

[54] **CONCEALED WIRE STRUCTURE FOR AN OUTER GARMENT**
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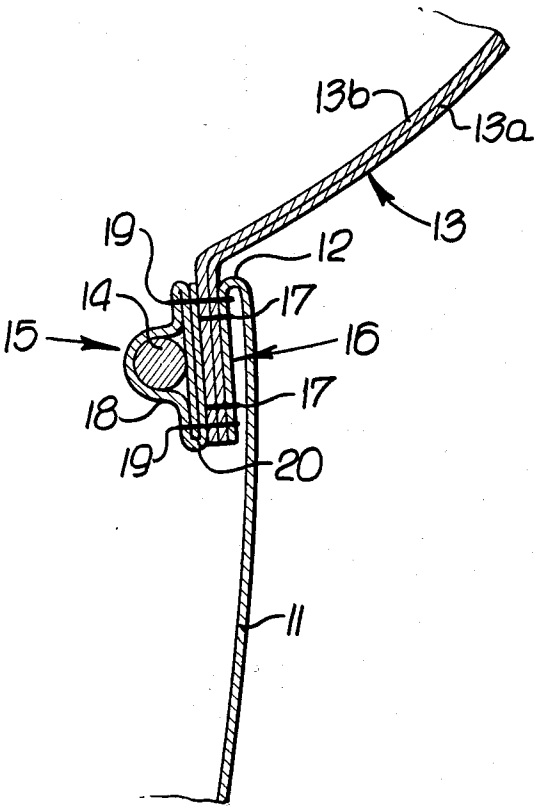
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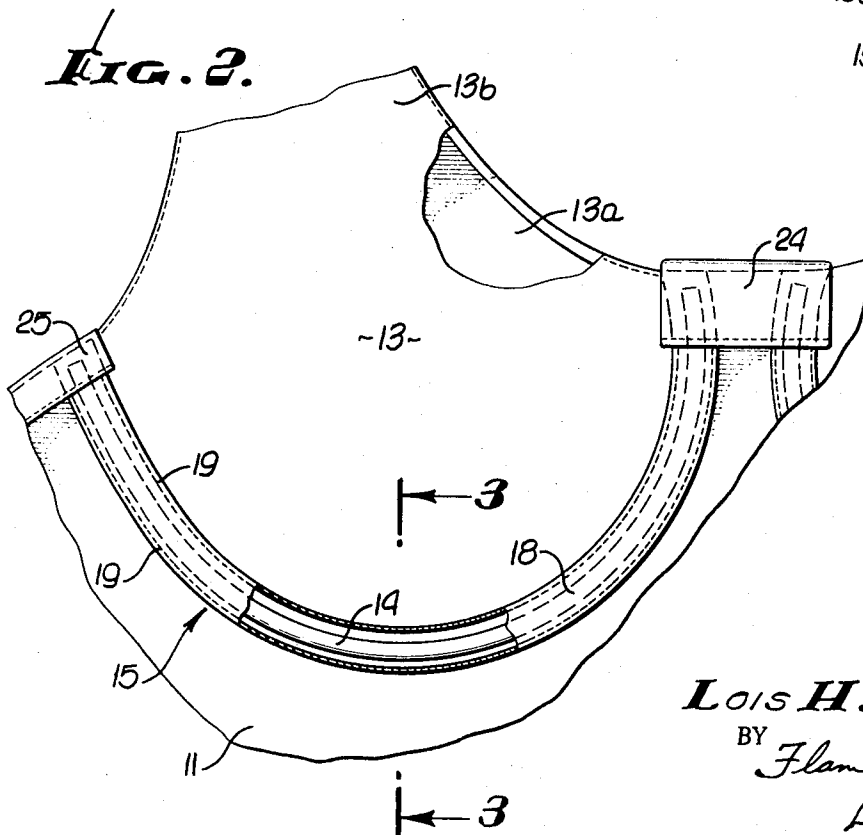
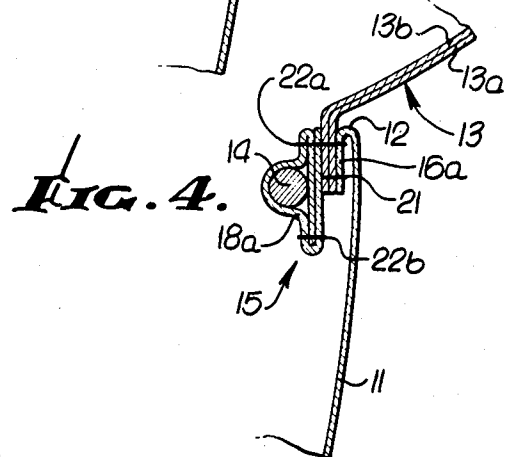
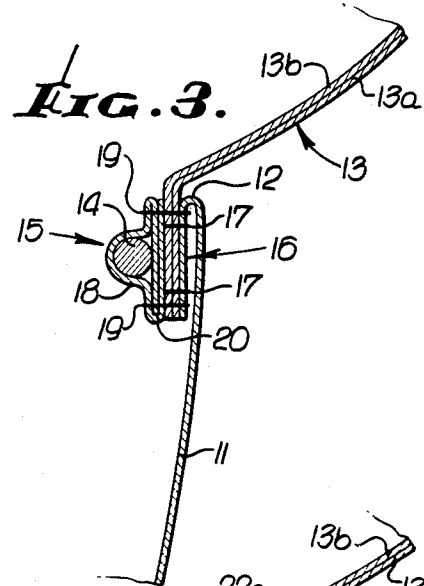
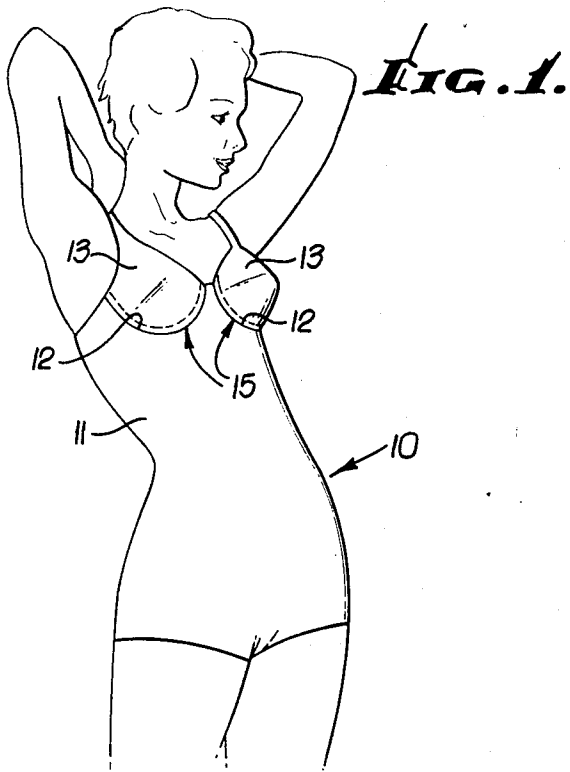
[57] **ABSTRACT**

A bra cup reinforcement wire structure for a woman's swim suit or other outer garment. A pair of flanges are formed interior of the garment by stitching together the adjoining body member and respective bra cup-fabric edges in outer surface facing relationship. A wire receiving sheath for each cup is sewn to the respective flange, thereby concealing each sheath and stiffener wire from exterior view.

[56] **References Cited**
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6 Claims, 4 Drawing Figures





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CONCEALED WIRE STRUCTURE FOR AN OUTER GARMENT

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a concealed stiffener wire structure for women's swimwear or outer garments.

2. Description of the Prior Art

In women's one-piece swim suits, particularly those in which the back is open almost to the waist, it is desirable to utilize underwired bra cups to provide positive support in the bust area. In the past, the bra reinforcement wires have been enclosed in a fabric sheath attached by two lines of stitching to the seam between the bra cup and garment body panel. As a consequence, the outline of the sheath is exposed to exterior view, bringing attention to the presence of the reinforcement wire.

Some limited attempts have been made in the past to conceal brassiere cup stiffener wires. For example, garments have been made including a free floating wired unit attached to the bra cup only at the upper wire ends. Alternatively, swim suits have been provided with removable reinforcing wires attached at discrete points rather than along the entire lower periphery of each of the bra cups.

The present invention comprises a novel concealed reinforcement wire structure applicable to women's swim suits or other outer garments, wherein there is little or no conformance of the outer fabric material to the transverse curvature of the stiffener wire. The structure is simple to fabricate, and results in an attractive garment in which the bra cup reinforcement wires are hidden from exterior view.

SUMMARY OF THE INVENTION

In accordance with the present invention there is provided a concealed reinforcement wire structure for a woman's swim suit or other outer garment. The structure comprises a pair of flanges, interior of the garment, formed by stitching together in face-to-face relationship the adjoining fabric edges of each bra cup and the garment body panel. A sheath enclosing a bra cup stiffener wire then is sewn to each interior flange. The thickness of the sheath and flange combine to conceal the sheath enclosed reinforcement wires from exterior view.

Thus it is an object of the present invention to provide a woman's outer garment having a concealed bra cup reinforcement wire structure.

BRIEF DESCRIPTION OF THE DRAWINGS

Detailed description of the invention will be made with reference to the accompanying drawings wherein like numerals designate like parts in the several figures. These drawings, unless described as diagrammatic or unless otherwise indicated, are to scale.

FIG. 1 is a pictorial view showing the front of a woman's swim suit incorporating the inventive concealed reinforcement wire structure, the garment being shown in position on the body of a wearer.

FIG. 2 is an interior fragmentary elevation view, partly broken away and in section, showing the concealed wire structure of the garment of FIG. 1.

FIG. 3 is a fragmentary transverse sectional view of the concealed wire structure as seen generally along the line 3 — 3 of FIG. 2.

FIG. 4 is a fragmentary transverse sectional view of an alternative embodiment of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The following detailed description is of the best presently contemplated modes of carrying out the invention. This description is not to be taken in a limiting sense, but is made merely for the purpose of illustrating the general principles of the invention since the scope of the invention best is defined by the appended claims.

Structural and operational characteristics attributed to forms of the invention first described shall also be attributed to forms later described unless such characteristics are obviously inapplicable or unless specific exception is made.

Referring now to the drawings, there is shown a swim suit 10 having a body member 11 formed generally to fit the upper torso of the wearer, and including a pair of arcuate upwardly opening recesses 12 to which are attached a pair of bra cups 13. Each cup 13 is provided with a generally U-shaped reinforcement or stiffener wire 14 concealingly attached to the garment 10 by a structure 15 in accordance with the present invention.

The supporting member of the structure 15 comprises an attaching flange 16 located on the inside of garment 10 along the corresponding arcuate recesses 12. The flange 16 is formed by a line of stitching 17 that sews together, in outer surface facing relationship, the contiguous edges of the bra cup 13 and the body member 11. In the present instance, two layers of fabric are used for the bra cup 13, an outer layer 13a, typically of a stretch material and an inner, non-stretchable layer 13b.

Each reinforcement wire 14 is enclosed in a protective sheath 18 formed by fabric layers stitched in parallel rows 19. At least one of the rows of stitching 19 also catches the flange 16 to anchor the sheath 18 thereto. Since the rows of stitching 19 are located entirely on the flange, and since the flange is formed on the inside of the seam between the cup 13 and the body member 11, the rows of stitching 19 are hidden from exterior view.

The material forming the sheath 18 may be doubled over at 20 (FIG. 3), providing six thicknesses of fabric between wire 14 and the exterior of garment 10. This padding prevents the outside surface of suit 10 from conforming to the transverse curvature of wire 14 which might reveal its presence.

In an alternative embodiment shown in FIG. 4, a somewhat shorter flange 16a is defined by a single line of stitching 21. A fabric sheath 18a includes two rows of stitching 22a, 22b of which only row 22a also serves to attach the sheath to flange 16a.

Although as illustrated sheaths 18, 18a each comprise a single strip of fabric, it may be desirable to form each sheath using a separate inner padding layer covered by an exterior layer of tricot or another smooth fabric. As indicated in FIG. 2, thick folds 24, 25 of fabric may be provided across the ends of reinforcement wires 14 to prevent the wires from irritating the wearer.

Intending to claim all novel, useful and unobvious features shown or described, I make the following claims:

1. In an outer garment:

- a. a fabric section formed generally to fit the upper torso of the body of the wearer, said fabric section having a pair of arcuate upwardly opening recesses in which bra cups are adapted to be inset;
- b. a pair of bra cups having arcuate lower edges adapted to conform to the edges of said arcuate recesses;
- c. a line of stitching for attaching each bra cup to the edges of said arcuate recesses, each of said lines of stitching defining a flange concealed on the inside of the garment, the distal edges of said flanges being free, said stitching being concealed from external view by said body member;
- d. a wire receiving sheath for each cup, each sheath extending along the corresponding said line of stitching and attached to the corresponding cup and fabric section only at said flange and interiorly of said garment whereby the said sheath is concealed from exterior view.

2. The combination as set forth in claim 1 further comprising a bra cup reinforcement wire disposed in each sheath.

3. The combination as set forth in claim 2 wherein each flange is defined by spaced parallel lines of stitching.

4. A concealed bra cup stiffener wire structure for a woman's swimsuit or like outer garment having a body member and attached bra cups, said structure comprising:

- a pair of flanges interior of said garment, each formed by stitching together in outer surface facing relationship the adjacent fabric edges of said

body member and a respective bra cup, said stitching not extending through the exteriorly visible portion of said body member;

- a stiffener wire surrounding fabric sheath sewn to each flange, the combined thickness of said sheath fabric and said flange separating said wire from said body member to prevent the exterior surface of said body member from conforming to the transverse curvature of said stiffener wire.

5. The combination as set forth in claim 4 further comprising a generally U-shaped stiffener wire enclosed in each sheath by spaced parallel rows of stitching, at least one of said rows catching said flange.

6. In an outer garment:

- a. a fabric section formed generally to fit the upper torso of the body of the wearer, said fabric section having a pair of arcuate upwardly opening recesses in which bra cups are adapted to be inset;
- b. a pair of bra cups having arcuate lower edges adapted to conform to the edges of said arcuate recesses;
- c. a line of stitching for attaching each bra cup to the edges of said arcuate recesses, each of said lines of stitching defining a flange concealed on the inside of the garment, the distal edges of said flanges being free along the arcuate recesses;
- d. a wire receiving sheath for each cup, each sheath extending along the corresponding said line of stitching and attached to the corresponding cup and fabric section only at said flange whereby the said sheath is concealed from exterior view;
- e. a bra cup reinforcement wire disposed in each sheath, and
- f. wherein each sheath comprises fabric stitched along parallel rows to enclose said wire, at least one of said rows catching said flange.

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