Nov. 17, 1931. E. S. MIX 1,832,407

BUTTON ATTACHING DEVICE FOR SUSPENDER ENDS

Filed Sept. 2, 1930

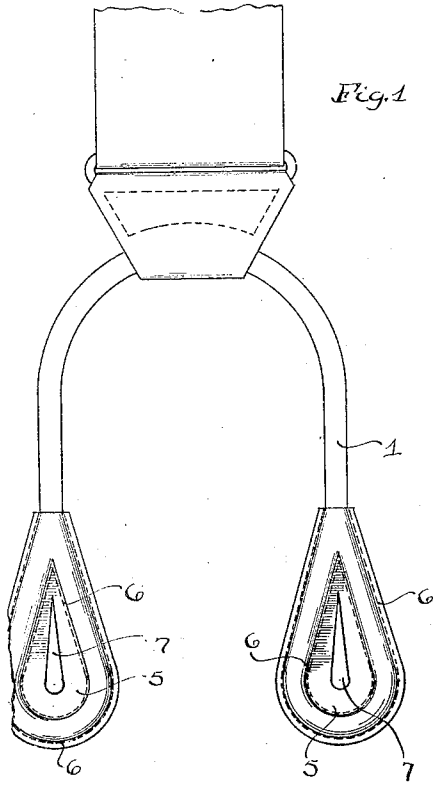


Fig.1

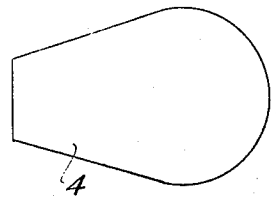


Fig.2

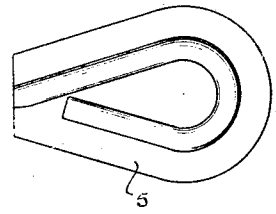


Fig.3

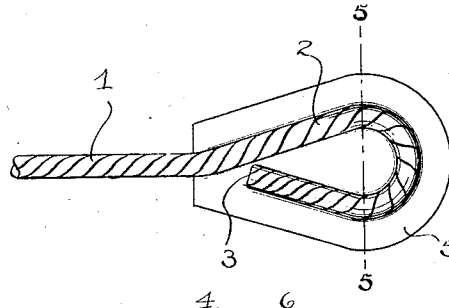


Fig.4

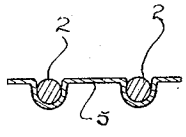


Fig.5

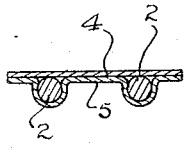


Fig.6

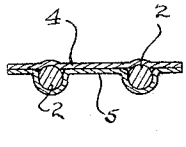


Fig.7

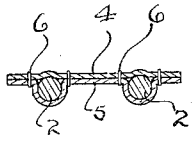


Fig.8

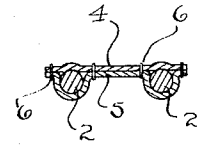


Fig.9

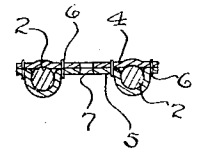


Fig.10

INVENTOR
Edwin S. Mix
BY H. H. Timmons
his ATTORNEY

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UNITED STATES PATENT OFFICE

EDWIN S. MIX, OF ROCHESTER, NEW YORK, ASSIGNOR TO HICKOK MANUFACTURING COMPANY, INC., OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK

BUTTON ATTACHING DEVICE FOR SUSPENDER ENDS

Application filed September 2, 1930. Serial No. 479,138.

The present invention relates to button attaching devices for suspender ends, and an object of the same is to provide a novel construction in which the suspender end is formed from cord reinforced for attachment to a button. Another object of the invention is to provide a suspender end formed from elastic cord and having its button attaching portion free from metal. Still another object of the invention is to provide a new process of making suspender ends.

To these and other ends, the invention consists of certain parts and combinations of parts, all of which will be hereinafter described; the novel features being pointed out in the appended claims.

In the drawings:

Fig. 1 is a view of a pair of suspender ends embodying this invention;

Fig. 2 is a plan view of rear blank;

Fig. 3 shows front blank molded to form;

Fig. 4 shows step of placing cord on front blank;

Fig. 5 is a section on line 5—5, Fig. 4;

Fig. 6 shows the step of placing the back piece in position;

Fig. 7 shows the step of pressing the two pieces together;

Fig. 8 shows the stitching operation;

Fig. 9 shows the step of trimming down the outer edges; and

Fig. 10 shows the final step of cutting the button hole.

In the illustrated embodiment of the invention, two suspender ends are formed from a single piece of elastic cord 1 bent at its ends to provide two loops 2, the ends 3 of the cord terminating adjacent the inner ends of the loops.

Each loop is covered by two leather or other cover members, a front cover member 5 and a rear cover member 4, pressed and cemented together about the loop and also stitched together at 6 about and within the loop, the center of each piece being cut away at 7 to provide an eye.

Each button engaging member is preferably formed by two blank pieces, such as shown in Fig. 2. The front blank 5 is first wetted and while separated from the cord is molded to form a groove similar to the cord loop, as shown in Fig. 3. After drying, the cord is looped into this groove, as shown in Fig. 4, and then the back piece 4 with cement on one face has its cement face pressed against the front member by dies which conform to the cord loop and cause the front and the back cover members to adhere together on the inside and the outside of the loop. The front and the back covers are now stitched together on the inside and the outside of the loop and thereafter the outer edge is trimmed down and then the button opening is cut into the blanks or cover members by a cutting tool which utilizes the molded face of the front cover as a guide so as to position the button opening properly.

This invention makes it possible to form a button attaching device at the end of an elastic cord without the use of metallic fastening means. The construction is such that it is durable in use and inexpensive to manufacture. The loop in the cord is held together solely by the front and the back covers which tend to reinforce the loop.

What I claim as my invention and desire to secure by Letters Patent is:

1. A suspender end comprising a cord having a loop formed therein, the end of the cord being at the inner portion of the loop, and a front and a back piece entirely covering the loop and the cord end and cemented together within and on the outside of the loop.

2. A suspender end comprising a cord having a loop formed therein, the end of the cord being adjacent the inner portion of the loop, a front and a back piece entirely covering the loop and the cord end, and stitching uniting the front and the back piece on the inner and the outer side of the loop.

3. A suspender end comprising a cord having a loop formed therein, the end of the cord being at the inner portion of the loop, a front and a back piece entirely covering the loop and the cord end and cemented together within and on the outside of the loop, and stitching uniting the front and the back piece on the inner side of the loop.

4. A suspender end comprising an elastic cord having a loop formed from the cord and

the end of the cord terminating adjacent the inner end of the loop, two leather blanks, one on the front of the loop and the other on the back of the loop, said blanks being cemented together within the loop and also entirely about the loop, and two rows of stitches uniting the blanks, one entirely surrounding the loop and the other conforming to the loop on the inner side thereof, the two blanks having coincident openings to form the button openings.

5. The method of making suspender ends which consists in treating a blank to render it pliable and while pliable forming a recess therein, placing a looped end of a cord in said recess, then applying a blank over the other blank and over the looped end of the cord, then connecting the two blanks together, and finally forming coincident openings in the two blanks within the looped end of the cord.

6. A suspender end comprising a cord having a loop at one end thereof, the free end of the loop lying adjacent the cord at the beginning of the loop formation but detached therefrom, and means for completely covering the looped end of the cord and maintaining the latter in a looped condition.

EDWIN S. MIX.