J. M. VAN HEUSEN.

COLLAR.

APPLICATION FILED SEPT. 12, 1917.

1,309,381. Patented July 8, 1919.

Fig. 1,

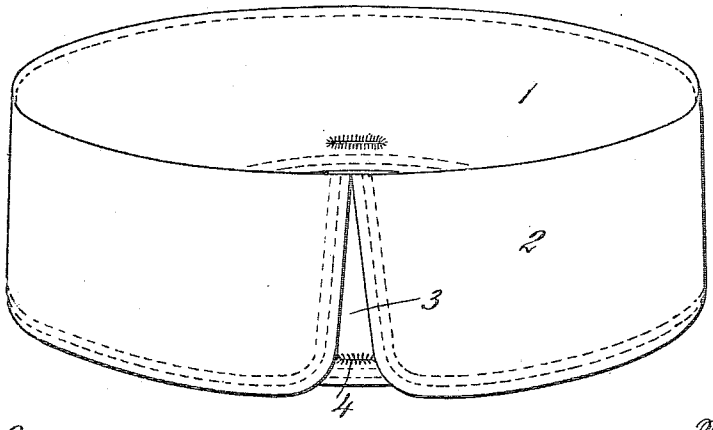


Fig. 2,

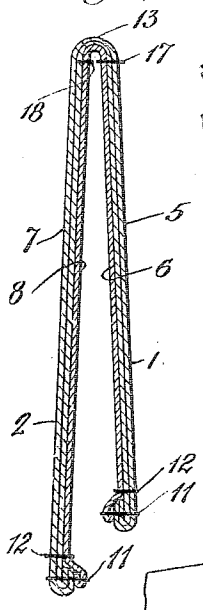


Fig. 3

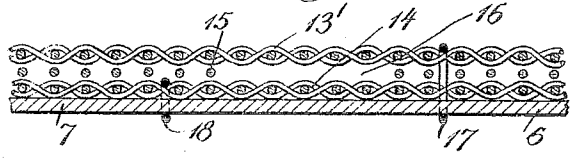


Fig. 5,

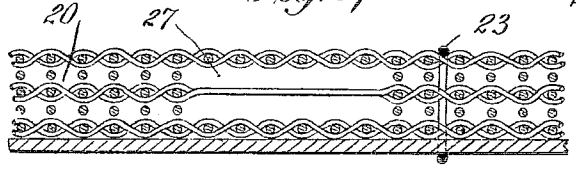


Fig. 6,

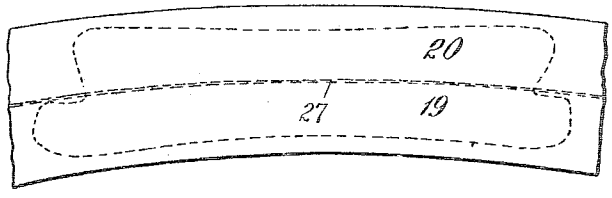
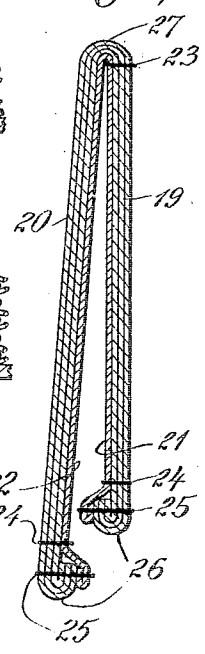


Fig. 4,



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COLLAR.

1,309,381. Specification of Letters Patent. Patented July 8, 1919.

Application filed September 12, 1917. Serial No. 190,936.

To all whom it may concern:

Be it known that I, JOHN MANNING VAN HEUSEN, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Collars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to soft folding or turned-down collars, made up of a neckband portion and a folding or turned-down portion, which are adapted to be worn without starching and which will nevertheless have a sufficient degree of stiffness to make the collars self-supporting.

The common forms of soft folding collars, made up of individual layers of fabric sewed together, usually have the defect that they present a flimsy appearance, and in order to improve their appearance it has been common to embody stiffeners of various kinds between the layers of fabric, or to apply detachable stiffeners to the collars when worn.

The present invention has, as one of its objects, the provision of a soft folding collar which will have an acceptable degree of stiffness, without undue rigidity, so that it will simulate in appearance the common laundered and starched collars.

The improved collar of the present invention has its neckband portion and its folding portion made up of multiple-ply interwoven fabric. In the preferred embodiments of the invention, both the neckband and the folding portion are woven in the form of a single piece of fabric which is provided with a curvilinear fold portion of increased flexibility uniting the neckband and folding portions, so that the collar will naturally fold along this line of increased flexibility, and so that the shape of the collar will be largely determined by the contour of this curvilinear fold portion.

According to the present invention, the multiply interwoven fabric which forms the neckband and the folding portion of the collar is combined with an added layer or layers of fabric which extend the full height or width of the neckband and folding portions, and which are secured to the neckband and folding portions. It is one important advantage of this construction that it enables an improved edge binding of the multiply fabric to be provided, as will be more fully hereinafter pointed out.

While the fold portion of increased flexibility which unites the neckband and the folding portions of the collar may, in some cases, be made in the form of a straight fold line, yet it is much more advantageous to make this fold portion of curvilinear contour, so that, when the collar is folded along the curvilinear fold line, the collar will naturally assume a curvilinear shape. Such a fold portion of increased flexibility can be provided in the multiply fabric in various ways, as by omitting the interweaving of the separate plies along the fold line, or by omitting certain of the longitudinal threads of one or more plies of the fabric along the fold line. The weaving of a multiply interwoven fabric causes the different plies thereof to mutually strengthen and support each other so that the fabric as a whole is a relatively stiff fabric. This is an advantage in collar construction inasmuch as it gives to the collar a desirable degree of stiffness. This degree of stiffness is, however, undesirable at the fold portion of the collar because it would prevent or make difficult the provision of the desired well defined fold line of the collar. By weaving the fabric with a fold portion of increased flexibility, there is attained both the advantage of the stiff fabric for the neckband and folding portions of the collar and the advantage of a fold portion of increased flexibility as an integral part of the interwoven fabric.

Inasmuch as the multiply interwoven fabric is relatively stiff, it present difficulties in the finish or binding of the raw edge thereof, along the edges of the neckband and folding portions. This will be apparent from the fact that the flexing or bending of a heavy fabric will be resisted by the interweaving, whereas single thicknesses of fabric which are entirely separate from each other, can slide with respect to each other and fold more readily. According to the present invention, this difficulty in the binding of the edge of the collar is overcome and an improved binding for the collar is provided which not only effectively holds the bound edge of the multiply fabric, but which so holds and binds this edge that the collar as a whole is stiffened and strengthened and supported by the binding thus pro-

vided. This binding is provided, according to the present invention, by the same added layer or layers of fabric which are combined with the neckband and folding portion, and which extend the full height or width of the neckband and folding portions.

The multiply fabric may be, for example, a two-ply fabric or a three-ply fabric. In the case of a two-ply fabric having filling threads between the two plies, the weakened fold line, or fold portion of increased flexibility, may be obtained by omitting the interweaving and omitting the filling threads along the desired fold portion. In the case of a three-ply fabric, the weakened or more flexible fold portion may be provided by omitting the interweaving of the plies or by omitting longitudinal threads along the desired fold line.

The invention will be described more particularly in connection with the embodiments thereof illustrated in the accompanying drawings, in which Figure 1 shows a completed collar embodying the invention; Fig. 2 is a sectional view of the collar of Fig. 1; Fig. 3 is an enlarged view taken on the fold line of the collar of Fig. 2; Fig. 4 is a sectional view of a modified collar construction; Fig. 5 is an enlarged sectional view taken along the fold portion of the collar of Fig. 4; and Fig. 6 shows a fabric from which the collar blank of the multiply fabric may be cut.

The collar of Fig. 1 is made up of the usual neckband portion 1 and folding portion 2 having end tabs, one of which is indicated at 3 with the usual button-hole 4.

Referring to Figs. 2 and 3, it will be seen that the neckband portion is made up of the two-ply interwoven fabric 5 and preferably a single ply thickness or fabric 6, while the folding or turned-down portion is similarly made of the two-ply fabric 7 and the single ply fabric 8. The single ply fabric, 6—8, is a single piece of fabric which is continuous, and the two-ply fabric, 5—7, is likewise a single piece of fabric which is continuous. The two-ply fabric, however, is provided with a portion 13 of increased flexibility, as indicated more clearly in Fig. 3, from which it will be seen that the filling threads 15 are omitted between the plies 13' and 14 to give a portion 16 which is weakened and made more flexible thereby, so that the fabric will fold more readily along this line. The single thickness fabric 6 is secured to the multiply fabric 5 by one or more rows of stitches 17 at the top of the neckband, while the upper edge of the folding portion is similarly stitched at 18, but in such a manner that the stitching does not extend through and show on the outside of the collar.

In order to provide a proper binding for the stiff two-ply fabric, and to secure this binding in place, both the two-ply fabric and the single thickness are inturned at their lower edges and two rows of stitches are passed therethrough, one row passing through the inturned edge of both the two-ply fabric and the single ply fabric, and the other row passing through the two fabrics beyond the inturned edge of the two-ply fabric. The edge of the stiff fabric is thus tightly bound and held by the single fabric, and is moreover so held that there is provided an edge of such increased stiffness that the collar as a whole is materially stiffened thereby. The two rows of stitches are indicated in Fig. 2 at 11 and 12 respectively.

The collar shown in section in Fig. 4 is made up of a three-ply interwoven fabric with preferably a single ply fabric secured thereto, the multiply fabric of the neckband and folding portions being indicated respectively at 19 and 20 and the corresponding portions of the single ply fabric at 21 and 22. These fabrics are held together at the upper edge of the neckband by one or more rows of stitches 23, 24 and 25.

The fold portion of increased flexibility is provided, as indicated in Fig. 5, by the omission of certain longitudinal threads during the weaving operation, so that there is provided a portion 27 of the fabric which is weaker or more flexible than the remaining portions. As a result, the relatively stiff three-ply fabric can exert its stiffness in the desired manner while its flexible fold portion will provide for the proper folding of the collar at the desired fold line.

The lower edge of the neckband and folding portions of Fig. 4 are finished and bound in a manner similar to that of Fig. 2, the edge of the three-ply fabric being turned to form a hem, as indicated at 26, and the single thickness fabric being also inturned and two rows of stitches being laid, one through the inturned edges of both fabrics and one through the fabrics beyond the inturned edge of the three-ply fabric, so that this inturned edge is firmly bound. This construction also is one which provides a thickened fold edge of substantial stiffness which supplements the stiffening effect of the multiply fabric forming the neckband and folding portions. As the result of this stiffening effect, the collar is stiffened along the edges of both the neckband and folding portions, where stiffness is particularly desired, so that the collar as a whole is thereby stiffened and its appearance correspondingly improved.

It will be noted from the drawings that the multiply fabric extends to the bottom of both the neckband and folding portions so that the binding is not visible except at the end tab. The reverse side of the neckband and folding portions, however, likewise pre-

sents a finished appearance inasmuch as the added layer or layers of fabric likewise extend from the bottom of the neck band to the top thereof. Accordingly, the end tab portion of the collar, where it is exposed to view, presents a finished appearance, similar to that of the rest of the collar. This is particularly to be desired because any unevenness or irregularity incident to the binding of the collar which presented an unsightly appearance at the end tab, would reflect upon the entire appearance of the collar itself. From Fig. 1 it will be noted that the only evidence of the binding of the collar is the two rows of stitches, the same as the two rows of stitches which show along the outside of the folding portion of the collar. In Figs. 2 and 4, the construction of the edge has been somewhat exaggerated, for purposes of illustration, but the edge of the collar, while of a sufficient stiffness to contribute materially to the stiffening of the collar as a whole, is nevertheless sufficiently thin so that it presents no objectionable thickness.

As above noted, the multiply interwoven fabric is advantageously woven in a single piece with a curvilinear fold portion woven therein. An appropriate fabric is indicated diagrammatically in Fig. 6, provided with a curvilinear folding portion 27. The curvature is somewhat exaggerated but it will be understood that the curvature is capable of variation in accordance with the curvilinear contour desired in the collar construction. By cutting the collar blank from a single piece of fabric in this way, there is provided a single collar blank with the weakened fold therein. The single ply fabric of Figs. 2 and 4 can likewise be cut from a single piece of fabric. Consequently, the collar as a whole may be made from but two pieces of fabric which are cut the proper shape and then combined. The collar requires merely to have the edges thereof properly bound and the two fabrics stitched together and button-holes provided therein to complete the collar construction. Instead of the large number of machine operations incident to the manufacture of the common collars, the collar of the present invention involves a minimum number of machine operations and a minimum number of separate pieces entering into the collar construction.

Inasmuch as the inside of the neckband and folding portions also present a complete finished appearance, it will be noted that the collar of the present invention may be made reversible, in the sense that it may be folded in the reverse direction and the inside of the neckband and folding portions used as the outside of the collar. In such a case, any stitching such as indicated at 18 in Fig. 2 may be omitted. The fold portion of increased flexibility provided by the multiply fabric will fold freely in either direction. The edge binding provided by the present invention, although of materially increased thickness and stiffness, as compared with the main body of the collar, is nevertheless sufficiently flexible where the collar is folded at its ends. This advantage is made possible by the weakened fold portion or fold portion of increased flexibility provided by the multiply fabric. The multiply fabric will itself tend to fold along this fold line of increased flexibility, and the bound edge of the collar will similarly tend to fold along this same line, inasmuch as the binding likewise will be more flexible at this point than at the other points around the collar. The edge binding of the present invention accordingly contributes to the stiffening of the collar where stiffening is desired, that is, around the edge of the neckband and folding portion, while it is nevertheless without objectionable stiffness at the places where folding of the binding, as well as of the remaining portion of the collar, is necessary.

Although the collar of the present invention is a composite collar in the sense that it is made up in part of the multiply interwoven fabric and in part of the other layers of fabric secured thereto, nevertheless the collar as a whole has its fold portion determined by the fold portion of the multiply interwoven fabric, and has the stiffening effect of the edge binding due largely to the multiply fabric, while the added layer or layers of fabric nevertheless contribute to the thickness and body of the collar, without adding objectionable rigidity and further materially contribute to the binding of the collar edge, inasmuch as the added fabric is itself inturned, thus presenting a finished edge and contributing to the binding of the edge of the multiply fabric and the stiffening effect incident thereto.

It will be evident that the different plies of the multiply fabric may be made of different materials and of different weaves. The outer ply may thus be of silk or of a finer or more pleasing appearance than the inner plies which are not exposed to view. So also the added layer or layers of fabric may be made of the same or a different material.

The collar of the present invention is intended primarily as a soft collar to be worn without starching; but it will be evident that it is available for use as a starched collar where such a collar is desired; and when so used, the inherent stiffness of the collar itself will supplement the stiffening effect of the starch. Less starch will thus be required to give to the collar a certain stiffness.

I claim:

1. A soft folding or turned-down collar made up of a neckband and a folding or

turned-down portion, said portions being both made up of multiply interwoven fabric united by a fold portion of increased flexibility, and one or more added layers of fabric secured thereto and extending the full width of the folding or neckband portion; substantially as described.

2. A soft folding or turn-down, collar made up of a neckband portion and a folding or turned-down portion, both of said portions being made of multiply interwoven fabric with one or more layers of other fabric secured thereto, and the multiply fabric of the neckband and folding portion being united by a folding portion of increased flexibility, the edges of the multiply fabric and of the added fabric being inturned and stitched through the inturned edges and also beyond the inturned edges; substantially as described.

3. A soft folding or turned-down collar made up of a neckband portion and a folding or turned-down portion, said collar being made up of a single piece of multiply interwoven fabric with one or more single pieces of fabric secured thereto and extending the full width of the neckband and folding portions, the multiply fabric of the neckband and folding portions being united by a curvilinear fold portion of increased flexibility, and the edges of the multiply fabric and added fabric being inturned and stitched by two rows of stitches, one passing through the inturned edges and one through the fabrics beyond the inturned edges, whereby the collar is provided with a curvilinear set and the shape and stiffness of the collar is increased by the edge binding; substantially as described.

In testimony whereof I affix my signature.

JOHN MANNING VAN HEUSEN.