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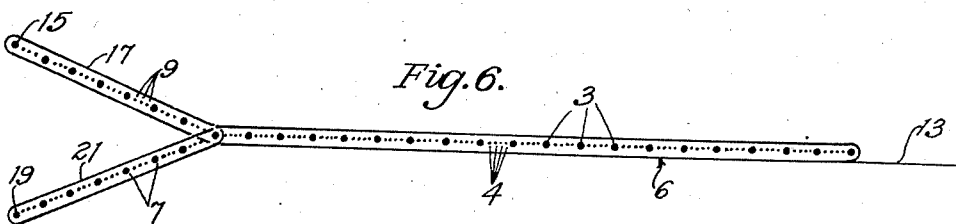
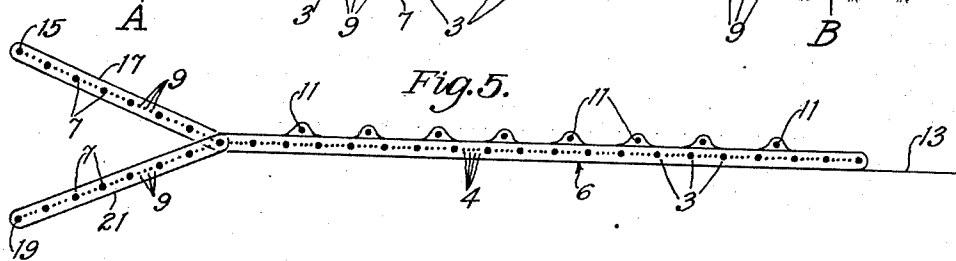
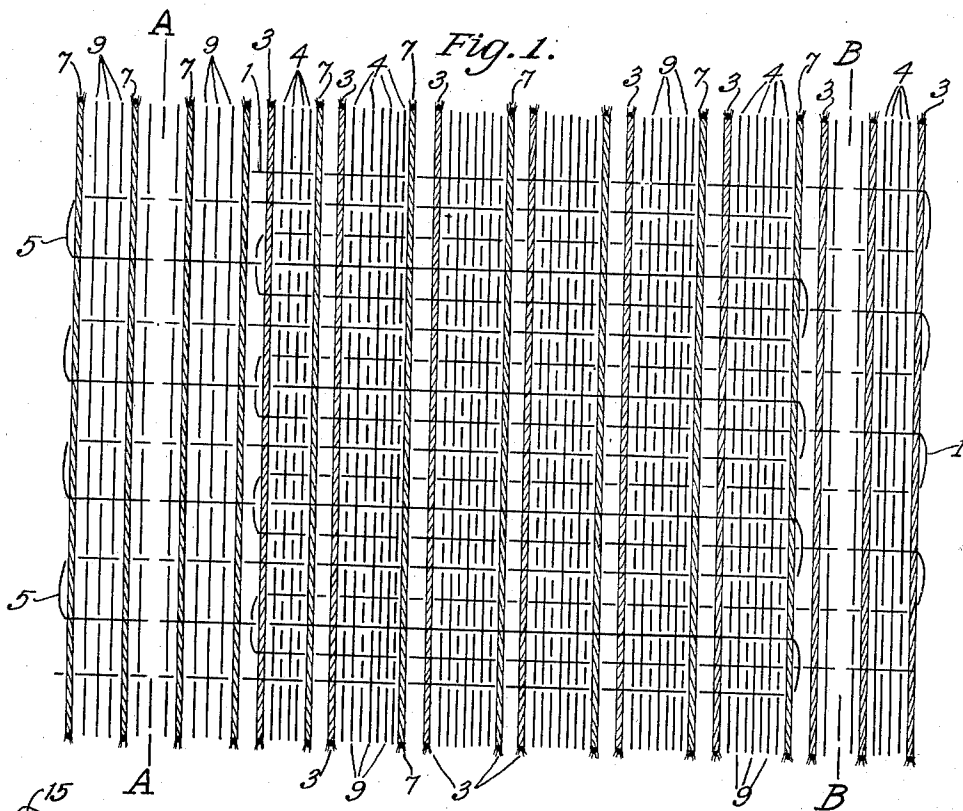
T. F. MOORE

2,222,150

ELASTIC FABRIC

Filed Jan. 20, 1938

2 Sheets-Sheet 1



Inventor
Thomas F. Moore,
by Robert K. Randall.
Attorney.

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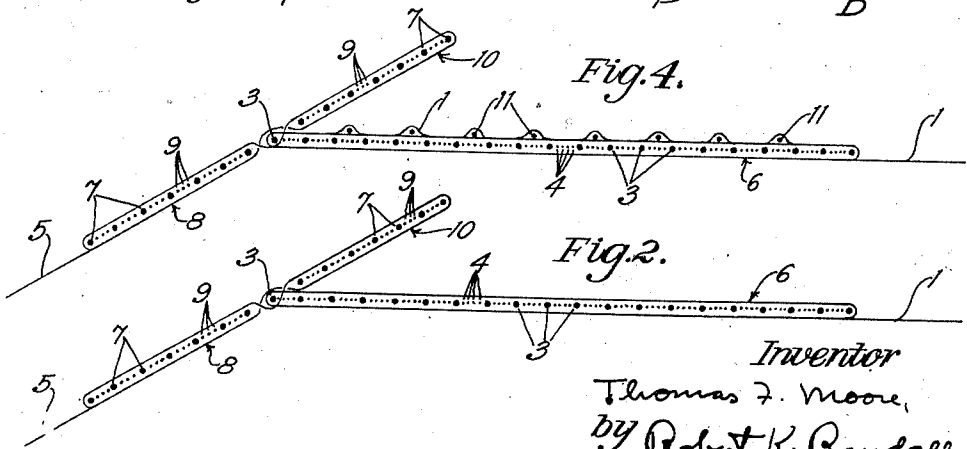
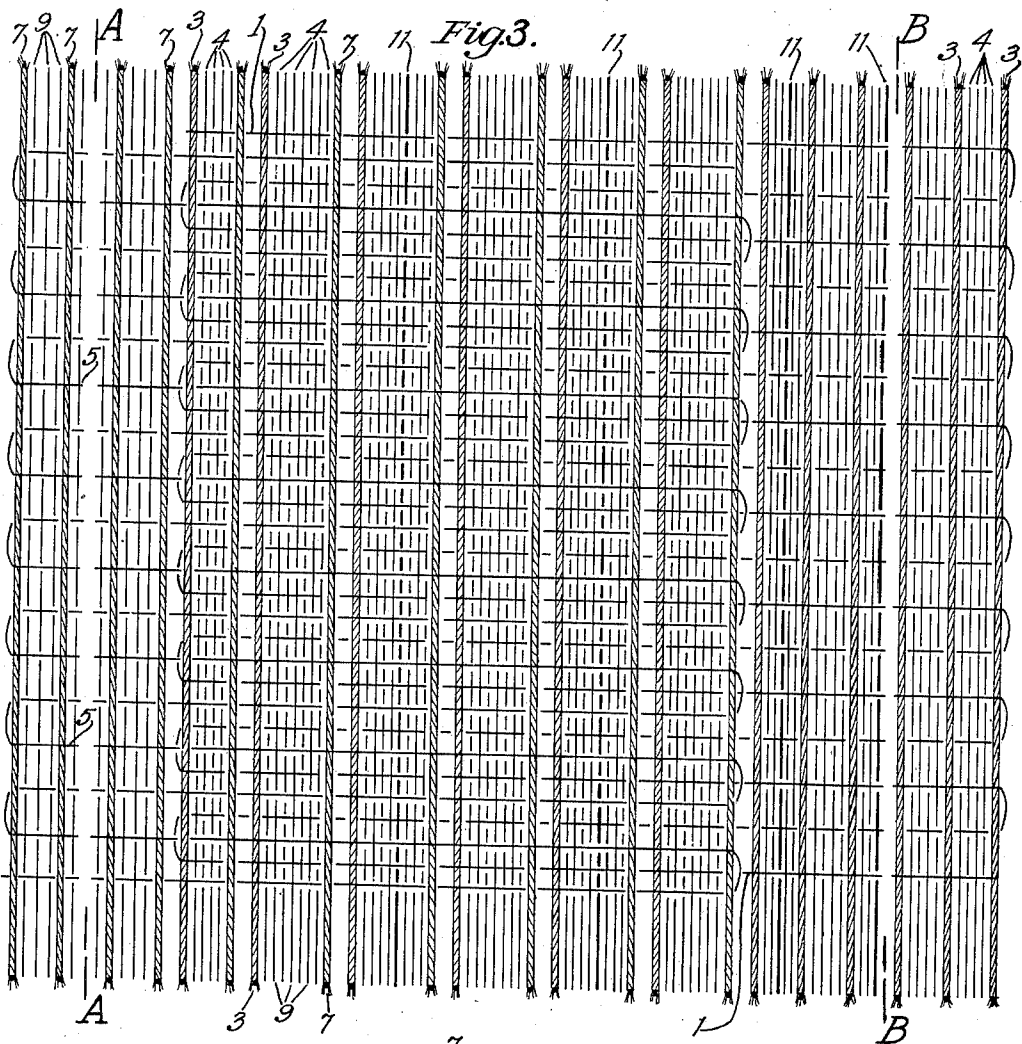
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ELASTIC FABRIC

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2 Sheets-Sheet 2



Inventor
Thomas F. Moore,
by Robert K. Randall,
Attorney

UNITED STATES PATENT OFFICE

2,222,150

ELASTIC FABRIC

Thomas F. Moore, Westerly, R. I., assignor to
George C. Moore Company, Westerly, R. I., a
corporation of Rhode Island

Application January 20, 1938, Serial No. 185,896

4 Claims. (Cl. 139—384)

This invention relates to elastic fabrics and has as its object the provision of a novel elastic edge-band for garments.

The improved fabric is intended primarily for use in putting a contractile band, binding, or edge on garments of all sorts, for the purpose of giving additional tension when required on a particular part of the garment to prevent the garment from slipping, or to make it adhere more closely to the part of the body on which worn. It is especially intended to be used on the top and bottom edges of women's corsets, girdles, and the like supporting and confining garments, to form waist bands and leg bands on women's drawers, pantalettes, bloomers and the like undergarments, for waist bands on men's pajamas and athletic short drawers, for top bands on socks and stockings, waist bands of outer garments such as trousers and skirts, and waist bands, cuff bands and neck bands of jackets and sports garments. It can further be attached to any garment where it is advantageous to have a finished edge and extra tension against the body around the extremities of the garment.

A leading feature of the improved fabric is that it has a split selvage which is itself elastic, and by means of which it may be easily applied to the edge of the garment by a single line of stitching and in the simplest sort of seaming operation. The attachment by the single operation puts a finish on both faces of the edge of the garment rendering unnecessary any further treatment. Since only the split selvage of the improved edge-band overlaps the garment material proper, the remainder of the width of the edging adds to the length of the garment. It avoids the formation of a double thickness for the entire width of the edge-band as such was heretofore applied. Thus it not only saves the necessity for hemming or otherwise finishing the edge of the garment material, and saves an amount of the garment material equal to the width of its free portion, but in addition makes it possible to impart to the edges of the garment widely different characteristics while using stock, standard materials for the body of the garment.

Another feature of the invention is the use of exposed, bare sections of the rubber elements employed to impart elasticity, in a split-selvage edge-band, to increase the frictional resistance of the edges of the garment to slipping out of place on the wearer's body.

A further feature of the invention comprises

the method of weaving of the split selvage with one of its plies lying over the main body of the edge-band, so that the fold-line, the line of junction of the two plies, is visible without any manipulation, making it possible for the operators to see what they are doing and thus to fit the margin of the garment accurately into the fold-line throughout the entire length of the applied band as the two materials are being combined and fed to the sewing machines which insert the single row of stitches needed to secure the margin of the garment fabric permanently between the two plies of the split selvage. With the exact extent of overlap of garment material and split selvage thus visible, it becomes far simpler to avoid running the line of stitches off the edge of the main garment fabric.

Other aims of the invention, and the manner of their attainment, are as will be made plain hereinafter.

An illustrative embodiment of the invention is shown in the accompanying drawings, in which—

Fig. 1 is a diagrammatic face view of an elastic edge-band made according to the invention, in which the split selvage normally lies open with its plies extending in opposite directions, illustrating one satisfactory way of weaving the same, certain warps being omitted along the lines A—A and B—B.

Fig. 2 is a diagrammatic view in section across the warps of Fig. 1, on a slightly smaller scale, including those warps omitted from Fig. 1.

Fig. 3 is a view like Fig. 1 of one repeat of a similar fabric having bare rubber warp elements which are exposed at one surface of the fabric to increase its frictional resistance to slipping over the surface against which it may be placed.

Fig. 4 is a sectional view like Fig. 2, of the non-slip fabric shown in Fig. 3.

Fig. 5 is a diagrammatic section of the simpler, fundamental elastic split selvage edge-band, made without the feature of a reversed ply of the split selvage, so as to admit of its manufacture in a plain loom; but having the exposed non-slip bare rubbers.

Fig. 6 is a view like Fig. 5 of a similar fabric to that shown in such figure, but without the exposed non-slip bare rubbers.

The fabric of Figs. 1 and 2 is woven in a double shuttle loom, one weft 1 being interwoven on alternate picks with the covered rubber warps 3 and the non-elastic warps 4 in any suitable or desired sequence to form the main portion 6 of

the width of the edge-band, namely the portion which extends beyond the material of the garment to which it is applied. The other weft 5 is inserted on alternate picks, intervening between two successive picks of weft 1, with the warps shedded so that weft 5 interweaves only with covered rubber warps 7 and non-elastic warps 9, with the single exception of the covered rubber warp 3 around which the weft 1 reverses its direction at the left-hand limit of its extent. This single elastic warp is the only element in the fabric which is common to both the main portion and the split selvage portion of the edge-band, and thus forms a hinge about which either flap of the split selvage can swing.

Because the wefts 5 tend to hold their natural generally-straight extent which they possess as the fabric is taken from the loom, the two flaps 8, 10, forming the split selvage tend to lie in the same plane, nearly parallel to the plane of the main portion 6 of the width of the edge-band, with the inwardly extending flap 10 above such portion if woven with the side illustrated upward. The two sets of wefts encircling the hinge warp make it quite conspicuous within the expanse of the two selvage flaps, so that it is very easy to bring the edge of the garment fabric into accurate register with such warp and thereafter fold the inward selvage flat over the material so that its free edge is exactly above the corresponding edge of the underneath selvage flap as the two pieces of material are fed in unison under the presser-foot of the sewing machine. This arrangement greatly facilitates entering gathered material into the two-ply selvage so that all the gathers are properly caught by the stitches.

Figs. 3 and 4 show the same double-shuttle fabric woven as before with the selvage flaps flat and extending in opposite directions, in the main portion of which fabric are included bare rubber warps 11 which are exposed for the greater part of their length at one surface of the fabric through being floated over a plurality of the wefts 1, herein nine picks of weft, in order to render the fabric non-slipping. The floats are staggered diagonally over the surface of the fabric. The rest of the weave is as described in connection with Fig. 1.

The use of the construction illustrated in Figs. 5 and 6 is indicated where it is not convenient or desirable to resort to a double-shuttle loom and to produce the described fabric in which one flap of the double-selvage is naturally folded back. In this simpler fabric, which may either contain the exposed non-slip surface rubbers 11 as shown in Fig. 5, or not, as shown in Fig. 6, the single weft 13 is common to both selvage flaps and the main

portion of the web as well, extending across the main portion of the fabric and around the outermost selvage warp 15 of one flap 17 of the split selvage, thence returning across the entire width of the web, passing again across the main portion and reversing its direction around the outermost warp 19 of the other flap 21 of the split selvage, and so on in alternation. In accordance with the invention, the split selvage includes elastic warps making it extensible, and, in the case of Fig. 5 it includes also the exposed non-slip rubbers which also add to the contractive effort of the web.

While I have illustrated and described certain forms in which the invention may be embodied, I am aware that many modifications may be made therein by any person skilled in the art, without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to the particular forms shown, or to the details of construction thereof, but

What I do claim is:

1. Elastic fabric having in combination elastic and non-elastic warps and two separate sets of wefts, combined to form two complete fabrics having only one warp and no weft in common, such warp being at the edge of one fabric and intermediate the width of the other fabric.

2. Elastic fabric comprising in combination a set of elastic and non-elastic warps, a weft yarn interwoven therewith, a second set of elastic and non-elastic warps and a second weft yarn interwoven with the latter, and a single warp which alone is engaged by both wefts, such warp being located at the margin of one set of warps and intermediate the width of the other set of warps.

3. Elastic fabric comprising in combination a set of elastic warps, a weft yarn interwoven therewith and reversing its direction of extent around one of such warps at the end of each pick, a second set of elastic warps, and a second weft yarn interwoven with such second set, reversing its direction of extent around one of such second elastic warps at one extremity of its extent and around an elastic warp of the first set located intermediate the width of the first set at the other extremity of its extent.

4. Elastic fabric comprising in combination a complete fabric having weft and elastic warps, and a second complete fabric having a separate weft and elastic warps superposed on the first and overlapping the first for a portion only of the second fabric's width, the two fabrics being joined at one lateral margin of the first fabric by engaging the weft of each around a single common warp.

THOMAS F. MOORE.