Sept. 11, 1956 R. BERMUELLER 2,762,055

WIRE FOR BRASSIERES

Filed Oct. 25, 1954

Fig. 1.

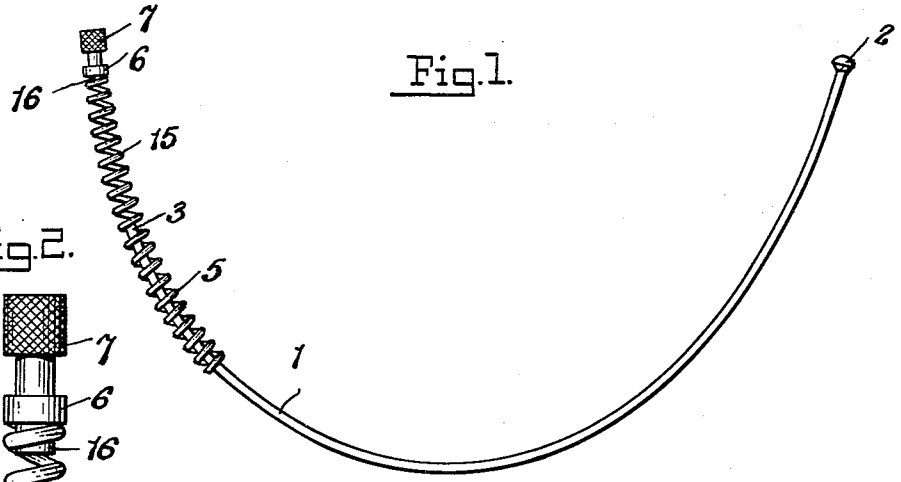


Fig. 2.

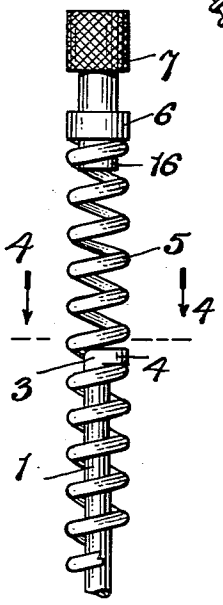


Fig. 3.

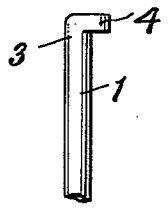


Fig. 4.

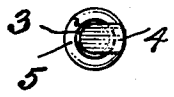
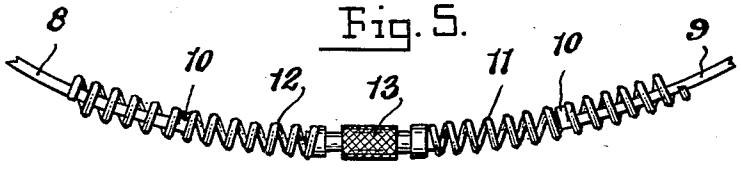


Fig. 5.



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WIRE FOR BRASSIERES

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1 Claim. (Cl. 2—264)

This invention relates to reinforcing or supporting wires for brassieres, and has for one of its objects the provision of means by which a wire of this character can be regulated as to its effective length and is provided with means by which both adjustability and flexibility in required areas can be secured.

In brassieres of certain types, the breast cups are partially surrounded by sleeves or elongated pockets in which stiffening wires are contained. Very often these wires cause discomfort to the wearer, particularly when the wearer stoops, bend or moves about. Very often also, when an improperly fitting brassiere is worn, considerable discomfort is caused by the wires engaging parts of the body and exerting pressure or forcible frictional contact thereon. Since no means is ordinarily provided, by which adjustability of these wires can be had, the purchaser and wearer of brassieres of these types must exercise extraordinary care in the selection of one which properly fits the individual and can be worn with comfort.

It is therefore one of the objects of the present invention to provide a reinforcing or stiffening wire which will be regulatable in length, thereby enabling the wearer to adjust the wire to secure the most satisfactory results in both appearance and comfort of wear. It is a further object of the invention to provide an adjusting means so arranged that it will be laterally flexible; will thus give or bend under body pressure, while at the same time will provide the necessary support and body coverage, and this despite active body movements of the wearer. It is an object of the invention to provide an adjustable means which will be of simple construction; in which the parts are easily interfitted and will smoothly operate; in which adjustability is simply and effectively had, and which will cause no protrusions on or through the brassiere or create projections likely to contact with and injure the body of the wearer.

More particularly, the invention contemplates the provision of a reinforcing wire of suitable shape to fit under, over or around the bust cup and which is provided with one or more threadably-adjustable elements by means of which the effective length of the wire can be regulated and which elements at the same time will serve as flexible and resilient areas along the length of the wire.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claim appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a front elevational view of a reinforcing wire for brassieres, constructed in accordance with the invention;

Fig. 2 is an enlarged view of a portion of the spiral adjuster and one end of the wire engaged thereby;

Fig. 3 is a view of one end of the wire showing the lateral extension or lug formed thereon;

Fig. 4 is a sectional view, taken substantially on the line 4—4 of Fig. 2, looking in the direction of the arrows, and

Fig. 5 is a modified construction in which two ends of a reinforcing wire are engaged by a spiral adjuster.

Referring to the drawing, and more particularly to Fig. 1 thereof, 1 indicates a curved or arcuately-shaped wire of the type conventionally employed in brassieres either below or at the top of the bust cups. Said wire is provided at one end with a rounded protective head 2 and is formed at its other end with a laterally-bent, integral extension or lug 4. This lug is not a part of the conventionally-known wire reinforcement, but forms a part of the present invention.

The adjusting member in the form shown, for the wire, consists of a spiral or coil spring 5 which closely encircles the wire 1 and is fitted over one end of the same. The spiral 5, when so fitted on the wire, as shown in Fig. 1, has the lateral extension or lug 4 at the end of the wire 1, engaging the spiral between its convolutions, in the manner shown in Fig. 2, so that by manual rotative movement of the spiral relatively to the wire, it can be moved off or onto the wire to the desired extent to thereby regulate the effective length of the reinforcement, which then consists of the wire and the fitted-on adjuster 5.

To facilitate the manual rotation of the spiral 5 and thus control the regulation of the effective length of the reinforcing member, a finger-piece in the form of a knurled knob 7 is provided on one end of a plug 6 which has a part 16 fitted within one or more of the end convolutions of the spiral 5 and is soldered or otherwise fixedly attached thereto. Hence, when the knob 7 is manually turned, the spring will be threadably moved toward or away from the end 3 of the wire 1 and thus the overall length of the reinforcement precisely regulated. It will be noted from Figs. 2 and 4 that the lug portion 4, at the end 3 of the wire, is of a size that it does not protrude beyond the periphery of the spiral 5 and hence forms no projecting end likely to contact with and injure the body of the wearer.

When the stiffener or reinforcement is inserted in a brassiere or other garment, it will be confined within the usual sleeve or elongated pocket surrounding the bust cup, but with the knob 7 exposed or otherwise made available for manual engagement to thereby enable the effective length of the reinforcement to be regulated to provide the proper fit and thus the most comfort in wear. By turning the knob 7 as required, the overall length of the reinforcement can be regulated precisely and accurately to suit the individual wearer. Since the adjustment requires rotative movement of the spiral 5, it will be apparent that no non-rotative lengthwise sliding movement of the spiral 5 relative to the wire 1 can take place and hence any inadvertent relative shifting movements of the spiral 5 and wire 1 will not occur. Therefore, when the reinforcement is once adjusted as to its length it will remain so adjusted indefinitely.

In addition to enabling the overall effective length of the reinforcement to be adjusted, the employment of a flexible spiral element, such as the coil spring 5, also lends considerable flexibility and resiliency to the reinforcement and particularly at the end of the same when a portion of the spiral extends beyond the end 3 of the wire, or that projecting portion of the spiral designated at 15 in Fig. 1. This portion of the spiral, being unrestrained by the absence of the wire within its coils, is flexible laterally and thus the relatively stiff and inflexible wire end which causes discomfort in many types of wired brassieres, will be eliminated and flexibility provided in a portion of the reinforcement where it is most needed to secure wearing comfort.

While I have shown the wire 1 as being provided at only one end with the spiral adjuster, it will be apparent that a similar adjuster may be provided at both ends.

Also, as disclosed in Fig. 5, a center adjuster is possible. In this embodiment of the invention, two wire ends are respectively indicated at **8** and **9**, and each of these ends is formed with an offset lug **10**, similar to that shown at **4**. Two spirals are respectively indicated at **11** and **12**, that shown at **11** threadably engaging the lug **10** on the wire **9**, while that shown at **12** threadably engages the lug **10** on the wire **8**. Both of the spirals **11** and **12** are fixedly attached at one end to the knurled adjusting plug **13**. This arrangement is such that when the knurled adjusting plug **13** is manually turned, the wires **8** and **9** will be brought toward one another or moved apart according to the direction of manual rotation of the plug **13** and thus the effective length of the reinforcement will be regulated and of which the wires **8** and **9** and spirals **11** and **12** form a part.

The spirals shown at **5**, **11** and **12** can be made of springy, preferably non-corrosive wire, or made of plastic of sufficient resilience, or these spirals might be internally threaded sleeves or other suitable elements by which a threadable engagement with the wire or parts thereof might be effective to thereby regulate the overall length of the reinforcement of which these elements and a co-operating wire form a part. Also, while I have herein suggested that the spiral elements might be positioned at one or the other, or at both ends, of a wire reinforcement for threadable engagement therewith, or positioned centrally of a wire reinforcement, as suggested in Fig. 5, it will be apparent that one or more of the spirals might be otherwise located along the length of the wire for the securement of adjustment at special points thereon as well as for exceptional resiliency at such locations.

Having described a single embodiment of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claim.

What I claim is:

An adjustable wire reinforcement for brassieres comprising, a wire for fitment at the bust cup of a brassiere, a laterally-formed extension at one end of the wire, a flexible coil spring having spaced-apart convolutions fitted around said lateral extension of the wire and longitudinally adjustable on the wire to extend to a greater or lesser extent beyond the said end of the wire, the extended portion of the spring forming a flexible extension of the wire, the laterally-formed extension on the wire fitting between the convolutions of the spring and requiring manual rotative movement of the spring relatively to the wire to shift the spring longitudinally relatively to the wire, said spring being laterally flexible and having a finger-piece fitted at one end thereof to facilitate the rotation of the spring on the wire on which it is fitted.

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