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(54) **UNDERGARMENT SUPPORT DEVICE**

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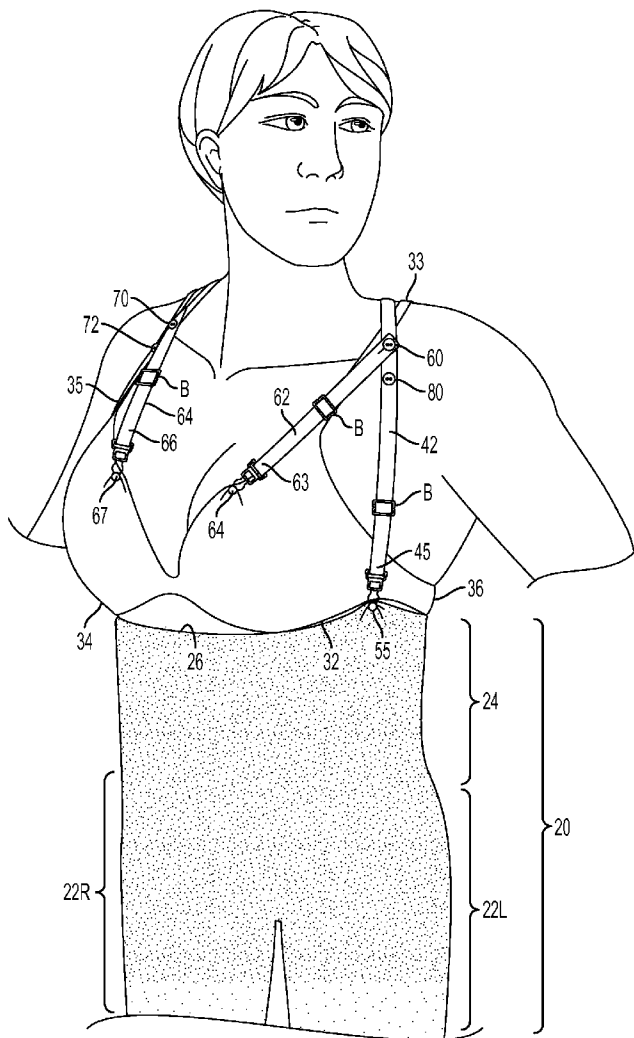
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(57) **ABSTRACT**

In one embodiment, the invention is comprised of a pair of elastic straps which are joined together via a sliding buckle. Each strap has, at each of its ends, a clasp similar to that used on garter belts (although the clasp could be any suitable type

such as hook and loop, button, snap, etc.). The straps are adapted to be attached to the top of a pair of control top panty hose after the wearer has pulled the top of the control-top pantyhose up to immediately below her bustline. The ends of two of the straps are attached to the back of the waist of the panty hose, the straps are passed over the wearer's shoulders, and the other two ends are attached to the front of the waist of the panty hose. The length of the straps is adjusted so that there is sufficient tension in the straps to hold the panty in position just below or in the vicinity of the bottom of the pectoral muscles. The end result is a lifting of the panty hose and a concomitant smoothing of the area of the body that is covered by the panty. In other embodiments, four smaller straps are provided, which can be attached to the front of each strap around the height of the collarbone, and each has a clasp which is adapted to be attached to the bra cup or bra strap. Two of the smaller straps attach to the right strap, and two attach to the left strap for this purpose. One of the smaller straps may be attached to a lower portion of the bra cup (e.g. near the bra strap), and the other of the smaller straps may be attached to the upper portion of the bra cup. Use of the smaller straps results in the lifting of the breasts.



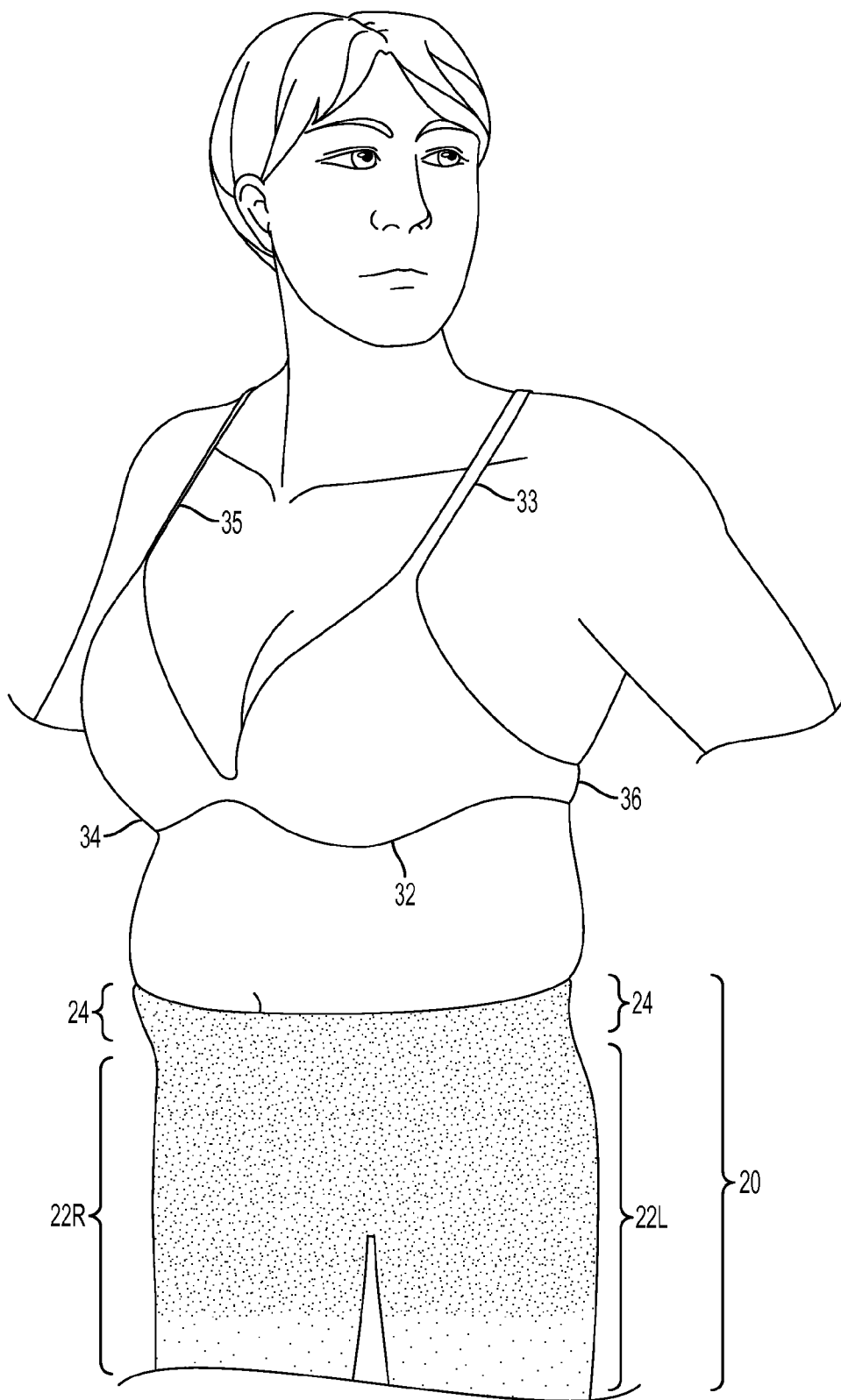


FIG. 1

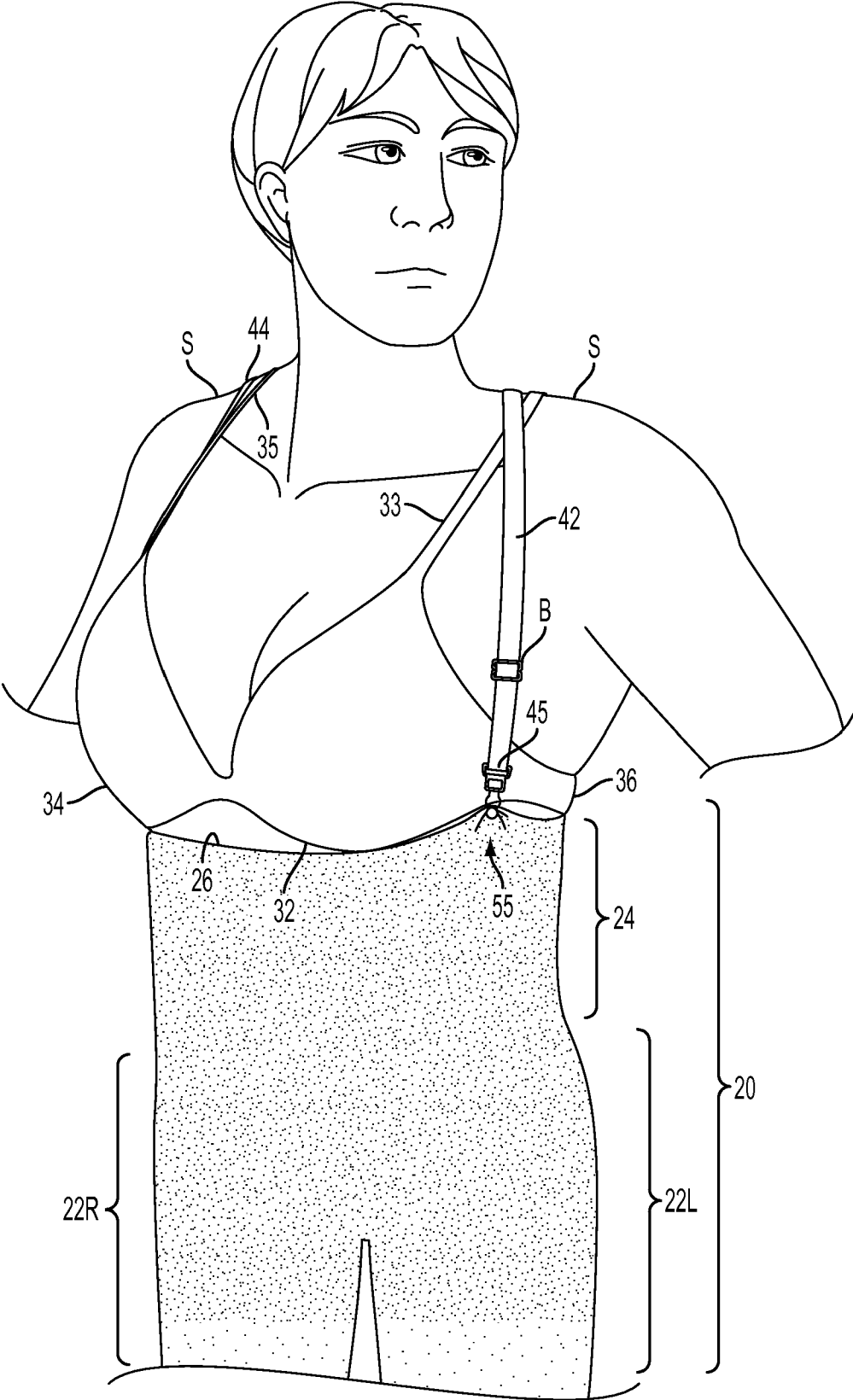


FIG. 2

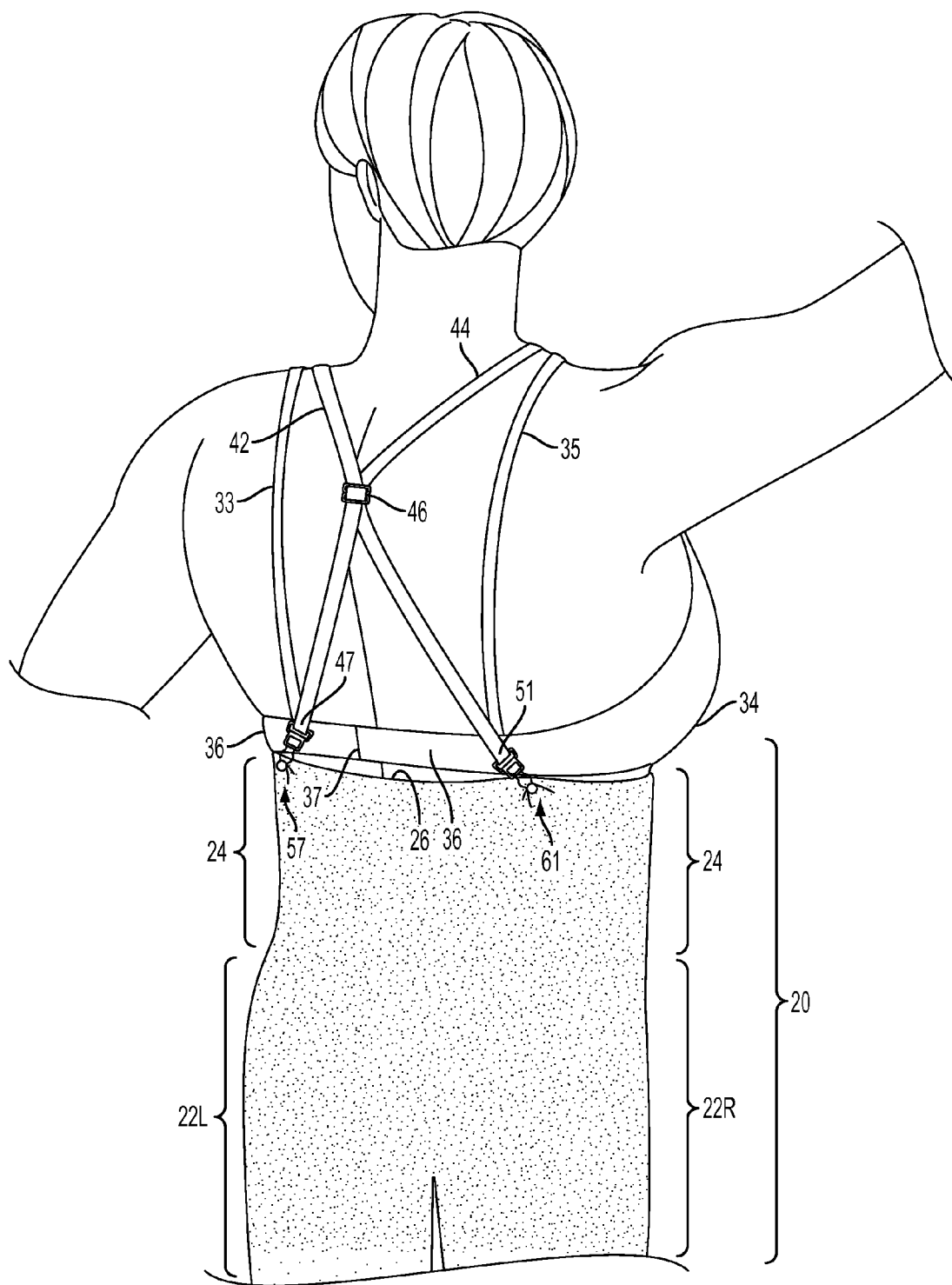
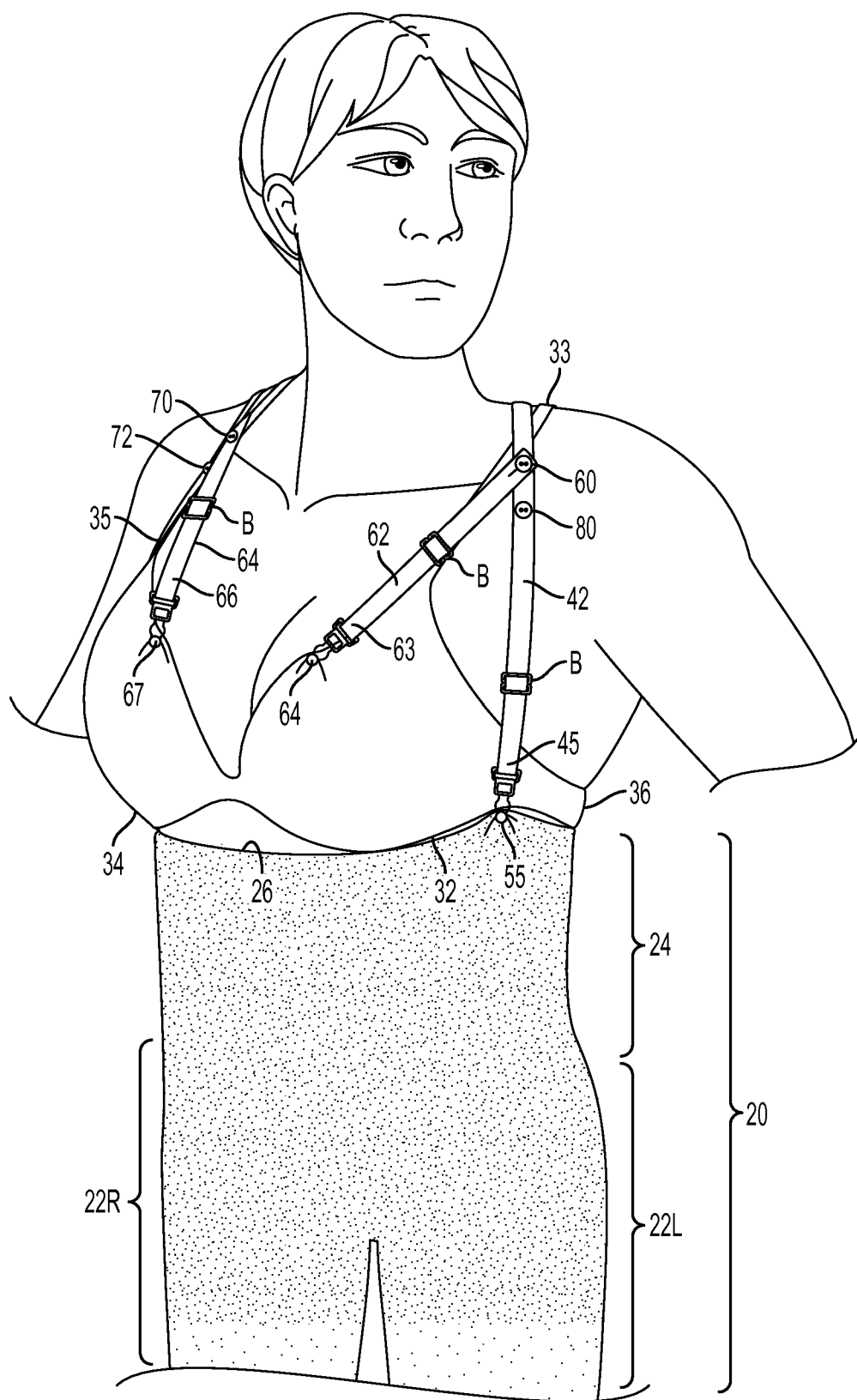


FIG. 3



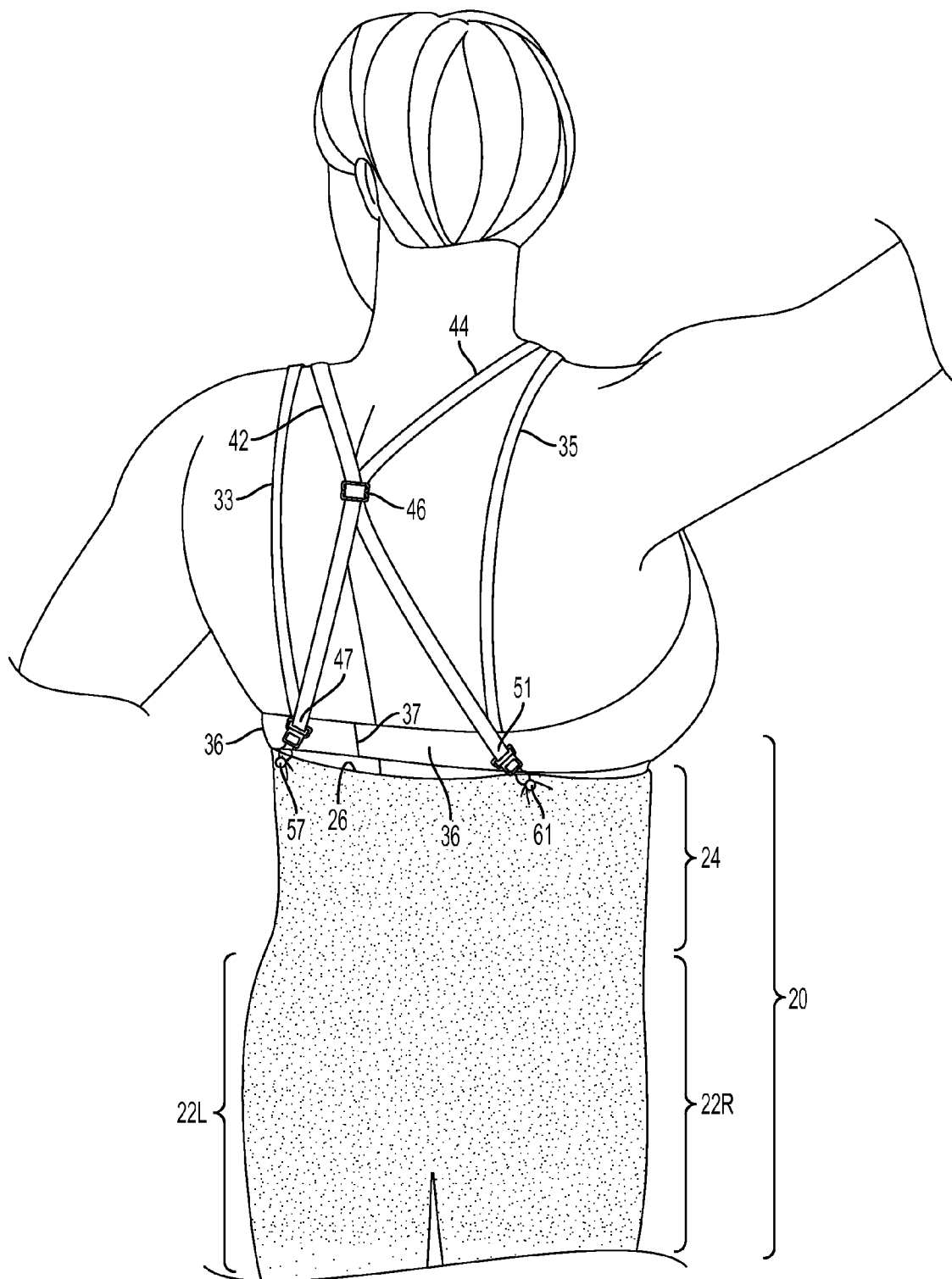


FIG. 5

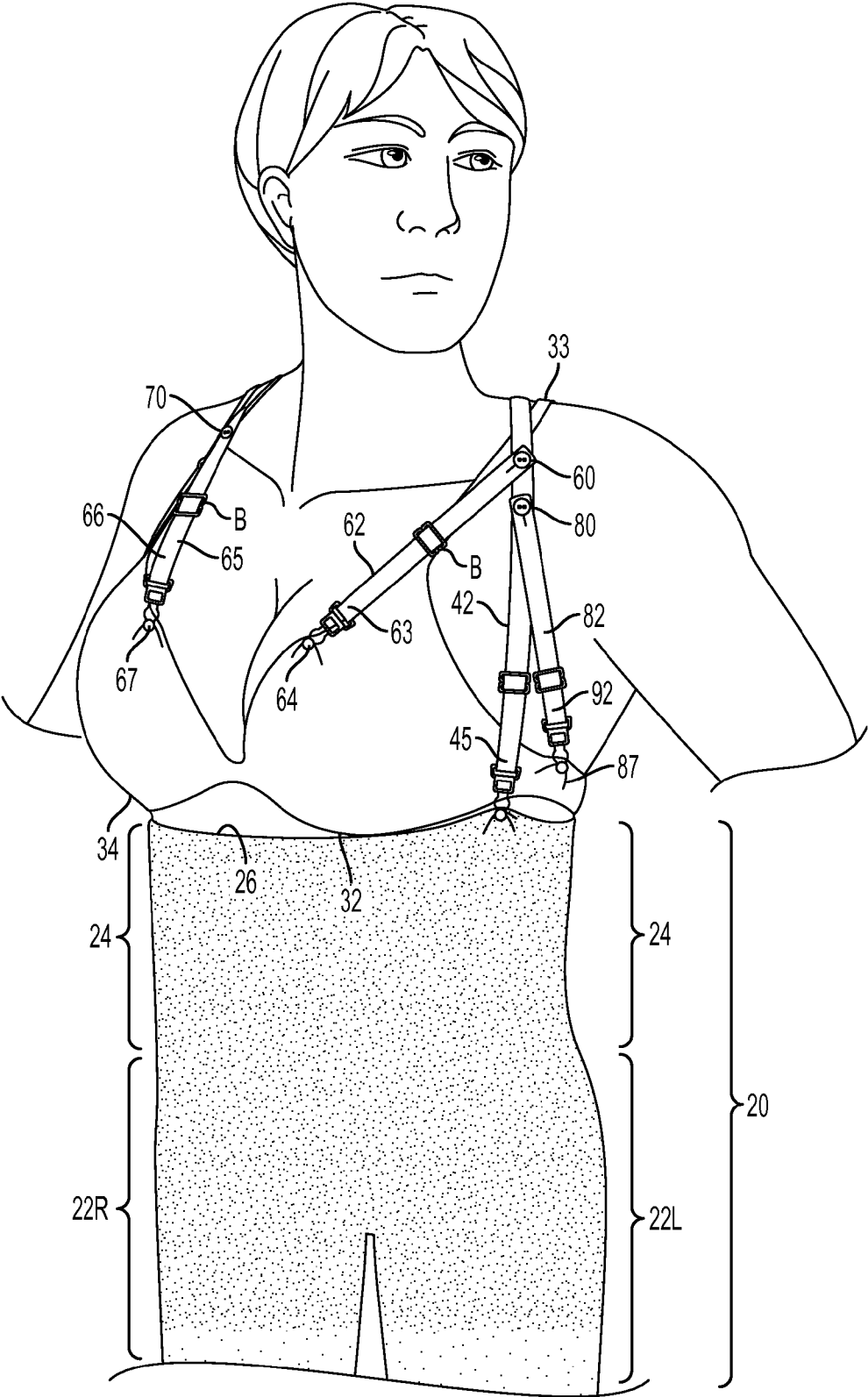


FIG. 6

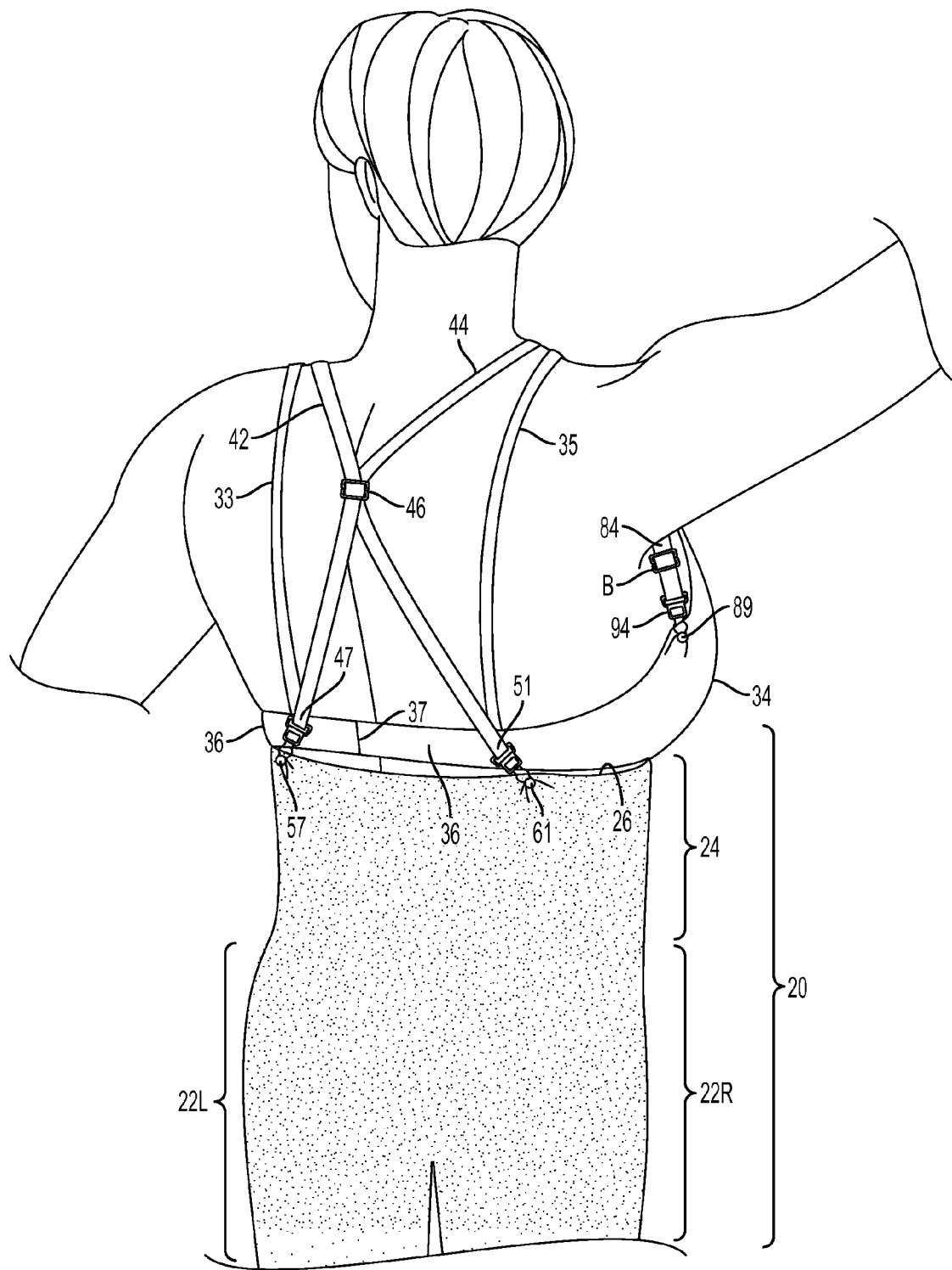


FIG. 7

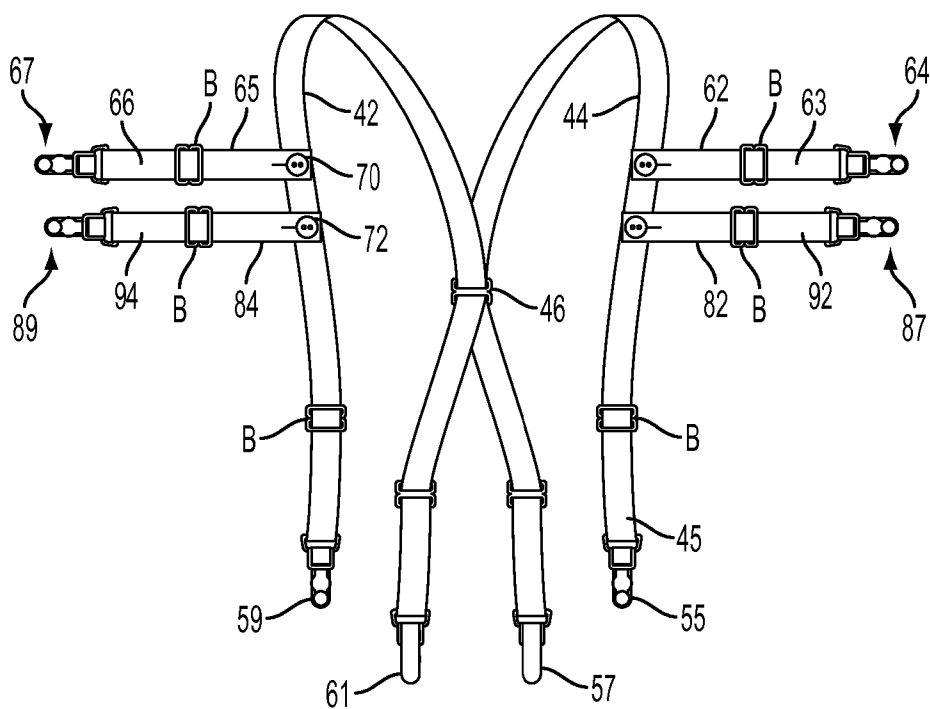


FIG. 8

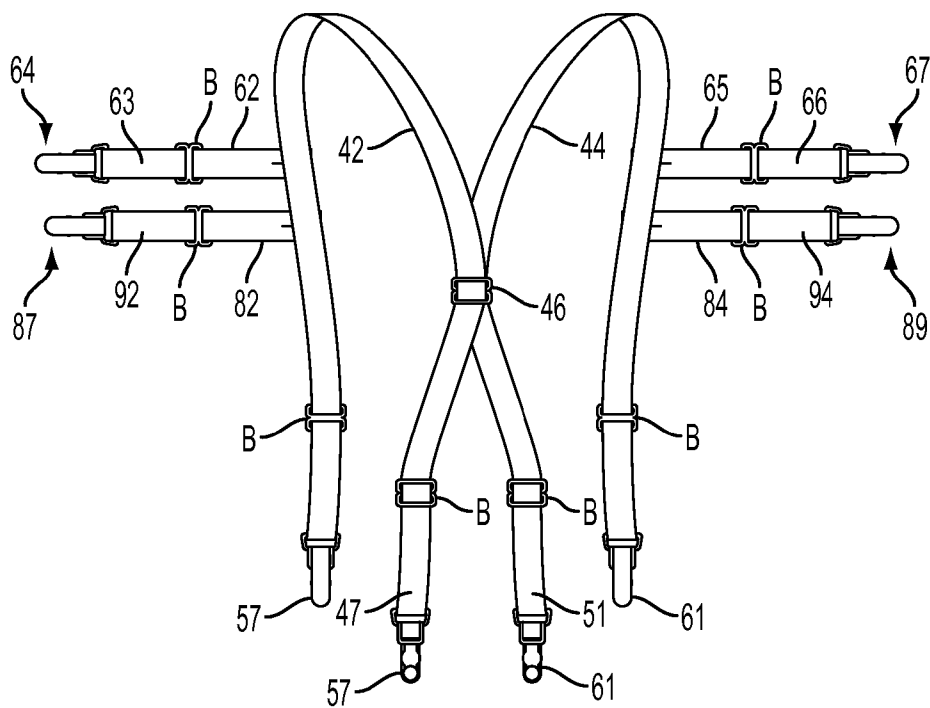


FIG. 9

UNDERGARMENT SUPPORT DEVICE

BACKGROUND OF THE INVENTION

[0001] This invention relates to female undergarments, and, more particularly, relates to strap arrangements adapted to lift and hold the top portion of control-top pantyhose around the area just under the breasts in order to maximize the tendency of the control-top area of the panty hose to hug the area of the body which it covers.

[0002] Numerous attempts have been made in the past to improve the appearance of a lady's figure though the use of undergarments. Among such attempts are the uses of girdles, corsets and, more recently, control-top pantyhose.

[0003] Girdles and corsets are not routinely used nowadays due to their bulky and uncomfortable nature, particularly with the wide spread use of form fitting clothing. However, the tight, elasticized undergarments such as those made of Lycra® brand material which are worn today are expensive, hot, and uncomfortable shapewear, and is difficult to put on.

[0004] However, control-top pantyhose, while providing some form of shape-retention benefits to the wearer, tend to shift on the wearer, primarily through the force of gravity and movements of the wearer. When the control-top portion of the pantyhose shifts, the form-retention benefits are diminished, usually significantly.

[0005] Other measures taken to alter the appearance of one's figure include cosmetic surgery, diet and exercise. Given the unique proclivity of most humans to fail to adhere to diet and exercise regimens, the option of utilizing them to achieve and maintain one's ideal body shape often do not yield the desired result. Resort to cosmetic surgery is not only dangerous but expensive and, consequently, unavailable to most.

[0006] To date, no attempts known to the inventor at providing a control-top undergarment support system have been contemplated or attempted. Efforts have been directed to retaining thigh-high stockings using over the shoulder strap arrangements. However, these arrangements suffer from the disadvantage that the straps passing from the wearer's shoulders run down along the front of the body to attach to the front of the stockings, with second straps running along the rear side of the body to attach to the rear of the stockings. These straps create visible bulges on the outside of most clothing, because the straps run the entire length of the torso, over the hips/buttocks, and down a portion of the thighs of the wearer.

[0007] Also, the advantage of the control-top portion of control top pantyhose is underutilized when it is not lifted and held in place to cover the maximum area of the body it is capable of covering. In normal use, the control-top area invariably shifts downwardly, reducing even more the shape improving function thereof. Maximizing the effective area over which the control-top portion is being used is a simple, inexpensive and efficient way of achieving and maintaining the figure shaping benefits which the control-top is capable of.

[0008] Accordingly, it is desired to provide a control-top pantyhose support system which holds and retains the control-top section of a pair of pantyhose in position on the wearer throughout the entire section of the body of the wearer that the control-top pantyhose are designed to girdle, or at least capable of girdling, yet which is not likely to be visible through the outer layer of clothing worn by the wearer.

[0009] Also, the desirability of utilizing a brassiere which provides substantial support and lift to the breasts is well

known. However, to accomplish those objectives, it is necessary to purchase a relatively expensive brassiere.

[0010] Attempts have been made to provide brassieres with additional supporting structure. One attempt, U.S. Pat. No. 3,982,547 to Walker, even employs straps that depend below the brassiere to attach to the waist band of a skirt or a pair of slacks. However, the straps which run over the shoulder and connect to the waist band of a skirt or pair of slacks is also fixedly attached to the brassiere, such that the device cannot be used to attach to the waist band of a skirt or pair of slacks without the brassiere being worn, a limitation which in certain circumstances would be unacceptable, and could even lead to consumers forgoing the purchase of such a garment.

[0011] Therefore, it would be desirable to provide a control-top pantyhose support arrangement to which can be removably be attached a brassiere support and lifting arrangement, so as to provide a control-top pantyhose lifting and retention function, and, selectively, by the addition of removable brassiere-supporting straps, can be used to support and lift any type of brassiere.

[0012] It is an object of this invention to provide an undergarment support device which can be used to raise and retain the control-top portion of a pair of control-top pantyhose so that the control-top portion covers the maximum surface area of the wearer so as to maximize the shape-altering characteristics thereof.

[0013] It is also an object of this invention to provide an undergarment support device which can be used as described above, and which can further provide lift and support to a brassiere by the addition of one or more brassiere lifting straps.

[0014] These and other objects will become apparent to those of skill in the relevant art by reference to the accompanying drawings.

SUMMARY OF THE INVENTION

[0015] In one embodiment, the invention is comprised of a pair of elastic straps which are joined together via a sliding buckle. Each strap has, at each of its ends, a clasp similar to that used on garter belts (although the clasp could be any suitable type such as hook and loop, button, snap, etc.). The straps are adapted to be attached to the top of a pair of control top panty hose after the wearer has pulled the top of the control-top pantyhose up to immediately below her bustline. The ends of two of the straps are attached to the back of the waist of the control-top portion of the panty hose, the straps are passed over the wearer's shoulders, and the other two ends are attached to the front of the waist of the control-top portion of the panty hose. The length of the straps is adjusted so that there is sufficient tension in the straps to hold the panty in position just below or in the vicinity of the bottom of the pectoral muscles. The end result is a lifting of the panty hose and a concomitant smoothing of the area of the body that is covered by the panty.

[0016] In other embodiments, four smaller straps are provided, which can be attached to the front of each strap around the height of the collarbone, and each has a clasp which is adapted to be attached to the bra cup or bra strap. Two of the smaller straps attach to the right strap, and two attach to the left strap for this purpose. One of the smaller straps may be attached to a lower portion of the bra cup (e.g. near the bra strap), and the other of the smaller straps may be attached to

the upper portion of the bra cup. Use of the smaller straps result in the lifting of the breasts.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] FIG. 1 is a front perspective view of a standard female form showing a typical body contour.

[0018] FIG. 2 is a front perspective view of the form shown in FIG. 1 wearing a control-top pantyhose support undergarment in accordance with this invention.

[0019] FIG. 3 is a rear perspective view of the form shown in FIG. 1 wearing the pantyhose support undergarment shown in FIG. 2.

[0020] FIG. 4 is a front perspective view of the form shown in FIG. 1 wearing the pantyhose support undergarment coupled with a first brassiere support.

[0021] FIG. 5 is a rear perspective view of the form shown in FIG. 1 wearing the pantyhose support undergarment coupled with the first brassiere support shown in FIG. 4.

[0022] FIG. 6 is a front perspective view of the form shown in FIG. 1 wearing the pantyhose support undergarment coupled with a second brassiere support.

[0023] FIG. 7 is a rear perspective view of the form shown in FIG. 1 wearing the pantyhose support undergarment coupled with the second brassiere support shown in FIG. 6.

[0024] FIG. 8 is a front elevational view of the undergarment support device of this invention.

[0025] FIG. 9 is a rear elevational view of the undergarment support device of this invention.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENT(S)

[0026] Referring to the drawings, FIG. 1 is a front perspective view of a standard human female form 10. Form 10, which will typify a wearer of the invention, is shown wearing a pair of control-top pantyhose 20 comprised of right and left leg stocking portions 22R and 22L into which the right and left leg of the wearer is intended to be placed, respectively, and a panty portion 24 which terminates in an upper peripheral band or edge 26. Panty portion 24 is connected to leg portions 22R and 22L, and is preferably made of an elastomeric or other stretchable material as will occur to those of skill in the art so as to exert inward radial pressure on the pelvis and lower torso area of the wearer, which in turn distributes the flesh more evenly, giving the appearance of having a smoother body shape, and being slimmer and better toned.

[0027] It is to be understood, however, that the invention disclosed herein may be used with regular pantyhose, non-control-top panties without hose, or control-top panties which are not part of a pantyhose arrangement. All that is necessary is to have shape forming panties that can be pulled up around the area of the bust and held there by the strap arrangement of this invention. Therefore, although reference is made throughout this disclosure to "pantyhose," it is contemplated that any "control-top" or other elastic panty-type garment can be used as well without the addition of leg stockings. Also, it is contemplated that regular pantyhose (i.e. pantyhose that are not characterized as "control-top" pantyhose) may be used with the instant invention to achieve substantially the same results as are achieved with control-top-type pantyhose due to the elasticity of regular pantyhose.

[0028] Form 10 is also shown, optionally, wearing a brassiere 30, which may take any of the forms which that garment

may assume, such as a pair of breast cups 32, 34, shoulder straps 33, 35, and a rear horizontally disposed strap 36 which may or may not have a detachable clasp 37 thereon to allow the strap to be separated into two sections. The lateral ends of strap 36 are attached to the breast cups 32, 34 as is known. Straps 33, 35 overlay shoulder areas S, which in turn provide bearing surfaces upon which straps 33, 35 lay to, in part, support the weight of the breasts.

[0029] Referring to FIGS. 2-3, an undergarment support device 40 in accordance with the instant invention is shown. Since most humans, as they age, tend to gain weight and slouch, device 40 is designed to lift and retain the panty, or control-top, portion 20 of the control-top pantyhose so that it covers the widest area of the pelvis and lower torso possible, which in turn will maximize the smoothing effect of the control-top. The device 40 is comprised of a first strap 42, and second strap 44, and a slide 46 which adjustably holds sections of straps 22 and 24 in a criss-crossed or "X"-shaped orientation over the back of the wearer 10. Preferably but not by way of limitation, each strap will have at least one adjustment buckle B associated therewith so that the length of each strap may be adjusted, which in turn permits adjustment in the tension present in each strap when the device 40 is worn, the relevance of which will be explained below.

[0030] Strap 42 ends at a front terminal end 45 at its front terminus and a rear terminal end 47 at its rear terminus. Strap 44, likewise, ends at a front terminal end 49 at its front terminus and a rear terminal end 51 at its rear terminus. Each terminal end 45, 47, 49 and 51 has associated therewith a clip 55, 57, 59 and 61, respectively, adapted to connect the straps to the upper band 26 of panty section 20.

[0031] Therefore, it can be seen, that, upon pulling portion 25 up over the waist and lower torso such that the upper band or edge 26 of panty 24 resides in abutting relationship, or substantially close to, bra strap 36 and the bottom most portions of bra cups 32, 34, and attaching clips 55, 57, 59 and 61 to panty, preferably in the vicinity of edge 26, panty 24 is held from slipping down. Adjustment buckles B may be adjusted to create enough tension within straps 42, 44 to retain upper edge 26 of panty 24 in the afore-mentioned position. By doing this, as can be seen by comparing FIGS. 1 with FIGS. 2-3, the contour of the body is smoothed out by displacing the bulging portions of the body substantially uniformly in the area in which panty 24 surrounds the body. It can therefore be seen that the tensile force exerted on straps 42, 44 occasioned by their retention of panty 24 in the position shown in FIGS. 2-3 are borne by shoulder S. This in turn causes a pressure on the shoulders tending to cause the shoulders to pull rearwardly, improving the wearer's posture.

[0032] In a modified form of the invention, shown in FIGS. 4-5, first brassiere-engaging straps 62, 64 are utilized. Straps 62, 64 attach at their upper ends to fasteners 60, 70 respectively, which in the embodiment shown are buttons, but may be any fastener which will operate to retain straps 62, 64 in connection with straps 42, 44 under tension. Strap 62 has a terminal end 63 to which is attached a conventional fastener 64. Likewise, strap 64 ends in a terminal end 66 to which is attached fastener 67. Fasteners 64, 67, like fasteners 55, 57, 59 and 61, may be of any type which will operate to connect the particular strap to the panty 24 or brassiere strap 36 or cup 32, 34 without detaching therefrom under tension.

[0033] By attaching strap 62 to fastener 60 at its upper end, and to brassiere cup 32 at its lower end, and by adjusting the length of strap 62 using adjustment buckle B, bra cup 32 can

be lifted in virtually any amount desired, the force borne thereby being transferred to strap 42 and ultimately borne by shoulder S. Likewise, when strap 64 is connected at its upper end to fastener 70, and at its lower end to brassiere cup 34, and adjusting the length of strap 64 using adjustment buckle B, bra cup 34 can be lifted, the force thereof transferred via strap 44 to shoulder S.

[0034] Referring now to FIGS. 5-6, a still further improved embodiment of this invention is shown in the form of the addition of second brassiere-lifting straps 82, 84. Strap 82 connects to strap 42 via connector 80, and ends in a terminal end 92, to which is attached fastener 87. Likewise, strap 84 connects to strap 44 via connector 72 and ends in a terminal end 94, to which is attached fastener 89. By using straps 82, 84 to connect straps 42, 44, respectively to bra strap 36 (or another location on the bra such as bra cups 32, 34, still additional lifting of the brassiere can be accomplished.

[0035] Additional adjustment buckles B, as shown in FIGS. 8 and 9, may be employed to permit adjustment of the length of straps 42, 44. Slide connector 46 may be slid up or down relative to the back of the wearer as desired, to accommodate various types of clothing or as otherwise deemed desirable by the wearer. Conversely, slide buckle 46 may be omitted all together, such that straps 42, 44 do not criss cross or overlap.

[0036] Therefore, in a first embodiment, the invention is directed to a support device for a control-top pantyhose 20, the control-top pantyhose 20 being comprised of a pair of leg stockings 22R, 22L connected near upper ends thereof to a control-top panty 24, the control-top panty being characterized as having an elastic, body-hugging tendency and terminating at an upper peripheral edge 26, the device being adapted to be worn by a person having pectoral muscles which terminate at lower ends thereof in a substantially horizontal lower pectoral edge, which lower pectoral edge lies in a substantially horizontal plane when the person is standing upright, wherein the device holds the upper peripheral edge in substantial registry or proximity to the horizontal plane. More particularly, the first embodiment of the device comprises: a first elastic strap 42 having a front terminal end 45 and a rear terminal end 47; a second elastic strap 44 having a front terminal end 49 and a rear terminal end 51, each of the front and rear terminal ends of the first and second straps having connected thereto an attachment clip 55, 57, 59 and 61, respectively; (optionally) a slide 46 through which is passed a portion of the first strap 42 and the second strap 44, such that the first and second straps overlap, the slide 46 being slidably connected to the first and second straps; the attachment clips 57, 61 of the rear terminal ends of the first and second straps 42, 44 being adapted to be attached to a rear facing section of the upper peripheral edge 26 of panty 24 so as to lift and hold the rear facing portion of the upper peripheral edge in the proximity of the horizontal plane; the attachment clips 55, 59 of the front terminal ends of the first and second straps 42, 44 being adapted to be attached to a front facing section of the upper peripheral edge 26 of panty 24 so as to lift and hold the front facing section of the upper peripheral edge in the proximity of the horizontal plane.

[0037] In another embodiment, one or more auxiliary straps 63, 65, 83 and 87 may be selectively used to attach between straps 42, 44 and specific areas on a brassiere chosen by the wearer to lift the brassiere upwardly, providing further aesthetic improvement to the silhouette and posture of the wearer.

[0038] The wearer may use the invention in conjunction with the normal size control-top panty hose or panty that they normally wear. However, if the wearer chooses, the control-top pantyhose, or panty if that is all that is used, can be selected to be approximately one size larger than the actual size for the wearer so that the control-top portion thereof, or the panty, can be easily put on, and will not be unduly tight, restricting and uncomfortable to wear. Doing so may (or could possibly) increase the comfort and support to the wearer, and will enable pulling the waist strap 26 of the panty up to the bottom of the bustline.

[0039] Benefits, other advantages, and solutions to problems have been described above with regard to specific embodiments of the present invention. However, the benefits, advantages, solutions to problems, and any element(s) that may cause or result in such benefits, advantages, or solutions to become more pronounced are not to be construed as a critical, required, or essential feature or element of any or all the claims. The invention is defined solely by the appended claims including any amendments made while this application is pending and all equivalents of those claims as issued.

What is claimed:

1. A support device for a control-top pantyhose, the control-top pantyhose being comprised of a pair of leg stockings connected near upper ends thereof to a control-top panty, the control-top panty being characterized as having an elastic, body-hugging tendency and terminating at an upper peripheral edge, the device being adapted to be worn by a person having pectoral muscles which terminate at lower ends thereof in a substantially horizontal lower pectoral edge, which lower pectoral edge lies in a substantially horizontal plane when the person is standing upright, the device comprising:

a first elastic strap having a front terminal end and a rear terminal end, each of the front and rear terminal ends of the first and second straps having connected thereto an attachment clip;

a second elastic strap having a front terminal end and a rear terminal end, each of the front and rear terminal ends of the first and second straps having connected thereto an attachment clip;

a slide through which is passed a portion of the first strap and the second strap, such that the first and second straps overlap, the slide being slidably connected to the first and second straps;

the attachment clips of the rear terminal ends of the first and second straps being adapted to be attached to a rear facing section of the upper peripheral edge so as to lift and hold the rear facing portion of the upper peripheral edge in the proximity of the horizontal plane;

the attachment clips of the front terminal ends of the first and second straps being adapted to be attached to a front facing section of the upper peripheral edge so as to lift and hold the front facing section of the upper peripheral edge in the proximity of the horizontal plane.

2. The support device for a control-top pantyhose, further comprising:

at least one strap length adjusting buckle associated with each of the first and second straps to permit adjustment of the length of each strap so that each strap is short

enough to develop sufficient tension therein when the attachment clips of the rear terminal ends of the first and second straps are attached to the rear facing section of the upper peripheral edge to lift and hold the rear facing

portion of the upper peripheral edge in the proximity of the horizontal plane.

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