

Aug. 6, 1935.

W. MENDEL ET AL
LOCKSTITCH KNIT FABRIC

2,010,787

Filed Oct. 14, 1933

2 Sheets-Sheet 1

FIG. I.

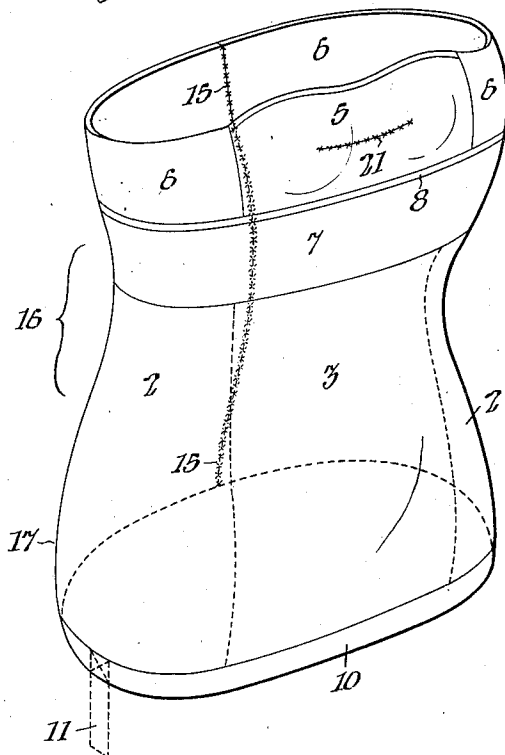
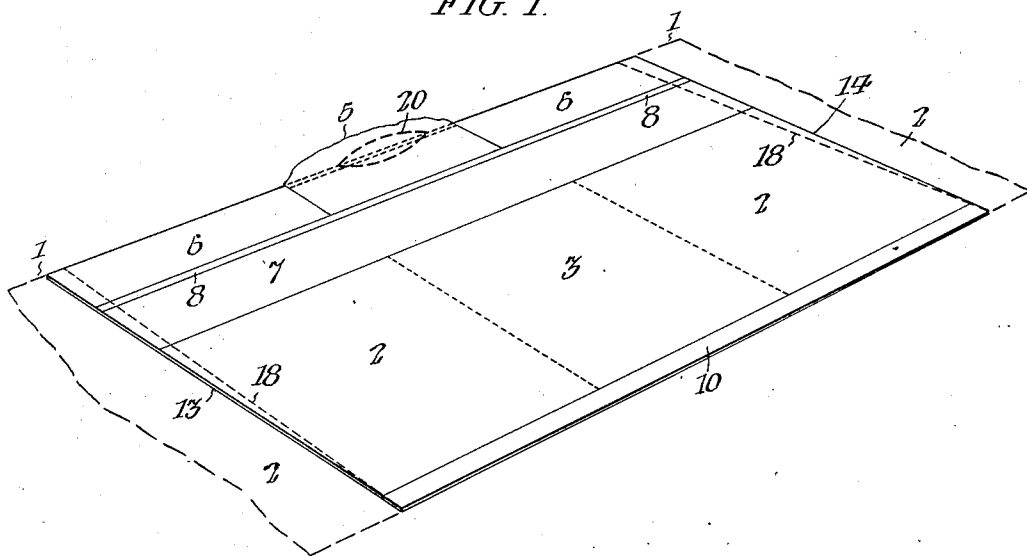


FIG. II.

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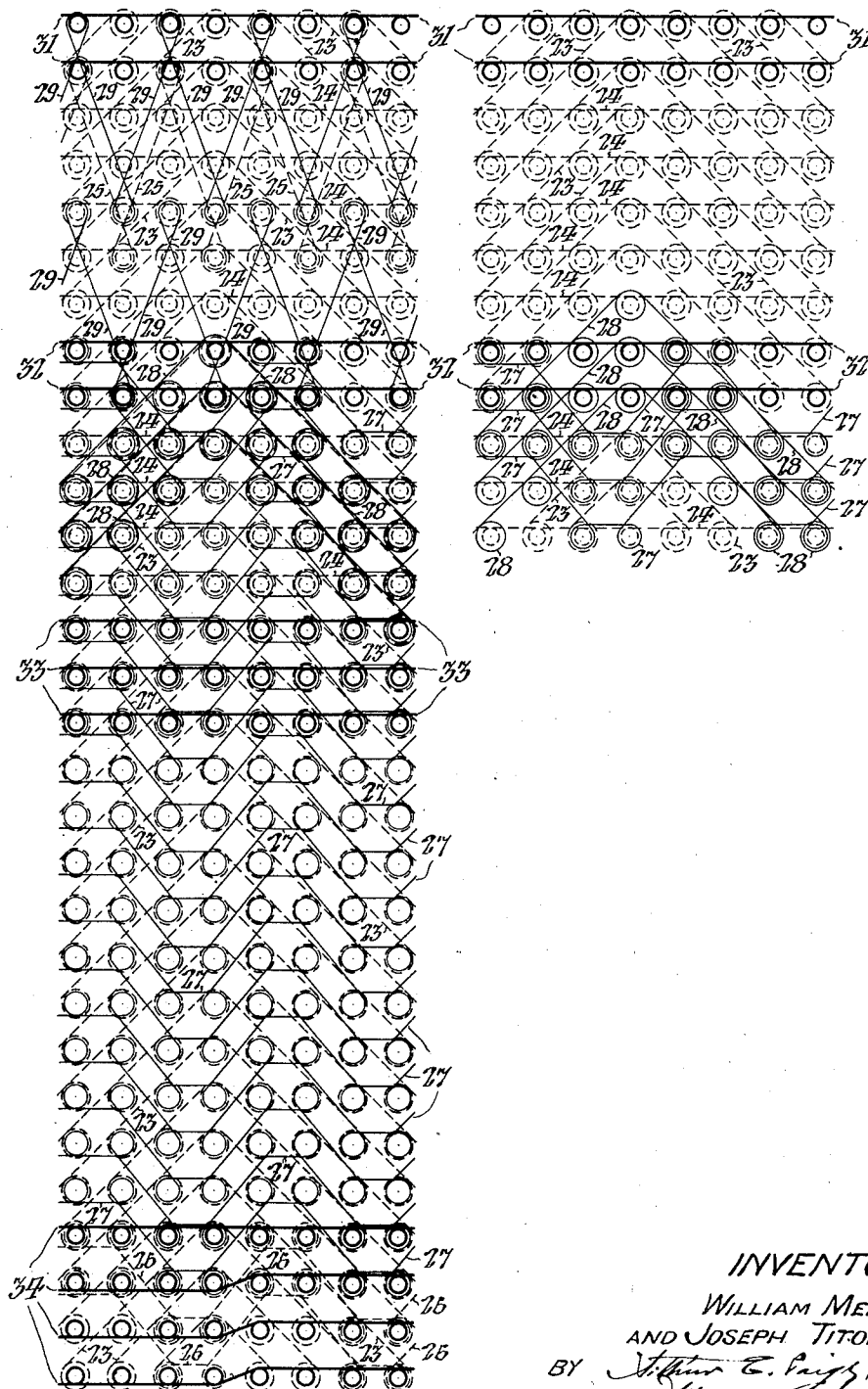
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FIG. IV.

FIG. III.



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UNITED STATES PATENT OFFICE

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LOCKSTITCH KNIT FABRIC

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7 Claims. (Cl. 66—176)

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 corseting garments.

5 As hereinafter described, a fabric in accordance with our invention includes a continuous, integrally knit, self-edged strip adapted for forming a plurality of garments. Such a strip in its simplest form comprises two longitudinal series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; said strip being adapted to be severed intermediate of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric intermediate of parts of sections of more yielding fabric. The opposite ends of each such piece may then be connected to form a corseting garment zone. Such a strip may, of course, be made of any desired width; for instance, it may be very narrow to form a mere belt or girdle, wider to form a bodice, and still wider if the garment is to extend downward over the hips of the wearer. The less yielding portion of such zones affords a desirable abdominal support, the more yielding portion thereof, coming at the back of the garment, permitting the wearer to bend at the waist and hips without vertical sliding movement of the garment at the back. Such a strip may have a longitudinal series of concavo convex breast pockets at one edge thereof, respectively in registry with the individual sections of the fabric which are less yielding; so that when the strip is severed as above contemplated, each piece thereof includes a section of less yielding fabric and a breast pocket, intermediate of parts of sections of more yielding fabric. Such a strip is, therefore, adapted for forming brassières and bodices. Moreover, in the most complex form of our invention, which we have chosen for illustration, we provide a longitudinal series of flat sections of still more yielding fabric, individually interposed between said breast pockets and connecting said pockets in longitudinally spaced relation; and a band of such most yielding fabric interposed between said breast pockets and the adjoining flat sections of elastic fabric first mentioned and integrally connected therewith; so that the garment is most yielding in a zone around the breasts. Moreover, in the form of garment illustrated, which is designed to afford a constricting sheath for the buttocks and upper portions of the thighs of the wearer, extending both above and below the plane of maximum girth of the

wearer at the rear, we prefer to form a border at the lower edge of the garment, which border is elastic longitudinally with respect to said strip and circumferentially with respect to the body of the wearer, but inelastic transversely with respect to the strip and vertically with respect to the wearer's body, so as to afford a firm foundation for the attachment of garter hangers or other suspensory devices.

Our invention includes the various novel features of construction, arrangement, and procedure hereinafter more definitely specified; for instance, each of the breast pockets may be gored and seamed to shape it to form separate compartments for the breasts.

As hereinafter described, our improved fabric is composed of threads which are elastic and inelastic per se. Such component threads may be of any kind, but we prefer to use elastic threads which have a core of material which is elastic per se, spirally wrapped with inelastic thread. For instance, such cores may be strips, of rectangular cross section, cut from a sheet of vulcanized rubber, or may be formed of extruded latex, vulcanized or otherwise congealed in cylindrical form.

It is characteristic of said knit fabric strip and the tubular garments made therefrom that they are formed entirely of threads which extend longitudinally in the strip, and, consequently, circumferentially in the tube, except for the lateral looping which forms the lockstitches. Such lockstitch fabric has the advantage that the threads will not run from any hole made in the fabric.

In said drawings, Fig. I is a perspective view of a fabric in accordance with our invention which is wide enough to form a corseting garment with a brassière top and thigh sheath skirt.

Fig. II is a perspective view of such a corseting garment, formed from the piece of fabric shown in Fig. I by sewing the cut ends thereof together at the back.

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

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

Referring to Fig. I; the continuous integrally knit self-edged strip 1 comprises two longitudinal series of flat knit sections of elastic fabric, respectively 2 and 3, individually disposed in al-

ternate relation, the sections 2 being more yielding than the sections 3.

A longitudinal series of concavo convex breast pockets 5 are formed at one edge of said strip 1 respectively in registry with the individual sections of the less yielding fabric 3. A longitudinal series of flat knit sections of fabric 6, still more yielding than the fabric 2, are individually interposed between said breast pockets 5 and connect said pockets in longitudinally spaced relation. The band 7 of most yielding fabric such as 6 is interposed between said breast pockets 5 and the adjoining flat sections 2 and 3 of elastic fabric and integrally connected therewith throughout the length of said strip. The band 8, which is coextensive with the strip and interposed between the band 7 and said sections 6, is formed of the same most elastic fabric but merely for purposes of ornamentation said band 8 is defined by the omission of threads extending longitudinally in the fabric at each edge of said band.

The effect of the construction and arrangement above described is that the most elastic portion of the fabric includes the sections 6 and the bands 7 and 8 which are designed to encircle the breast of the wearer.

We prefer to form the border 10, at the edge of the strip opposite to the series of breast pockets 5, of fabric which is elastic longitudinally with respect to the strip but inelastic laterally so as to afford a firm foundation for the attachment of garter hangers 11 or other suspensory elements. It may be observed that said border 10 comprises a front portion of the garment non-elastic along its transverse dimension, i. e., vertically in Fig. II, and secured to the rear portion of the garment, as indicated in that figure.

Said strip 1 is severed transversely, as indicated by the full lines 13 and 14 in Fig. I, which are intermediate of the length of the sections 2 between adjoining breast pockets 5; 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 13 and 14 in Fig. I, may then be connected as indicated at 15 in Fig. II to form a tubular corseting garment 16, including the skirt 17, which may be held in position on the body of the wearer by its elasticity and extend down over the hips as a constricting sheath for the buttocks and upper portion of the thighs. Of course, said garment extends both above and below the plane of maximum girth of the wearer at the rear.

Although such a garment may be thus formed of uniform circumference from the bottom to the top thereof, we prefer to cut away the opposite ends of the piece of fabric, as indicated by the dash lines 18 in Fig. I, so that when the ends thus cut are connected from the top to the bottom of the garment by the suture 15, the garment is of greater circumference around the hips than at the top.

In order to form separate compartments in the pocket 5 for the respective breasts, we find it convenient to cut from said fabric a gore 20 which, as indicated by dash lines in Fig. I, is wide at the middle and tapers toward each breast, and to seam the edges of the gore opening in said fabric 1 in said pocket 5 together to form a dart 21, as indicated in Fig. II.

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 thread. Said fabric is conveniently formed of

three different kinds of thread, to wit, mercerized cotton threads 23, 24, 25, and 26, lightweight elastic threads 27, 28, and 29, and heavyweight elastic threads 31, 32, 33, and 34, respectively directed to the needles by the guide bars.

The fabric of the sections 3 may be made less yielding than the fabric of sections 2 by knitting the former under greater tension than the latter. However, they may, of course, be made of respectively different patterns of threads to attain the desired different degrees of elasticity.

We have shown in Fig. III a preferable pattern arrangement of the threads at the central portion of the fabric shown in Fig. I, including the breast pocket 5, and have shown in Fig. IV a preferable pattern arrangement of the threads in the fabric of Fig. I between the breast pockets 5. However, we prefer to extend such of the threads as appear in both Figs. III and IV continuously from end to end of the strip 1. Such continuous threads include all but the mercerized threads 25 and light elastic threads 29, which do not extend through the breast pockets. Consequently the fabric of the pockets 5 is of lighter texture than the fabric 6 etc., between the pockets. Moreover, we may modify the fabric of the pockets 5 to further lighten it by omitting the mercerized threads 24 therefrom, and it is to be understood that any other patterns may be employed in said fabrics.

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 two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; 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; said strip being adapted to be severed intermediate of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric intermediate of parts of sections of more yielding fabric.

2. In a lockstitch knit elastic fabric, for corseting garments; the combination, in a continuous integrally knit self-edged strip, of two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; and a longitudinal series of concavo convex breast pockets at one edge of said strip, respectively in registry with the individual sections of the less yielding fabric; 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; said strip being adapted to be severed intermediate of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric and a breast pocket, intermediate of parts of sections of more yielding fabric.

3. In a lockstitch knit elastic fabric, for cor-

setting garments; the combination, in a continuous integrally knit self-edged strip, of two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; a longitudinal series of concavo convex breast pockets at one edge of said strip, respectively in registry with the individual sections of the less yielding fabric; and a longitudinal series of flat sections of still more yielding fabric individually interposed between said breast pockets and connecting said pockets in longitudinally spaced relation; 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; said strip being adapted to be severed intermediate of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric and a breast pocket, intermediate of parts of sections of more yielding fabric.

4. In a lockstitch knit elastic fabric, for corseting garments; the combination, in a continuous integrally knit self-edged strip, of two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; a longitudinal series of concavo convex breast pockets at one edge of said strip, respectively in registry with the individual sections of the less yielding fabric; a longitudinal series of flat sections of still more yielding fabric individually interposed between said breast pockets and connecting said pockets in longitudinally spaced relation; and a band of most yielding fabric interposed between said breast pockets and the adjoining flat sections of elastic fabric and integrally connected therewith throughout the length of said strip; 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; said strip

being adapted to be severed intermediate of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric and a breast pocket, intermediate of parts of sections of more yielding fabric.

5. A process of forming a plurality of elastic corseting garments which consists first in forming a continuous integrally knit self-edged strip, including two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; severing said strip intermediate of the length of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric intermediate of parts of sections of more yielding fabric; then connecting the opposite ends of each such piece to form a corseting garment zone.

6. A process of forming a plurality of elastic corseting garments which consists first in forming a continuous integrally knit self-edged strip, including two series of flat sections of elastic fabric, individually disposed in alternate relation, the sections of one series being more yielding than the sections of the other series; and including a longitudinal series of concavo convex breast pockets at one edge of said strip, respectively in registry with the individual sections of the less yielding fabric; severing said strip intermediate of the length of the more yielding sections; thus forming separate pieces of fabric each including a section of less yielding fabric and a breast pocket intermediate of parts of sections of more yielding fabric; then connecting the opposite ends of each such piece to form a corseting garment zone.

7. A process as in claim 6, including the steps of cutting a gore opening in each breast pocket and seaming the edges of the opening together to form a dart to divide said pocket in separate compartments for the respective breasts.

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