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BRAIDED BAND

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FIG. 1

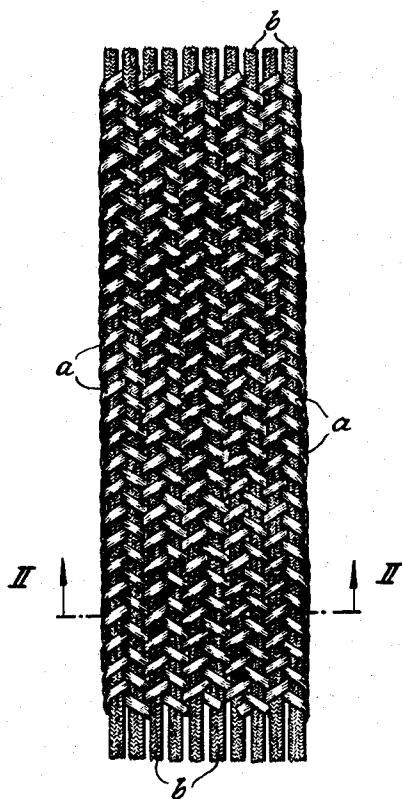


FIG. 3



FIG. 2



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BRAIDED BAND

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3 Claims. (Cl. 87—2)

This invention relates to braided bands, and more particularly to a braided band which is expansible in its longitudinal direction.

Flat braids have already become known which are rendered elastic by incorporating therein rubber warp strands. These warp strands generally consist of separate covered rubber threads.

The object of the invention is to produce an elastic braid which is suitable for making the uppers for summer shoes. This object is attained according to the invention substantially by introducing into a flat braid consisting of plaited bast or bast-like strands, expansible elastic warp strands in the form of strips or bands. In a particularly advantageous form of construction the warp strands consist of flat braids which themselves contain several longitudinal rubber threads as warp.

By the construction according to the invention, the braid stretches elastically, but strong resistance opposes the stretching. Consequently the braid has a so-called strong elastic pull which is of particular importance when it is used for shoes in view of the stresses which it has to withstand. The shoe uppers made of this braid envelope the foot elastically, thereby affording a good, close fit without any objectionable points of pressure. At the same time any undesirable widening of the shoe is avoided, in spite of the elastic yieldability.

Another advantage of this invention is that the shoe uppers made of this elastic braid exert a kind of massage on the foot when the wearer is walking, thereby avoiding premature tiring. By making the elastic expansible warp strands in the form of strips or bands, a stretching or extending effect is exerted in the width of the braid, so that this is remarkable for keeping good shape. Yet another advantage is, that for a certain width of braid fewer warp strands are required than would be the case when using a warp composed of separate rubber threads. Consequently, the number of strands on the width of the braid is reduced with the result that the bast-like braiding strands or threads lie exposed or unencumbered on a relatively great length between their points of intersection, so that the bast-like character of the braid shows up particularly clearly.

The construction of the rubber elastic warp strands as braids which themselves contain a plurality of rubber threads, is particularly advantageous in that each warp strand may contain a plurality of rubber threads without these threads having a disturbing effect on the appearance of the braid made of bast-like or bast braiding threads or strands. The rubber threads are covered by the braiding strands of the braid, while the braids themselves are not conspicuous because they can be colored to harmonize with the braiding strands of the band. Finally, the rubber threads can be reliably secured against creeping or springing back by being worked in the braided band.

A preferred embodiment of the invention is illustrated by way of example in the accompanying drawing, in which:

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Fig. 2 shows a length of braided band according to the invention in plan view;

Fig. 2 is a cross-section on line II—II of Fig. 1, on a larger scale; and

Fig. 3 shows, on a still larger scale, one of the warp strands of the braided band in plan view.

The braided band illustrated in Fig. 1 is intended for making the uppers for summer shoes. It has substantially the character of a band composed of plaited bast strips. For this purpose braiding strands *a* extend to and fro in inclined direction across the width of the band. These braiding strands *a* are each composed of a bundle of several bast-like synthetic threads which are only plied or at the most lightly spun, so that the threads of each bundle lie side by side during the braiding operation. Expansible elastic warp strands *b* in the form of strips or bands are introduced into the braided band. In the example illustrated, the warp strands *b* are each composed of a flat braid *d* of plaited thin cotton threads and incorporating several rubber or latex threads *c* arranged as warp threads, that is extending in longitudinal direction. The flat braids *d* are colored to harmonize with the bast-like braiding strands *a*.

The braided band composed of the bast-like strands or threads may be monochromatic or it may also have a multicolored pattern, in that a greater or lesser number of the bast-like braiding strands or threads are of a different color to the rest of the braiding strands or threads. The braided band can be made in different widths. Widths between 4 and 6 centimeters have been found particularly practical. The elastic flat braids *d* worked into the band as warp strands *b*, can also be of any desired width and contain a greater or smaller number of rubber or latex threads *c*. Braids, each containing four rubber threads, have been found suitable.

The example illustrated is subject to many other modifications, and other forms of construction are possible without departing from the scope of the invention. Thus, for example, the rubber elastic warp strands *b* of the braided band composed of bast-like braiding strands or threads may consist of single thread strips of rubber or latex. In this case they are preferably covered with a thin braided tube of, for example, fine cotton threads which are colored to harmonize with the bast-like braiding strands *a*. It is likewise possible to speckle or flake the rubber or latex threads *c*, that is, to sprinkle loose textile fibres on to them which adhere to the rubber or latex threads *c* with the aid of a drying binding medium.

In another possible form of construction the elastic warp strands *b* of the bast-like braided band are made in the form of woven bands which in turn contain warp threads of rubber or latex. Instead of making the braided band from bast-like synthetic threads, it might also be made from plaited natural bast threads. The threads of the flat braids or bands *d* employed as warp threads or strands, might consist of some thread material other than cotton, and in particular of some synthetic material.

I claim:

1. A braided band comprising, in combination, a plurality of elongated longitudinally stretchable elastic strips located beside each other and distributed across the band while extending longitudinally thereof, each strip including stretchable elastic warp thread means and inelastic fibre thread means, said inelastic thread means being interlaced with one another and with said elastic warp thread means to form the stretchable elastic strip; and a plurality of substantially unstretchable flexible strands braided across the band and around said strips to form the band with the latter, whereby the band is longitudinally stretchable and whereby, when the band is transversely curved so that it has a through-like configuration, said strips will be transversely curved also.

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2. A braided band comprising, in combination, a plurality of elongated longitudinally stretchable elastic strips located beside each other and distributed across the band while extending longitudinally thereof, each strip consisting of stretchable elastic warp thread means and substantially inelastic interbraided braiding thread means enveloping said elastic thread means to form a braided stretchable elastic strip; and a plurality of substantially unstretchable flexible strands braided across the band and around said braided band part to form the band with the latter.

3. A braided band comprising, in combination, a plurality of elongated longitudinally stretchable elastic strips located beside each other and distributed across the band while extending longitudinally thereof, each strip consisting of elastic warp threads, substantially inelastic warp threads, and substantially inelastic weft threads, the latter being interwoven with said elastic and inelastic

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warp threads to form the elastic strip; and a plurality of substantially unstretchable flexible strands braided across the band and around said braided band part to form the band with the latter.

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