

Feb. 24, 1953

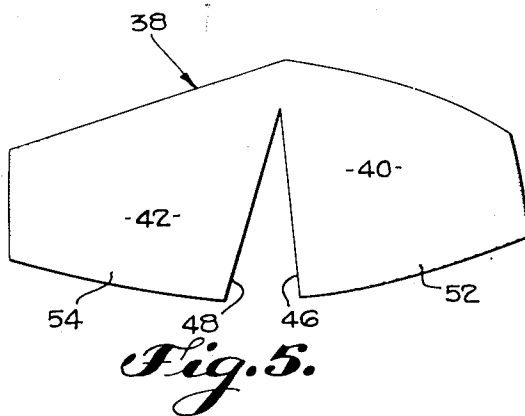
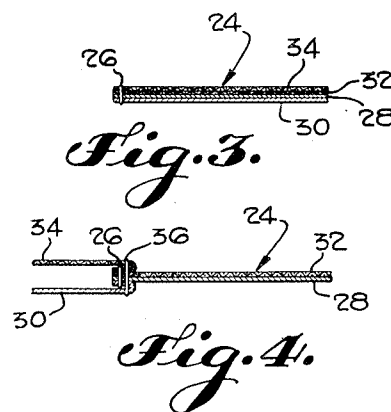
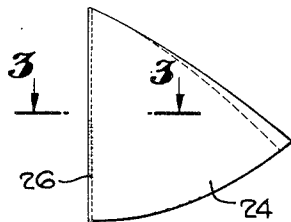
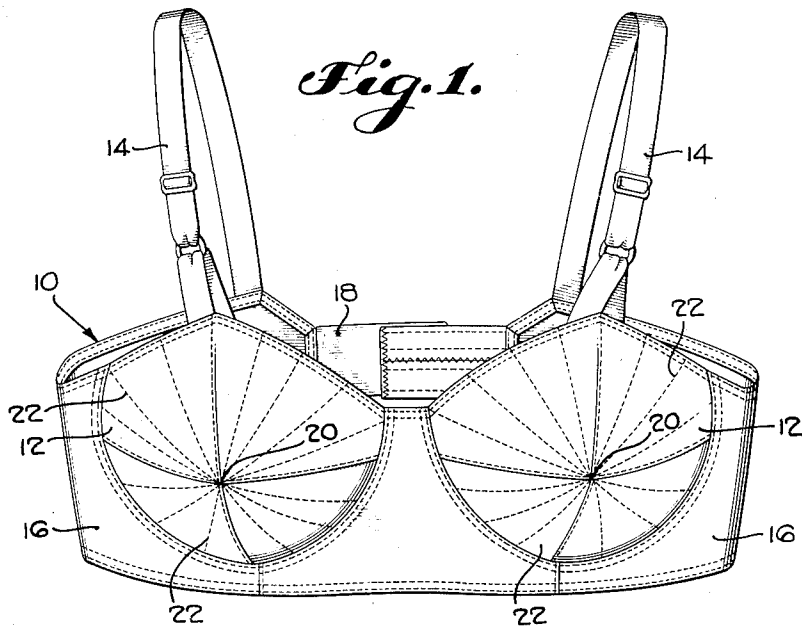
H. W. FROEHLICH

2,629,100

RADIANT STITCHED BRASSIERE CUP AND METHOD OF MAKING SAME

Filed May 12, 1949

2 SHEETS—SHEET 1



HARRY W. FROEHLICH,
INVENTOR.

BY

[Signature]

ATTORNEY

Feb. 24, 1953

H. W. FROEHLICH

2,629,100

RADIANT STITCHED BRASSIERE CUP AND METHOD OF MAKING SAME

Filed May 12, 1949

2 SHEETS—SHEET 2

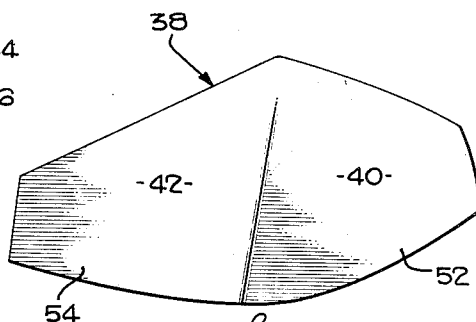
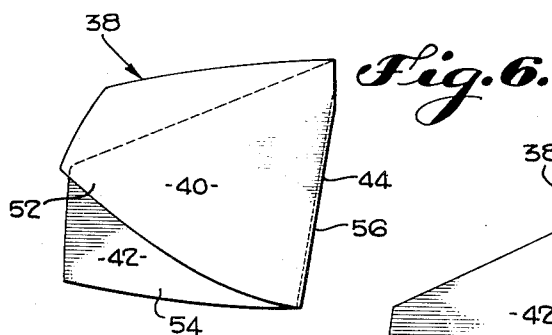


Fig. 8.

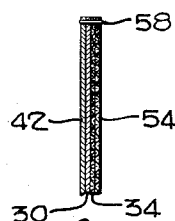
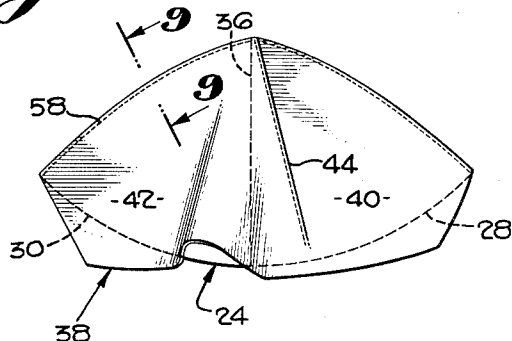
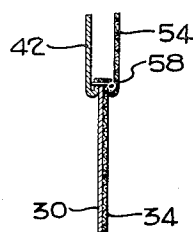
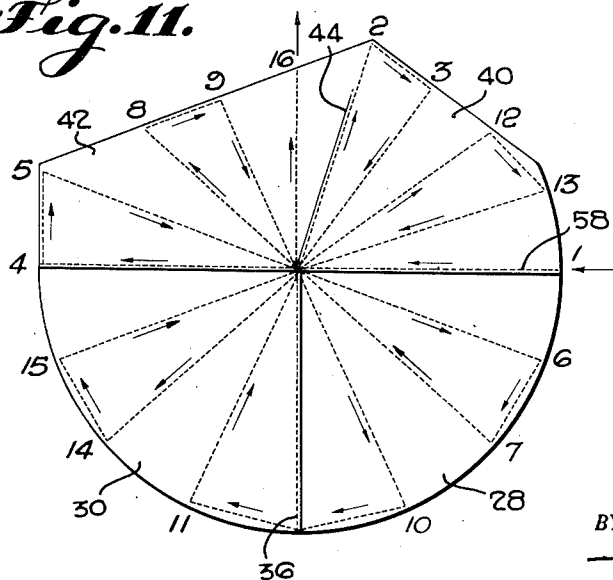


Fig. 11.



HARRY W. FROEHLICH,
INVENTOR.

BY

[Signature]

ATTORNEY

UNITED STATES PATENT OFFICE

2,629,100

RADIANT STITCHED BRASSIÈRE CUP AND
METHOD OF MAKING SAME

Harry W. Froehlich, Los Angeles, Calif.

Application May 12, 1949, Serial No. 92,916

9 Claims. (Cl. 2—42)

1

My invention relates to brassières and is particularly directed to the method of joining and stitching the parts of the cup of a brassière.

It is advantageous to form the cup of a brassière so that it comes to a point. Sales of brassières are stimulated if the method of making the brassière accentuates this pointed feature.

It is an object of this invention to provide a brassière and a method of making a brassière cup that accentuates the point of the brassière.

It is another object of this invention to provide a brassière cup and a method of assembling and making such a cup that provides stitches which appear to the eye to originate at the point of the cup and flow away from the point of the cup to the edges of the cup, so as to provide an illusion of the lines all flowing from the point of the cup.

It is another object of this invention to provide a cup which may be stitched by one complete line of stitching beginning at one point and ending at another point, accomplishing all of the stitching in between those points and not breaking the thread until the last point is reached.

It is a further object of this invention to provide a single thread stitching in which the functional seams are all sewn in the first few movements of the stitching needle.

It is another object of this invention to provide a brassière cup and a method of assembling same in which the stitching is accomplished from a beginning point to an ending point without breaking the thread and without duplicating any of the paths of stitching so that each line of stitching is a single line without another line of stitching being superimposed over it during the entire stitching operation from the beginning point to the ending point where the thread is broken.

Other objects and advantages of my invention will be apparent from the following description and claims, the novelty consisting in the features of construction, combination of parts, the unique relations of the members and the relative proportioning, disposition and operation thereof, all as is more completely outlined herein and as is particularly pointed out in the appended claims.

In the accompanying drawings, forming a part of this present application,

Figure 1 is a front elevation view of a brassière containing my preferred embodiment of my brassière cup, ready to be worn by a user.

Figure 2 is a plan view of one of the lower sections of my cup, constituting a quarter of the cup.

2

Figure 3 is a sectional view along the lines 3—3 of Figure 2 showing how the lower half of my cup is made by sewing together two sections like Figure 2 and two similar lining sections.

Figure 4 is a sectional view showing the next step in the assembly of my cup after the position shown in Figure 3.

Figure 5 is a plan view of the top half of one of my cups before any stitching is done.

Figure 6 is a view of the step immediately following Figure 5 in the manufacture of my cup showing the top half folded over and stitched.

Figure 7 is a plan view of the step immediately following that shown in Figure 6, with the top half of the cup opened up.

Figure 8 is a plan view of the next step following that shown in Figure 7.

Figure 9 is a sectional view along the lines 9—9 of Figure 8 showing the position of the layers of the various sections.

Figure 10 is a sectional view showing the next step after Figure 9.

Figure 11 is a diagrammatic view showing the method of stitching my cup.

Referring to the drawings, I will describe the preferred embodiment of my cup and its method of manufacture.

A preferred embodiment of my invention is shown in Figure 1, which illustrates a complete brassière 10 including two of my cups 12, the conventional straps 14, body 16 and elastic 18.

It will be noted that the point 20 of each cup 12 is accentuated by the radial stitching 22, which moves in a somewhat regular pattern from the point of the cup 20 to the periphery of the cup.

The lower half of my cup is made from two substantially similar quarters 24, which are stitched together along line 26 in Figure 2 to form a central seam. Before this seam 26 is formed two quarter cup linings, substantially similar in size and shape to quarter cup 24, are also cut and the two quarter cups and the two quarter linings are stacked with the two linings on top and the two quarter cups below. Then the first line of stitching in making my brassière, shown at 26, is made. The quarter cups and quarter linings may be identified in the drawings as follows. The lower right quarter cup 28 is stacked on top of the lower left quarter cup 30 and the lower right quarter lining 32 is stacked on top of lower right quarter cup 28. Finally the lower left quarter lining 34 is then stacked on top of the lower right quarter lining 32, as is shown in Figure 3. Then the line of stitching 26 is made and the lower left quarter lining 34 and the lower left quarter cup 30 are pulled to

3

the left as shown in Figure 4, leaving the lower left quarter cup 30 and lower right quarter cup 28 facing outwardly and the linings 34 and 32 positioned inside of the cup. Then a second line of stitching 36 is made through all of the members to hold them in this position and prevent the lower left quarter cup 30 and its lining 34 from flapping back from the position shown in Figure 4 to the position shown in Figure 3. These operations place the lower half of my cup in position to be joined with the upper half of my cup.

I will now describe the method of similarly placing the upper half of my cup into condition for joining with the lower half of my cup.

The upper half of my cup is made in one piece instead of two and is made from a pattern shown in Figure 5 and numbered generally 38. This upper half of my cup comprises an upper right quarter cup 40 and an upper left quarter cup 42. A seam 44 is made joining the upper cup quarters by sewing together edge 46 of upper right quarter cup 40 and edge 48 of upper left cup 42. The method of making this seam 44 is seen clearly by following the progression from the pattern 38, shown in Figure 5, through Figure 6 to Figure 7.

A lining for my upper half cup is then made in exactly the same manner that the upper half of my cup is made. A pattern for the upper half of my lining indicated by 50 is cut and the upper right quarter 52 and the upper left quarter 54 of my lining are joined together to make a seam 56 and a final lining identical in size and shape with the upper half of my cup shown in position ready to be joined to the lower half of my cup in Figure 7.

The next step in the manufacture of my cup is to lay the lower half of my cup and its lining on a table with the cup facing up and the lining facing down, and with the upper edge 27 of my lower half of my cup facing up and the rounded lower edge 37 facing downward. On top of this I then place the upper half of my cup 38 and beneath this lower half of my cup I place the lining 50 for the upper half of my cup with the straight edge of both my upper half cup 38 and the lining 50 therefore facing upwardly. These relative positions are shown in Figure 8 in plan view and in Figure 9 in section.

The next step is to sew seam 58 along the edge that joins the two halves of my cup. Then I fold the upper half of my cup 38 and the lining therefor, 50, together in the manner shown in Figures 3 and 4 for my lower cup. This is illustrated in Figure 10, which is a cross sectional view of the left upper and lower quarters of my cup.

Referring to Figure 10 it is then seen that the upper left quarter cup 42 and the lower left quarter 30 are facing outwardly and the upper left quarter lining 54 is positioned behind the upper left quarter cup 42 and the lower left quarter lining 34 is positioned behind the lower left quarter cup 30. This operation thus joins my upper and lower half cups together at the seam 58. It is to be noted that at this point I do not make a second seam following seam 58 as seam 36 followed seam 26, but I merely hold the upper half cup and its lining in the position shown in Figure 10 while the stitching that I am about to describe is done.

Turning now to Figure 11, I will describe the preferred embodiment of my stitching which joins together the parts of my cup described above. This stitching operation is performed with one thread, beginning at the point marked 1 in Figure 11 and ending at the point marked 16

4

in Figure 11. The method of this stitching reinforces the functional seams, 58 and 44, at the earliest possible moment before completing the other seams.

Turning now to Figure 11 with the upper and lower halves of my cup held in the position shown in Figure 10, I start my single thread stitching process at the right edge of seam 58 and move from right to left in Figure 11 from the point 1 to the point of the cup 20 along functional seam 58, thus completing half of that functional seam 58 in the same manner that seam 36 was stitched over seam 26.

From point 20 my stitching turns along functional seams 44 and 58 (in the lining) to point 2, thence along the periphery to point 3 and then back to point 20. From here the stitching completes the functional stitching along seam 58 by moving from point 20 to point 4. At this point, which is very early in my stitching, it is seen that there is a double stitching along all three functional seams in my cup, namely, along seam 44 in the upper half, completely along seam 58 between the two halves and previously two seams have been made along seam 36, namely preliminary seam 26 and final seam 36. At this point the various parts, both front and lining of my cup, are functionally sewn together.

From here my single method of stitching proceeds from point 4 along the periphery to point 5, thence back through the center point 20 to point 6 on the opposite periphery, then along the periphery to point 7 and back through center point 20 to point 8. Then the stitching continues from point 8 along the periphery to point 9 and thence through center point 20 to point 10 on the opposite periphery. From point 10 the stitching continues along the periphery past functional seam 36 to point 11. From point 11 the stitching progresses back to point 20 and thence to point 12 on the periphery. From point 12 the stitching progresses along the periphery to point 13 and then to center point 20 where it moves diagonally to the periphery 14 and then along the periphery to point 15. From point 15 the stitching returns to center point 20 and then moves to point 16 on the periphery, which completes the stitching without a break in the thread. At point 16 the thread is suitably tied and broken, thus making a complete stitching of my cup without breaking the thread, progressing from point 1 through the points described to point 16.

A great advantage of this preferred embodiment of my method of stitching is that it saves a considerable amount of the operator's time, as it takes time to break threads and start over again. Also, there is no duplication of stitching along any line that is not functional. It is deemed functional to tie the reversed sections 30 and 34 in position by stitching 36 which follows along the line of preliminary stitching 26, and similarly it is deemed functional to tie the sections 42 and 54 together by function stitching over the preliminary seam 58, and it is deemed functional stitching to follow the line of preliminary seam 44 from point 20 to point 2. Thus duplications are avoided and functional seams are made double for strength and to hold the parts in their final positions.

It is to be understood that the form of my invention herein shown and described is my preferred embodiment and that various changes in the shape, size and arrangement of parts and steps of my method may be resorted to without departing from the spirit of my invention, or the

5

scope of the appended claims. Also it is to be understood that other advantages may be present in my invention.

I claim:

1. A brassière cup comprising a plurality of cup sections joined by a functional seam which extends in a substantially straight line radially from a central point in the cup toward the periphery thereof, and a plurality of substantially straight lines of stitching on each cup section radiating from said central point of said cup radially toward the periphery thereof, said lines of stitching comprising a continuous thread common to all the lines of stitching with the outer ends of certain of the radially extending lines of stitching being joined by stitching formed by said continuous thread and extending along the periphery of the cup.

2. The method of making a brassière cup having a point which includes the steps of cutting two substantially similar quarter cup sections and cutting two quarter cup linings, each substantially similar to said quarter cup sections, stacking the said quarter cups and linings with the two quarter cups adjacent each other and the two quarter linings adjacent each other, sewing a functional seam through said stacked quarter cups and linings along the straight vertical edges thereof, reversing the outer quarter cup and the outer quarter lining over said functional seam so as to produce a lined first half cup section with the said quarter cups facing in one direction and the said quarter linings facing in the opposite direction, cutting a second half cup section and cutting a substantially similar half cup lining, sewing a functional dart in said half cup section, stacking the said half cups and half cup linings with the half cups adjacent each other and the half cup linings adjacent each other, sewing a functional seam through said stacked half cups and half cup linings along their longest common edges, and reversing the outer half cup and the outer half cup lining over said last mentioned functional seam so as to complete a pointed brassière cup with all of said cup sections facing in one direction and all of said linings facing in the opposite direction and with said functional seams and said dart extending radially from the point of the cup toward the periphery thereof.

3. The method of making a brassière cup as defined in claim 2 which also includes the steps of stitching said brassière cup with a continuous thread along a decorative pattern which includes a plurality of straight lines extending radially from said central point in said cup toward the periphery of the cup, making certain of said radiating lines substantially coincide with said functional seams and with said functional dart, thus reinforcing said functional seams and said functional dart and distributing the remaining radiating lines of stitching between said functional seams with a plurality of such radiating lines of stitching on each said cup section between seams.

4. The method of making a sectional brassière cup having a point which includes the steps of joining and shaping the cup sections by functional seams extending substantially radially from the point of the cup toward the periphery thereof and stitching said cup with a continuous thread along a decorative pattern which includes the steps of starting said stitching at the periphery end of one of said functional seams, progressing immediately to the point of the cup and thence substantially along one of said func-

6

tional seams to the periphery of said cup, thence along the periphery of said cup a certain distance, thence to the point of said cup, thence along another functional seam to the periphery, continuing said procedure until all of said functional seams have been so reinforced by said stitching before completing said pattern and ending said stitching at the periphery of said cup.

5. A brassière cup including a half cup section and a pair of quarter cup sections, a functional dart in said half cup section and functional seams joining said cup sections at their contiguous edges, said functional dart and functional seams extending in substantially straight lines radially from a common central point in the cup toward the periphery thereof and a decorative stitching on said cup sewn with a continuous thread along a decorative pattern that substantially coincides with said functional seams and said functional dart and that also includes a plurality of straight lines extending radially from said common central point in said cup toward the periphery of the cup distributed between said functional seams on each of said cup sections.

6. A brassière cup comprising a plurality of cup sections joined by functional seams which extend in substantially straight lines radially from a central point in the cup toward the periphery thereof, and a plurality of substantially straight lines of stitching radiating from said central point of the cup radially toward the periphery thereof, certain of said radiating lines of stitching coinciding with certain of said functional seams and reinforcing the same, and the remaining radiating lines of stitching being distributed between said functional seams with a plurality of such radiating lines of stitching on each cup section between the seams, said lines of stitching comprising a continuous thread common to all the lines of stitching with the outer ends of certain of the radially extending lines of stitching being joined by stitching formed by said continuous thread and extending along the periphery of the cup.

7. The method of making a sectional brassière cup having a point which includes the steps of joining by stitching a plurality of cup sections along functional seams extending from the center of the cup radially to the periphery thereof, initiating a decorative pattern at the periphery of said cup by stitching the cup substantially coincident with certain of said functional seams to reinforce said seams, continuing said decorative pattern after stitching along said certain functional seams by stitching said cup along additional radial lines from the center of said cup to the periphery thereof and completing the stitching of said decorative pattern at the periphery of the cup.

8. A brassière cup including a half cup section having a functional dart and a pair of quarter cup sections, functional seams joining said cup sections at their contiguous edges, said functional dart and functional seams extending substantially radially from a common central point in the cup toward the periphery thereof, a reinforcing and decorative pattern stitched on said cup, said pattern comprising radial stitched lines coinciding with said functional dart and said functional seams to reinforce said dart and said seams, and additional stitched lines extending radially from said common central point on at least one of said cup sections distributed between said functional seams.

9. The method of making a sectional brassière

cup having a point which includes the steps of joining by stitching a plurality of cup sections along functional seams extending from the center of the cup radially to the periphery thereof, initiating a decorative pattern at the periphery of said cup, continuing said decorative pattern, including stitching the cup substantially coincident with one of said functional seams to reinforce said seam, by stitching said cup along radial lines from the center of said cup to the periphery thereof and completing the stitching of said decorative pattern at the periphery of the cup, said lines of stitching of said decorative pattern comprising a continuous thread.

HARRY W. FROELICH. 15

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|-----------|-----------------|----------------|
| 1,231,011 | Glasgow ----- | June 26, 1917 |
| 1,637,840 | Volk ----- | Aug. 2, 1927 |
| 2,152,910 | Childs ----- | Apr. 4, 1939 |
| 2,411,334 | Palmer ----- | Nov. 19, 1946 |
| 2,418,016 | Edelston ----- | Mar. 25, 1947 |
| 2,523,395 | Sellarole ----- | Sept. 25, 1950 |