May 24, 1960 T. H. GOLDEN 2,937,376

COLLARS AND METHOD OF MAKING THE SAME

Filed Dec. 26, 1957

FIG. 1.

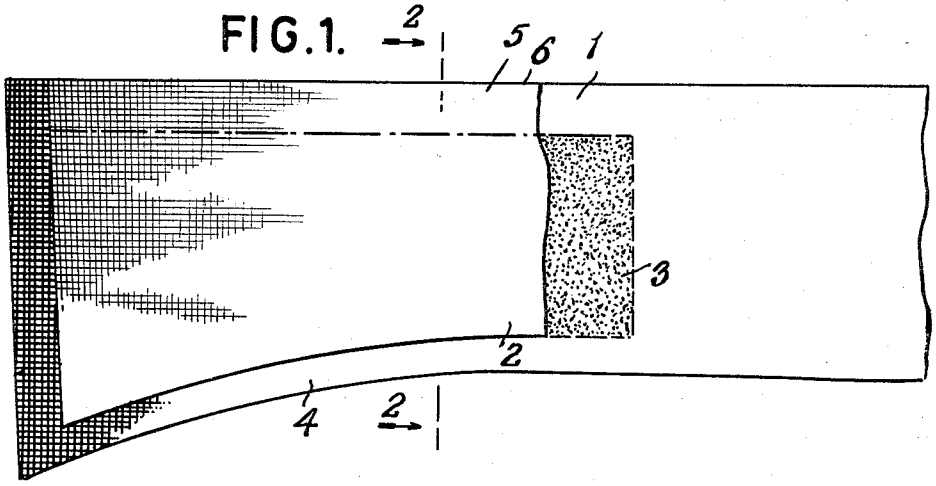


FIG. 2.

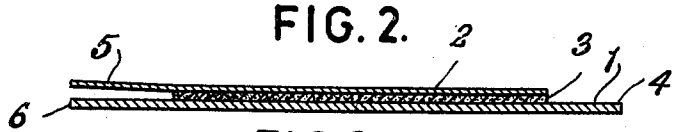


FIG. 3.

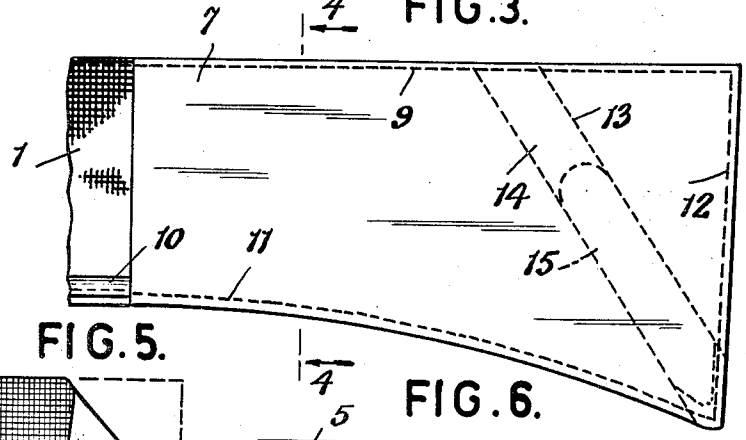


FIG. 4.

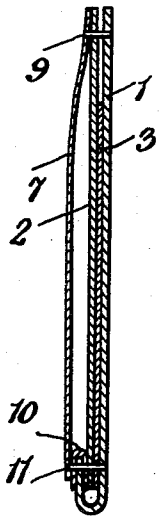


FIG. 5.

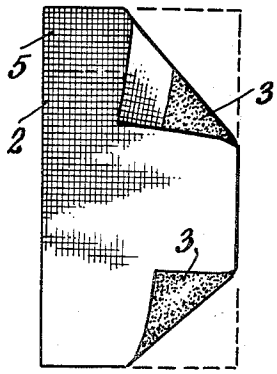
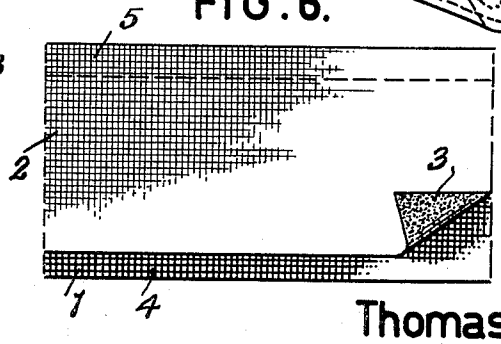


FIG. 6.



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COLLARS AND METHOD OF MAKING THE SAME

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1 Claim. (Cl. 2—143)

This invention relates to collars, and particularly to those applied to shirts, and one of the objects of the present invention is to provide a collar of this character of improved construction and one which will overcome the deficiencies found in shirt collars as they are presently made.

In shirt collars of present-day construction, wrinkles, and therefore an untidy appearance, often result from variation in shrinkage and other non-conformities taking place in the several plies of which the collar is made. Very often puckers are found in collars due to stretch of the material or the sewing and subsequent unequal shrinkage of the plies of the fabric and of the thread which unites them. In some collars the fold line is irregular; in others blisters occur due to the top or outer ply separating in spots from the starch, or separating from other types of plasticised linings employed in the collar. In an effort to reduce or eliminate the above deficiencies, collar and shirt manufacturers often produce collars of extra stiffness and thickness which are uncomfortable to wear and are usually found unacceptable to the purchasers.

With the above deficiencies in view, it is an object of this invention to provide a collar which shall be wrinkleless; which shall be relatively thin and flexible; which will withstand repeated launderings and which shall generally eliminate the deficiencies found in present-day collars and as enumerated above. It is an object of the invention to provide an improved method for manufacturing a collar as above described.

With these, and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a face view, looking at the inside face, of a portion of a collar blank wherein the improved reinforcement is applied;

Fig. 2 is a sectional view, taken substantially on the line 2—2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 is a view of the inside face of a portion of a collar embodying the improved construction;

Fig. 4 is a sectional view, taken substantially on the line 4—4 of Fig. 3, looking in the direction of the arrows;

Fig. 5 is a view of a small section of an inner ply or reinforcement, or patch, to the surface of which has been applied an adhesive material; and

Fig. 6 is a face view of a section of collar fabric to which the reinforcing material or patch has been applied.

Referring to the drawing, and particularly to Figs. 1 and 2 thereof, 1 indicates the body of a collar blank which is of relatively closely-woven fabric, preferably of multiply construction and which is sufficiently heavy to prevent wrinkling or blistering. At 2 is shown an inner ply, reinforcement or patch, which is intimately and contiguously attached to the inner face of the body fabric

by means of a layer of a suitable adhesive agent, such as a sheet of vinyl plastic or other thermo-plastic material shown at 3. This adhesive material is preferably such as to intimately bond together the two plies 1 and 2 by the application of heat and pressure or other means, and which when applied becomes integrated with the two fabric plies 1 and 2. The inner ply 2 is of relatively thin, loosely-woven and flexible textile fabric which, when applied to the adhesive or plastic material 3, under heat and pressure becomes integrated with the plastic layer. It is preferably provided with a projecting upper marginal edge portion 5, extending beyond the upper limits of the plastic layer 3 to permit this projecting part 5 to be inserted in the banding seam of the collar and cooperate in the formation of a positive fold line for the collar. The ply 2 tends to reinforce the plastic or adhesive layer to such an extent that the layer becomes resistant to the stresses of stitching and shrinking, thereby eliminating puckers in the collar.

In the production of the collar blank, the inner or reinforcing ply 2 is integrated with the plastic coating 3 as seen in Fig. 5, said coating being provided on the back surface of the ply 2 and integrated with the fabric comprising this ply by heat and pressure or other means so that the plastic or adhesive material 3 is thus interposed between the two plies 1 and 2 and intimately unites them. The inner ply 2 is so positioned relatively to the outer body fabric 1 that the upper edge 6 of the body fabric is located adjacent to the free edge portion 5 of the inner ply 2.

It will be noted that the lower edge of the inner ply 2 terminates short of the lower edge of the collar body so that a marginal edge portion 4 composed only of the body fabric, is the result. This provides a thin edge for the bending, up-turning and the stitching 11. The lower edge of the inner ply 2 is preferably so located relatively to the lower area 4 that the stitching 11 will pass through the ply 2, but without folding of it so that the stitching passes through only a single thickness of the ply 2.

The construction of the collar is shown in Fig. 3, wherein the inner face of the collar adjacent to an end or tip area of the same, is disclosed. It will be therein noted that the inner ply 2, as well as an inner lining 7 are of relatively thin and flexible fabric, and are stitched along three edges by the stitching indicated at 9, 11 and 12. The lower edge of the portion 4 is provided with a binding 10 and this edge is upturned and secured down by the stitching 11. Thus, even if the adhesion between the inner ply 2 and the body material 1 should become lost after some laundering of the collar, the inner ply 2 would still remain attached.

The adhesive material 3 may be applied in a number of ways, one of which is to employ a thin sheet of approximately .0003 of an inch in thickness of vinyl plastic, which is integrated with the ply 2 and thereafter caused to adhesively attach said ply and the body material intimately together under heat and pressure. In the collar shown, a pocket 14 is provided by the stitching 13 and a permanent or removable stay 15 is retained in the pocket. This arrangement of the pocket and stay therein is optional and forms no part of the present invention.

The inner ply 2 united to the body material 1 by an intermediate adhesive sheet and when stitched as described provides a construction which eliminates wrinkles, puckers, blisters, prevents buckling and produces a positive fold line while providing a thinner effect than is secured by collars of present-day construction.

The collar may be made in various ways, such as by providing a composite strip as shown in Fig. 6, and which is composed of the body fabric 1 to which the inner ply 2 is intimately bonded by the adhesive material 3. The inner ply may be attached to the body material in such

areas as might be required so that when the collar blank is cut out from the strip, the inner ply will be located at the desired positions in the blank and preferably in the tip areas as shown in Figs. 1 and 3. The collar can also be made by cutting out a blank from the multi-ply body material 1 and then attaching the inner ply in the form of one or more patches at such locations on the blank as required. The lower terminal edge of the ply 1 may have a binding tape 10 disposed thereover, as seen in Fig. 4.

While it is herein suggested that the inner ply should be located in certain areas of the collar, it will be understood that these areas may be varied; may be enlarged or reduced in size, and located wherever a reinforced wrinkleless effect is desired.

Having described an embodiment of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claim.

What I claim is:

A collar including wing portions comprising an outer ply of relatively closely woven, heavy textile fabric, an inner reinforcement ply of thin, loosely woven textile fabric, stiffening sheets of thermal plastic material, intimately and contiguously integrated with and attached at the wing portions of the collar to adjacent inner surfaces of said plies, said collar including upper and lower marginal edges extending the length thereof, the outer and inner plies terminating in a common linear edge portion at said upper marginal edge and said stiffening sheets terminating in an upper edge in inwardly spaced substantially

parallel relation therefrom and defining a fold-line for said collar when said upper marginal edge of the collar is secured in a neck band up to the upper edge of said stiffening sheets, the lower marginal edges of said inner play and stiffening sheet terminating in a common line portion parallel to and spaced inwardly from the lower marginal edge portion of said outer ply, said outer ply providing a reverse-bend portion overlying the common line portion of said inner ply and stiffening sheet, a single thickness inner lining of a relatively thin and flexible textile fabric material substantially conforming in shape to that of the inner ply and having its single thickness overlying the same with the reverse-bend portion of the outer ply extending over the common edge portion of said inner ply and stiffening sheet and beneath the inner lining, and peripheral stitching extending through the margin of said inner lining and the outer and inner plies at said upper margin, and through said outer and inner plies, stiffening sheet and reverse-bend portion at said lower margin.

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