

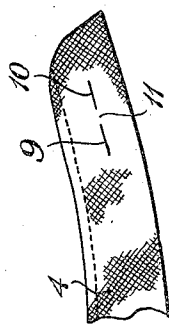
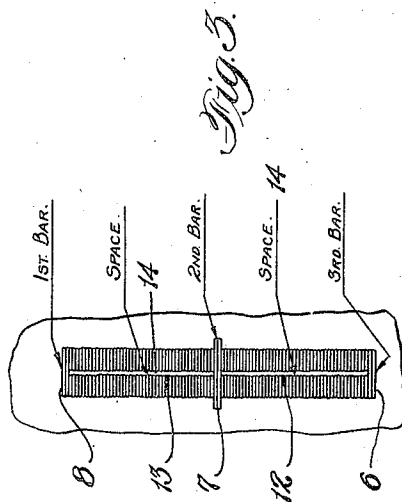
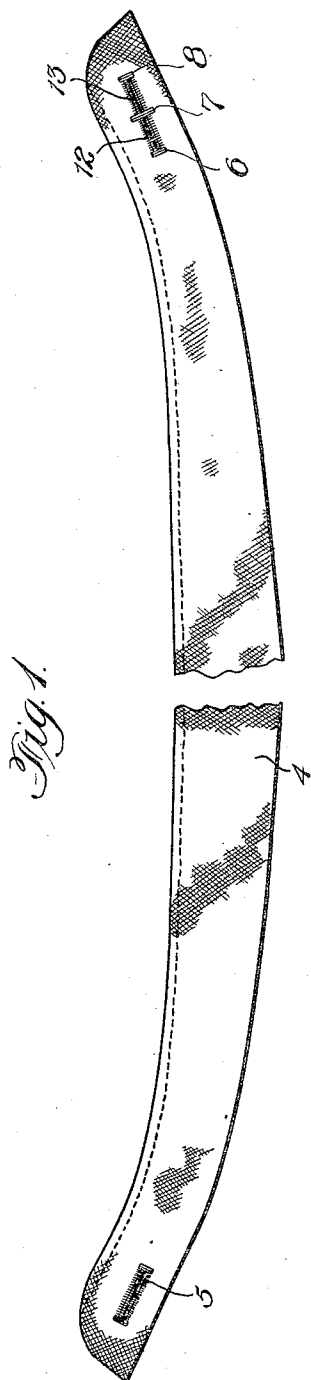
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BUTTONHOLES AND METHOD OF MAKING THEM

Filed Aug. 16, 1927



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UNITED STATES PATENT OFFICE.

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BUTTONHOLES AND METHOD OF MAKING THEM.

Application filed August 16, 1927. Serial No. 213,327.

It is well known that many garments have been provided with two or more aligned separately formed buttonholes, and I am not seeking to claim broadly a garment provided with such buttonholes.

My invention resides in providing a garment with a plurality of aligned buttonholes, which may be termed a double, or three, or multiple bar buttonhole, and which is made with one stitching operation, thus producing a plurality of buttonholes, cheaper than heretofore made, and with equal, if not greater, strength.

My invention resides further in the method of making of said buttonholes.

In the drawings:

Figure 1 is a top plan view of a plurality of button-holes in a garment embodying my invention.

Figure 2 is a similar view with the pearling or stitching removed to show the cuts in the cloth with integral cloth between the adjacent ends of two button-holes.

Figure 3 is an enlarged detail view of a plurality of button-holes.

Although I have, for the purposes of illustrating my invention, selected a shirt neckband, it will be understood that my invention is not limited in use to such an article, but it is intended and adapted for use on any other article of wearing apparel.

The neckband is designated by the reference numeral 4 which is provided with the usual end buttonhole 5. The neckband in Figure 1 is broken away, therefore the back center buttonhole is not shown.

On the other end of the neckband my improved buttonhole construction is illustrated, and while I have shown only two adjacent buttonholes 12 and 13 in this connection, it will be understood, that on many garments a multiplicity of aligned buttonholes may be made according to my invention in the same garment.

As shown in Figure 1, there are a plurality of buttonholes, the outer end of one buttonhole having the end transverse bar 6 and the other an outer transverse bar 8, there being a center transverse bar 7 common to the adjacent ends of two buttonholes. This common bar 7 extends transversely of the buttonholes and is preferably, but not necessarily, longer than the end bars 6 and 8 whereby I am enabled to get a wider grip on the cloth between the buttonholes and

more effectively prevent tearing of the buttonholes at this point.

In Figure 2 I have removed the pearling, or stitching, from the cloth so as to more clearly show the cuts 9 and 10 forming the buttonholes through the cloth and illustrating the integral zone 11 of the cloth between the adjacent ends of two buttonholes, which integral zone of cloth strengthens materially the zone between the adjacent ends of the buttonholes, which supplemented by the bar 7, makes an extremely strong reinforcement between the adjacent ends of two buttonholes, and practically eliminates all danger of tearing at that point. These two buttonholes and their transverse bars are formed by a progressive continuous stitching, or pearling, until the buttonholes are completed; the fabric between the side borders of the pearling, or stitching, and the bars is cut through the space 14 to complete the button-hole, which space 14 is left between the inner edges of the stitching or pearling.

In the stitching or pearling of the buttonhole, I first form the side border stitching or pearling on one side, then the bar 8, then one-half the side stitching on the other side, then the bar 7, then complete the other half of the side stitching, then the bar 6.

Suitable means control the throw of the needle of the machine and also the pearling or stitching until it reaches a release point where the needle is thrown further out in order to form bar 8. The needle then resumes the pearling, or stitching until released at another point where it makes the bar 7, and again returning to the pearling or stitching position, it is finally released where it makes the third bar 6, thus completing the plurality of buttonholes. As above stated, the cloth between the side stitching or pearling and the bars, is cut through, leaving the cloth between ends of adjacent buttonholes intact. All of these operations are continuous and progressive while the garment is on the machine.

In many garments three or more buttonholes would be advantageous, and in such case the only change required in a machine adapted to carry out my invention would be a different form of knife and cam, that is to say, a knife designed to cut simultaneously as many buttonholes as may be desired.

While I prefer to cut the cloth after the

stitching has been completed it will, of course, be understood that this is not necessary as the cloth may be cut before the stitching operation.

5 I do not in this application claim the mechanical means for carrying out my invention as they will form the subject matter of another application.

What I claim is:

10 1. A wearing apparel provided with a plurality of axially aligned button holes, a bar at the outer end of the holes and a bar common to the adjacent ends of two holes and longer than the bars at the outer ends of
15 the holes, the cloth of the apparel being uncut under the common bar.

2. The method of forming a plurality of aligned button holes which consists in a pro-

gressive continuous stitching of the borders and end bars and a common bar for the holes, 20 cutting the cloth between the borders and bars simultaneously thereby completing the holes, and leaving the cloth integral under the common bar.

3. The method of making a plurality of 25 aligned buttonholes, which consists in stitching the side border of one side, then the outer end transverse bar, then one-half of the other side, then a central transverse bar, then the remaining one-half of said other 30 side, and then the inner end transverse bar, and cutting the cloth between the side borders and bars.

In testimony whereof I affix my signature.

JEFF A. BUSH.