in it or co-operate with the part of the fastener attached to the other part of the arti-



cle to be fastened together, substantially as described.

3. In a button or fastener, a slotted post having a flange and provided near its flange with a post-fastening groove or notch, 4, and beyond it with a locking groove or depression, 3, combined with an eyelet or washer having its inner edge shrunk or contracted into the said groove 4, and with an eyelet to engage the said groove 3, to operate substantially as described.

4. In a button or fastener, a slitted sheet-metal post having a horizontally-extended flange, *c'*, and a locking groove or depression, 3, and an eyelet, *d*, having a flange to bear against the material at the side opposite that of the flange *c'*, said eyelet being contracted about the post to hold the latter in place, combined with an eyelet, *f*, bent or shaped to form at the junction of its body and flange an acute-angled corner or edge, as 10, to co-operate with the groove 3 in the post, substantially as described.

5. In a button or fastener, a slotted or spring post having a horizontally-extended flange, *c'*, and notch or groove 3, combined with an eyelet

having an angular or sharp unbroken or continuous edge, as 10, to engage the said notch or groove, substantially as described.

6. In a button or fastener, a slitted or spring post, combined with two eyelets, *e f*, one of which is clinched into the other, the eyelet *f* having a sharp or acute-angled edge or corner, as 10, substantially in line with the outer face of its flange, substantially as described.

7. The combination, with a post forming one part of a fastening device, of an eyelet having an acute-angled edge at the junction of its body and flange, substantially as described.

8. In a glove or other fastening device, an eyelet having an acute-angled edge located at the junction of its body and flange, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN C. RHODES.

Witnesses:

BERNICE J. NOYES,  
F. CUTTER.