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2,397,247

BREAST POCKETS FOR BRASSIERES

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Fig. 1

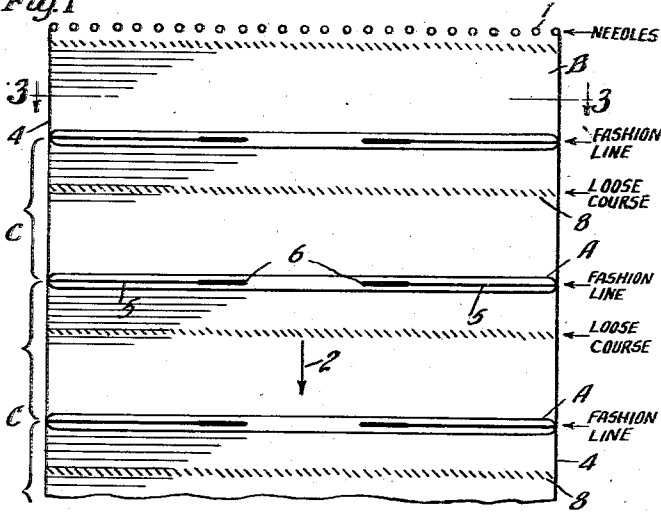


Fig. 2

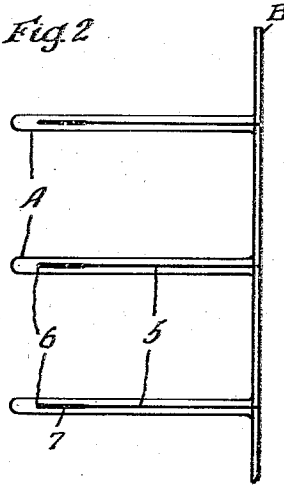


Fig. 3

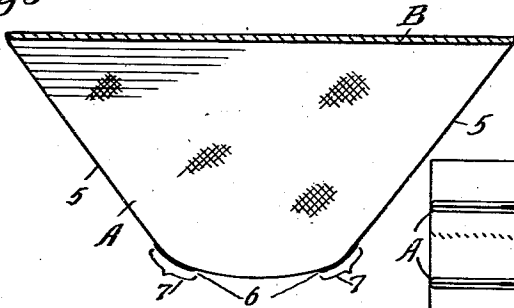


Fig. 4



Fig. 6

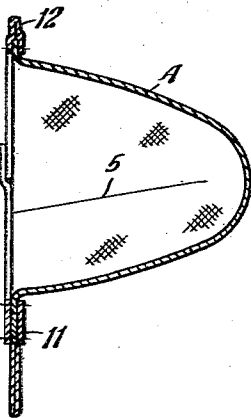
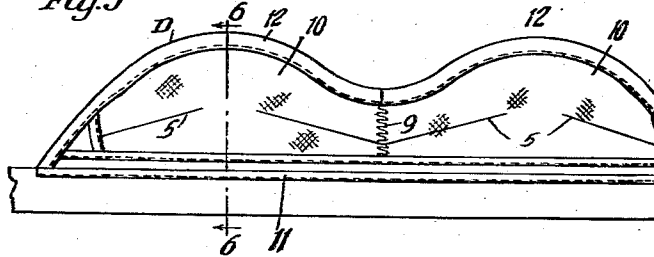


Fig. 5



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BREAST POCKET FOR BRASSIÈRES

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11 Claims. (Cl. 66—176)

My invention relates to the art of knitted fabrics and particularly to the construction and formation of breast pockets for brassières.

Other of the objects of my invention is to provide a knitted breast pocket for brassières in one integral formed unit or piece, without joints, stitching or other seams, and without any sharply defined points.

A further object is to provide a knitted fabric breast pocket for brassières formed in one piece, of suitable depth and rounded or curved in all directions to give the breast a neat, molded appearance.

A further object is to provide a continuous knitted fabric of uniform width, having at spaced intervals integrally formed pockets, and which, when severed transversely between the pockets, provides individual pockets ready for mounting in a brassière frame.

A further object is to provide integral, completely formed knitted breast pockets in pairs, united at their selvages and adapted for mounting in a brassière frame by securing their marginal portion to the band members of the frame.

A further object is to provide a method of knitting a continuous fabric band or strip, of uniform width, which includes the formation of selvages on both margins of said band and the formation of outstanding pocket portions at spaced intervals in the length of the fabric.

The above and other objects of my invention will appear from the following description and appended claims in connection with the accompanying drawing which illustrates the preferred embodiment of the invention.

Referring to the accompanying drawing,

Fig. 1 is a diagrammatic face view of a strip or band of knitted fabric, illustrating the cavities or pockets formed therein;

Fig. 2 is a side or edge view of the band shown in Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1, illustrating the shape of the formed pockets;

Fig. 4 is a face view similar to Fig. 1, but of two of the bands joined along their selvedge margins in the process of forming pairs of individual pockets;

Fig. 5 is a view of a brassière frame in which a pair of pockets are mounted; and

Fig. 6 is a section on line 6—6 of Fig. 5.

The invention concerns the production of knitted fabric pockets A which are formed at spaced intervals in the process of knitting a con-

tinuous band or strip of fabric, which pockets are afterwards severed from the continuous band B and mounted in a suitable brassière frame.

The band or strip B is formed as a continuous piece of fabric of uniform width by a series of successive courses, but at definite intervals in the length of the fabric the successive courses are gradually narrowed and then widened while the width of the fabric is maintained, which results in the formation of pockets or cavities protruding from the face or plane of the fabric. The individual pockets are intended to be separated from the continuous band by severing the band transversely on lines between the pocket portions.

The band or strip B is preferably made on a circular latch needle machine of the type using a single set of needles and sinkers, although it can be produced on a flat bed latch needle machine. The machine is fitted with the number of needles necessary to provide the desired width of fabric, and this width is maintained continuously. The cylinder carrying the needles is operated with a reciprocal movement so as to knit a course during movement in each direction. Suitable cams are provided to gradually remove or withdraw needles from and restore them to operation for narrowing and widening courses at the proper time to bring about the formation of the pocket portions A.

Referring more particularly to Figs. 1 and 2, the line of needles 1 is indicated, and a length of knitted fabric B is shown as having already come from the needles, the movement of the band being in the direction indicated by the arrow 2. The pocket portions B are equally spaced along the length of the fabric, and the portions of the band between the pockets, as indicated by the brackets C, are formed as plain knitting, that is, the courses extend the full width of the fabric and form the selvedge 4 along each margin. After the section C of the fabric has been knitted and the point is reached where the pocket portion is to be formed, the cams operate to commence the narrowing operation. This narrowing operation is accomplished, as is well known in machines of this type, by removing or withdrawing needles from knitting position. In accordance with my invention, I arrange the machine to withdraw needles with each stroke of the cylinder in each direction beginning at the selvages 4 so that the fashion lines 5 on which the narrowing courses terminate, extend toward the center of the fabric and may be said to be perpendicular to the selvages 4.

For a few courses before the ends 6 of the

fashion lines are reached, I prefer to increase the rate at which the courses are narrowed by withdrawing two needles instead of one, with each stroke of the cylinder. These two-needle ranges are indicated by the brackets 7 in Fig. 3, and the purpose is to round off or curve the fabric in these ranges and thereby avoid corners or points in the pocket which would otherwise be formed by continuing the removal of one needle to the inner ends of said fashion lines. Thus each successive course is narrowed first by one needle and then by two needles from each side of the fabric, and the previously formed loops are retained on the withdrawn needles to maintain the width of the fabric. On the completion of the narrowing at the ends of the fashion lines 5, the procedure is reversed and the successive courses are widened at the same rate as they were shortened during the narrowing operation, that is, the withdrawn needles are restored to knitting position two needles for each stroke in each direction of movement of the cylinder within the ranges 7, and then one needle, until all of the needles are restored, thus widening the courses along the same fashion lines 5. These narrowing and widening operations form a pocket B, as shown in Fig. 3, which is somewhat cone or triangularly shaped with a rounded apex and disposed in a plane transverse of the fabric band. Thus the pocket is formed by an upper and a lower triangular web which protrude or stand out from the face of the band and which have their margins meeting along the fashion lines 5. The thickness of the fabric and the pockets is exaggerated in Fig. 2 in order to better illustrate the fashion lines 5 and the upper and lower webs of the pocket portions protruding from the face of the fabric.

After the narrowing and widening operations to form the pocket have been completed and all the needles have been restored to knitting operation, the knitting of the section C is continued for the desired length as plain knitting with the courses extending the full width of the fabric. Upon the completion of the length of plain knitted section C, the next pocket is formed by repetition of the narrowing and widening operations as above described. It is to be noted that since the narrowing and widening of the courses which form the pocket occur along the same fashion lines 5, there is no length added to the band between the sections C. During the knitting of the plain sections C, I provide for the forming of one loose course 8 in each section. This loose course is disposed slightly closer to one than the other of the pockets and is intended to serve as a marker on which to sever the fabric to separate the individual pockets.

The band A is progressively knitted without interruption as a continuous fabric of uniform width and of indefinite length, and is thereby capable of fast and continuous production. Since the pockets are completely formed in the process of knitting, it is unnecessary to provide for any loopers waste or to provide any seams or stitching after the pockets are cut from the strip.

My invention also contemplates a pair of completely formed pockets ready for assembly in the frame of a brassière. Lengths of the fabric are cut from the continuous band along the loose courses 8. In practice these lengths are sufficient to include ten or twelve pocket portions. Two of these lengths are positioned side by side with the loose course markers and fashion lines 5 in alignment, and joined along their selvedge edges 4 by seamer or looper stitching. Fig. 4 illustrates two

lengths of fabric joined together by the seam 9. The individual pairs of pockets are then separated from the bands by cutting both bands along the loose course markers. In Fig. 4, the lower pair of pockets are shown as having been cut from the bands.

Since the fabric is made of the usual yarn such as rayon, silk, etc., it is entirely flexible and the mouths of the pockets can be widened or expanded to more or less an oval shape to fit the oval openings 10 in the brassière frame D, as shown in Figs. 5 and 6. In this instance, the brassière frame comprises a lower band 11 and two upper curved bands 12 arranged to form the two oval breast openings 10. The marginal portions of the pair of pockets are sewed to the bands 9 and 10.

I have herein shown and described what I now consider the preferred manner of carrying out the invention. It will be understood that changes may be made in the construction, operation and arrangement of the various parts, without departing from the spirit of the invention, and it is understood that I contemplate such changes as fairly fall within the scope of the appended claims.

I claim:

1. A fashioned integral one-piece knitted breast pocket having selvedge margins and having upper and lower webs of progressively narrowed courses meeting on fashion lines which extend inwardly toward the center of the fabric from the selvedge margins and at substantially right angles thereto for a portion of their length and curved at their inner end portions.

2. A fashioned integral one-piece knitted fabric breast pocket comprising a section of flat knitted fabric of uniform width and having selvedge margins, and having intermediate the length thereof and outstanding therefrom a pocket portion having upper and lower webs in planes transverse of the length of the fabric, said webs being gradually narrower in width toward the center of the pocket portion and meeting at their margins on fashion lines extending from the selvedge margins toward the center of the pocket and disposed perpendicularly to said selvedge margins for a portion of their length and curved at their inner end portions.

3. A fashioned knitted one-piece breast pocket comprising a length of knitted fabric of uniform width and selvedges at its edges, the courses of which run the full width of the fabric, and an intermediate pocket portion outstanding from the face thereof having courses gradually narrower toward the center of the pocket and ending on fashion lines beginning at the selvedges and extending perpendicularly to said selvedges toward the center of said pocket, the courses ending on the inner end portions of said fashion lines being narrowed at a greater rate.

4. As an article of manufacture, a continuous knitted fabric band of uniform width having sections of flat knitted fabric, the courses of which run the full width of the band to selvedges at the margins thereof and having outstanding from the face thereof, at spaced intervals along its length, pocket portions comprising upper and lower walls of substantial triangular form, the courses of which are gradually narrower toward the apex and meet at their ends on fashion lines which extend in straight lines from the selvedges toward the apex and substantially at right angles to said selvedges and on curved lines at the inner

end portions to form a rounded apex portion for said pockets.

5. As an article of manufacture, a continuous knitted fabric band of uniform width having sections of flat knitted fabric, the courses of which run the full width of the band to selvages at the margins thereof and having outstanding from the face thereof, at spaced intervals along its length, pocket portions comprising upper and lower walls of substantial triangular form, the courses of which are gradually narrower toward the apex and meet at their ends on fashion lines which extend from the selvages toward the apex and substantially at right angles to said selvages, said band having loose courses intermediate said pocket portions to indicate the lines of severance of said band.

6. As an article of manufacture, a knitted fabric comprising two knitted bands of equal width having selvedge margins and joined side by side along adjacent selvedge margins and each having a plurality of equally spaced knitted pocket portions outstanding therefrom, the pocket portions of the two bands being disposed in transverse alignment, said bands having markers intermediate the pocket portions and in transverse alignment to indicate the line of severance of both bands.

7. As an article of manufacture, a pair of fashioned knitted breast pockets each having substantially parallel selvedge margins and joined at adjoining selvedge margins and each comprising knitted upper and lower webs of substantially triangular shape, the courses of which meet on fashion lines extending toward the apex from the selvedge margins.

8. As an article of manufacture, a pair of fashioned knitted breast pockets having parallel selvedge margins and joined at adjacent selvedge margins and each comprising knitted upper and lower webs of substantially triangular shape, the courses of which meet on fashion lines extending toward the apex from the selvedge margins, and a brassiere frame having upper and lower curved bands forming a pair of oval openings, said

pockets being positioned in said openings and secured around their margins to said upper and lower bands.

9. The method of forming breast pockets which includes knitting in succession a plurality of straight courses on a plurality of needles to form a band of uniform width with selvedge margins, then knitting a plurality of courses of diminishing width beginning at the selvedge margins and narrowing by one needle at each side of the fabric, then knitting a plurality of courses each narrowing by two needles at each side of the fabric, then knitting a plurality of courses each widening by two needles at each side of the fabric, then knitting a plurality of courses each widening by one needle at each side of the fabric until the courses reach the selvedge margins of the fabric, and then continuing the knitting of a plurality of courses of uniform width.

10. A fashioned knitted one-piece breast pocket comprising a fabric formed of successive courses of uniform width having selvedge edges, and an intermediate pocket portion outstanding from the face thereof and comprising upper and lower walls of substantially triangular form with rounded apex portions, the sides of said walls meeting on inwardly extending transverse fashion lines, and the rounded apex portions of said walls meeting on curved fashion lines forming continuations of said transverse fashion lines.

11. The method of forming a breast pocket in one piece which includes knitting in succession, a plurality of courses of uniform width, then reducing the width of the fabric by diminishing the loops at the ends of progressive courses, then further reducing the width by diminishing a greater number of loops at the ends of progressive courses, then widening the fabric by adding said greater number of loops at the ends of progressive courses, then continuing the widening by adding a lesser number of loops at the ends of progressive courses until the courses reach the width of said uniform width courses, and then knitting a plurality of uniform width courses.

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