March 19, 1935. G. A. RIPLEY 1,994,787

SHIRT COLLAR

Filed Dec. 8, 1933

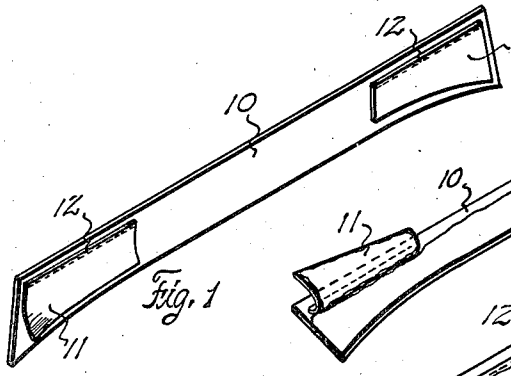


Fig. 1

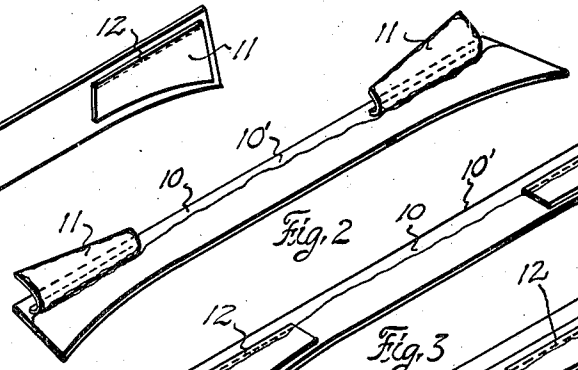


Fig. 2

Fig. 3

Fig. 4

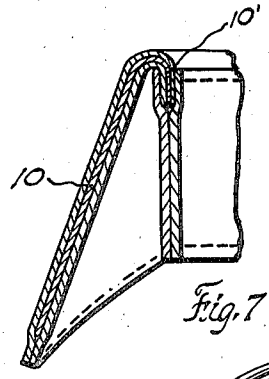


Fig. 7

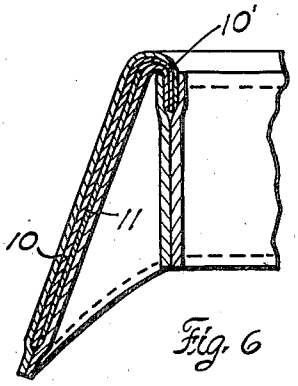


Fig. 6

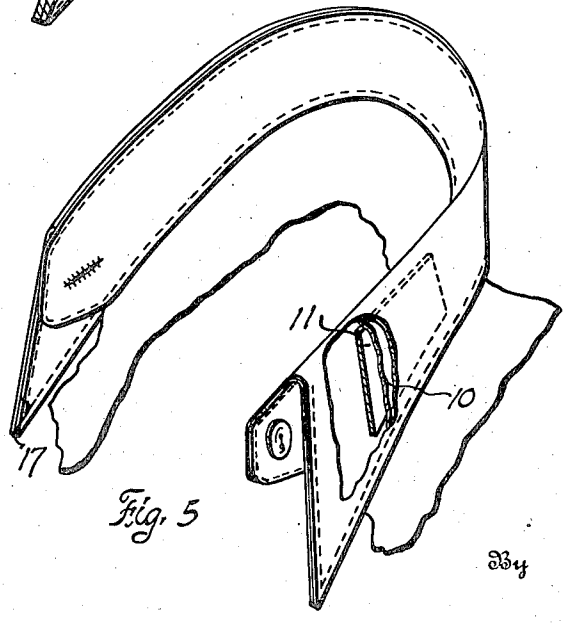


Fig. 5

By

Inventor

George A. Ripley

Jack Athley

Attorney

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SHIRT COLLAR

George A. Ripley, Dallas, Tex.

Application December 8, 1933, Serial No. 701,413

7 Claims. (Cl. 2—143)

This invention relates to new and useful improvements in shirt collars.

This invention has to do with collars which are either attached to a shirt or made separate therefrom. Detached collars are heavily starched to make them stiff, and where it is desired to stiffen an attached collar it is usually starched. Starch is injurious to the fabrics of the collar, causing them to split and reducing their life. While a detached collar may be washed and ironed without losing its shape, it is difficult to wash and iron an attached collar and maintain its shape, particularly if starch is omitted. The front edges usually become bowed and the outer fabric is frequently wrinkled or creased.

It has become the custom to insert stiffeners in the under side of the flap or leaf of an unstarched collar, to support the front edges in order to give it a neat appearance. Collar pins are also used for this purpose. However, such devices do not cure the evils incidental to washing and ironing, whereby the collar is distorted from its original shape.

One object of the invention is to provide a collar and a method of producing the same, whereby the desirable features of a so-called soft collar and a starched or stiff collar are combined, but which are had without the use of starch.

A further object of the invention is to build into the collar a stiffening which will be permanent so long as the collar lasts, but which will not interfere with laundering or ironing, or in any way detract from the comfort, wearing qualities, or appearance of said collar; but on the contrary will add to the appearance of the collar and will prolong the life thereof, because no auxiliary supports will be required and the bad effects of starching will be eliminated.

An important object of the invention is to inculcate within the flap or leaf of the collar a water-proof stiffening which will permit laundering of the collar and which will cause it to retain its shape when ironed.

A further object of the invention is to provide a permanent stiffening in the leaf or flap of a collar, whereby the fronts or ends, sides and back may be stiffened to the same degree or extent or to different degrees of stiffness.

A still further object of the invention is to impregnate or coat one or more of the lining members of the flap or leaf with a water-proofing composition, which when dry will stiffen said lining and remain in this condition during the subsequent laundering of the shirt and collar.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing in which an example of the invention is shown, and wherein:

Figure 1 is a perspective view of the lining of a collar leaf, ready to receive the stiffening composition,

Figure 2 is a perspective view of the same, showing the first application of the stiffening composition,

Figure 3 is a similar view showing the reinforcing lining folded down and attached to the lining by the first application of the water-proofing composition,

Figure 4 shows the lining laid smooth upon the drying board and the second coat of water-proofing composition applied thereto,

Figure 5 is a perspective view showing a collar constructed in accordance with the invention and attached to the upper portion of a shirt, a portion of the leaf of the collar being in section,

Figure 6 is a sectional view of said collar, and

Figure 7 is a sectional view of a collar having a single stiffened lining therein.

In the drawing the numeral 10 designates the fabric lining of the leaf of a collar which may be made of any suitable material. This lining has the general shape of the collar leaf. At each end of the collar reinforcing linings or strips 11 are secured along their upper edges to one side of the lining 10 by a row of stitches 12. The linings 11 are spaced a substantial distance from the edges of the lining 10 and this is particularly true of the top edge of the lining 10, as will be hereinafter brought out. However, the linings 11 may extend to the front edges of the lining 10 if desired.

In applying the stiffening, the lining 10 is laid flat, as is shown in Figure 2, and the linings 11 are folded back. A liquid stiffening composition is then applied to the surface of the lining 10 and also to the adjacent sides of the linings 11. This composition may be applied with a brush or in any other way. The exact ingredients of the composition are immaterial so long as they are such as to produce a water-proof stiffening which will adhere to the fabric when dry. I have obtained very good results with what is known as cellulose cement.

It is preferable to coat the entire lining 10 from end to end, but the coating may be omitted from the intermediate portion of the lining which is lo-

cated in the back portion of the collar. When the coating has been applied, the linings 11 are folded down upon the coated surface of the lining 10. Sufficient pressure may be applied, either by hand or otherwise, to cause the undersides of the linings 11 to adhere to the coating. It is preferable to lay the coated lining aside for a few minutes to give the cement an opportunity to saturate the fabric and to begin to set. Two minutes have been found satisfactory, but the invention is not to be limited to this length of time.

After the foregoing period, a second application or coating is spread over the linings in such thickness and at such points as is desired. In applying the coatings it is best not to extend it to the upper edge portion 10' of the lining 10 as this portion becomes part of the edge or fold of the collar and is more comfortable if left free from stiffening. It will be noted that the linings 11 are stitched below the top edge of the lining 10.

After the coatings are applied, the lining is laid upon a flat support 15, as is shown in Figure 4, and permitted to partially dry. It has been found that unless this is done the linings are likely to curl up, but by permitting the cement to set while the linings are supported on a flat surface wrinkling and curling will be prevented. A surface coated with paraffin has been found satisfactory, as the linings do not stick thereto. It is not desirable to apply heat or pressure during the setting period, but the invention is not to be so limited.

The cementitious liquid which is used will thoroughly permeate and impregnate the linings and when set will stiffen and reinforce the same. By using a cellulose or similar composition, the stiffening will not be brittle and, therefore, will permit flexing of the collar without breaking or cracking said stiffening. This will permit the collar to be laundered in the usual way without injury. Before the linings are dry and are soft and pliable, they are placed in the collar leaf and sewed in the usual manner. This permits stitching through the coated portions of the linings, which would be impossible after the cement became dry.

It is to be noted that the outer coverings are preferably not cemented or caused to adhere to the linings. It is also desirable to place the linings in the leaf of the collar so that the linings 11 will be on the under or inner side of the flap and thus prevent the forming of lines or creases on the outside of the collar when the same is ironed. I desire it to be distinctly understood that the invention is not to be limited to the number of linings or coats of cement applied. The result sought is to incorporate in the collar, a lining which is stiffened with a water-proof and more or less heat-proof composition, whereby the collar will retain its shape and stiffness after repeated laundering.

When the leaf of a collar is stiffened in accordance with this invention it will retain its shape, because the stiffened lining will extend along the major portion of each front edge of said leaf, as well as along the bottom edge thereof. The outer covers of the collar being stitched to the lining, will thus be held in place and when the collar is ironed there will be no tendency for the leaf to distort or wrinkle. The stiffening may vary in degree, but it is preferable to employ it only to such extent as to make the collar self-supporting. By use of this invention the collar will always have a neat and smooth appearance and pins and other supporting devices will not be required to give it such an appearance or to hold it in shape. At the same time the entire folded upper edge of the collar will be soft and comfortable.

The invention is not to be limited to any number of stiffened linings. Where the outer or covering fabric, such as silk, poplin, or cambric, is thin, then the lining 10 and the auxiliary linings 11 are more desirable; but where the covering fabric, such as flannel, is thick, then the auxiliary linings 11 may be omitted and only the single lining 10, as is shown in Figure 7, is necessary. However, as many linings as is desired may be used. One or more coatings of stiffening composition may be employed and the lining may be coated on one or both sides. The stiffening composition may be of such a character as to merely coat the surface of the lining or it may be such as to impregnate the lining. While it is preferable not to coat the upper edge portion 10' of the lining, it could be done within the scope of the invention. It is also possible to permit the composition to dry before sewing the lining into the collar leaf. If desirable the stiffening composition may be applied only to the front portions of the lining.

While the invention is not to be limited to any particular type of cement or water-proof composition, it is pointed out that very good results may be had with cellulose cements and compositions which may be purchased in the open market, and therefore, it is not considered necessary to give any particular formula because of this fact.

After the lining has been coated, it has been found that a period of thirty minutes is sufficient to permit the cement or composition to set and partially dry, when the lining may then be secured in the collar, as it is still pliable. However, the invention is not to be limited to this particular drying period.

The description which has been given recites more or less detail of a particular embodiment of the invention, which is set forth as new and useful; however, I desire it understood that the invention is not limited to such exact details of construction, because it is manifest that changes and modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent, is:

1. The method of stiffening collar leaves which consists, in applying a waterproof composition to the lining of the collar leaf to stiffen the same, partially drying said lining on a flat surface until it is substantially no longer sticky, and then sewing said lining in the collar leaf while pliable before the composition has fully dried.

2. The method of stiffening collar leaves which consists, in coating the lining with a water-proof cement to stiffen the same, partially drying said lining on a flat surface until it is substantially no longer sticky, and then sewing said lining in the collar leaf.

3. The method of stiffening collar leaves which consists, in impregnating the lining with a water-proof cement to stiffen the same, partially drying said lining on a flat surface until it is substantially no longer sticky, and then sewing said lining in the collar leaf.

4. The method of stiffening collar linings which consists, in applying a water-proof cement to the front portions of said linings, then applying reinforcing linings to the wet surfaces of the linings, then making a second application of said cement over the reinforcing linings, then partially drying the linings on a flat surface to pre-

vent wrinkling, then sewing said linings in a collar leaf before completely drying the same, and then drying the same.

5. The method of stiffening collar linings which consists, in applying a water-proof cement to one of said linings, then applying reinforcing linings to the wet surfaces of the linings, then making a second application of said cement over the reinforcing linings, then partially drying the linings on a flat surface to prevent wrinkling, then sewing said linings in a collar leaf before completely drying the same, and then drying the same.

6. The method of stiffening collar linings which consists, in stitching reinforcing linings to the front portions of the leaf lining, folding back said reinforcing linings, applying water-proof cement to said lining, folding said reinforcing linings down onto the cemented portions to cement said linings thereto, then applying said cement to the cemented linings, then partially drying said lining on a flat surface to prevent wrinkling, then sewing said linings in a collar leaf before completely drying the same, and then drying the same.

7. The method of stiffening collar leaves which consists, in applying a water-proof stiffening composition to the surface of the lining of said leaf, then allowing said lining to stand for a brief period of time to permit the coating to partially dry, then applying a second coating of said composition over the first coating, then partially drying said lining for a period of time, then securing said lining in the leaf of the collar before it is dry and while it is still pliable, and then drying the same.

GEORGE A. RIPLEY.