Dec. 16, 1958 J. R. MONTREYS 2,864,377

GIRDLE

Filed July 25, 1955

Fig. 1.

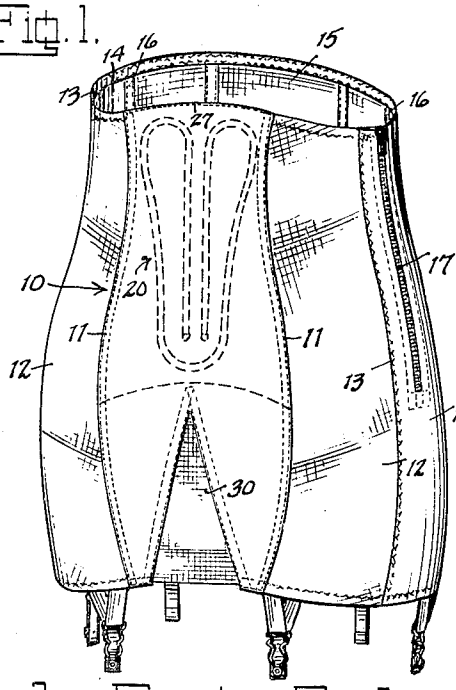


Fig. 2.

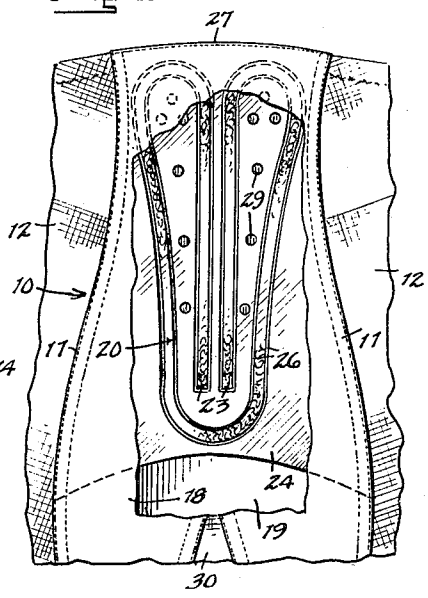


Fig. 3.

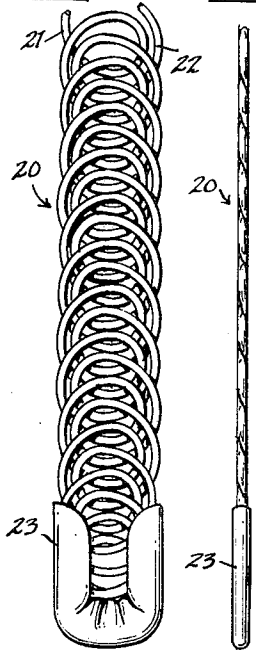


Fig. 4.

Fig. 5.

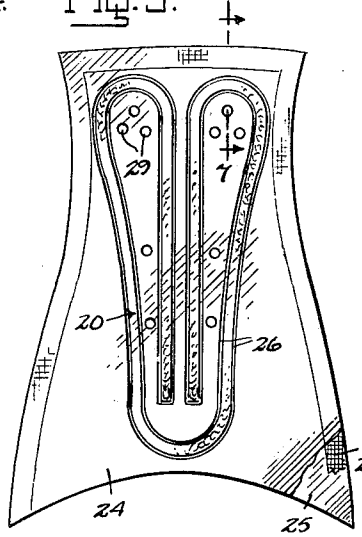


Fig. 6.

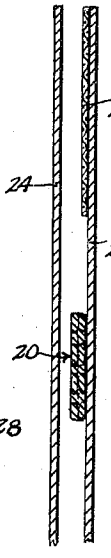
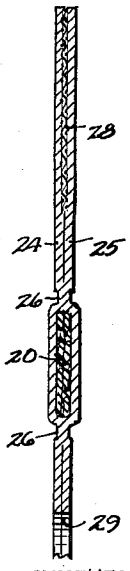


Fig. 7.



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2,864,377

GIRDLE

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3 Claims. (Cl. 128—533)

The present invention relates to girdles, and more particularly to that type of girdle having a flexible substantially non-stretchable front panel provided with stay means for the purpose of supporting its upper edge against downward rolling.

An object of the invention is to provide an improved stay structure adapted for more economical and convenient manufacture and assembly in the garment, and further to provide a substantially sealed enclosure for the stay means whereby it is protected from the deteriorating effects of moisture. Another object is to provide means which will position the stay means against displacement, while still permitting it to flex with the movements of the wearer of the garment.

Other objects and advantages of the invention will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawings, wherein a satisfactory embodiment of the invention is shown. However, it will be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawings:

Fig. 1 is a perspective front view of a girdle having the stay means of the invention incorporated therein;

Fig. 2 is a fragmentary front elevation on an enlarged scale, partially broken away, showing the stay structure of the invention as incorporated in the upper part of the front panel of the girdle;

Fig. 3 is a front elevation, on a greatly enlarged scale, of the tip end portion of a flattened coil wire type of stay adapted for use in the invention;

Fig. 4 is a side edge view thereof;

Fig. 5 is a front elevation of the stay means of the invention before assembly in the girdle;

Fig. 6 is a greatly enlarged vertical sectional view showing parts of the stay means in separated relation; and

Fig. 7 shows the parts illustrated in Fig. 6 in assembled relation, this view being a sectional view taken along the line 7—7 of Fig. 5.

Referring to the drawings, the girdle illustrated by way of example comprises a generally non-stretchable centrally disposed front panel **10**, extending between the upper and lower edges of the garment and secured at its side edges by stitched seams **11—11** to forward side sections **12—12**, preferably formed of two-way stretch elastic woven fabric, and which in turn are secured at their outer edges by elastic stitched seams **13—13** to vertically elastic side sections **14—14**, to the rearward edges of which the back section **15** is secured by elastic stitched seams **16—16**, the back section being preferably formed of two-way stretch elastic woven fabric. A zipper fastener strip **17** is provided in one of the side sections **14**, extending downwardly from its upper edge.

It is pointed out that the structure of the girdle thus far described is conventional, and that the invention, directed to stay means more particularly in the front panel **10**, may be incorporated in girdles of other suitable types and structures, or, in fact, may be incorporated in other suitable parts of a garment where substantially similar stay means may be desirable.

The front panel **10** consists of an outer or facing non-stretchable fabric layer **18** and an inner or lining non-stretchable fabric layer **19**, and between these layers is incorporated the stay means of the invention. This consists of an elongated flexible and elastic stay member **20**, which is adapted to normally lie flat and which at the same time may have a desired general shape substantially permanently embodied therein. A suitable stay for this purpose may consist of coiled spring wire as shown in Figs. 3 and 4, two helically coiled wires **21** and **22** being interengaged and thereupon flattened under extremely high pressure, which has the effect of permanently maintaining the interengaged wires together through the set imparted to the wires by the pressure applied thereto, and by causing superimposed wires to slightly embed into each other at their points of contact. Also, the pressure sets any shape in which the length of coiled wires is placed during the pressing operation. Thus, where the interengaged coiled wires are arranged along straight or curved lines when they are subjected to the flattening pressure they will thereafter remain normally straight or normally curved, although capable of flexing from such normal shape, either forwardly or rearwardly from the normal flat plane or sideways within the flat plane. The wire stay of this type also has longitudinal elasticity, being capable by longitudinal expansive force of stretching, or by longitudinal compressive force of contracting, and in either case of returning to its original length. Each end of a length of stay is enclosed in a suitable metal tip **23**, in the form of a channel strip clamped into U-shape over the wire ends.

In the illustrated stay, as shown in Figs. 1, 2 and 5, the permanently impressed shape is such that the two tip ends are directed downwardly at the ends of a pair of vertically disposed spaced parallel end sections, from the upper ends of which the stay is convexly curved outwardly and downwardly at each side, being then curved downwardly and inwardly along concave curve lines to the center portion of the stay which is convexly looped below the tip ends.

The stay in its pre-formed shape is placed between a pair of layers **24** and **25** having the general outline shape of the uper part of the panel **10** in which the stay means is to be incorporated, these layers being formed of suitable flexible non-stretchable thermoplastic sheet material, as for instance vinyl sheet or film of suitable gauge. A suitable commercial vinyl film is produced by the Bakelite Company of New York, N. Y., under the name Vinylite, this material being a copolymer of vinyl chloride and vinyl acetate. Thereupon, with the use of suitable electrode dies having the outline shape of the stay, welded seams **26** are produced along each of the edges of the stay and across the tip ends by the application through the dies of electronic or high frequency current heat, according to well known practice. Thus the stay is secured between the flexible layers **24** and **25** without the use of stitching in a manner to hold the normal shape of the stay while still permitting it to flex. At the same time the moisture proof plastic layers joined by the welded seams **26** hermetically seal in the metal stay so that it is effectually protected against contact of moisture.

The stay panel member as shown in Fig. 5, carrying the sealed in stay is incorporated in the panel **10** of the girdle by placing it in the upper portion thereof between the fabric layers **18** and **19** and securing its marginal edges within the stitched seams **11—11** and within the top edge stitched seam **27** securing together the upper

edges of the fabric layers. If desired, the margins of the stay panel member to be secured by stitching may be reinforced by a woven fabric strip **28** interposed along the margin and adhered by electronic or high frequency current heat welding of the plastic sheets to the interposed woven fabric strip. Suitably arranged ventilating holes **29** may be punched in the plastic sheets to allow for the free circulation of air through the front panel of the girdle.

A horizontally elastic inverted V-shaped gusset insert **30** is preferably provided in the lower portion of the panel **10** extending upwardly from its lower edge to a point below the stay means.

What is claimed is:

1. In a girdle or the like, a back and side sections, a front panel comprising an outer flexible fabric layer, seams securing said fabric layer at its marginal side edge portions to said side sections, and stay means at the inner side of said fabric layer comprising a pair of flexible thermoplastic sheets superimposed one on the other and secured at their marginal side edges by said seams, a flexible stay member of elongated strip form interposed between said thermoplastic sheets in spaced relation to said seams, and continuous weld seams contiguously adjacent and parallel to the side edges of said stay member, homogeneously adhering said thermoplastic sheets together and positioning said stay member in a sealed pocket having outer and inner sides formed by said thermoplastic sheets and side edges defined by said weld means, the internal surfaces of said pocket being free of adherence to said stay means.

2. The girdle as defined in claim 1, further characterized by woven fabric reinforcing strip means, disposed between and welded to said marginal side edge portions of said thermoplastic sheets.

3. The girdle as defined in claim 1, further characterized by an inner flexible fabric layer at the inner side of said stay means and secured at its marginal side edges to said side sections by said seams.

References Cited in the file of this patent

UNITED STATES PATENTS

2,544,373	West	Mar. 3, 1951
2,595,133	Golden	Apr. 29, 1952

FOREIGN PATENTS

1,078,015	France	May 5, 1954
1,099,754	France	Mar. 23, 1955