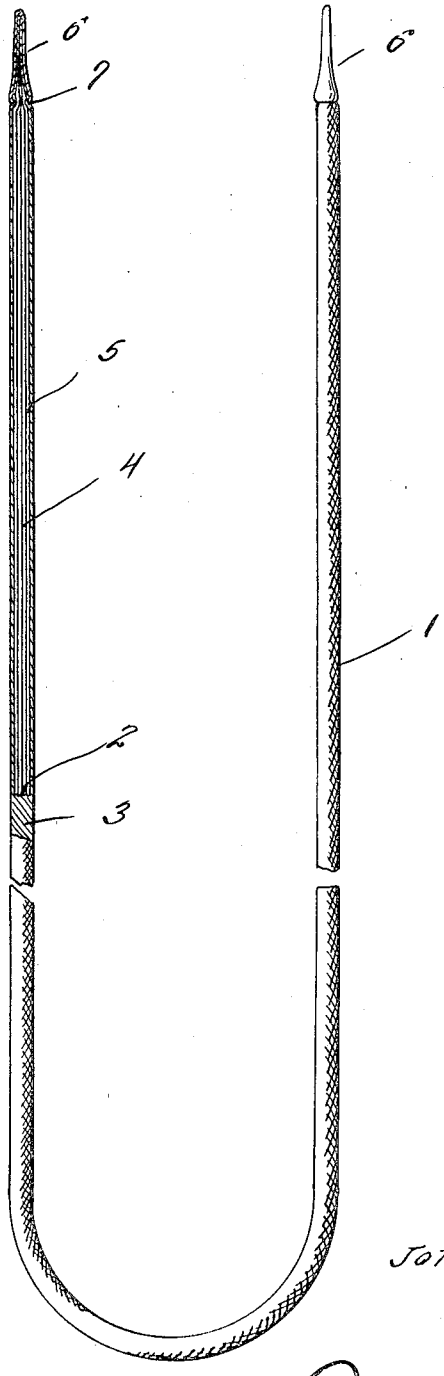
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SHOE LACE

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UNITED STATES PATENT OFFICE.

JOHN STANIEWICZ, OF BALTIMORE, MARYLAND.

SHOE LACE.

Application filed April 1, 1924. Serial No. 703,428.

To all whom it may concern:

Be it known that I, JOHN STANIEWICZ, a citizen of the United States, residing at Baltimore and State of Maryland, have invented certain new and useful Improvements in Shoe Laces, of which the following is a specification.

This invention relates to improvements in shoe laces, and particularly to elastic shoe laces.

An object of the invention is to provide a shoe lace having a filler extending longitudinally thereof retained by a woven cover, wherein the filler is composed of a plurality of elastic threads or threads having the central portions non-elastic and the end portions elastic, to provide a lace adapted for use with shoes so that the eyes at the upper end of the shoe will receive the elastic portions of the shoe lace to permit the expansion of the shoe upper during wear.

Another object of the invention is to provide a shoe lace having elastic ends adapted when applied to a shoe in laced relation, to permit enlargement of the sides of the upper at the top portion of the shoe to provide greater ease in walking and greater comfort to the wearer of shoes so equipped.

The invention comprehends other objects and improvements in the details of construction of the lace which are more particularly pointed out in the following description and claims directed to a preferred form of the invention, it being understood however that variations may be made in the specific relation of the filler and the cover for obtaining the elasticity of the lace without departing from the scope of the invention as described and claimed.

In the accompanying drawing forming a part of the application, the figure illustrates a shoe lace constructed in accordance with the invention wherein the central portion is provided with a non-elastic filler to the ends of which are connected the elastic filler threads.

The body of the shoe lace having an interwoven cover 1 is shown, which is of the round type of lace, but which may be of any other suitable form in cross section, the interwoven cover containing a suitable filler indicated generally at 2 and which in the construction shown is formed of a non-elastic central filler indicated at 3 and elastic end portions indicated at 4. These elastic end portions are composed of a plurality of resilient threads 5 extending longitudinally through the cover and formed of any suitable elastic material, such as rubber, the ends of the rubber filler threads 5 adjacent the ends of the filler 3 being secured to said filler 3 in any desirable manner such as by cementing or vulcanizing to provide a permanent union between the filler 3 and the filler 4. The opposite ends of the filler threads 5 at the ends of the cover 1, are retained by suitable tips 6 which fit over the cover and bind the ends of the filler threads and the cover within the tip, as clearly shown in the sectional portion of the figure, and indicated at 7.

It is to be understood however that if desired, fully elastic filler threads may be used extending entirely through the cover 1, but as the requirements in the wear of a shoe do not necessitate the use of an entirely elastic lace, the same has been shown as having the end portions only included in the elastic sections.

From this, it will be seen that when the lace is interlaced through the eyelets of a shoe, for instance a high shoe, and the ends tied in the usual manner, the elastic end sections will permit a separation of the adjacent edges of the shoe upper held together by said lace during the wear of the shoe for preventing a binding action on the ankle and lower leg portion of the wearer and provide a greater comfort in the wear of the shoe. As this binding action usually occurs in the upper portion of the interlaced upper, it will be readily apparent that the necessity for an entirely elastic shoe lace is not present and the eyelets interlaced at the lower edges may be retained in a substantially fixed relation upon the foot of a wearer.

What is claimed is:

A shoe lace comprising a plurality of non-elastic threads woven together closely

at the intermediate portion of the lace and interwoven at the end portions of the lace in substantially cylindrical form, elastic strands disposed longitudinally through the cylindrical end portion and tips applied over the extremities of said end portions and circumferentially crimped at their end edges into the end portions and thereby laterally contracting the elastic strands.

In testimony whereof I affix my signature.

JOHN STANIEWICZ.