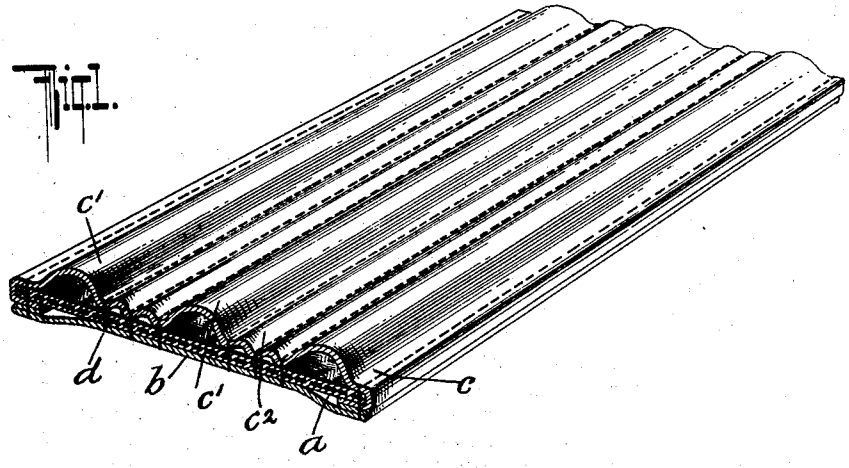
No. 857,968. PATENTED JUNE 25, 1907.

L. WERTHEIM.

FABRIC.

APPLICATION FILED MAR. 23, 1907.

Fig. 1.



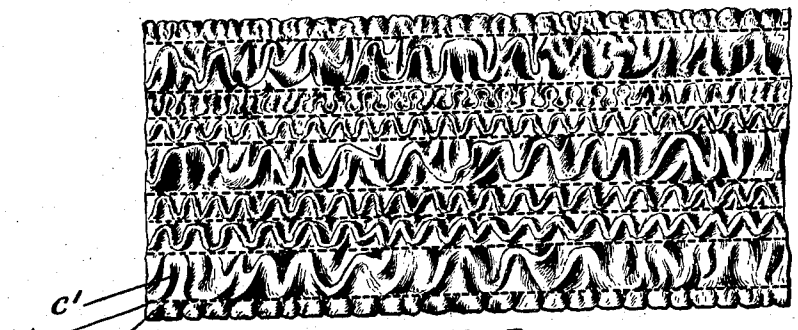


Fig. 2.

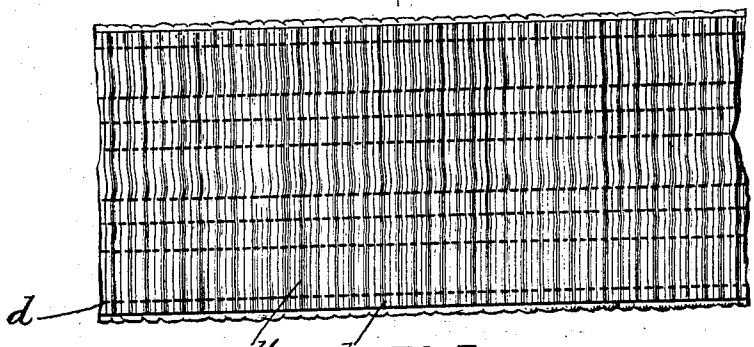


Fig. 3.

WITNESSES

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FABRIC.

No. 857,968. Specification of Letters Patent. Patented June 25, 1907.

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To all whom it may concern:

Be it known that I, LUDWIG WERTHEIM, of the borough of Manhattan, city and State of New York, have invented certain new and useful Improvements in Fabrics, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates primarily to an elastic fabric and intended for personal wear such as plaits and other articles designed to fit closely to the wearer.

The essential object of my invention is to produce a fabric of this character which will present a highly ornamental effect by reason of a plaited or ruffled apperance particularly on its outer surface. In attaining this end, I construct the fabric of an elastic webbing inclosed in inner and outer coverings, stitched together to form a connected article. In the process of stitching, the elastic webbing is placed under tension and the coverings are stretched longitudinally so that they do not at this time, present transverse wrinkles, plaits or the like. The outer covering, however, is disposed during the stitching process with longitudinal plaits ridges or the like, and the other parts are stitched through integrally with the result that when the elastic webbing is permitted to contract the outer covering is caused to present a number of longitudinally extending plaits or ridges having an undulatory or wavy formation owing to the contraction of the elastic and for the same reason the undercover presents a number of transverse plaits or ridges extending from edge to edge.

The accompanying drawings illustrate the fabric, in which drawings,

Figure 1 is a sectional perspective illustrating the relative locations of the various parts in the process of formation; Fig. 2 is a plan view illustrating the outer surface of the finished article; and Fig. 3 is a plan view illustrating the under surface of the finished article.

At the outset attention is called to the fact that the particular pattern which is resorted to is in no sense essential to my invention.

Fig. 2 illustrates an attractive pattern, but it is clear that the invention may be embodied in almost innumerable patterns, without departing from its essential principles.

As shown in Fig. 1, the elastic webbing *a* is covered on its under side by the under covering *b*, and on its outer side by the outer covering *c*. The elastic webbing *a* may be of any desired sort, and the fabrics composing the coverings *b* and *c* may also be of any desired sort, although they are preferably comparatively non elastic fabrics. In forming the article, the two coverings are preferably disposed with respect to the elastic webbing and the elastic webbing is stretched out almost, if not quite, to its limit of elasticity; while the outer covering *a* is rigid longitudinally, as indicated in Fig. 1, where c' are major ribs, and c^2 minor ribs. This ribbing or plaiting of the outer covering may be brought about by various means. In practice it is probably best to construct a gage of ribbed formation through which the covering is run during the process of stitching. The parts being thus disposed, are run through a suitable sewing machine or, if desired, stitched manually on the several lines of stitching indicated at *d*. In this connection it is only necessary that these lines of stitching pass between the several ridges or plaits c', separating them from each other. It is also preferable to turn in the edges of the covering around the edges of the elastic webbing to produce a neat seam at the edges of the completed fabric. The parts having been thus disposed, and stitched together, the elastic webbing is permitted to contract assuming its normal position. The result of this contraction produces along the under side of the article a number of transverse plaits, ridges or similar formations which clearly appear at b' in Fig. 3. While the longitudinally extending plaits or ridges of the top cover *c* are caused to contract producing along the top cover a number of undulatory or wavy lines, disposed longitudinally of the fabric. These lines of formation, it will be perceived, are disposed in a general direction longitudinally of the length of the fabric, and each line, owing to the contraction of the elastic webbing presents a wavy or undulatory effect. This becomes particularly attractive, when the article is constructed in narrow lengths, and it especially adapts the fabric for use as a belt since the elasticity of the article causes the patterns of the longitudinal plaits shown in Fig. 2 constantly to change, the plaits elongating or contracting with the elongation or contrac-

tion of the elastic web and the undulations of the plaits constantly changing their form. This article, when made with a silken covering peculiarly adapts the coloring of the silk to the changing effects of the plaits, and thus increases the extremely attractive nature of the manufacture. The use of the two separate coverings *b* and *c* united by seams at their edges is important, since by this means the separate plaiting of the coverings is insured and the plaits of the undercovering, for example, are prevented from running into and confusing the plaits of the outer covering. Further, the seams at the edges form protecting means preventing the fabric from fraying and avoid an unsightly seam running along the middle of one face of the fabric.

Having thus described the preferred embodiment of my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

As a new article of manufacture an elastic fabric having an elastic webbing and separate inner and outer coverings united by seams at their edges, the outer covering having a number of longitudinally extending plaits or raised portions each containing transverse or approximately transverse waves or undulations producing in the longitudinal plaits a serpentine effect and the inner covering having a number of transverse plaits or ridges, whereby an ornamental effect is attained and free contraction and elongation of the fabric is permitted.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

LUDWIG WERTHEIM.

Witnesses:
THOMAS GREGORY,
ISAAC B. OWENS.