May 3, 1927. 1,627,255

J. B. SMITH

COVERED ELECTRIC THREAD OR CORD

Filed Oct. 1, 1926

Fig. 1.

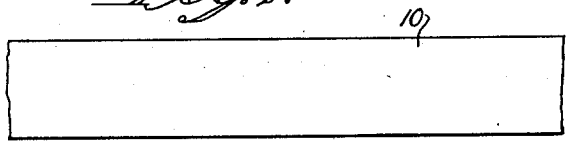


Fig. 2.

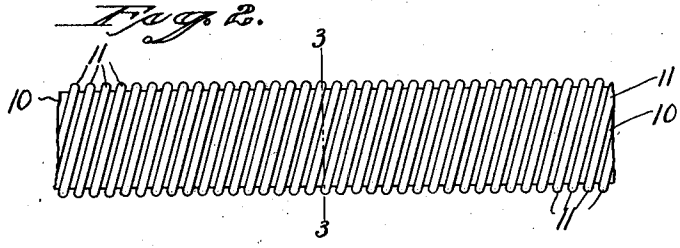


Fig. 3.

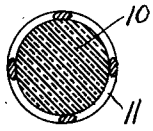


Fig. 4.

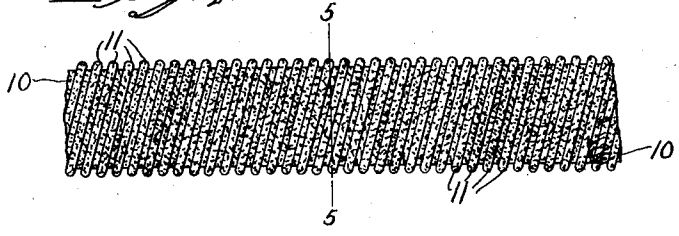


Fig. 5.

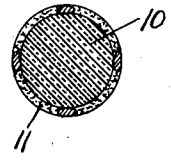


Fig. 6.

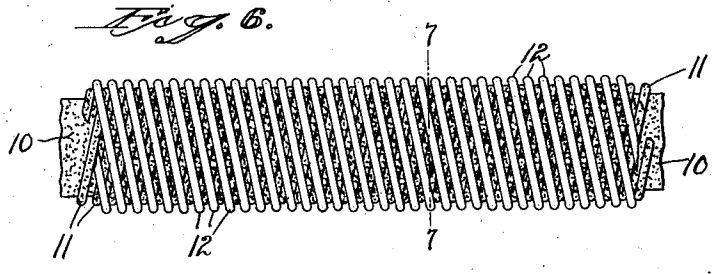


Fig. 7.

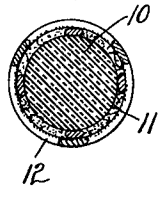
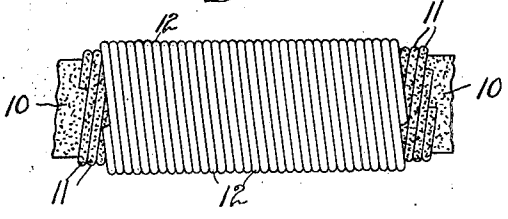


Fig. 8.



Inventor
Julius B Smith
by Seymour Earle & Nichols
Attys

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UNITED STATES PATENT OFFICE.

JULIUS B. SMITH, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE AMERICAN MILLS CO., OF WATERBURY, CONNECTICUT, A CORPORATION.

COVERED ELASTIC THREAD OR CORD.

Application filed October 1, 1926. Serial No. 138,883.

This invention relates to improvement in covered elastic thread or cord of the type commonly employed in the make-up of elastic fabric such as is used in corsets, girdles, etc., wherein the elastic fabric is sewed in place. The operation of sewing often severs or weakens the elastic core of the thread or cord so that when the elastic fabric is placed under tension, the core of the elastic thread creeps with respect to its covering and causes unsightly puckers to appear.

The object of this invention is to produce a covered elastic thread or cord which shall be proof against the substantial creeping of its elastic core with respect to its covering, should the former become weakened or severed for any reason.

With this object in view, my invention consists in a covered elastic thread or cord characterized by a fibrous covering secured to its elastic core by means of an elastic adhesive.

In the accompanying drawings:

Fig. 1 is a face view of a section of the elastic core of my improved covered elastic thread;

Fig. 2 is a corresponding view after the application of the inner cover, the core being shown under slight tension;

Fig. 3 is a transverse section thereof on the line 3—3 of Fig. 2;

Fig. 4 is a view corresponding to Fig. 2 but showing the same coated with an elastic adhesive;

Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 4;

Fig. 6 is a view corresponding to Figs. 2 and 4 but showing the same after the application of the outer covering to produce the completed thread;

Fig. 7 is a transverse sectional view on the line 7—7 of Fig. 6; and

Fig. 8 is a view of the completed thread corresponding to Fig. 6, but showing the same relieved of tension.

In carrying out my invention, as herein shown, I employ an elastic core-member 10 of rubber or equivalent material, to which I apply an inner covering 11 composed of a helically-disposed group of four fibrous threads simultaneously wrapped around it, as shown in Figs. 2 and 3. The next step in the production of my improved elastic thread or cord consists in binding the core and inner covering together by means of an elastic adhesive, such as latex, or a suitable rubber solution, which is indicated by stippling in Figs. 4 to 8 inclusive.

The adhesive may be applied in a variety of ways, such, for instance, as by immersing the partly-completed thread or cord shown in Fig. 3 in a bath of liquid adhesive and subsequently drying the same to the desired degree.

For the purpose of protecting the adhered inner covering 11 and providing an attractive finish for the completed elastic thread or cord, I superimpose upon the said covering 11 an outer covering 12, consisting of a helically-disposed group of three fibrous threads simultaneously wrapped over it and preferably reversely inclined with respect thereto, as shown in Figs. 6 and 8.

Preferably, the outer covering 12 is applied to the inner covering 11 before the adhesive of the latter has completely dried, so that the outer covering will be more or less bonded in place. This feature, while desirable, is not essential to my invention.

As shown and described, the inner covering 11 consists of a group of four threads, and the outer covering consists of a group of three threads, though the number of threads employed in either covering may be varied to meet particular requirements without departing from my invention.

By employing an elastic adhesive as described, the completed thread or cord may be stretched without destroying the bond between the inner covering and the core, and, furthermore, it has been discovered that the adhesive and inner covering serve to prevent the oxidation of the elastic core and thus lengthens its life.

I claim:

1. A covered elastic thread or cord, comprising an elastic core, a fibrous inner covering enveloping the said core, an elastic adhesive for bonding the said core and said fibrous inner covering together, and an outer

or finishing fibrous covering enveloping both the said core and the inner fibrous covering.

2. A covered elastic thread or cord, comprising an elastic core, a fibrous inner covering helically wrapped around the said core, an elastic adhesive for bonding the said core and the said fibrous inner covering together, and an outer or finishing fibrous covering helically wrapped over the said inner fibrous covering in a direction reverse to the helical inclination of the said inner fibrous covering.

In testimony whereof, I have signed this specification.

JULIUS B. SMITH.