

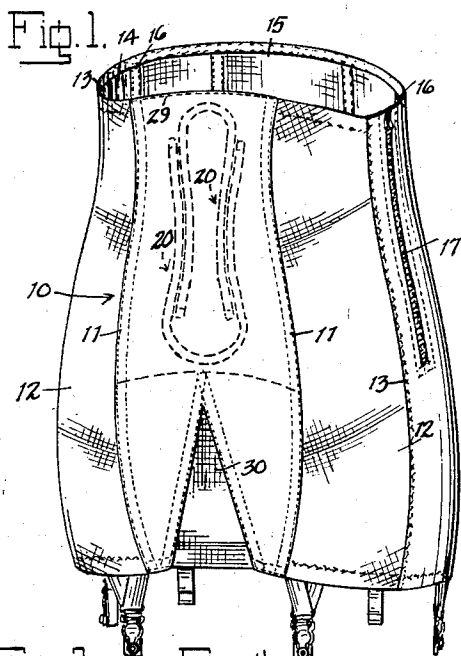
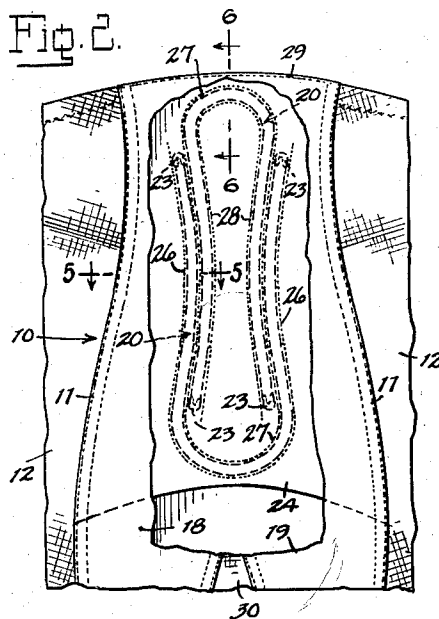
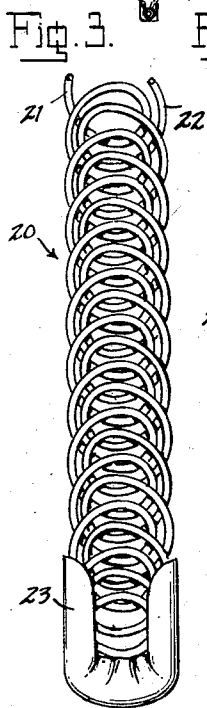
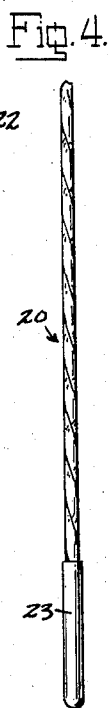
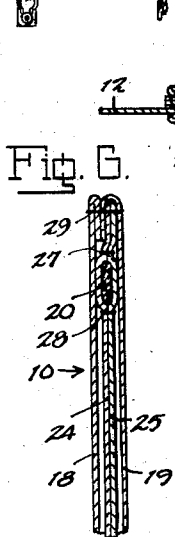
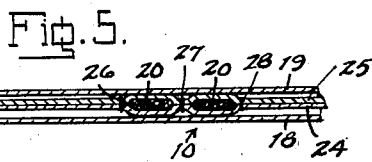
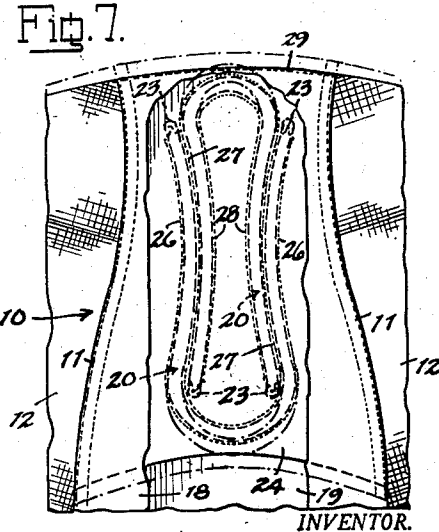
Jan. 20, 1959

J. V. HOLLAR

2,869,555

GIRDLE

Filed July 25, 1955



INVENTOR.
JOHN V. HOLLAR

BY

Erin Watten

ATTORNEY.

2,869,555

GIRDLE

John V. Hollar, Fairfield, Conn., assignor to The La Resista Corset Company, Bridgeport, Conn., a corporation of Connecticut

Application July 25, 1955, Serial No. 524,171

1 Claim. (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 the upper edge of the girdle against downward rolling, and also giving controlled support to that part of the wearer's body engaged by the front panel, while permitting free bending, sitting and stooping postures without discomfort.

A common problem with conventional stay means is their inability to contract and expand in a generally vertical direction, with the result that the upper and lower ends of the stay means, and particularly the tip ends, tend to dig into the body of the wearer.

It is an object of the invention to provide stay means adapted to have a resilient telescoping action whereby it yields in a generally vertical direction with the movements of the wearer, and further to provide stay means in which the tip ends are so arranged that they will not dig into the body of the wearer as the garment is flexed through movements of the wearer.

A further object is to provide stay means which will provide effectual controlled support for the part of the body engaged by the front panel of the garment, and which will readily flex with the movements of the body without discomfort to the wearer.

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 claim.

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 horizontal sectional view, on a greatly enlarged scale, taken along the line 5—5 of Fig. 2;

Fig. 6 is a vertical sectional view, also on a greatly enlarged scale, taken along the line 6—6 of Fig. 2; and

Fig. 7 is a front elevation, similar to Fig. 2, and showing the stay means telescopically contracted from the normal position shown by the dot-and-dash lines.

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 vertical 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 a pair of elongated flexible and elastic stay members 20—20, which are 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 whereupon 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 means as shown in Figs. 1, 2 and 7, the permanently impressed shape of each of the pair of stay members employed is of generally hair-pin shape in which the two equal length side legs curve inwardly between the connecting loop end of the stay member and the tip ends of the side legs.

The pair of stay members in their preformed hair-pin shape are arranged in interengaged opposed relation with the loop end of one stay member disposed beyond the tip ends of the other stay member, and with the side legs of one stay member disposed in parallel relation adjacent to and inwardly of the side legs of the other stay member, so that the two stay members form an elongated loop having inwardly curved sides. The pair of interengaged stay members are placed between a pair of layers 24 and 25, formed of non-stretchable woven fabric or other suitable material, and having the general outline shape of the upper part of the front panel 10 in which the stay means is incorporated, the elongated loop shape of the stay members being arranged along the vertical center line of the panel.

The stay members are thereupon secured between the layers 24 and 25 by three seams, preferable stitched seams. One seam 26 extends along the outer sides of the side

legs of the lower stay member and about the outer edge of its lower loop end, with its ends terminating a short distance upwardly beyond the tip ends of the stay member. The second seam 27 is in the form of a continuous loop, and extends about the outer side of the loop end of the upper stay member, between the adjacent parallel side legs of the two stay members, and about the inner edge of the loop portion of the lower stay member. The third seam 28 extends along the inner sides of the side legs of the upper stay member and about the inner edge of its upper loop end, with its ends terminating a short distance downwardly beyond the tip ends of the stay member. Thus, each of the stay members is confined within an open ended channel or tube, wherein the side legs may have sliding movement, and the side legs of the respective stay members may have limited telescoping movement relative to each other.

The panel stay means, consisting of the stay members secured between the layers 24 and 25, is incorporated in the front panel 10 of the girdle by placing it in the upper portion thereof between the fabric layers 18 and 19 and securing its side and top marginal edges within the stitched seams 11—11 and within the top seam 29 securing together the upper edges of the layers 18 and 19.

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

The arrangement of the stay means of the invention in the garment is such that the loop ends present relatively widely curved transversely disposed portions at the upper and lower ends of the upper diaphragm engaging portion of the front panel 10 where pressure is imposed thereon during normal movements of the wearer, such as bending, sitting, stooping and the like, while the upwardly and downwardly directed tip ends are at substantially inwardly spaced points where they will not tend to dig into the wearer. At the same time the confinement of the tip ends of each stay member to points closely contiguous to the side leg portions of the other stay member prevents the tip ends from moving out of the general plane of the stay means, and thus does not allow the tip ends to assume digging in positions.

Also, during bending and other movements of the wearer, the stay members undergo a telescoping action, as illustrated in Fig. 7, where the loop ends are compressed or partially flattened and move toward each other, and the side legs move along each other with their tip ends moving relatively to or through the open ends of the confining channels or tubes provided by the rows of stitching 26, 27 and 28. During this action there is a differential in the resistance of the loop ends and the leg portions due to the inward curvature of the leg portions and the corresponding curvature of the confining channels which tends to cause a longitudinal compression of the leg portions, so that upon relief of pressure through straightening up of the front panel the stay members resume their normal relationship where they give the

desired stiffness and control to the front panel. Also, the curved arrangement of the side leg portions is such that normally, when no compressive force is applied to the front panel, the stay means provides substantial vertical support against sagging or downward rolling of the front panel, the resistance to telescoping movement of the two stay members provided by the curvature being only overcome when excessive pressure from bending and the like is imposed.

It is pointed out that, if desired, the arrangement of the two stay members 20—20 may be reversed so that the side legs of the upper stay member are outwardly of the side legs of the lower stay member, and that the radii of the loop ends may be increased or diminished, as desired, at either the upper or lower ends, thus, as an example, providing an elongated loop of generally inverted pear shape, of greater width at its upper end than at its lower end.

What is claimed is:

In a girdle or the like, panel stay means comprising a pair of flexible layers superimposed one on the other, first and second stays interposed between said layers, each of elongated flexible strip form and of substantially hair-pin shape, having a loop end and side legs, said second stay being relatively narrower than said first stay to interengage within the latter, said stays being arranged in interengaged reversely opposite relation with their loop ends constituting the opposed ends of an elongated loop, and with the side legs of said first stay in outwardly contiguous parallel spaced relation to the respective side legs of said second stay, first, second and third seams securing said layers together, said first seam extending in parallel contiguous relation continuously along the entire outer edge of said first stay, said second seam extending in parallel contiguous relation continuously along the entire inner and outer edges of said first and second stays, and said third seam extending in parallel contiguous relation continuously along the entire inner edge of said second stay, whereby the portions of said layers between said first and second seams constitute a tubular channel encasing said first stay, and the portions of said layers between said second and third seams constitute a tubular channel encasing said second stay, the respective ends of said first and third seams being spaced from said second seam a distance at least equal to the width dimension of the side legs of said stays, whereby the ends of said channels are open contiguous to the ends of said side legs and the latter are free to move through said open ends to permit said stays to have relative telescoping movement as compressive forces are applied and released with respect to their opposed loop ends.

References Cited in the file of this patent

FOREIGN PATENTS

1,016,730	France	Sept. 3, 1952
1,078,015	France	May 5, 1954