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TURNDOWN COLLAR

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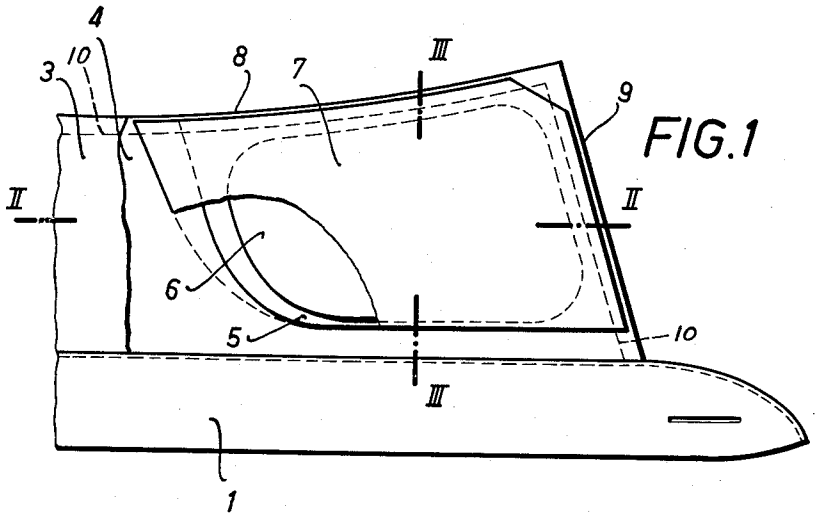


FIG. 1

FIG. 2

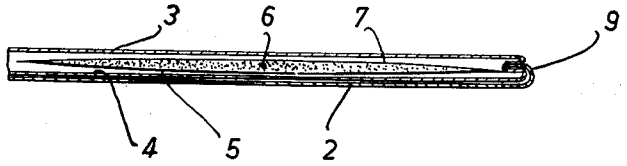
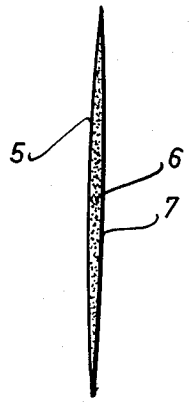


FIG. 3



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TURNDOWN COLLAR

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In the usual turndown collars for shirts, blouses or the like the points of the collar are stiffened by flat bars or bones of plastic or similar material. These stiffeners are inserted in pockets provided on the inside of the collar and must be removed before the collars are washed and ironed. As the points of the collar are not completely filled by such inserts, a certain wrinkling or corrugating of the points of the collar occurs in spite of the stiffening. Besides, the pockets increase the material and labor expenditure involved in the manufacture of the collars and the collar bones are easily lost or mislaid. A collar is known in which the lining insert provided between the upper and lower fabrics has a stiffening pad adjacent to each point of the collar. The pad consists of a mixed fabric containing cellulose acetate of a plastic film and is adhered to the lower fabric of the collar and to the lining insert. This requires also a separate operation and a separate device. The adhesive connection does not permit of an independent manufacture of the lining insert, the pads and the lower fabric. For this reason the collar tends to become warped. Unless the pad extends throughout the collar, which results in a so-called semistiff collar, the edges of the pads become apparent on the outside of the collar. A collar has also been disclosed which has profiled stiffening plates of thermoplastic which correspond to the points of the collar and are loosely sewn in pockets provided on the underside of the collar. These stiffening plates become soft and easily deformable under the action of hot washing water and may not recover their original shape after ironing. As separate, quilted-on pockets are required for receiving the plates, an increased material and labor expenditure is involved, as with collars having inserted bones. Whereas the edges of the stiffening plates are convexly rounded, this alone does not prevent the undesired marking of the insert on the outside of the collar. The plates are only loosely held in the pocket, the contour of which never corresponds exactly to the contour of the plate so that the plate may be displaced in the pocket during ironing and will inevitably become marked out if the distance to the seam of the collar becomes excessive, particularly because there is an appreciable step in spite of the rounding of the edge. The displaceability of the plates in the pockets results frequently in the formation of wrinkles during ironing, particularly at the seams of the collar. It is finally known to replace the collar bones by a soft rubber plate which corresponds to the point of the collar and has wedge-shaped edges. This soft rubber plate is also unsatisfactory because it is also inserted in a particularly large-sized, subdivided pocket on the underside of the collar and must be removed before washing and ironing and does not have a sufficiently high elastic stiffness.

As contrasted therewith the invention has as its object to provide a turndown collar which can be manufactured in a usual manner and has reliably noncreasing points whereas its wearing properties correspond to those of a soft collar without disturbing elevations, folds or the like becoming apparent on the outside of the collar and without need for additional collar stays.

The invention reltaes to a turndown collar which comprises profiled stiffening plates corresponding to the points of the collar and is essentially characterized in that the stiffening plates which are disposed between the lower fabric of the collar and the usual lining insert comprise a

thin fabric and a layer of rubber or the like which is convex in cross-sectional shape and has been pressed on the thin fabric to have a stepless transition on all sides and that the stiffening plates are sewn to the collar along the fabric margin extending beyond this layer. Thus, the cross-section of the insert plate decreases toward all sides gradually to the thickness of the fabric. The rubber layer or the like may be considered to extend in its cross-section in the fabric so that there is no perceptible step and the layer cannot become marked out on the outside of the collar. A fabricless rubber body could never be given such a fine taper toward its edges because the thin edges would break off sooner or later and would then mar the appearance of the collar. Besides, the fabric with its margin extending beyond the rubber layer or the like enables the stiffening plates to be sewn to the collar during the usual manufacture of the latter so that additional operations are not required and the fabric for the otherwise needed pockets or the like is saved. On the other hand, a firm connection between the stiffening plates and the collar is obtained so that the pressed-on layer is always held at the same distance from the edges of the collar. This avoids the formation of wrinkles during ironing. Moreover, the edges of the collar are protected and a premature wear thereof is prevented. For the same reason the corner of the stiffening mass directed toward the tip of the collar may be slightly rounded. The material used for the pressed-on layer ensures a high resiliency and resistance to heat and moisture and is thermoplastic.

The stiffening plates are preferably sewn to the lining insert or the upper and lower fabrics of the collar only along the lower edge of the collar and the side edge of the point of the collar whereas they are loose elsewhere so that the several layers are capable of independent movement and warping and wrinkling or the like are prevented. In special cases it may be desirable to adhere the stiffening plates to the lining insert.

In a development of the invention the layer of rubber or the like is covered by a second fabric pressed on at the same time. The edges of both fabrics are preferably relatively offset on the sides which are not sewn in order to avoid a pronounced step which might be due to a double fabric. This covering results in a further increase in the durability of the stiffening plates. The plates are supplied as prefabricated elements, placed on the appropriately cut lining insert adjacent to the points of the collar, and then simply attached to the collar by the same seam whereby the lining insert is connected in the usual manner to the upper and lower fabrics of the collar so that an additional seam is not required.

The invention is illustrated by way of example in the accompanying drawings, in which FIG. 1 is an elevation showing one end portion of a collar with the point of the collar swung up. FIG. 2 is a diagrammatic sectional view through the collar taken on line II—II of FIG. 1 and FIG. 3 shows a stiffening plate in a transverse sectional view taken on line III—III in FIG. 1. For greater clarity the convexity of the plate is somewhat exaggerated.

The base 1 of the collar has sewn thereto the collar top, which consists in the usual manner of the upper fabric 2, the lower fabric 3 and a thicker lining insert 4. Adjacent to the two points of the collar, stiffening plates conforming to the points of the collar are provided between the lower fabric 3 of the collar and the lining insert 4. The stiffening plates consist of a thin fabric 5, a layer 6 of rubber, which has been pressed on the fabric to provide a stepless transition on all sides and which is convex in cross-section, and a second fabric 7 which has also been pressed on. The fabric extends beyond the rubber layer and the stiffening plate is fastened at these fabric margins to the lining insert 4 and the upper

and lower fabrics **2**, **3** of the collar by a row of sewing stitches **10** along the lower edge **8** of the collar and the side edge **9** whereas it is loose elsewhere to enable a relative movement of the several fabric layers. The edges of the two fabrics **5**, **7** enclosing the rubber layer **6** are offset on the side facing the center of the collar.

The stiffening plates are made by placing the first fabric on a lower die having an appropriate shallow depression, applying the rubber composition in a predetermined amount to the lower die adjacent to the depression with the aid of a template, placing the second fabric on top and operating an upper die with simultaneous action of heat. The only step required thereafter is to cut the parts thus made to the desired shape.

I claim:

1. A turndown collar which comprises collar points consisting of a lower fabric, an upper fabric and a lining insert disposed between said lower and upper fabrics; a stiffening plate disposed in each collar point between said lower fabric and lining insert, said stiffening plate comprising a thin fabric and a layer of rubber bonded to said thin fabric, said layer being convex in cross-sectional shape and gradually merging into said thin fabric on all sides, said thin fabric having a margin which extends beyond said layer; and a row of sewing stitches connecting said margin to said collar point.

2. A turndown collar as set forth in claim 1, in which each of said collar points has lower and side edges and said margin is connected by said row of stitches to said collar point only at said lower and side edges.

3. A turndown collar as set forth in claim 2, in which said margin is connected by said row of stitches to said lower and upper fabrics and said lining insert at said lower and side edges.

4. A turndown collar as set forth in claim 1, in which said stiffening plate comprises a second fabric adhered to said layer on the side opposite to said thin fabric.

5. A turndown collar as set forth in claim 4, in which said collar point has lower and side edges and said margin is connected by said row of stitches to said collar point only at said lower and side edges, said thin and second fabrics having superimposed unsewn margins extending beyond said rubber layer, said unsewn margins having edges which are offset relative to one another.

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