May 19, 1936. W. MENDEL ET AL 2,041,664

LOCKSTITCH KNIT FABRIC

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FIG. I.

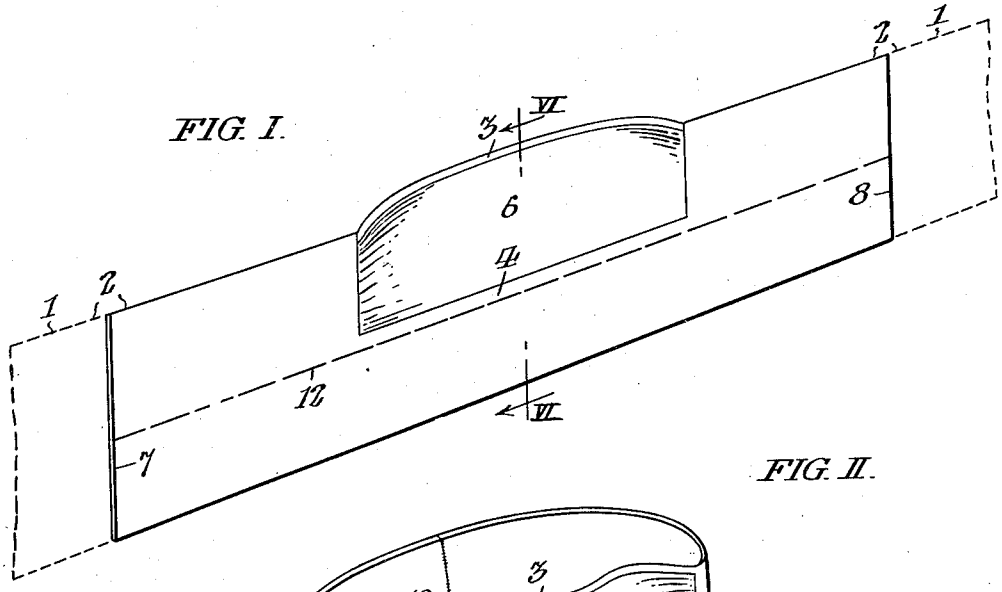
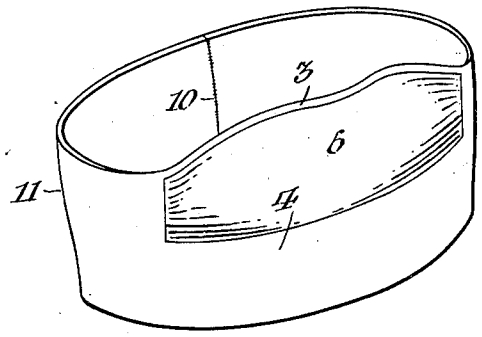


FIG. II.



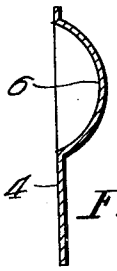
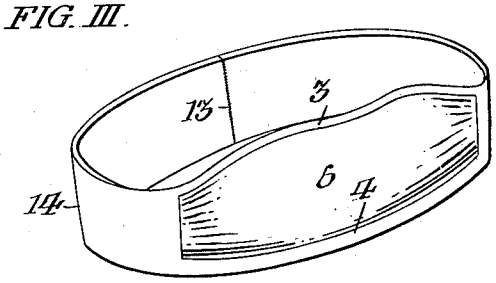


FIG. VI

FIG. III.



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FIG. V.

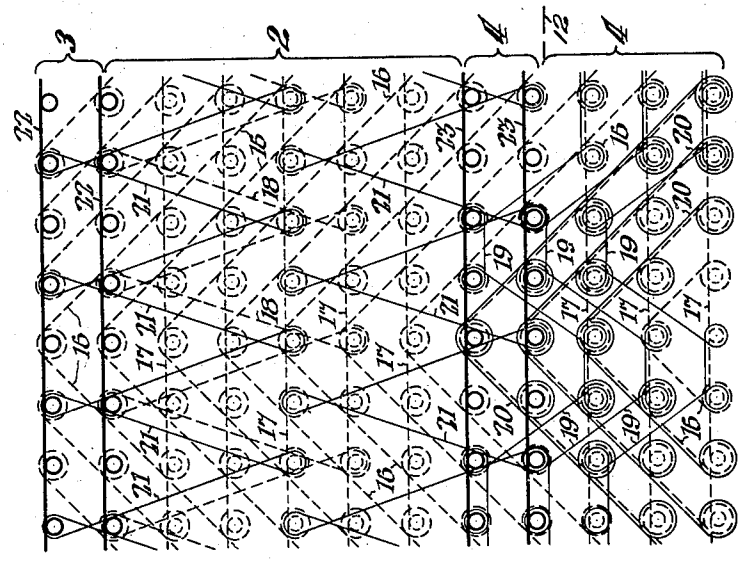
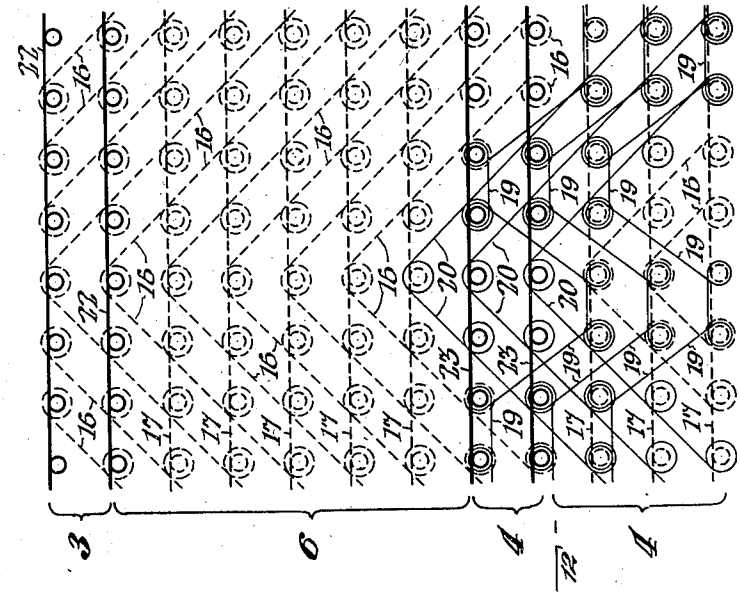


FIG. IV.



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LOCKSTITCH KNIT FABRIC

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9 Claims. (Cl. 66—175)

Our invention relates to fabric which may be knit upon a flat machine of the Raschel type and is advantageously employed in the manufacture of brassières, girdles, bodices, and other corseting garments.

As hereinafter described, a fabric in accordance with our invention includes a continuous, integrally knit, self-edged strip comprising a longitudinal series of flat sections of elastic fabric; borders of elastic fabric, at opposite edges of said strip, connecting said sections in predetermined longitudinally spaced relation; and a longitudinal series of concavo convex breast pockets, formed principally of inelastic threads and individually interposed between said borders and connected in spaced relation by said flat sections; all of the threads forming said fabric extending longitudinally therein, but having lateral interloops forming the lock stitches, for preventing any run in said fabric from any hole made therein. Such a fabric strip may be severed intermediate of the length of the sections between the breast pockets, to form separate pieces of fabric from which respective garments may be made. Each of said pieces thus includes a bulbous breast pocket set in a frame including flat sections at opposite ends thereof and flat borders at its top and bottom edges, and the opposite ends of each piece may be connected to form a zone of each piece which may be held in position on the body of the wearer by the elasticity of said flat sections and borders.

Said strip may be made elastic in every direction, if it is to be used to make brassières, but one border may be made elastic longitudinally in the fabric but inelastic transversely so as to be elastic circumferentially with respect to the body of the wearer but inelastic vertically to afford a firm foundation for shoulder straps, garter hangers, or other suspensory devices.

Such a strip of fabric may, of course, be made of any desired width; for instance, one of the borders adjoining the breast pocket may be wide enough to merely form a girdle or wider to form a bodice or still wider if the garment is to extend downward to form a sheath over the hips and upper portions of the thighs of the wearer.

Our invention includes the various novel features of construction, arrangement, and procedure hereinafter more definitely specified.

In said drawings, Fig. I is a perspective view of a fabric in accordance with our invention which is wide enough to form a brassière in unitary relation with a girdle.

Fig. II is a perspective view of a combined brassière and girdle formed from a piece of the fabric shown in Fig. I, by sewing the cut ends of the extensions together at the back.

Fig. III is a perspective view of a brassière formed of a fabric similar to that shown in Fig. I, but wherein the lower border is not wide enough to form a girdle.

Fig. IV is a diagram showing a preferable pattern arrangement of the threads at the central portion of the fabric shown in Fig. I.

Fig. V is a diagram showing a preferable pattern arrangement of the threads in the fabric of Fig. I in the extensions between the breast pockets.

Fig. VI is a vertical sectional view of the fabric, taken on the line VI, VI in Fig. I, in the direction of the arrows on said line.

Referring to Fig. I, the continuous integrally knit self-edged strip 1 comprises a longitudinal series of flat sections 2 of elastic fabric; borders 3 and 4 of elastic fabric, at opposite edges of said strip, connecting said sections 2 in predetermined longitudinally spaced relation; and a longitudinal series of concavo convex breast pockets 6, of elastic fabric, formed principally of inelastic threads and individually interposed between said borders 3 and 4 and connected in spaced relation by said flat sections 2. Said border 4 is of such width as to form a supporting girdle below the breast pockets 6. As indicated in Figs. IV and V and hereinafter described, said borders 3 and 4 include heavy elastic threads which extend circumferentially with respect to the body of the wearer and are connected vertically with respect to the body of the wearer by inelastic threads so that said borders are substantially inelastic vertically.

Said strip 1 is severed transversely, as indicated by the full lines 7 and 8 in Fig. I, which are intermediate of the length of the sections 2 between adjoining breast pockets 6; thus forming separate pieces of fabric each including a breast pocket with flat sections at opposite ends thereof, as indicated in full lines in Fig. I. The opposite ends of each such piece, indicated at 7 and 8 in Fig. I, are then connected as indicated at 10 in Fig. II to form a corseting garment zone 11.

The strip 1 shown in Fig. I has its lower border 4 wide enough to form a girdle extending below the breast pockets which is elastic longitudinally with respect to the strip and circumferentially with respect to the garment 11 but substantially inelastic transversely with respect to the strip and vertically with respect to said

garment; so that it constricts the body of the wearer but affords a substantial support for attachment of nether garments. However, said strip 1 may be made of narrower width, for instance the lower edge of the border 4 may be at the dash line 12 in Fig. I, and such a narrow strip may be severed intermediate of the extensions 2 so as to form separate pieces, the opposite ends of which may be joined as indicated at 13 in Fig. III to form respective brassières 14.

Moreover, as above contemplated, the lower border 4 of the strip 1 may be made wider than indicated in Fig. I to form garments which extend downward to the waistline of the wearer or below such line if desired.

The flat knitting machine upon which said fabric is formed includes a front needle bar, a back needle bar, and three guide bars for the threads. Said fabric is conveniently formed of three different kinds of thread, to wit, mercerized cotton threads 16, 17, and 18, lightweight elastic threads 19, 20, and 21, and heavyweight elastic threads 22 and 23, respectively directed to the needles by the guide bars.

We have shown in Fig. IV a preferable pattern arrangement of the threads at the central portion of the fabric shown in Fig. I, including the breast pocket 6, and having shown in Fig. V a preferable pattern arrangement of the threads in the fabric of Fig. I in the extensions 2 between the breast pockets 6. However, we prefer to extend such of the threads as appear in both Figs. IV and V, continuously from end to end of the strip 1. For instance, the mercerized cotton threads 16 and 17 and the light elastic threads 19 and 20, and the heavy elastic threads 22 and 23. That is to say, the mercerized threads 18 and light elastic threads 21 which appear in Fig. V are not extended through the breast pockets 6 and, consequently, the fabric of the pockets is of lighter texture than the fabric of the extensions 2. Moreover, we may modify the fabric of the pockets 6 to further lighten it by omitting the mercerized threads 17 therefrom, and it is to be understood that any other patterns may be employed in said fabrics.

As indicated in Figs. IV and V, the fabric is distended with all of the threads under tension in substantially the same plane, during the operation of forming it, so that when it is released from the knitting machine, as in Fig. I, the entire strip contracts under the stress of the elastic threads therein so that the sections 2 remain flat but the breast pockets 6, which contain a larger proportion of the inelastic mercerized cotton threads 16 and 17 between the elastic threads 22 and 23 than the other portions of the fabric, do not contract to the same degree as the latter and, therefore, are presented in concavo-convex form between the flat sections 2 as above described.

As shown in Figs. IV and V, the borders 3 and 4 each include but two heavy elastic threads indicated at 22 in the border 3 and at 23 in the border 4. Said heavy threads extend longitudinally in the fabric of Fig. I and circumferentially in the garments shown in Figs. II and III. They are closely connected by the inelastic mercerized cotton threads 16; so that whereas said borders are elastic circumferentially, they are substantially inelastic vertically with respect to the garment.

The term "elastic fabric" is used herein in the sense defined in The Century Dictionary and Cyclopedia, viz., a fabric including threads of rubber. The term "elastic thread" is used herein in the same sense, to wit, a thread including rubber. We find it convenient to employ elastic threads in which a rubber core is more or less covered with a thread of cotton or other filament which is inelastic per se.

Therefore, we do not desire to limit ourselves to the precise details of construction, arrangement, or method of manufacture herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of our invention, as defined in the appended claims.

We claim:

1. In a lockstitch knit elastic fabric, for corseting garments; the combination, in a continuous integrally knit self-edged strip, of a longitudinal series of flat sections of elastic fabric; borders, of elastic fabric, at opposite edges of said strip, connecting said sections in predetermined longitudinally spaced relation; and a longitudinal series of concavo convex breast pockets, including elastic and inelastic threads and individually interposed between said borders and connected in spaced relation by said flat sections; one of said borders being of such width as to form a supporting girdle below the breast pockets; all of the threads forming said fabric extending longitudinally therein, but having lateral interloops forming the lockstitches, for preventing any run in said fabric from any hole made therein.

2. In a lockstitch knit elastic fabric, for corseting garments; the combination, in a continuous integrally knit self-edged strip, of a longitudinal series of flat sections of elastic fabric; borders, of elastic fabric, at opposite edges of said strip, connecting said sections in predetermined longitudinally spaced relation; and a longitudinal series of concavo convex breast pockets, including elastic and inelastic threads and individually interposed between said borders and connected in spaced relation by said flat sections; all of the threads forming said fabric extending longitudinally therein, but having lateral interloops forming the lockstitches, for preventing any run in said fabric from any hole made therein.

3. The process of forming a plurality of elastic corseting garments, which consists first in forming a continuous integrally knit self-edged strip, including a longitudinal series of flat sections of elastic fabric, with borders of elastic fabric at opposite edges of said strip, connecting said sections in predetermined longitudinally spaced relation, and with a longitudinal series of concavo convex breast pockets of elastic fabric, formed principally of inelastic threads and individually interposed between said borders and connected in spaced relation by said flat sections; severing said strip intermediate of the length of the sections between the breast pockets; thus forming separate pieces of fabric each including a breast pocket with flat sections at opposite ends thereof; then connecting the opposite ends of each such piece to form a corseting garment zone.

4. The process of forming a plurality of elastic corseting garments, which consists first in forming a continuous integrally knit self-edged strip, including a longitudinal series of flat sections of elastic fabric, with borders of elastic fabric at opposite edges of said strip, connecting said sections in predetermined longitudinally spaced relation, and with a longitudinal series of concavo convex breast pockets, formed principally of in-

elastic threads and individually interposed between said borders and connected in spaced relation by said flat sections; severing said strip intermediate of the length of the sections between the breast pockets; thus forming separate pieces of fabric each including a breast pocket with flat sections at opposite ends thereof; then connecting the opposite ends of each such piece to form a corseting garment zone.

5. In a lockstitch knit elastic fabric, for a corseting garment; the combination, in a continuous integrally knit self-edged strip, of a concavo convex breast pocket including inelastic threads, having borders of elastic fabric at the opposite edges of said strip, and two flat sections of fabric which is elastic both longitudinally and transversely; said flat sections being joined to and limiting the transverse extent of said pocket at the respectively opposite ends of the latter, to less than the transverse extent of said pocket intermediate of its ends; all of the threads in said pocket being continuous with respect to the threads in said flat sections and extending circumferentially in said garment.

6. In a lockstitch knit elastic fabric, for a corseting garment; the combination, in a continuous integrally knit self-edged strip, of a concavo convex breast pocket including inelastic threads having borders of elastic fabric at the opposite edges of said strip, and two flat sections of fabric which is elastic both longitudinally and transversely; said flat sections being joined to and limiting the transverse extent of said pocket at the respectively opposite ends of the latter, to less than the transverse extent of said pocket intermediate of its ends; all of the threads in said pocket being continuous with respect to the threads in said flat sections and extending circumferentially in said garment; and means integrally connecting the ends of said flat sections remote from said pocket to form a corseting garment zone.

7. A bandeau comprising a body encircling member knit from elastic and non-elastic yarns as a unitary, integral piece having a completely elastic back member and a non-elastic front section, said front section having elastic strands extending along the upper and lower edges.

8. A bandeau comprising non-elastic bust pockets having elastic strands integral therewith extending along their upper and lower edges, and an elastic band integral with said pockets adapted to extend across the back of the wearer.

9. A method of making a bandeau which comprises knitting a band of materials from elastic and non-elastic threads while maintaining a tension across the material, continuing the non-elastic threads into a knit section from which the elastic threads are omitted, continuing the elastic threads along the upper and lower edges of said knit section, and knitting the elastic and non-elastic threads into another band at the opposite side of said knit section.

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