J. J. WOODWARD.

METHOD OF FORMING REINFORCED BUTTONHOLES.

APPLICATION FILED FEB. 19, 1914.

1,126,609. **Patented Jan. 26, 1915.**

Fig. 1.

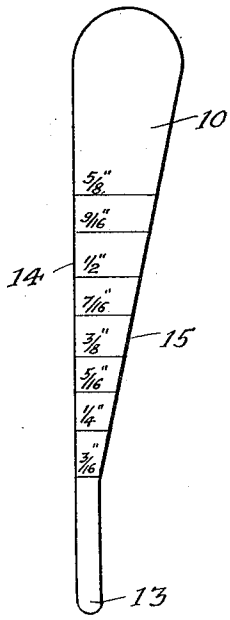


Fig. 2.

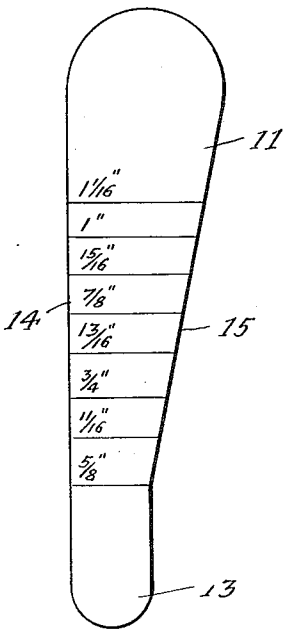


Fig. 3.

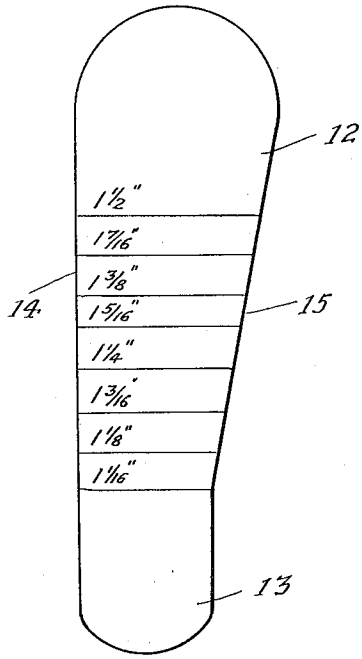


Fig. 4.

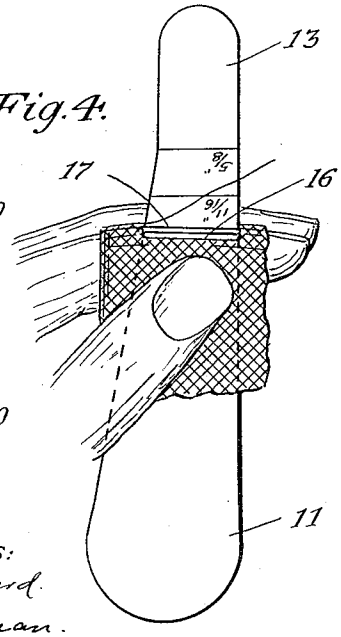


Fig. 6.

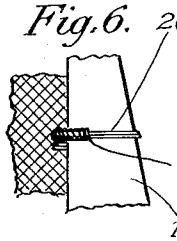
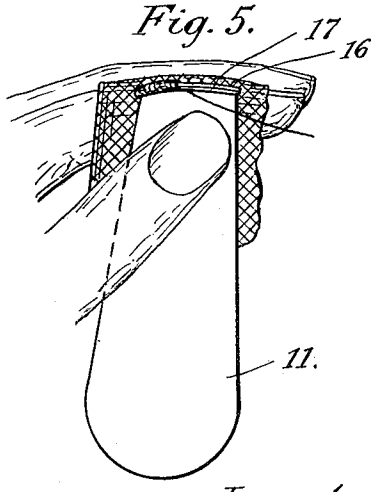


Fig. 5.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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METHOD OF FORMING REINFORCED BUTTONHOLES.

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To all whom it may concern:

Be it known that I, JOSCELYN J. WOODWARD, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Methods of Forming Reinforced Buttonholes, of which the following is a specification.

My invention relates to a method for forming reinforced buttonholes and has for its object to provide simple and efficient means for the use of a hand sewer by which buttonholes may be formed having a margin reinforced with a plurality of loops of thread, which means also protects the finger of the operator and facilitates the ordinary working of the buttonhole.

The full objects and advantages of my invention will appear in connection with the detailed description thereof and are particularly pointed out in the claims.

In the drawings, illustrating the application of my invention in one form,—Figures 1, 2 and 3 show different sizes of an appliance to be employed in the performance of my method. Fig. 4 shows the manner of laying the loops for reinforcing the buttonhole. Fig. 5 shows the manner of using the device. Fig. 6 shows the manner of employing my invention to make loops.

As illustrated in Figs. 1, 2 and 3, I provide flexible strips 10, 11 and 12 of guttapercha, celluloid or the like, each of said strips being provided with a tongue portion 13, a straight back edge 14 and an obliquely-disposed edge 15 extending from the tongue portion 13 to the curved larger end of the flexible strip. Strips 10, 11 and 12 are identical excepting that the tongue portion, and consequent remaining portion of the strips are successively increased in width. The several strips which I have shown provide for making buttonholes in widths from three-sixteenths of an inch to one-and-one-half inches, and the strips may be marked with calibrations and scales indicating the width of buttonhole at any given point in the strip. Of course, a greater or less number of strips may be employed and adapted to be used in the making of buttonholes of a greater or less variation in widths according to the lengths of the strips; and any one of strips 10, 11 or 12 fully embodies a device suitable for the performance of my invention.

In performing my method the device is used as indicated in Figs. 4 and 5. As shown in Fig. 4, the tongue 13 of a strip 10 has been inserted through a buttonhole slit 16 which has been cut of the desired length, as indicated by the marking on the strip 10. The operator then winds from one to four or five loops of thread 17 (according to the degree of reinforcement desired) about the protruding portion of strip 10 close to the buttonhole, as shown in Fig. 4. Thereafter the strip and fabric is grasped between the thumb and forefinger with the strip between the fabric and the thumb, and the fabric and end of the strip 10 is carried over the forefinger and gripped between the forefinger and the middle finger, as indicated in Fig. 5. The loops of thread 17 are thus held in proximity to the raw edge of the fabric which is exposed in convenient position above the turned-over portion of the flexible strip 10, which is thus between the edge to be worked and the finger, perfectly protecting the finger while the buttonhole is being worked. The operator then works the buttonhole along the exposed edge in the usual way except that the work is much facilitated by the positioning of the exposed edge above the turned-over flexible strip and the guiding of the needle by said strip to the proper point in the fabric, binding in the loops of thread 17 as the work progresses. When one edge has been worked to the corners of the buttonhole, the strip 10 and fabric are turned around so as to expose the other edge in exactly the same manner and the working is continued around until the buttonhole is completely worked.

It will be apparent that with the use of this device large and small buttonholes may be worked with equal facility and in all cases will be completely reinforced by the loops of thread 17. Furthermore, it is practicable in the employment of my method to work buttonholes very close to the edge of material or on the bias in goods, and in either event this can be accomplished without any difficulty.

My method may also be employed to advantage in the formation of loop buttonholes at the edge of a fabric, such as are commonly formed of specially constructed braid material. In forming such buttonholes the thread is caught into the edge of the goods at the proper place and then

wrapped about the strip 10 so as to form the desired number of coils 20 of thread of the proper width, each coil being caught into the material as it is formed. The strip is then employed in the same manner as when inserted in a slit in the material, and the buttonhole worked in the usual way over the loops of thread around the strip, as shown in Fig. 6.

I claim:

1. The method of making a reinforced buttonhole which consists in cutting a slit of the desired length, inserting a member through the slit of such form and size that the sides of said member are closely contiguous to all parts of the edges of said slit, winding a series of loops of thread about the member adjacent the edges of the slit, and working the buttonhole progressively about said member so as to bind in the said loops of thread as the buttonhole is worked.

2. The method of making a reinforced buttonhole which consists in cutting a slit of the desired length, inserting a strip of flexible material through the slit, winding a series of loops of thread about the strip, bending the strip of flexible material over the forefinger so as to expose an edge of said slit and protect the forefinger, and working the buttonhole progressively along said edge so as to bind in said loops of thread as the buttonhole is worked, and thereafter bending said strip over the forefinger so as to expose the other edge of said slit and protect the forefinger, and continuing working said buttonhole until completed.

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

JOSCELYN J. WOODWARD.

Witnesses:
H. A. Bowman,
F. A. Whiteley.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."