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BONING FOR FOUNDATION GARMENTS

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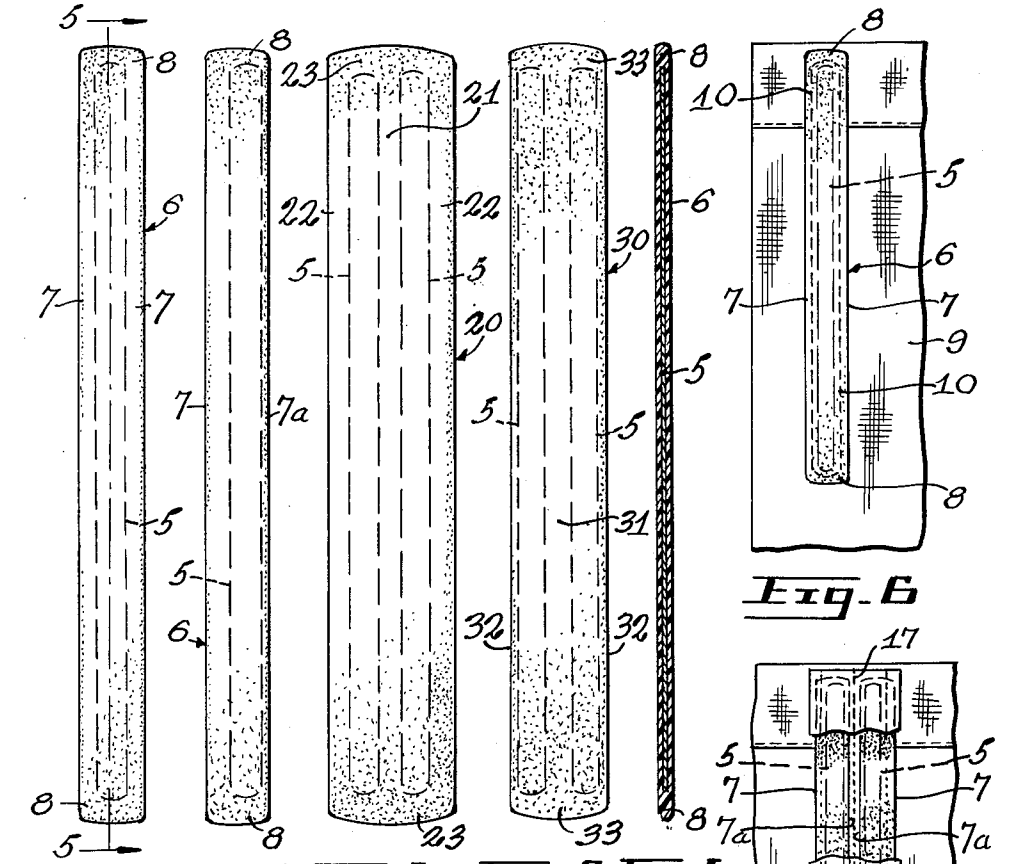


Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6

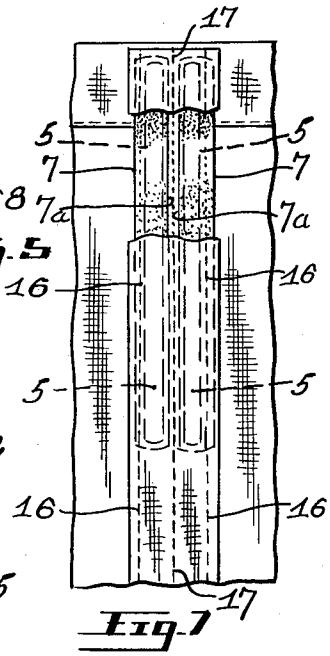


Fig. 7

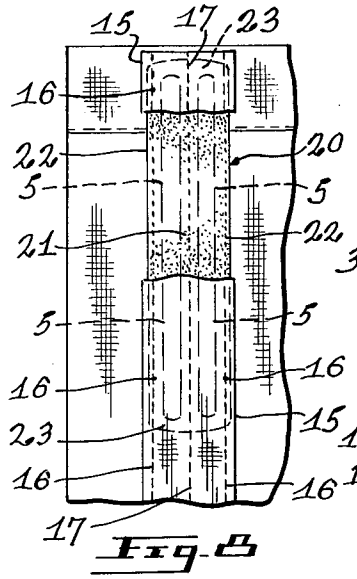


Fig. 8

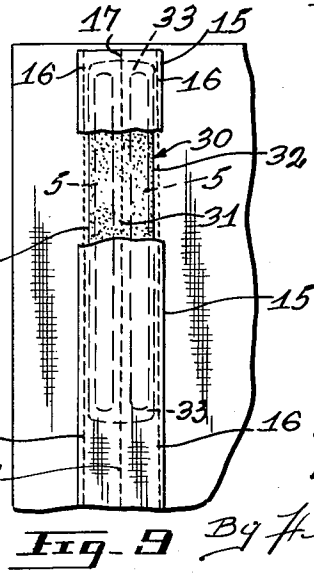


Fig. 9

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BONING FOR FOUNDATION GARMENTS

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This invention relates to improvements in boning generally employed in brassieres, corsets, girdles and like garments for the purpose of stiffening sections of the garments to assist in maintaining the shape and contours of the garment when it is fitted about the wearer.

A particular object of this invention is to provide the elongated, flexible metallic "bones" with a protective sheath of plastic material.

Conventional boning is made either of spiral wire or flat flexible steel which require metal caps or tips to avoid sharp ends on the boning. These steel bones and their metal caps or tips have numerous disadvantages. For example, they cannot be sewn directly to a garment. Also they must be inserted in pockets which require cross-tacking, an expensive additional operation, to retain the boning in a desired position, particularly when the pockets are of the nature which also serve as a reinforcing means for vertical seams of the garment. In this event it is desirable to have the boning extend only along a predetermined portion of the pocket and cross-tacking must be effected to prevent movement of the boning in the lengthwise direction of said pocket.

Another disadvantage is that the metal caps or tips, being bulky, tend to cause discomfort to the wearer. Also these caps or tips eventually cause the fabric of the pocket to deteriorate and become a source of annoyance and discomfort as they work out of the pocket through the torn section thereof.

A further object is to provide a plastic sheath for a metallic boning member which has a substantial degree of rigidity and flexibility and with at least one lateral extension which is pierceable by a sewing needle so that the sheathed boning may be secured by stitching along at least one elongated margin of the boning.

A still further object is to provide a sheath of the character described including lateral margins of said plastic material about the metallic member so that the boning may be secured directly to the garment by a line of stitching or alternatively may be secured in a pocket by multiple lines of stitching serving to define the longitudinal margins of the pocket. With this latter arrangement it will be appreciated that the lines of stitching along the longitudinal plastic margins will be sufficient to secure the boning in its proper position within the pocket and thereby eliminate the additional and costly cross-tacking operations at opposite ends of the pocket.

Still a further advantage of a boning according to this invention consists in the ability to substitute relatively inexpensive metallic boning members for the costly metallic "bones" heretofore required. In this connection it will be appreciated that since the boning has in the past been subjected to water in the process of washing, the metal employed had to be of a costly stainless composition or else be coated with a water-proof paint which would prevent rusting of the metal. With a plastic sheath the enclosed metallic member is free from water penetration and may therefore be of an inexpensive metal which would otherwise be affected by moisture.

Still another object is to provide a boning including at least two laterally spaced parallel metallic boning members and a plastic sheath which encloses said metallic members in a manner which provides at least a central plastic strip between said members and through which

stitching may extend to secure said boning to a garment.

The above and other objects, advantages, and features characteristic of this invention will be understood more readily from the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is an elevational view of a boning embodying this invention.

FIG. 2 is an elevational view of a modification of the boning shown in FIG. 1.

FIG. 3 is an elevational view of a further modification.

FIG. 4 is an elevational view of a still further modification.

FIG. 5 is a sectional view taken along the line 5—5 of FIG. 1.

FIG. 6 is a fragmentary elevational view illustrating an application of the boning shown in FIG. 1.

FIG. 7 is a fragmentary elevational view, partly in section, illustrating an application of the boning shown in FIG. 2.

FIG. 8 is a fragmentary elevational view, partly in section, illustrating an application of the boning shown in FIG. 3.

FIG. 9 is a fragmentary elevational view, partly in section, illustrating an application of the boning shown in FIG. 4.

Referring more particularly to the drawings, FIGS. 1 and 5 show a boning member consisting of a steel or like metal bone **5** enclosed in a sheath of plastic or like material **6** so as to provide closed side margins **7** and closed end margins **8**. The plastic sheath **6** is preferably high-density polyethylene but may be of any suitable plastic material which is readily puncturable with a sewing needle for securing the boning member to points of stiffening in a brassiere, girdle and like garment.

As shown in FIG. 6 the boning member of FIG. 1 is suitable for direct attachment to a garment, indicated at **9** by the application of stitching **10** which may extend about the entire bordering or margins **7** and **8** of the plastic sheath **6**. This provides an adequate boning or stiffening to the garment where required without the use of a boning pocket which is necessary to contain the conventional steel boning in place.

Alternatively the boning member shown in FIG. 1 may be contained in the conventional pocket (not shown) which usually extends along a garment seam. In this event the two-needle stitching required to secure the pocket to the garment may penetrate the side margins **7** of the sheath **6** and thus hold the boning against displacement along the length of the pocket without the necessity of cross-tacking operations above and below the boning which is required to prevent displacement of the conventional type boning in said pocket.

FIG. 2 illustrates a modified boning member in which one side margin **7** of the plastic sheath **6** is relatively wide and the other side margin **7*a*** is of a width sufficient only to provide a closure for that side of the steel bone **5**. This type of boning member is particularly useful for insertion in double pockets as shown in FIG. 7. The double pocket **15** is usually employed along the length of a seam of a garment where it is desirable to provide extra reinforcement to the seam. It is customary to insert a pair of bones in these double pockets for the length required for stiffening of that section of the garment. Since the boning is only required for a certain length of the pocket it becomes necessary to provide cross-tacking at the top and bottom of the bones to prevent their displacement.

In order to avoid these tacking operations, a pair of boning members as shown in FIG. 2 are inserted between the garment **9** and the fabric forming the double pocket **15** with the narrow margins **7*a*** in spaced opposed relation. A three-needle machine, which stitches the pocket

to the garment, has its outer needles stitch through the wide margins 7 of the plastic sheath, as indicated at 16, while securing the outer margins of the pocket 15 to the garment. At the same time the central needle stitches through the pocket to the garment, as indicated at 17, without penetrating the inner narrow margins of the plastic sheath. It will be appreciated that the securing of the boning members by stitching 16 eliminates the tacking operation.

The modification shown in FIG. 3 consists of providing a pair of steel bones 5 with a plastic sheath 20. The bones 5 are arranged in spaced parallel relation and the sheath 20 forms a covering which includes relatively wide outer side margins 22, a central plastic strip 21 and end margins 23. This double boning member may be secured directly to a garment in a manner similar to that illustrated in FIG. 6 or may be enclosed in a double pocket with the three lines of stitching 16, 17, 16 penetrating the outer side margins 22 and the central plastic strip 21, as shown in FIG. 8, while securing the double pocket 15 to the garment 9.

FIG. 4 shows a further modification in which a pair of steel bones 5 are encased in a sheath 30. The bones 5 are arranged in spaced parallel relation and the sheath 30 forms a covering which includes a relatively wide central plastic strip 31, narrow outer side margin 32 and end margins 33. This double boning member is used preferably in pockets 15 as shown in FIG. 9, in which a triple line of stitching is employed. In this arrangement only the central line of stitching 17 penetrates the central plastic strip 31 while the outer lines of stitching 16 engage the outer side margins of the pocket 15 beyond the side margins 32 of the plastic sheath 30.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A garment boning comprising an elongated flexible metallic member and a sheath of flexible plastic material totally enclosing said metallic member, said sheath having at least one side margin of substantial width paralleling one longitudinal edge of the metallic member, said margin being readily pierceable by a sewing needle to stitch said boning to a garment in the longitudinal direction of the boning.

2. A garment boning comprising an elongated flexible metallic member and a sheath of flexible plastic material totally enclosing said metallic member, said sheath having side margins of substantial width paralleling opposite longitudinal edges of the metallic member, said margins being readily pierceable by sewing needle to stitch said boning to a garment in the longitudinal direction of the boning along opposite elongated sides of the metallic member.

3. A garment boning comprising at least two elongated flexible metallic members disposed in spaced parallel relation and a sheath of flexible plastic material totally enclosing said metallic members, said sheath having a relatively wide central strip between adjacent longitudinal edges of said spaced metallic members, said strip being readily pierceable by a sewing needle to stitch said boning to a garment in the longitudinal direction of the boning.

4. A garment boning comprising at least two elongated flexible metallic members disposed in spaced parallel relation and a sheath of resilient plastic material totally enclosing said metallic members, said sheath having a relatively wide central strip between adjacent longitudinal edegs of said spaced metallic members and having side margins of substantial width paralleling opposite longitudinal edges of said metallic members, said strip and said margins being readily pierceable by a sewing needle to stitch said boning to a garment in the longitudinal direction of the boning.

References Cited in the file of this patent

UNITED STATES PATENTS

1,951,236	Donahue	Mar. 13, 1934
2,044,436	Longaker	June 16, 1936
2,267,365	Blum	Dec. 23, 1941
2,830,300	Schwartz	Apr. 15, 1958
2,852,781	Ganser	Sept. 23, 1958

FOREIGN PATENTS

211,105	Australia	Oct. 24, 1957