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J. HIRSCH

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ELASTIC WEBBING

Filed Jan. 22, 1927

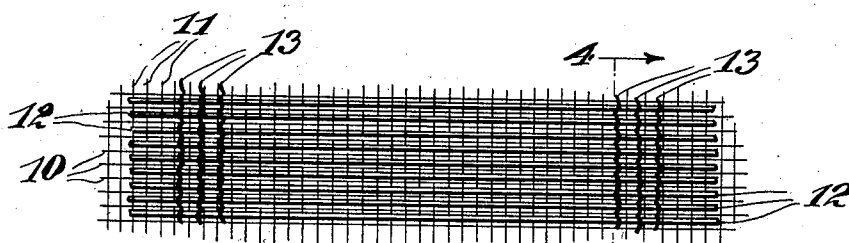


Fig. 1.

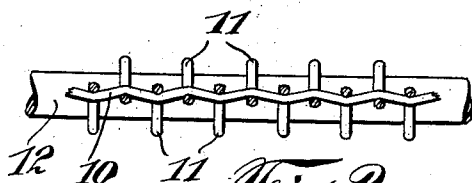


Fig. 2.

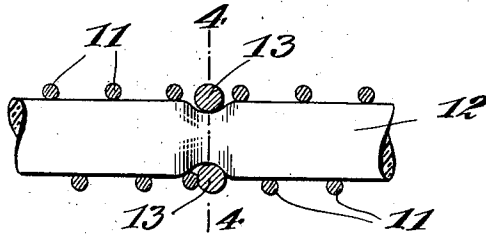


Fig. 3.

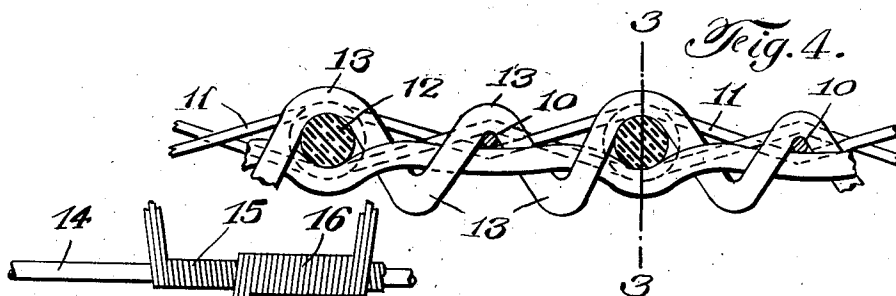


Fig. 4.

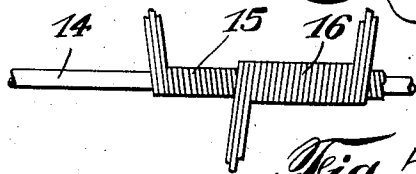


Fig. 5.

INVENTOR
Joseph Hirsch
BY *Benjamin*
ATTORNEYS

UNITED STATES PATENT OFFICE

JOSEPH HIRSCH, OF YONKERS, NEW YORK, ASSIGNOR TO KOPS BROS. INC., A
CORPORATION OF NEW YORK

ELASTIC WEBBING

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This invention relates to elastic webbing and more particularly to that type of elastic webbing adapted for use in corsets, girdles and brassières and other similar apparel garments. In garments of this nature it is quite customary to employ gores or other sections of the garment made of elastic webbing. In securing the elastic webbing in the garment it is necessary to connect the edge portions of the elastic webbing to the adjacent portions of the body of the garment, which latter are customarily made of non-elastic material. It is usual to connect these parts of the garment by lines of stitching. When so connected the needles employed tend to cut and thereby weaken the rubber strands which are employed to provide the elasticity of the webbing. When cut in this manner the rubber strands have a tendency to pull through the webbing and also obviously reduce the elasticity thereof adjacent the line of connection with the body of the garment. In many instances irrespective of whether the elastic strands are cut or pierced in sewing the webbing to the garment, there is a tendency in the use of ordinarily constructed webbings for the elastic strands to pull through and thus defeat the purposes for which the webbing is employed in the garment. I am aware that heretofore elastic webbing has been so constructed, both in being woven and knitted or otherwise made, as to secure certain portions of the elastic strands to the non-elastic strands of the webbing as to obviate the difficulties to which I have hereinbefore referred. In no instance, however, so far as I am aware has any provision been heretofore made for utilizing satisfactorily an ordinary elastic webbing in an apparel garment.

The object of my invention is to make it possible to use elastic webbing of ordinary construction in a satisfactory manner in an apparel garment. In carrying out the invention the elastic webbing irrespective of the manner in which it is made, that is to say, whether it is woven or knitted or made in any other manner, the elastic and inelastic strands forming the web are gripped or bound together in predetermined portions thereof to form what may be termed a sewing section whereby when the webbing is connected in the garment by a line or lines of stitching passing within the limits of this sewing section or adjacent to the same on the outer side thereof, the elastic strands are so held as to be maintained in a fixed relationship to the inelastic threads so that the elastic strands will not pull through the fabric and consequently the fabric will maintain its elasticity. A convenient and so far as I am at present advised the most practical way in which to accomplish this result is by the employment of a line, or a series of lines, of lock stitches each adapted to grip or bind an elastic strand and the adjacent portions of the inelastic strands of the fabric. This I have found may be accomplished by the use of a blunt needle which automatically feeds the fabric in the sewing machine whereby each elastic strand is tied in position in the fabric irrespective of the distances at which the elastic strands may be spaced in the webbing.

In the drawing Figure 1 is a diagrammatic plan of an elastic webbing made in accordance with this invention.

Fig. 2 is a diagrammatic section on an enlarged scale showing the construction of ordinary elastic webbing.

Fig. 3 is also a diagrammatic section on an enlarged scale illustrating the present invention.

Fig. 4 is a similar view taken on line 4-4, Fig. 1, and

Fig. 5 is an enlarged elevation showing a type of covered elastic strand which may be employed in an elastic webbing.

In the drawing I have illustrated a woven elastic webbing. It will be understood, however, that this is merely diagrammatic as the fabric may be knitted or made in any other manner. Referring to the drawing the usual inelastic warp threads are indicated at 10, and the usual inelastic weft threads are indicated at 11. In the fabric as illustrated there are elastic warp threads or strands 12 spaced at any desired intervals between the inelastic warp threads. This webbing, therefore, is constructed in a manner which is usual and known in the art. It

will be understood, however, that the elastic strands may be run as weft rather than warp strands without departing from the invention. In the use of such a webbing in an apparel garment and as hereinbefore stated, there is a tendency of the elastic strands to pull either because they are insufficiently secured to the inelastic threads of the web or because they have been pierced or severed in stitching the webbing to the body of the garment.

In carrying out the invention I grip or bind each elastic strand to the adjacent portions of the inelastic strands. This may be accomplished by employing a lock stitch line or lines of sewing as indicated at 13 in the drawing. As illustrated, three lines of lock stitches are employed, although as will be understood, there may be one or two or three or any number of these lines of lock stitches placed adjacent one another and preferably adjacent the edge of the fabric which is to be secured to the body of the garment whereby there is formed in the fabric what may be termed a sewing section defined by these lines of lock stitches and that portion of the fabric lying between the same and the edge of the fabric. As illustrated, these lines of lock stitches extend transversely and at right angles to the lines of the elastic strands, although as will be understood the line or lines of lock stitches may be placed otherwise without departing from the invention. The stitch employed may be any form of lock stitch and is preferably made by a lock stitch machine and the employment of a blunt pointed needle therein which rides over each portion of the webbing having an elastic strand therein forming a tied binding around the strand and the adjacent portions of the inelastic strands as clearly indicated in Fig. 4 of the drawing. In so gripping each elastic strand and binding the same and the adjacent portions of the inelastic strands together the elastic strand is more or less compressed in the section thereof surrounded by the lock stitch as indicated in Fig. 3 whereby each elastic strand is anchored in the fabric so that in use it is prevented from pulling or sliding or working through the inelastic strands of the fabric and consequently the fabric retains its elasticity when connected or secured in a garment with the lines of stitching lying within the sewing section of the fabric.

The elastic strands employed in the webbing may be of any configuration in cross section and of any desired weight, and furthermore, may be provided with a binding or a series of bindings forming a cover or covers therefor. As illustrated in Fig. 5 for example, the elastic strand or gore is indicated at 14 and may be provided with an inner winding 15 forming an inner cover and an outer winding 16 forming an outer

cover therefor. The particular form in which the elastic strands are employed, however, forms no part of the present invention which consists in making it possible to utilize practically the ordinary form of elastic webbing in an apparel garment by forming in the webbing a sewing section produced either by a line or lines of lock stitches, or any other means, for gripping or binding the elastic strands to the adjacent portions of the inelastic strands to anchor the bound portion of the elastic strands in position in the fabric.

I claim as my invention:

1. In an elastic webbing, inelastic threads forming the body of the webbing, spaced elastic strands at intervals between the inelastic threads, and a line of lock stitches binding a portion of each elastic strand on both sides thereof to adjacent portions of the inelastic threads to prevent the elastic strands from pulling through the inelastic threads.

2. In an elastic webbing, alternate elastic and inelastic warps, inelastic wefts, and a line of lock stitches binding a portion of each elastic warp, on both sides thereof, to portions of adjacent inelastic wefts to prevent the elastic warps from pulling through the webbing.

3. In an elastic webbing, elastic and inelastic warp threads, inelastic weft threads, and a line of lock stitches binding a portion of each elastic warp, on both sides thereof, to portions of adjacent inelastic threads to prevent the elastic warps from pulling through the fabric.

Signed by me this 27th day of December, 1926.

JOSEPH HIRSCH.