

June 28, 1949.

S. SILBERT ET AL
BRASSIÈRE

2,474,699

Filed July 11, 1946

2 Sheets-Sheet 1

Fig. 1.

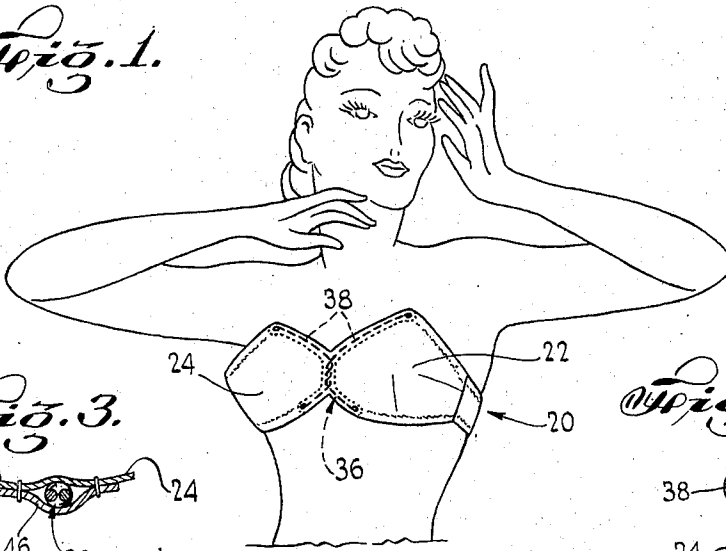


Fig. 3.

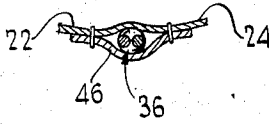


Fig. 4.

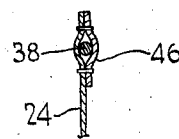


Fig. 2.

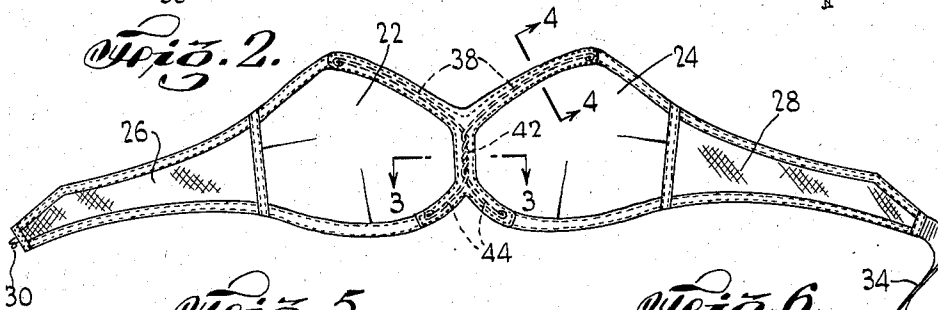


Fig. 5.

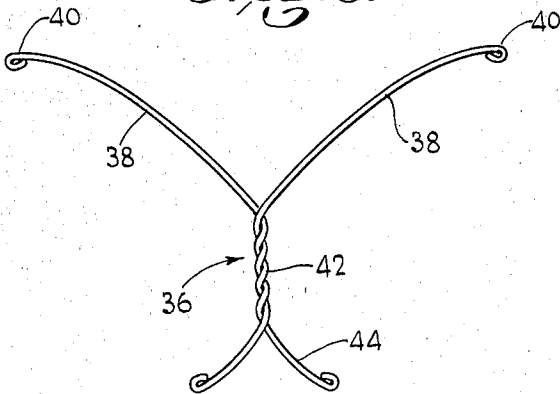


Fig. 6.

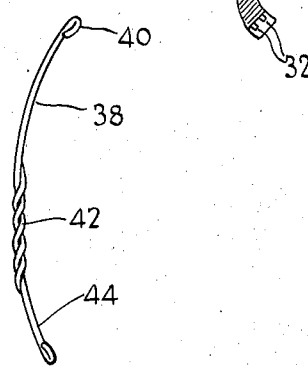


Fig. 7.



INVENTOR.
SIDNEY SILBERT AND
HENRY FOLB

BY

Yoni Finkelstein
ATTORNEY

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S. SILBERT ET AL

2,474,699

BRASSIÈRE

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2 Sheets-Sheet 2

Fig. 8.

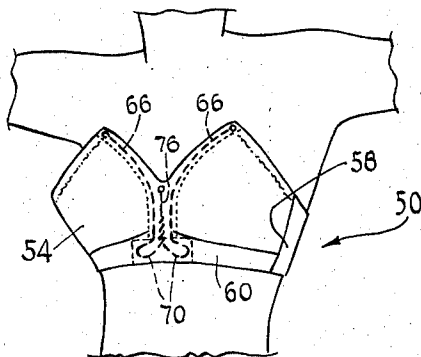


Fig. 9.

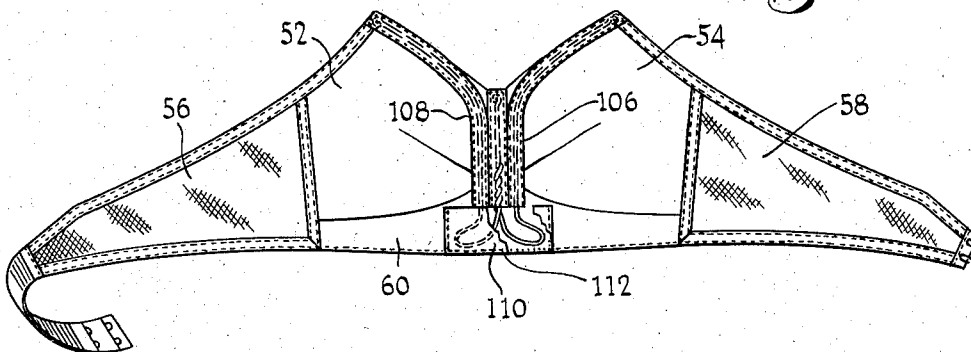


Fig. 10.

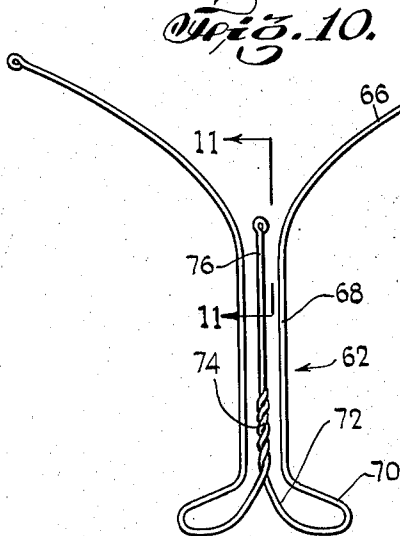


Fig. 12.

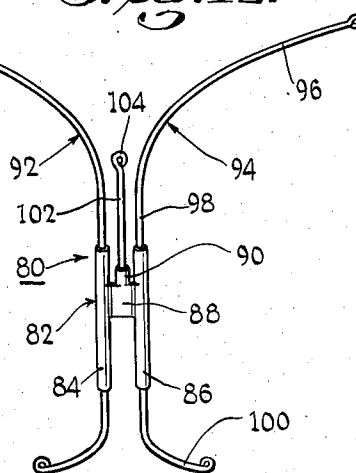
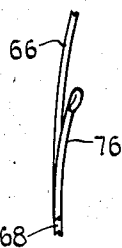


Fig. 11.



INVENTOR.
SIDNEY SILBERT AND
HENRY FOLB

BY

Wm. H. Smith
ATTORNEY

UNITED STATES PATENT OFFICE

2,474,699

BRASSIÈRE

Sidney Silbert, New York, and Henry Folb,
Brooklyn, N. Y.

Application July 11, 1946, Serial No. 682,951

5 Claims. (Cl. 2—42)

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This invention relates to garments for molding and supporting the breasts and which will, for convenience, hereinafter be referred to as "brassières" regardless of whether they comprise an undergarment, such as a conventional brassière, or an outer garment, such as a dress or halter. More particularly our invention is concerned with a brassière of the type having stiffening braces associated with the bust cups.

It is an object of our invention to provide a brassière of the character described which, although affording the desirable supporting action of a brace type brassière automatically conforms itself to the torso and so as not to chafe, irritate or dig into the skin.

It is another object of our invention to provide a brassière of the character described which will define a distinct zone of separation between the breasts.

It is an additional object of our invention to provide a brassière of the character described having a brace covering an area sufficient to support and mold the breasts, but no more, so that any discomfort will be reduced to a minimum.

It is a further object of our invention to provide a brassière of the character described in which the brace is mainly disposed on the inner sides of the breasts, i. e. between the breasts, so that it will be inconspicuous when worn.

It is yet another object of our invention to provide a brassière of the character described wherein the braces comprise but few and simple parts which can be manufactured and installed at a low cost so as to add only slightly to the cost of manufacturing a brassière.

Other objects of the invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists of the features of construction, combinations of elements and arrangements of parts which will be exemplified in the constructions hereinafter described and of which the scope of application will be indicated in the appended claims.

In the accompanying drawings, in which are shown various possible embodiments of the invention,

Fig. 1 is a front view of our improved brassière on a wearer;

Fig. 2 is a front view of the brassière as it appears when laid flat;

Figs. 3 and 4 are sectional views taken substantially along the lines 3—3 and 4—4, respectively, in Fig. 2;

Figs. 5, 6 and 7 are front, side and top views,

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respectively, of the brace embodied in the brassière shown in Fig. 1;

Figs. 8 and 9 are views similar to Figs. 1 and 2 of a brassière embodying a modified form of our invention;

Fig. 10 is a front view of the brace used in the brassière illustrated in Fig. 8;

Fig. 11 is a sectional view taken substantially along the line 11—11 of Fig. 10; and

Fig. 12 is a view similar to Fig. 10 of another modified form of brace embodying our invention.

Referring now in detail to the drawings, and more particularly to Figs. 1-7, 20 denotes a brassière made in accordance with our invention.

The fabric portion of the brassière is substantially conventional and comprises a pair of bust cups 22, 24 suitably tailored to impart the proper domed shape thereto. These bust cups are stitched together at the line of separation between the breasts and at their back edges have secured rearwardly extending panels 26, 28 adapted to be detachably joined at the back of a wearer, as by means of hooks 30 and eyes 32. Desirably a strip 34 of circumferentially resilient material, such as elastic webbing, may be interposed between the two free ends of the panels 26, 28 to facilitate breathing.

Although conventional shoulder straps may be provided, the brassière is primarily intended to be used as a strapless article of apparel.

The hooks and eyes, elastic webbing, rearwardly extending panels and bust cups mutually co-operate to form a chest encircling band which is designed to be tight enough to hold itself in place on the torso of a wearer.

Pursuant to our invention, the brassière 20 has incorporated therein a stiffening brace 36 which for clarity is shown apart from the brassière in Figs. 5-7. Said brace comprises a brace element 40 for the inner side of each of the breasts and means to permanently join the two brace elements. Each brace element runs from at least a point adjacent the top of the base of its associated breast to the zone of separation between the breasts and then down towards, but not all the way to, the bottom of the base of the associated breast, the brace element deliberately being spaced from the bottom of the breast in order to prevent pinching or chafing which would occur if a brace element were present there.

Such a brace has an appearance resembling a butterfly and in general said configuration is an outstanding visual characteristic of a brace embodying this form of our invention.

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More specifically the brace 36 consists of two elongated self-form-maintaining and optionally somewhat resilient pieces, such as steel or plastic wire. Each piece of wire includes a portion 38 whose tip 40 is disposed adjacent the top of the base of its associated bust cup. This portion desirably is arcuately curved, being outwardly convex, and is intended to follow that portion of the base of its associated breast extending from the zone of separation to about the top of the base of the breast. The wire is capable of being bent to some extent in the event that the brassière as purchased by the wearer has a brace which does not exactly match the base contour of her breasts or the lines which she desires these portions of the bases of her breasts to follow pursuant to fashionable demand.

Beneath the portion 38 each wire includes a part 42 adapted to be hingedly connected to the other wire for constrained rotation about an axis running substantially vertically of the torso. Optionally means also is included to limit the relative rotation of the two wires about such axis. The hinging means and the rotation limiting means in the instant embodiment of our invention constitute but a single mechanism, that is, the parts 42 of the two wires below the portions 38 are twisted around one another, i. e., both such parts are twisted around the axis about which rotation is to take place. The twisting, however, is loose, in other words, some clearance exists between the convoluted portions of the wires. This clearance permits the two wire parts to be relatively rotated about a vertical axis between two extreme limits at which either the two parts bind together or the arcuate portions 38 abut. In actual practice, I have found a relative limited rotation from about fifteen to one hundred ninety degrees to give satisfactory results. This rotation allows the brace to fit itself automatically to the configuration of any torso upon which it may be placed, and also permits the brace elements to experience a relative angular movement as the wearer breathes, so that the brace without exerting undue pressure upon the wearer's torso will nevertheless closely follow her configuration and thus serve its uplifting and molding purpose without hindering or annoying the wearer.

Below the hinged parts 42 the wire has downwardly and laterally extending foot portions 44 which, like the top portions 38, may be arcuate and outwardly convex. As indicated, these portions stop appreciably short of the bottoms of the base of the associated breasts. Said portions, where they are high enough, as in the form of the invention now being described, serve to define a line limning the base of a breast between the zone of separation and the bottom of the breast. The portions 44 also serve as feet or supporting portions for the brace elements, that is, these portions function, when secured in place, to prevent the brace elements from slipping down and thus allow the upper portions 38 to operate as uplifting supports for the breasts. Insofar as this latter function is concerned, the foot portions 44 need not closely follow the inside of the bases of the breasts beneath the zone of separation, but may be located some distance away, although, of course, below the breasts.

The brace is incorporated in the brassière in any suitable manner, for example it may be disposed immediately in back of the bust cups and be held in position by overlying the various portions of the brace, to wit, the portions 38, 42 and 44 with tape 46 stitched to the bust cups (see

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Figs. 3 and 4). Furthermore, the two ends of the wire may have eyes tacked to the bust cups to firmly anchor said ends in place.

It may be mentioned that in the scanty type of brassière here shown, i. e. a type of brassière in which the front of the brassière essentially comprises only the bust cups, the brace closely follows the outlines of the bust cups and lies along substantially the entire extent of the line of separation between said cups.

It is pointed out that the brace viewed from the side (see Fig. 6) is of arcuate configuration, being forwardly convex. Likewise, viewed from the top the brace has a similar curvature (see Fig. 7). These curvatures approximate the underlying configuration of the torso but cannot, of course, be expected to exactly fit any wearer. However, the wire can be bent by the wearer after purchase so as to secure a proper fit.

The above brace may be modified in many respects without departing from the spirit of our invention. For example, the foot portions 44 may be eliminated or the upper portions 38 allowed to extend beyond the tops of the bases of the breasts. The foot portions may be located at a lower level, particularly where medium or long brassières are employed, that is to say, where the brassière includes a band beneath the bust cups. The hinge may be eliminated altogether in some forms of brassières or the specific hinge construction illustrated may be modified, e. g. the brace elements may have no metal hinge connection but simply be secured to each other by an elongated fabric hinge (actually the junction between the bust cups) which only permits relative rotation of said elements about a vertical axis. An additional element may be employed to maintain the zone of separation sharp and clear where the hinge connection does not extend over said entire zone and said additional member may be bent backward so as to follow the line of the sternum, thus preventing the bust cups from merging into one another without a distinct line of cleavage. Furthermore the brace may be connected to the fabric part of the brassière in such manner that it may be removed to expedite laundering.

By way of example, several of these modifications are shown in the brassières illustrated in Figs. 8-12.

Referring to Figs. 8-11, 50 denotes a modified form of brassière wherein the fabric portion is of the type known as a "medium" brassière, that is to say, wherein a band of medium width is disposed beneath the bust cups. Said brassière includes two bust cups 52, 54 with rearwardly extending panels 56, 58 detachably connected at the rear of the wearer through a circumferentially resilient member. A fabric band 60 is disposed beneath the bust cups, this being the band which characterizes the brassière as "medium."

Said brassière has a brace 62 (best seen in Figs. 10 and 11) embodying a modified form of our invention. This brace consists of two pieces of wire which are substantially mirror images of one another so that only one piece of wire will be described in detail. One end of the wire terminates in an eye 64 located near or at the top of the bust cup. The immediately adjacent portion 66 of the wire is arcuately curved, being outwardly convex, so as to conform to the inside of the base of the associated breast above the zone of separation.

It is pointed out that this portion 66 need not exactly follow the periphery of the bust cup and the amount of deviation will depend upon the

kind of brassière. Thus in the brassière 50 illustrated, which is for a rather heavy figure, the amount of coverage afforded is quite extensive so that the periphery of the bust-cup designedly extends some distance away from the base of the breast and thus is remote from the portion 66 of the wire.

The lower end of the arcuate portion 66 runs into a straight vertically extending portion 68 which is disposed substantially along the zone of separation between the breasts and has its lower end located some distance beneath the breasts. Said lower end supports an integral laterally extending loop or foot portion 70. From the loop the wire runs into an upwardly extending portion 72 terminating in a helix 74. The helices on two wires are interlocked loosely to form a hinge which permits limited rotation about a vertical axis only. At least one of the wires additionally has a portion 76 extending upwardly from the top end of the helix 74. This portion 76 curves toward the wearer as best seen in Fig. 11. The purpose of the portion 76 is to depress the fabric of the brassière along the zone of separation above the hinge, inasmuch as if such portion were omitted when the brassière is drawn tight about the torso, there would be a tendency for the fabric to tauten above the hinge and thus obliterate the line of separation at this part of the brassière.

In Fig. 12 still another modified form of brace 80 has been illustrated, the same being adapted to be used in the brassière 50 in place of the brace 62. Said brace comprises a sheet metal frame 82 having a pair of parallel spaced vertical sockets 84, 86 connected by a cross piece 88 from which central socket 90 extends upwardly. Each socket 84, 86 receives a wire 92, 94. Said wires are mirror images so that only one of them need be described. The wire 94 includes an arcuate portion 96 and a vertical portion 98 similar to the portions 66, 68, respectively, of the brace 62. Said wire also includes an outwardly extending curved foot 100. The vertical portion 98 is disposed in the socket 86 and said socket is firmly clamped thereabout so that the two wires are rigidly held in their indicated position with respect to one another. Optionally one or both of the wires may be mounted so that it can experience a limited rotation about a vertical axis in its socket. The socket 90 tightly embraces a vertical upwardly extending wire 102 whose free end 104 is curved toward the chest of the wearer in the same manner as the wire portion 76 and for the same purpose.

Either one of the two braces 62, 80 may be placed in position between the bust cups of the brassière 50 and held in place in any suitable fashion, as for instance by disposing a brace at the back of the brassière and covering the upper arcuate and hinged parts of the brace with a piece of fabric 106 secured to the brassière by rows of stitching 108 which leave the lower end of the fabric unattached to the brassière. The foot portions are covered by a fabric panel 110 fastened to the brassière along its bottom and side edges by stitching 112 leaving the upper edge of the panel free. This arrangement permits the brace to be removed for laundering purposes as follows. The free edge of the panel 110 is forced beneath the foot portions. The brace wires are bent inwardly (toward the wearer) substantially into parallelism. The brace can now be pulled out by the foot portions.

It will thus be seen that we have provided

brassières which achieve the several objects of this invention and are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all material herein described or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. For use with a brassière, a brace comprising a pair of self-form maintaining brace elements each including a portion adapted to lie closely adjacent the base of a breast and extend from the zone of separation between the breasts toward but not beyond the top of the base of the breast, means to interconnect said brace elements at the zone of separation, and an elongated element extending upwardly from said interconnecting means, the free end of said elongated element curving toward the wearer.

2. For use with a brassière, a brace comprising a member having a pair of spaced vertically extending sockets adapted to be disposed in the zone of separation between the breasts a third and upwardly extending socket between said pair of sockets, a pair of elongated elements each secured in one of said spaced sockets, each elongated element including an upper arcuate portion adapted to lie closely adjacent the base of a breast and extend from the zone of separation between the breasts to the top of said base and a foot portion adapted to be disposed beneath the breast, and an upwardly extending elongated element curving toward the wearer and secured in said third socket.

3. For use with a brassière, a brace comprising a pair of resilient brace self-form-maintaining elements each including a portion adapted to lie closely adjacent the base of a breast and extend from the zone of separation between the breasts toward but not beyond the top of the base of the breast, each said element also including a portion extending from the zone of separation between the breasts downwardly and laterally outwardly toward but not up to the bottom of the base of said breast, and means to interconnect said brace elements at the zone of separation.

4. For use with a brassière, a brace comprising a pair of resilient brace self-form-maintaining elements each including a portion adapted to lie closely adjacent the base of a breast and extend from the zone of separation between the breasts toward but not beyond the top of the base of the breast, each said element also including a portion extending from the zone of separation between the breasts downwardly and laterally outwardly toward but not up to the bottom of the base of said breast, and means to non-articulatedly interconnect said brace elements.

5. For use with a brassière, a brace comprising a pair of resilient brace self-form-maintaining elements each including a portion adapted to lie closely adjacent the base of a breast and extend from the zone of separation between the breasts toward but not beyond the top of the base of the breast, each said element also including a portion extending from the zone of separation between the breasts downwardly and laterally outwardly toward but not up to the bottom of the base of said breast, means to non-articulatedly interconnect said brace elements, and an elongated element extending upwardly from between said

elements, the upper end of said elongated element curving toward the wearer.

SIDNEY SILBERT.
HENRY FOLB.

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