Dec. 17, 1963 W. L. CHALFIN ETAL 3,114,374

COVERED WIRE

Filed Aug. 1, 1960

FIG. 1

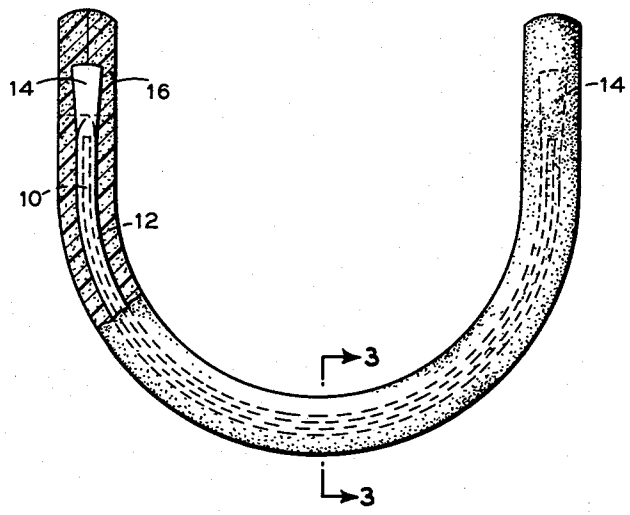


FIG. 2

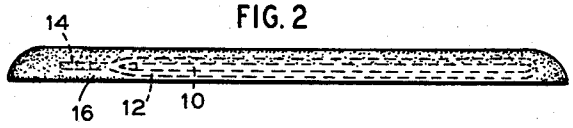


FIG. 3

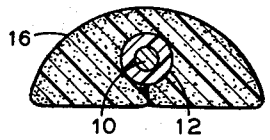


FIG. 4

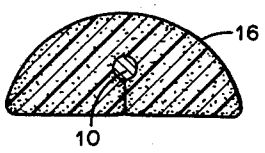
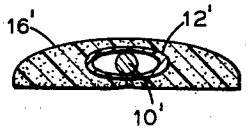


FIG. 5



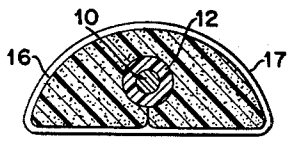


FIG. 6

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3,114,374
Patented Dec. 17, 1963

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3,114,374

COVERED WIRE

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Filed Aug. 1, 1960, Ser. No. 46,702
4 Claims. (Cl. 128—465)

The present invention relates to a covered wire and more particularly to a covered wire adapted for use in a brassiere stay.

A curved stay is commonly used at the bottom of the breast cup of brassieres especially of the strapless variety, and comprises a covered wire. The stay must offer support yet have sufficient lateral flexibility for comfort. In addition, provision should be made to prevent the wire from cutting through its covering and into the body, particularly at its free ends. In the usual stay on the market today, the wire has been swaged at each end to blunt its tips and thereby prevent its cutting through its covering. The swaging operation is costly and adds considerably to the expense of the brassiere stay. Generally, the wire is also padded along its length for added protection against cutting into the body.

It is an object of the present invention to provide a covered wire which will overcome the foregoing and other difficulties.

It is another object of the present invention to provide a covered wire which will not require the costly swaging operation.

It is still another object of the present invention to provide a padded wire adapted to comprise a comfortable brassiere stay.

It is a further object of the present invention to provide a brassiere stay which is adapted for stitching directly to a garment.

Additional features and advantages of the present invention will be apparent from the following description and drawing in which:

FIG. 1 is a plan view, partially broken away, of the covered wire of the present invention;

FIG. 2 is an edge view of the brassiere stay of the present invention;

FIG. 3 is an enlarged cross-sectional view taken on the line 3—3 in FIG. 1 in the direction of the arrows;

FIG. 4 is an enlarged cross-sectional view of an uncovered wire when padded according to the present invention;

FIG. 5 is an enlarged cross-sectional view of a modified covered wire brassiere stay; and

FIG. 6 is an enlarged cross-sectional view similar to FIG. 3, showing the application of a cloth cover.

Referring to the drawing, a wire **10** which has a uniform cross-section along its entire length and which has been curved and cut by machine is inserted in a plastic tubing **12**. The tubing **12** may be made of nylon or polypropylene. The extremities **14** of the plastic tubing **12** extend beyond each end of the wire, for example about one-half inch, and are crimped by heat and pressure to enclose the said wire **10** thereby covering the rough ends thereof. Flattened tubing or wire, or both, may be used for additional resistance to bending of the wire from its desired shape. Such covered wire cannot be subjected to

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rust or deterioration during washing of the brassiere into which it is inserted.

A padding **16** is then applied around the plastic tubing **12**, and is preferably cemented in place by means of a pressure-sensitive adhesive. It has been found that a padding having a semi-circular cross-section is most desirable, and is applied to the garment so that the curved side of the padding **16** will face the body. The padding **16** extends beyond each extremity **14** of the tubing **12**, for example about one-half inch. If desired, the padding may be tapered at its ends to form a soft tip which can be sewn through when the stay is stitched to the garment. A padding of a foamed material such as a polyurethane foam or foam rubber is satisfactory.

The brassiere stay is now ready to be inserted in the garment. The stay may be sewn by double-needle stitching along each edge of the padding **16** or at the ends thereof directly to the garment or may be encased in a cloth cover **17** at the same time it is being sewn.

It should be added that the semi-circular padding **16** may be used over an uncovered wire but it is not as desirable to do so because there would be less protection afforded against the wire ends, and the wire, per se. In this case, too, the padding **16** would extend beyond each end of the wire where it may be tapered as described above.

Referring to FIG. 5, the wire stay shown in cross-section is very much like the stay of FIGS. 1, 2 and 3, except that the wire **10'** is inserted in an oval-shaped plastic tubing **12'** and the padding **16'** is lower in height, or flatter, than the forms shown in FIGS. 3 and 4. The stay may be sewn by double-needle stitching either through the padding **16'** or the plastic tubing **12'** along each side of the wire **10'** directly to the garment.

It may be seen, then, that the present invention provides a covered wire suitable for use as a brassiere stay. The covered wire will give the comfortable support needed and may be further improved by application of the novel padding herein described. Furthermore, the padded brassiere stay may be sewn directly into a garment.

While specific embodiments of the invention have been shown and described in detail to illustrate the application of the invention, it will be understood that the invention may be embodied otherwise without departing from such principles.

What is claimed is:

1. A brassiere stay comprising a curved wire, a plastic tubing completely encasing said wire, the extremities of said tubing extending beyond each end of said wire and being crimped to enclose said wire, and a foam padding having a semi-circular cross-section and secured completely around the entire length of said tubing.

2. A brassiere stay comprising a curved wire, a plastic tubing completely encasing said wire, the extremities of said tubing extending beyond each end of said wire and being crimped to enclose said wire, and a foam padding having a semi-circular cross-section and secured completely around the entire length of said tubing, said padding extending beyond each extremity of said tubing.

3. A brassiere stay comprising a curved wire, a plastic tubing completely encasing said wire, the extremities of said tubing extending beyond each end of said wire, and a polyurethane foam padding having a semi-circular cross-

section and secured by pressure-sensitive adhesive completely around the entire length of said tubing, said padding extending beyond each extremity of said tubing.

4. A brassiere stay comprising a curved wire, a plastic tubing completely encasing said wire, the extremities of said tubing extending beyond each end of said wire and being crimped by heat and pressure to enclose said wire, a foam padding having a semi-circular cross-section and secured completely around the entire length of said tubing, and a cloth cover encasing said padding whereby the brassiere stay may be applied to a garment and the cloth cover may be sewn in place by stitching along each edge of the said padding.

References Cited in the file of this patent

UNITED STATES PATENTS

2,483,273	Gluckin	Sept. 27, 1949
2,553,825	Langs	May 22, 1951
2,731,640	Garson	Jan. 24, 1956
2,764,761	Rosenthal et al.	Oct. 2, 1956
2,852,781	Ganser	Sept. 23, 1958
2,923,300	Ots	Feb. 2, 1960