

Oct. 7, 1930.

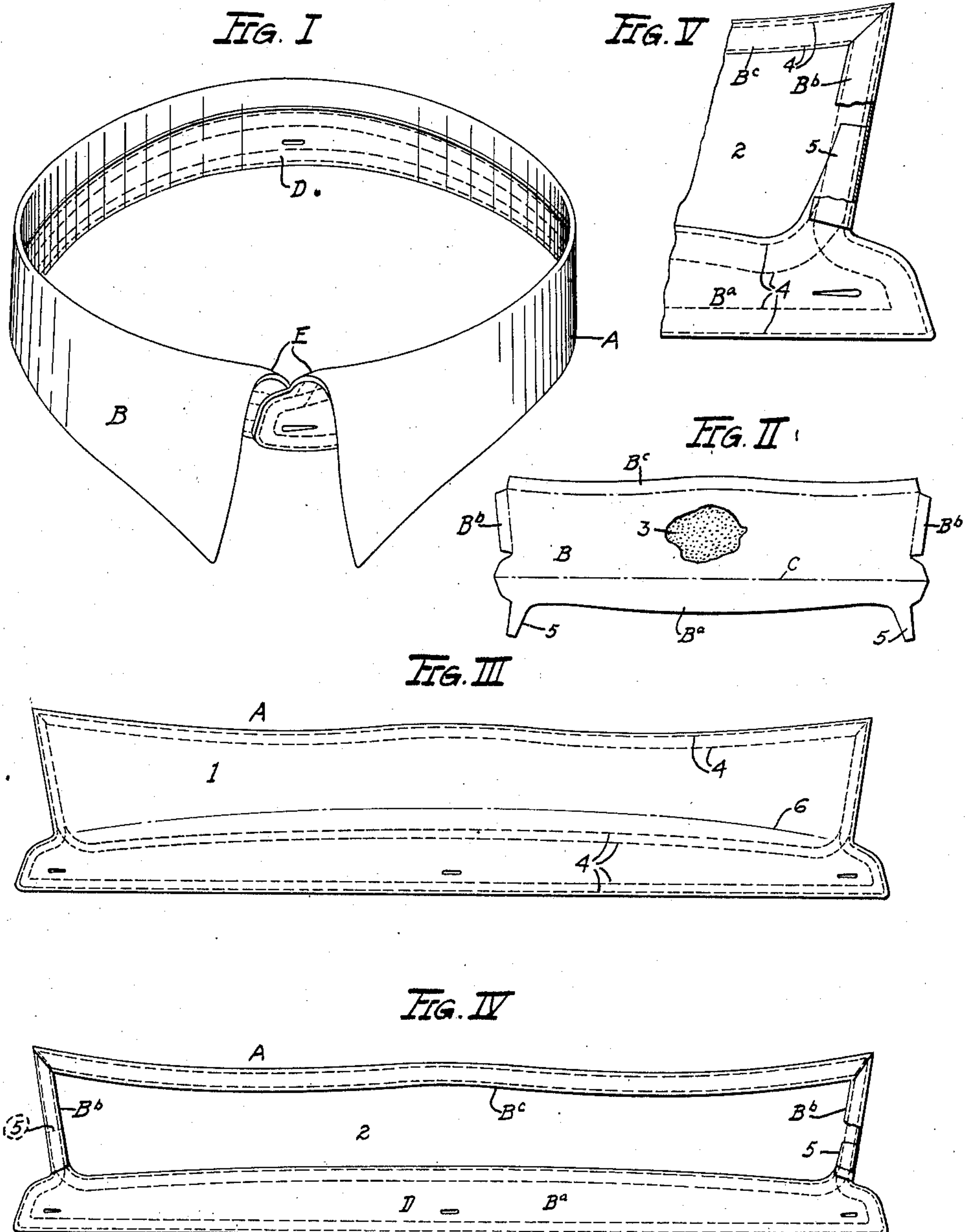
H. F. WATERS

1,777,421

APPAREL COLLAR

Filed June 1, 1926

2 Sheets-Sheet 1



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FIG. VI

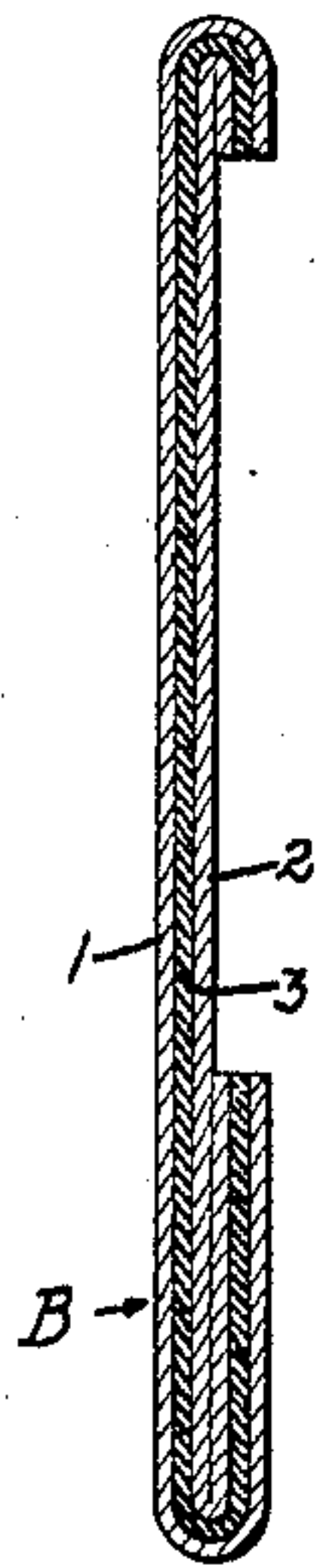


FIG. VII

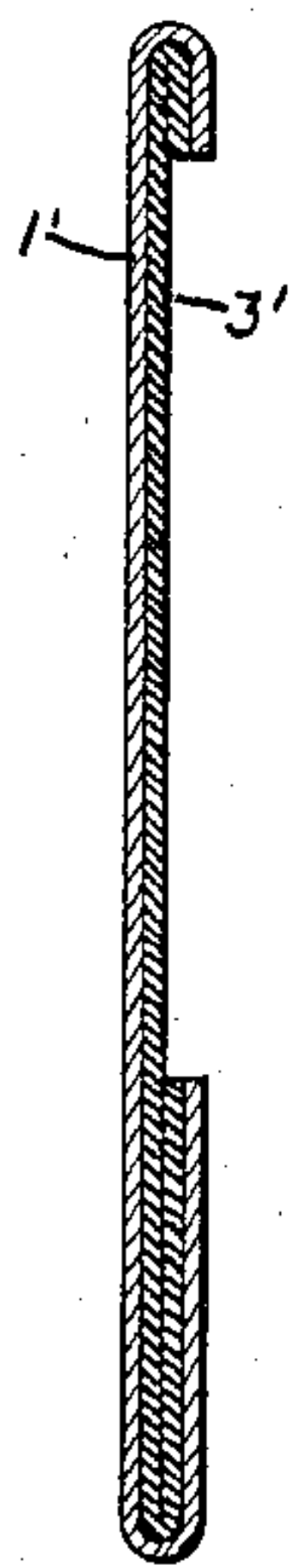


FIG. VIII



FIG. IX



FIG. X

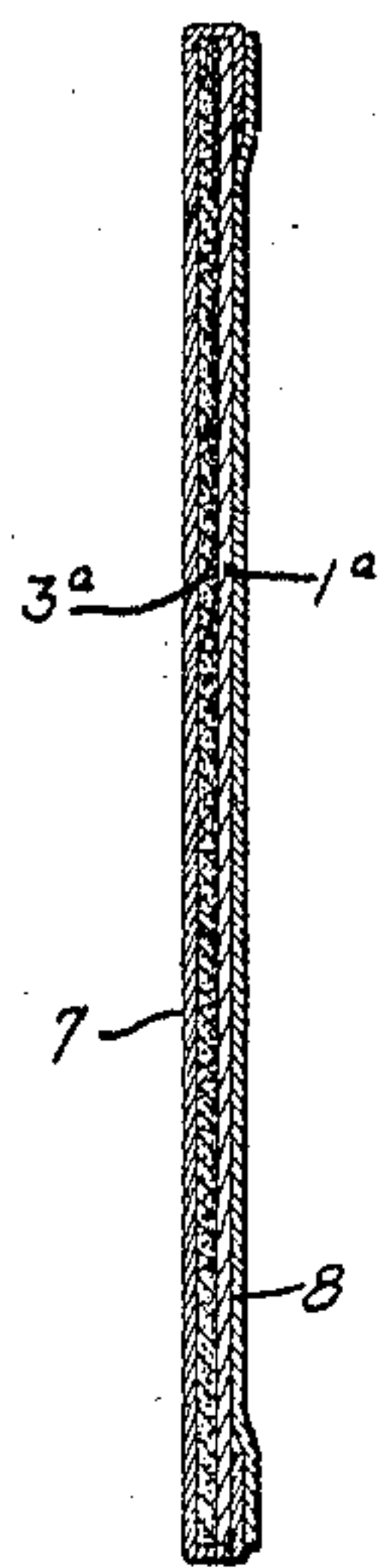


FIG. XI

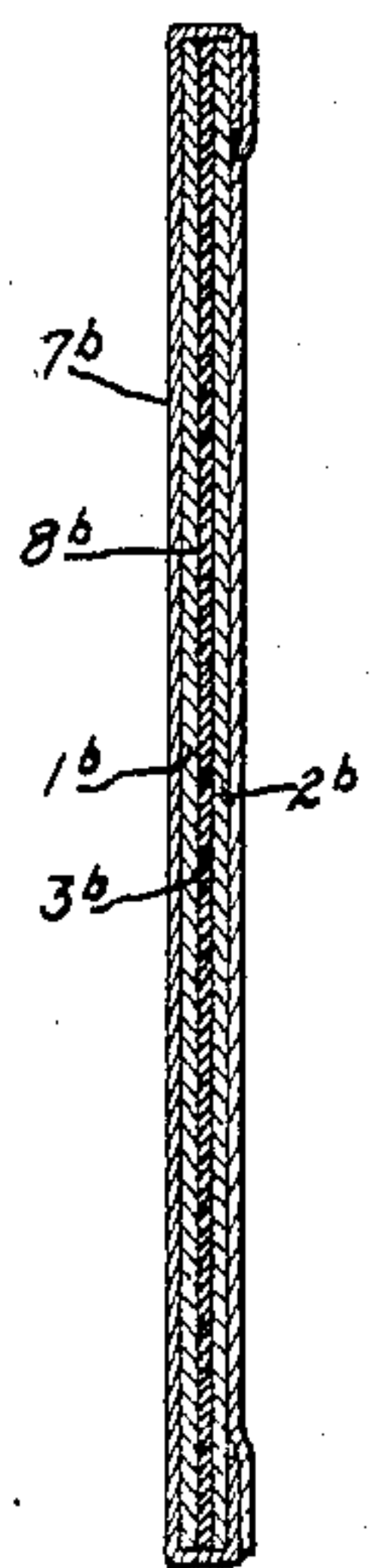


FIG. XII

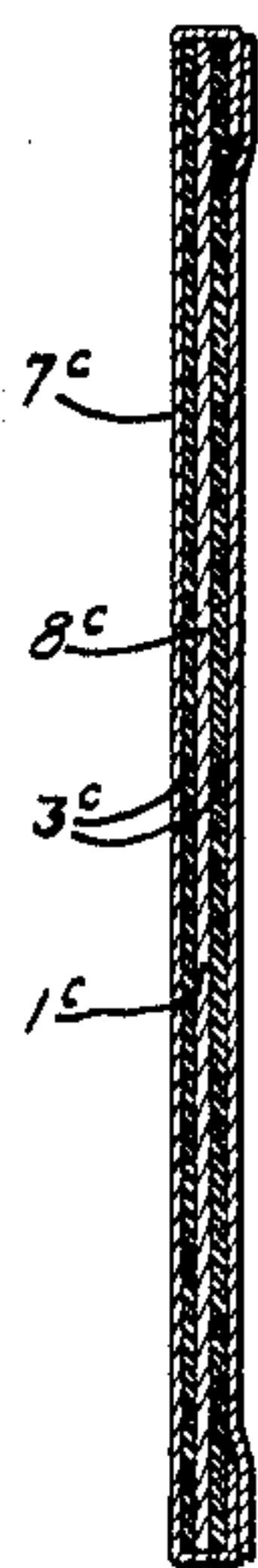
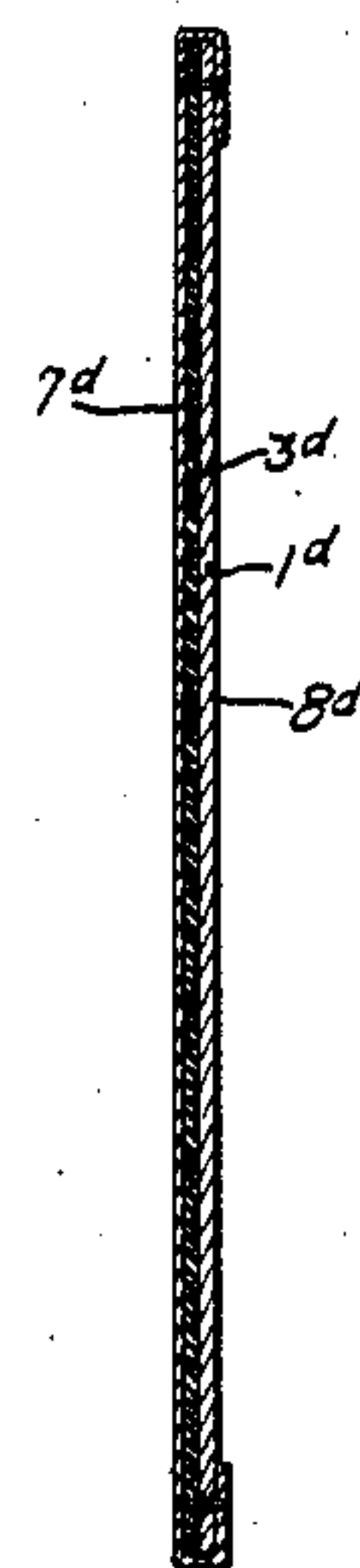


FIG. XIII



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## UNITED STATES PATENT OFFICE

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## APPAREL COLLAR

Application filed June 1, 1926. Serial No. 112,795.

This invention relates generally to apparel collars and particularly to an apparel collar of the soft turn-down type, the main object of the invention being to produce a soft collar which is formed of material having sufficient body and elasticity to cause said collar to retain an unmussed and unwrinkled appearance when in use.

Another object of my invention is to produce an apparel collar from fabric which is so made that raveling of said material is prevented, whereby the necessity for employing binding tape at the edge of said fabric is eliminated.

Another object of the invention is to produce an apparel collar which is so formed that said collar is provided with a natural roll front.

Still another object of the invention is to produce an apparel collar which is capable of being adjusted on the neck of the wearer with respect to the height thereof.

With the foregoing and other objects in view, the invention comprises the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention. However, it is to be understood that the invention comprehends changes, variations and modifications which come within the scope of the claim hereunto appended.

Fig. I is a perspective of a collar made in accordance with my invention.

Fig. II is a view on a reduced scale of the material of which the collar is formed before said material has been folded to produce the collar.

Fig. III is a view of my improved collar looking at the outside thereof when said collar is spread out flat.

Fig. IV is a view similar to Fig. III but looking at the inner face of the collar.

Fig. V is a fragmentary view showing the construction of my improved collar at the front thereof whereby said collar is provided with a roll front.

Fig. VI is a cross section through my improved collar showing the same as it will be

made in accordance with the preferred form of the invention.

Fig. VII is a cross section through my improved collar showing the same as it will be made in accordance with a modified form of the invention.

Fig. VIII is a cross section of my collar showing the same when made in accordance with still another form of the invention.

Fig. IX is a greatly enlarged fragmentary section showing the fabric illustrated in Fig. VIII.

Figs. X, XI and XII illustrate modified forms of the invention, in each of which the collar is provided with a lining constructed in a manner to give body and elasticity to said collar.

Fig. XIII is a cross section of my improved collar made in accordance with still another form of the invention.

In its broadest aspect my invention comprises associating with the fabric of which an apparel collar is to be formed an amount of material adapted to give to said fabric sufficient body and elasticity to cause the collar to retain an unmussed and unwrinkled appearance when in use whereby the appearance of said collar more nearly resembles a laundered starched collar than did the soft collars used heretofore.

I have found that fabric which functions exactly as desired when made into collars may be produced by associating elastic material, for instance, rubber compound, or inherently elastic fabrics such as wool or hair-cloth, with said fabric. The elastic material gives body to the fabric which causes the collars made therefrom to retain an unmussed and unwrinkled appearance under ordinary conditions, and said material also gives elasticity to the fabric of which the collars are formed, which results in the removal of wrinkles if unusual wear causes wrinkles to appear in the collars.

The elastic material may be associated with the fabric of which the collar is to be formed in a manner to produce a laminated structure of relatively elastic and relatively non-elastic materials, or, in the case of rubber compound, the fabric may be impregnated, fric-



tioned, or coated with the rubber compound. Also, I may produce an apparel collar which is provided with a lining of relatively elastic material, said lining being formed of fabric having an amount of rubber compound or inherently elastic fabric associated therewith, or said lining may be formed entirely of inherently elastic fabric.

In Fig. I, I illustrate an apparel collar A made in accordance with my invention, said collar comprising a band of fabric B cut, shaped and formed to fit the neck of the wearer. Fig. VI illustrates a cross section taken through the collar shown in Fig. I, the construction shown in the last mentioned view being the preferred form of the invention. As shown in Fig. VI, the material of which the collar illustrated in Fig. I is made comprises an outer strip of relatively non-elastic fabric 1 and an inner strip of relatively non-elastic fabric 2. The strips of fabric 1 and 2 are spaced apart from each other slightly and interposed therebetween is a layer of relatively elastic material 3, such as rubber compound or inherently elastic fabric, for instance, wool or haircloth. The strips of fabric 1 and 2 and the strip of material 3 interposed therebetween have the same shape and dimensions, and because said strips of material are firmly secured together a unitary laminated band is produced. When the material 3 of the band B shown in Fig. VI is rubber compound, said compound, in addition to acting as a stiffening agent, also functions as an adhesive whereby the strips of material 1, 2 and 3 are secured together to produce a unit, and when said material 3 is inherently elastic fabric either a separate adhesive or stitches are employed to firmly secure the strips of material 1, 2 and 3 together. When the band of material B is formed as shown in Fig. VI, said band of material is to all outward appearances a single piece of material which may be cut, shaped and sewed as such.

In producing my improved apparel collar from a piece of material made as illustrated in Fig. VI, a piece of said material shaped as shown in Fig. II is arranged in a flat condition. The lowermost portion B<sup>a</sup> of the material is then folded upwardly on the dot and dash line C to the position in which said portion B<sup>a</sup> is shown in Fig. IV. The end portions B<sup>b</sup> are then folded inwardly and the top portion B<sup>c</sup> is folded downwardly, as shown in Fig. IV. When the portions referred to have been folded as described, said portions are secured in place by means of stitches 4 or other fastening means, the portions B<sup>a</sup> functioning as the neck band D of the collar and the folded portions B<sup>b</sup> and B<sup>c</sup> providing the collar with hemmed edges.

By referring to Fig. II it will be noted that the portion B<sup>a</sup> of the piece of fabric to which the collar is to be formed is provided with a

pair of oppositely disposed extensions 5. These extensions 5 are so located that when the portion B<sup>a</sup> has been folded upwardly as described said extensions will be located at the side edges of the collar immediately above the neck band D, as shown in Fig. IV. The side portions B<sup>b</sup> are folded inwardly after the extensions 5 have been positioned as described, said side portions B<sup>b</sup> being located above and in contact with the top faces of said extensions. In view of this arrangement it is apparent that portions of the side edges of the collar immediately adjacent to the collar band D comprise each three plies of material, while all other portions of the collar are either one-ply or two-ply thickness. It is apparent, therefore, that the portions of three-ply thickness which are at the front of the collar when said collar is being used provide the collar with the desirable roll front as designated by the reference character E in Fig. I, and because the added thickness at the points designated will cause the collar to have a natural roll front the need for special ironing apparatus used heretofore for obtaining this rolled effect is eliminated. In referring to the number of plies of material making up different parts of the collar I am considering the laminated band as a single ply material.

In Fig. III, I have indicated by the dot and dash line 6 the line on which the collar would be normally folded when in use. In the use of a soft turn-down collar prior to this invention the folding line of the collar was at the top edge of the neck band of the collar, and this folding line was fixed. In other words it was not possible to fold the collar on a different line and thereby provide either a higher or a lower collar, for if an attempt were made to locate the fold in a lower plane than its normal location it would be necessary to fold the relatively stiff neck band, which could not be done, and if an attempt were made to locate the fold in a higher plane than its normal location the entire shape of the collar would be changed and the relatively non-elastic collars produced heretofore did not possess sufficient elasticity to permit said collars to be drawn into new shapes. In the use of my improved collar the top edge of the neck band D is located some considerable distance away from the normal folding line 6, thus permitting the folding line to be located in a lower plane than its normal location. Also the folding line may be located in a higher plane than its normal location, and because the material of which the collar is formed possesses some elasticity said collar may be caused to assume various shapes on the neck of the wearer.

In Fig. VII, I illustrate a form of my invention wherein the material of which the collar is formed comprises a single layer of fabric 1' with which is associated a layer of



elastic material 3'. A collar made of the material illustrated in Fig. VII has all of the advantages realized in connection with a collar formed of the material shown in Fig. VI, and in addition thereto would not be as expensive to produce due to the smaller amount of fabric employed.

10 In Figs. VIII and IX fabric 1'' is illustrated which is impregnated or frictioned with rubber compound 3''. Fig. IX shows on an enlarged scale the manner in which the rubber compound is forced between the threads of the fabric when said fabric is frictioned with rubber compound.

15 In Fig. X, I illustrate a form of my invention wherein the collar comprises a body portion 7 within which is arranged a lining 8. The lining illustrated in Fig. X comprises a strip of fabric 1<sup>a</sup> with which is associated a strip of elastic material 3<sup>a</sup>, the last mentioned strip of fabric being impregnated or frictioned with elastic compound.

25 In Fig. XI a lining 8<sup>b</sup> is arranged within the body portion 7<sup>b</sup>, said lining comprising a pair of strips of fabric 1<sup>b</sup> and 2<sup>b</sup> between which is interposed a layer of elastic material 3<sup>b</sup>.

30 In Fig. XII the lining 8<sup>c</sup>, which is arranged within the body portion 7<sup>c</sup>, comprises a pair of layers of elastic material 3<sup>c</sup> between which is located a layer of fabric 1<sup>c</sup>.

35 In Fig. XIII the lining 8<sup>d</sup> comprises a layer of fabric 1<sup>d</sup> and a layer of elastic material 3<sup>d</sup> to which the fabric 7<sup>d</sup> forming the outer face of the collar is stitched or otherwise secured.

40 An advantage realized in connection with the use of rubber compounds and similar materials in connection with my collar-forming material is that no binding tape is necessary to prevent raveling of the fabric as is the case in connection with fabrics used heretofore in producing collars.

45 While I have shown in the drawings and described in the specification a collar of the type which may be detached from a shirt, it is to be understood that a collar permanently attached to a shirt may be made in accordance with my invention.

50 I claim:

55 An apparel collar comprising a neckband and a turnover portion, said collar being formed of a single piece of material of laminated construction, said laminated material comprising layers of fabric between which a layer of rubber compound is interposed, said layer of rubber compound being approximately co-extensive with said layers of fabric and being secured by adhesion continuously throughout its length and width to said layers of fabric, a portion of said piece of laminated material being folded double to provide a neckband of greater thickness than the turnover portion of the collar, and 65 said neckband being provided with integral

extensions extended at an angle to said neckband which are arranged adjacent to the turnover portion of the collar, said turnover portion of the collar being provided with folded edges and said folded edges being so arranged that portions thereof overlap said integral extensions to provide the collar with portions of increased thickness at the front thereof whereby the collar will have a roll front, said layer of rubber compound being characterized by its ability to give resiliency to the collar in every direction thereof to cause the collar to return to its normal unwrinkled condition after the fabric of the collar has been flexed and the pressure which caused the flexing action has been relieved, without adding to the normal stiffness of the collar.

In testimony that I claim the foregoing I hereunto affix my signature.

HARRY F. WATERS.