April 6, 1943. M. S. STRAIT 2,315,561

SUPPORTING GARMENT

Filed April 18, 1940

Fig. 1

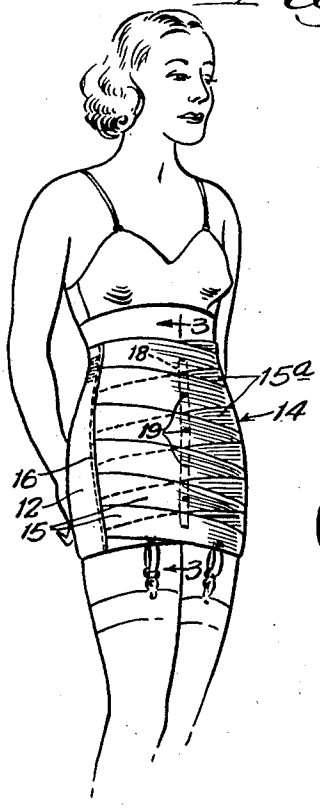


Fig. 2

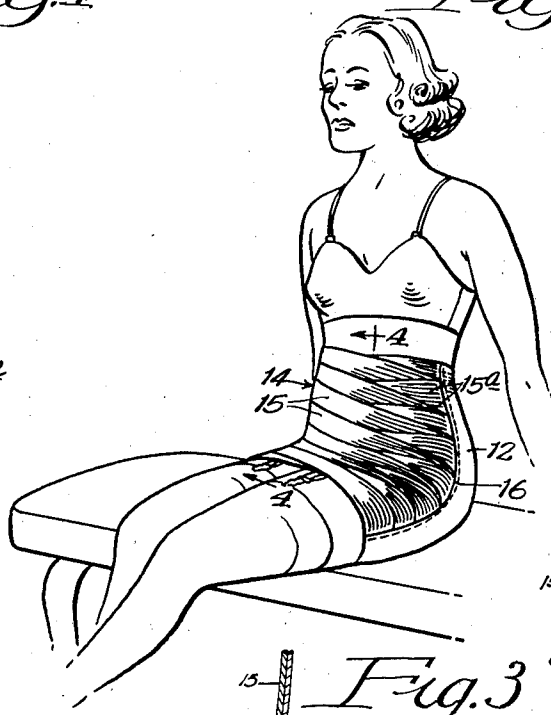


Fig. 3

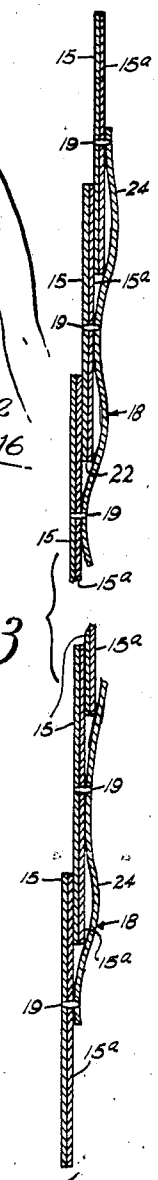
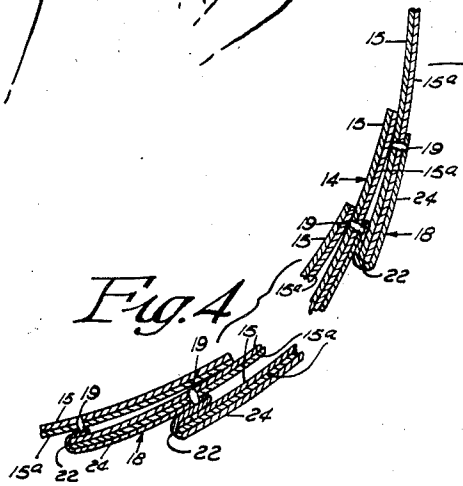


Fig. 4



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UNITED STATES PATENT OFFICE

2,315,561

SUPPORTING GARMENT

Mabel S. Strait, Conway, Ark.

Application April 18, 1940, Serial No. 330,261

7 Claims. (Cl. 2—43)

This invention relates to corsets including girdle and foundation garments designed to maintain the confined portions of the wearer flat irrespective of the wearer's posture.

The conventional garment of the character referred to has been found unsatisfactory in service because of the tendency of the front to bunch when the wearer is seated or bending over. Thus in such garments the bunched portions are a source of physical discomfort not only when the wearer is seated or bending over but even when erect because the material after some use assumes a permanent set which at all times detracts from the appearance even when outside garments are worn thereover.

It is an essential object of my invention to provide a garment of the type referred to which is free of the above-noted and other disadvantages and yet affords the desired support.

Another object is to provide a garment of the type referred to which, in addition to affording the desired support, comfort and outer smoothness at all times, permits access of air to the supported front area of the body so that normal evaporation of perspiration of the confined parts is not interfered with.

A further object is to provide a support of the character referred to which is automatically and inelastically collapsible without bunching when the wearer bends over or is seated.

Further objects and advantages of the invention will appear as the description proceeds.

The invention will be better understood upon reference to the following description and the accompanying drawing, in which:

Fig. 1 shows how the garment appears when the wearer is erect.

Fig. 2 shows how the garment appears when the wearer is seated.

Fig. 3 is a sectional view taken as indicated by the line 3—3 in Fig. 1.

Fig. 4 is a sectional view taken as indicated by the line 4—4 in Fig. 2.

The front section 14 comprises two series of webs 15 and 15*a*, anchored at their ends 16 to the side panels 12. The webs of each series extend transversely at an inclination, and are shingled from the top to the bottom of the section so that they are successively overlapped, and cross the webs of the other series substantially midway of the width of the section. Thus each crossed pair 15, 15*a*, considered as a unit, is partially overlapped by the next succeeding crossed pair. The crossed portions of each unit are united as by stitching 19, and the units are linked together as by a piece of preferably non-stretchable tape 18 which may be anchored by said stitching 19 and preferably covers the intersecting portions of the webs. The arrangement is such that when said tape is attenuated, as shown in Fig. 3, the units are still overlapped, so that the webbing extends at all times throughout the entire area from the top to the bottom of the section 14. Each run 24 of the tape is of such length as to permit the units connected thereby to shift edgewise in a direction to increase the degree of overlap to a maximum, by bending the run about the edge 22 of the upper unit to which such run is connected, or to any extent between the minimum and maximum, as shown in Fig. 4.

When the body is unbent, as shown in Fig. 1, the units are substantially unstressed vertically and dispose themselves automatically in conformity with the wearer with minimum overlapping. When the body is bent or the wearer is seated, as shown in Fig. 2, the units are automatically shifted relatively in vertical directions to increase their overlapping in various amounts determined by the degree of bending of the various confined portions of the body, as shown in Fig. 4, the overall maximum thickness of the section 14 being nowhere increased. Thus bunching is avoided.

The webbing 15, 15*a* is preferably formed of fabric which is elastic lengthwise and inelastic widthwise. Said material and the tape material, while possessing the required strength for service, are nevertheless quite thin and are at all times in close flatwise interengagement so that notwithstanding their arrangement in a plurality of layers, the edges of the materials are not felt by the wearer, the inner and outer surfaces of the front section, whether attenuated or collapsed, being substantially smooth and uniform and affording comfort to the person and a neat appearance with and without outer garments.

The webs are preferably unconnected together except at their ends and centers, so that they are relatively shiftable vertically and are freely elastic between these places of securement to lend flexibility to the section 14.

It is apparent that the section 14 of itself presents an attractive appearance since it may have the general appearance of a Venetian blind.

The invention is applicable particularly for the support of the stomach and, if desired, also the thighs. The drawing shows the invention applied to a girdle, supporting the stomach and thighs, but it will be understood that it can be

made shorter to cover the stomach only or built up into a foundation garment by the addition of a diaphragm support and, if desired, a brassière.

Garments made in accordance with the principles of my invention are adapted for use by men as well as women, the drawing illustrating one such device as worn by a woman for the purpose of illustration only.

Various modifications may suggest themselves to those skilled in the art without departing from the spirit of my invention, and, hence, I do not wish to be restricted to the specific form shown or uses mentioned, except to the extent indicated in the appended claims, which are to be interpreted as broadly as the state of the art will permit.

I claim:

1. A garment formed to surround and support the abdomen of the wearer and comprising a front section having two oppositely inclined sets of shingled transverse webs crossed substantially centrally, affording a shingled set of crossed pairs of webs, the webs of each crossed pair being secured together, and a tape at the inner side of said section and anchored by said securings, the run of said tape between two successive securings being longer than the extent of overlap of the two pairs connected by said run when the body is erect, whereby said two pairs are capable of overlapping each other in increasing amounts in response to forward bending of the wearer's body.

2. A garment having a body supporting section comprising a portion substantially immovable relative to the wearer's body and a portion which is self adjusting to changes in positions of the wearer, said self-adjusting portion consisting of a plurality of pairs of fabric strips which are longitudinally elastic and transversely inelastic, said strips being secured at their extremities to said immovable portion, each pair being crossed intermediate their ends and being secured together at said crossing points, the pairs being interleaved whereby they may be telescoped when the wearer's body is bent, and a flexible member connecting the mid-portions of said pairs, said flexible member being substantially equal in length to the overall dimension of said strips vertically of the wearer's body when the body is erect, said flexible member functioning to limit the extent of collapse and distention of said strips.

3. A garment as defined in claim 2 wherein the self-adjusting portion occupies substantially the entire front of the garment.

4. A garment having a body supporting section comprising a portion substantially immovable relative to the wearer's body and a portion which is self-adjusting to changes in positions of the wearer, said self-adjusting portion consisting of a plurality of pairs of fabric strips which are longitudinally elastic and transversely inelastic, said strips being secured at their extremities to said immovable portion, each pair being crossed intermediate their ends and being secured together at said crossing points, the pairs being interleaved whereby they may be telescoped when the wearer's body is bent, and flexible means providing a lost motion connection between adjacent pairs for limiting the extent of telescoping of said pairs.

5. A garment as defined in claim 4, wherein the self-adjusting portion occupies substantially the entire front of the garment.

6. A garment formed to surround and support the abdomen of the wearer and comprising a front section having oppositely inclined flexible webs forming a plurality of crossed pairs of said webs, means securing together the webs of each pair intermediate the ends thereof, adjacent pairs being at least partially overlapped at all times, and means providing a lost motion connection between adjacent pairs, enabling said pairs to have relative movement to vary the extent of overlapping thereof, whereby said adjacent pairs are capable of overlapping each other in increasing amounts in response to forward bending of the wearer's body.

7. A garment formed to surround and support the abdomen of the wearer and comprising a front section having oppositely inclined flexible webs forming a plurality of crossed pairs of said webs, means securing together the webs of each pair intermediate the ends thereof, adjacent pairs being at least partially overlapped at all times, and means providing a lost motion connection between adjacent pairs, enabling said pairs to have relative movement to vary the extent of overlapping thereof, whereby said adjacent pairs are capable of overlapping each other in increasing amounts in response to forward bending of the wearer's body, said lost motion connection means being shielded from the front of said front section.

MABEL S. STRAIT.

CERTIFICATE OF CORRECTION.

Patent No. 2,315,561. April 6, 1943.

MABEL S. STRAIT.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: In the grant, line 3, and in the heading to the printed specification, line 3, residence of inventor, for "Conway, Arkansas" read --Tulsa, Oklahoma--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22nd day of June, A. D. 1943.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.