A post-operative garment includes a back panel of sufficient vertical dimension to cover the rear portion of the wearer's trunk, as well as the wearer's lower back region; partially overlapping tapered front panels which cover a portion of the wearer's abdomen; and opposite elastic side panels which interconnect the back and front. The upper and lower tapered edges of the overlapping front panels cross at respective upper and lower points, the distance between the cross points being substantially less than the vertical dimension of the back panel. An alternate embodiment includes a similar garment provided with legs and an additional highly elastic front panel which underlies the tapered, overlapping front panels.

11 Claims, 9 Drawing Figures
POST-OPERATIVE GARMENT

This invention relates to post-operative garments and more particularly to post-operative garments of the corset or girdle type designed to give support to the user’s back.

Subsequent to a surgical operation, for instance in which an abdominal incision has been made, a patient often has a need for back support. Garments such as corsets and girdles, of the ordinary back-support construction, which are typically utilized to provide such support in non-post-operative situations, are not normally useful in post-operative situations due to certain disadvantages which accompany their use.

One such disadvantage is the fact that the normal type of back support garment is often difficult to get into. In some cases, extensive pulling and stretching of the garment is required in order to properly place it in position on the user. Such pulling and stretching can harm the post-operative patient. For example, a patient, while putting on the garment, may strain abdominal muscles or other tissues, which should preferably be left in an unstressed state during the recuperative period.

In addition, conventional back-support garments typically include front, side and back panels which collectively cover or encase the entire trunk and lower back region of the wearer in order to provide necessary support. While such coverage may be acceptable in ordinary non-post-operative circumstances, it is not satisfactory in the case of a post-operative patient due to the undue pressure such garment places on the abdomen of the post-operative patient by virtue of the relatively complete encasement of the user’s abdomen which it provides. The excessive abdominal pressure can damage recuperating abdominal tissues. Additionally, complete coverage of the abdomen by the front portion of the garment unduly limits the extent to which the wearer can comfortably move since it contacts the recuperating abdominal tissues, causing the wearer discomfort should an attempt be made to bend over.

One objective of this invention is to provide a post-operative garment supporting the back of a wearer which does not place undue strain on the abdomen of a wearer during its use.

A further objective of this invention is to provide a post-operative garment which may be secured in position on the body of a wearer with a minimum of physical effort.

A further objective of this invention is to provide a post-operative garment which includes a rear portion of sufficiently broad coverage to support a substantial region of a wearer’s lower back region and yet which has a front portion comprising a minimum of coverage over the abdominal area of the wearer.

A further objective of the invention is to provide a post-operative garment which supports a substantial region of a wearer’s lower back area and yet which has a front area constructed to allow maximum freedom of movement.

A still further objective of my invention is to provide a post-operative garment with adjustable securing means so that a wearer can secure the garment about his body in accordance with his particular body shape or in accordance with the varying nature of the recuperating abdominal tissues.

Briefly, my invention contemplates a post-operative garment wherein the effective height of the front panel is substantially less than the vertical dimension of the back panel in order to provide maximum freedom of movement and relatively little coverage and pressure on the abdomen, and yet to also provide sufficient support for the lower back. In a preferred form, the front panel includes a pair of overlapping tapered panels having upper and lower angled edges which cross when the panels are secured in overlapping fashion. The distance between the points where the edges cross is substantially less than the vertical dimension of the back panel, thereby providing minimum abdominal coverage when the garment is worn. In addition, the front panels are each permanently secured to one side of the garment and detachably secured to the other side, with the permanently secured edges of the panels being on opposite sides of the garment. With a garment of this type, the underlying front panel is secured in place first by means of its detachable connector, and thereafter the overlying panel is secured by means of its detachable connector. This sequential fastening of the underlying and overlying panels enables the garment to be secured in place with a minimum of physical effort on the part of the wearer.

In an alternate embodiment, the garment is utilized together with other panels forming a “panty” girdle. In this embodiment, a highly elastic inner front panel interconnecting the sides is utilized beneath the tapered overlapping front panels to form the “panty” girdle and the legs thereof. The highly elastic inner panel holds the garment in place about the trunk of the wearer, permitting the user to devote complete attention to the task of securing the overlapping front panels in place free of the distraction of trying to simultaneously hold the garment in place.

These and other objects and advantages will become readily apparent from the following detailed description of preferred and alternate embodiments and from the drawings in which:

FIG. 1 is a perspective view of the invention showing the inner front panel in a partially secured position,
FIG. 2 is a view of the invention showing the front panels secured in one manner,
FIG. 3 is an enlarged view of the hook type securing means,
FIG. 4 is a perspective view of the invention in a fully secured position,
FIG. 5 is a rear view of the invention,
FIG. 6 is a front view of an alternate embodiment of the invention,
FIG. 7 is a front view of an alternate embodiment showing an inner front panel in a secured position,
FIG. 8 is a view of the alternate embodiment which is fully secured, and
FIG. 9 is a rear view of the alternate embodiment.

Referring to the drawings, FIGS. 1-5 show a preferred embodiment of the invention. The garment, a girdle, designated at 10, includes a rear or back panel 11, side panels 12 and 13, an inner front panel 14, and an outer front panel 15 interconnected as shown. The back panel 11 and the front panels 14 and 15 are preferably made from a non-elastic material, while the side panels 12 and 13 are preferably elastic. Stays 16 are provided in pockets within the various panels as shown in the figures.
Each front panel 14 and 15 has an associated locking panel 24 and 25, respectively, which cooperates with the associated front panel to fasten it by way of a securing means. The securing means may be any suitable type of fastener such as snaps, hook and eyelet material, or the fastener marketed under the trademark Velcro. While the securing means are shown diagrammatically in the drawings of the garment, a preferred form of one type of securing means is shown in FIG. 3 and includes a hook 22 and an eyelet 23 which are mounted on appropriate portions of the girdle as will be described. A plurality of these hooks and eyelets are appropriately placed for adjustably securing the front panels across the abdomen of a wearer.

Locking panel 24 is elastic and is provided with a vertical row of hooks 22 on its end 26. The front panel 14 is provided with a plurality of vertical rows of eyelets 23, on its end 20, which cooperate with hooks 22 to secure panel 14 in place across the abdomen of a wearer. Locking panel 25 is also elastic and is provided with a plurality of vertical rows of eyelets 23 which cooperate with a vertical row of hooks 22 located on the end 21 of the outer front panel 15.

The locking panel 24 is secured to the interior of the girdle at the juncture of the side panel 13 and the outer front panel 15. The locking panel 25 is secured to the exterior of the girdle at the juncture of the side panel 12 and the inner front panel 14.

The various panels are structured so as to provide support where required as well as a minimum of coverage to reduce undue strain on other areas. As best seen in FIG. 4, the back panel of the girdle 10 is of a size sufficient to cover the major portion of a wearer's rear trunk region and a large portion of a wearer's lower back area. The contoured line 30 shows the general shape the girdle 10 assumes when worn by a typical wearer. The upper portion 31 of this line diagrammatically shows the girdle tapering inwardly over a typical wearer's hips and then upwardly over the lower back area in FIG. 5.

The front view shown in FIG. 2 shows the relationship between the rear panel 11 of the girdle and the front panels 14 and 15 of the girdle. As previously stated, the rear panel 11 is long enough to extend downwardly over a wearer's rear trunk region and upwardly to cover a substantial portion of a wearer's lower back area. The front panels, however, cover a substantially smaller proportional part of the wearer's body than does the rear panel. Each front panel has a top edge 35 and a lower edge 36. These edges taper inwardly, toward each other, so that each of the front panels 14 and 15 is wider at its connection to the respective side panel than at its respective free ends. Thus, when the panels are in their secured positions, the top edges cross at a point 37 and the bottom edges cross at a point 38. The front panels 14 and 15 are tapered such that the vertical distance between the cross points 37 and 38 is substantially less than the vertical dimension of the height, from bottom to top, of the rear panel 11, and is preferably about one-half to two-thirds the height of the rear panel 11.

One advantage of providing a reduced front coverage is that such construction results in the application of only minimal pressure on the abdominal tissues so as to facilitate recuperation thereof, yet at the same time provides sufficient structure to aid the side and back panels of the garment in supporting a wearer's lower back area. Thus the invention contemplates a girdle which provides a minimal abdominal pressure, but a maximum of back pressure or support.

It can be appreciated that this construction allows a maximum of freedom of movement while providing an efficient back support for a wearer. Since the front panels have upper edges tapered downwardly to point 37, a wearer may bend forward from the waist without any restriction from the girdle. Since the bottom edges are tapered upwardly to the point 38, a wearer may raise a leg into the area not covered by the front panel without any restriction from the girdle.

Furthermore, the girdle is extremely easy to put on. A wearer merely wraps it about the proper area of the body and thereafter sequentially fastens the front panels using the appropriate securing means. For instance, the girdle is wrapped about the hips and the inner front panel 14 is secured to the locking panel 24 by hooking the hooks 22 thereof in selected eyelets 23 located on the panel 14. Since the locking panel 24 is elastic, it may be stretched before the hooking operation so that panel 14 is pulled slightly across the abdomen; however, the force required to stretch the locking panel 24 is very minimal, and the wearer does not strain abdominal tissues in the process. In a similar manner, the outer front panel 15 is secured over the inner panel 14 to locking panel 25 by means of the hooks 22 on the outer front panel and the selected eyelets 23 on the locking panel. Since locking panel 25 is elastic, it too may be slightly stretched, prior to the hooking operation, so as to pull panel 15 across panel 14 and across the abdomen of a wearer. Again, the locking panel 25 is easily stretched so that a very minimal physical effort is expended and abdominal tissues are not strained.

Thus, it can be appreciated that the process of securing the girdle in place is a sequential process of two main steps, the inner front panel being secured in the first step and the outer front panel in the second step, with the expenditure of energy required for each step being substantially less than the total expenditure of effort necessary for accomplishing the securing function in a single step. This two-step procedure enables a weak, post-operative patient to completely secure the girdle in place in two sequential steps, a job that often could not be done if the patient had to secure the girdle all at once in a single step.

It is not necessary to hook each hook of one row onto eyelets each in the same row, but rather the hooks may cooperate with selected eyelets in various rows in order to adjust the girdle to accommodate varying body shapes. For instance, as shown in FIG. 2, the hooks 22 may be connected to one or more eyelets in each row in a crossing manner. This results in the accommodation of a larger lower body portion of a wearer. Of course, this may be varied such that the top hook of panel 15 is hooked into an upper eyelet in the last row of eyelets at the end of locking panel 25 and the successive hooks are fastened to eyelets located in successive rows further from the end of the locking panel 25. This particular hook-up would result in the accommodation of a larger upper body portion of a wearer. As many rows of eyelets as needed may be used to provide a larger
range of adjustment possibilities in order to accommodate differing body shapes and swelling variations in recuperating abdominal tissues as well as allowing adjustment of the relative overall tightness of the girdle.

An alternate or second embodiment of the invention is shown in FIGS. 6-9 and includes a post-operative garment embodying the features of the preferred embodiment. Like parts of this embodiment are designated with numerals identical to those of the first embodiment. This second embodiment includes a panty-type girdle 40. It has a back panel 41, elastic side panels 42 and 43, and a highly elastic front panel 44. Also included is a crotch panel 45 which, together with the back, side and front panels, forms legs 46 and 47. Stays 48 are provided in appropriate places.

The front panel 44 is made from a material with a high degree of elasticity such that it does not exert too great a pressure on the abdomen of the wearer. By virtue of the front panel 44 and the legs 46 and 47, the girdle 40 has the advantages of holding itself in place while the patient takes as much time as needed to secure the inner tapered panel. Thus, a patient may pull the girdle 40 over his legs and onto the lower trunk of his body, position the garment properly, and then secure it conveniently without needing to constantly and manually hold it in place until the tapered inner panels are secured.

Other elements of the garment 40 of this embodiment are similar to those of the other preferred embodiment. These include an inner front panel 14 secured to the garment 40 at the juncture of side panel 42 and front panel 44. An outer front panel 15 is secured to the garment 40 at the juncture of side panel 43 and front panel 44. Locking panel 24 is secured to the garment 40 between front elastic panel 44 and the outer front panel 15, while locking panel 25 is secured to the exterior of the garment 40 as shown. The locking panels and the inner and outer front panels are secured together in the same manner as in the girdle 10 of the other preferred embodiment so as to accomplish the same beneficial results as that of the garment 10. The garment 40 gives additional support to the upper thigh portions of the wearer's legs and additionally aids the garment in support of the wearer's lower back area.

The outer and inner front panels 15 and 14 are tapered such that their upper and lower edges cross at points 37 and 38, respectively, the distance between these points being substantially less than the vertical dimension of the rear panel which is the distance between the top of rear panel 41 and crotch panel 45 as best seen in FIG. 9. This distance between the points 37 and 38 may be about one-half to two-thirds that of the vertical dimension of the rear panel 41.

This garment 40 allows a maximum of freedom of movement as does that of the other preferred embodiment, the elastic front panel 44 giving freely to any movement of the wearer. In FIG. 8, a contour line 50 illustrates the shape assumed by the garment 40 on the body of a typical wearer. The upper portion 51 of the contour 50 illustrates the inward taper of the garment over the hips of a typical wearer and then upwardly to cover a substantial region of a wearer's lower back area.

The invention thus provides a post-operative garment which provides substantial support for a wearer's lower back area, and yet which does not bind or strain recuperating abdominal tissues either during securing the garment or during the wearing thereof.

Other modifications and variations will become apparent to those of ordinary skill in the art, without departing from the scope of my invention, and I intend to be bound only by the appended claims.

I claim:
1. A post-operative garment adapted for use by post-operative patients comprising:
a back panel of a vertical dimension sufficient to cover a substantial area of a patient's lower back area and extend over a patient's rear trunk region, two side panels of elastic material connected to respective sides of the back panel, an inner front panel connected to one side panel, an outer front panel connected to the other side panel, a first locking panel attached to an interior portion of the garment, said locking panel carrying securing means for cooperating with securing means disposed on the end of the inner panel to secure the inner panel in place, a second locking panel attached to an exterior portion of the garment, said second elastic locking panel carrying securing means for cooperating with securing means disposed on the end of the outer front panel in order to secure the outer front panel in place over a portion of said inner panel, each of said inner and outer front panels being tapered inwardly from their connection to the respective side panels to their ends, the tapered upper and lower edges of the panels crossing at respective upper and lower points when the panels are secured, the vertical distance between the points of crossing of the respective upper and lower tapered edges being less than the vertical dimension of the back panel.
2. A garment as in claim 1 wherein the vertical distance between the two respective points of crossing of the tapered edges is in the approximate range of one-half to two-thirds of the vertical dimension of the back panel.
3. A garment as in claim 1 wherein said first and second elastic locking panels and said inner and outer front panels carry a plurality of securing means, said securing means adjustably cooperating to accommodate a variation in body shape of a patient.
4. A garment as in claim 3 wherein said locking panels are easily stretched into position for cooperation with the respective front panels.
5. A garment as in claim 4 wherein each of said locking panels is attached to the garment at the juncture of the respective side and front panels.
6. A garment as in claim 1 further including an additional front panel of highly elastic material attached to said side panels interiorly of said inner and outer front panels to hold said garment in place about the wearer's trunk while said inner front panel is secured.
7. A garment as in claim 6 wherein the vertical distance between the two respective points of crossing of the tapered edges is approximately one-half to two-thirds of the vertical dimension of the back panel.
8. A garment as in claim 6 wherein said first and second elastic locking panels and said inner and outer front panels carry a plurality of securing means, said securing means adjustably cooperating to accommodate a variation in body shape of a patient.

9. A garment as in claim 8 wherein each of said locking panels is easily stretched into position for cooperation with the respective front panels.

10. A garment as in claim 9 wherein each of said locking panels is attached to the garment at the juncture of the respective side panels to the additional front panel and to the inner and outer front panels.

11. A garment as in claim 1 wherein said first and second locking panels are elastic.