April 28, 1931. E. F. PINK 1,803,144

TIE ROD FOR WIRE FABRIC BELTS

Filed March 14, 1930

Fig. 1.

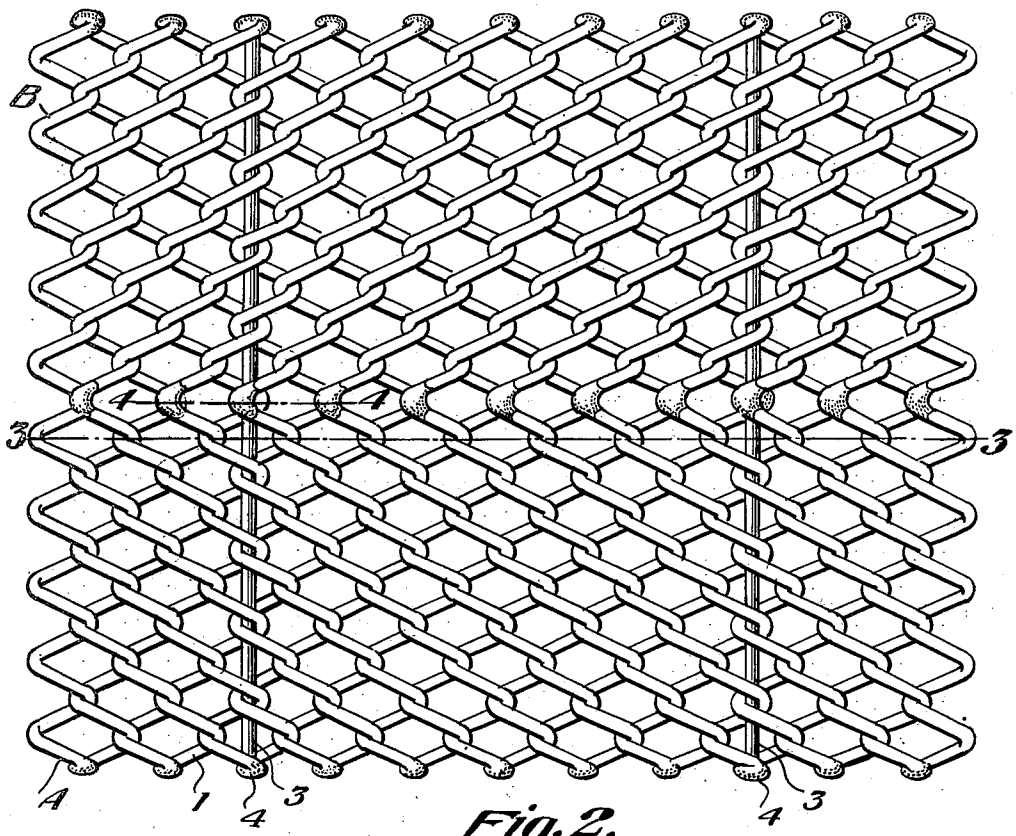


Fig. 2.



Fig. 3.



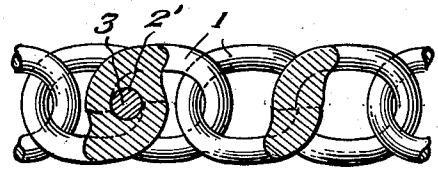


Fig. 4.

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UNITED STATES PATENT OFFICE

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TIE-ROD FOR WIRE-FABRIC BELTS

Application filed March 14, 1930. Serial No. 435,923.

This invention relates to improvements in wire fabric, such as that forming the subject-matter of my Patent No. 1,707,567, dated April 2, 1929, the general object of the invention being to provide tie rods for holding the sections of the fabric together to prevent the sections from spreading apart, as it has been found that a belt constructed of sections, the spirals of which are alternately arranged, has a tendency to spread, which eventually results in the tearing of the fabric. Thus in order to prevent this spreading of the belt or fabric, tie rods are transversely arranged in the fabric and connected with the same so as to prevent this tendency of the belt to spread.

The invention is also capable of use with fabric formed in transverse sections, in which the alternate sections have the helicals extending to the right and the remaining sections have the helicals extending to the left. Thus the invention is applicable to wire fabric composed of longitudinally extending sections as well as fabric composed of transverse sections.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a fragmentary view of the face of the improved fabric,

Figure 2 is an edge view,

Figure 3 is a section on line 3—3 of Figure 1, and

Figure 4 is a section on line 4—4 of Figure 1.

The invention is shown and described as used with a belt or fabric in which the sections are longitudinally arranged, as described in my before-mentioned patent, but as before stated, the invention can also be used with a belt or fabric in which the sections are transversely arranged.

Referring to Figure 1, the letter A indicates one section of the belt whose spirals are left-hand and the letter B the other section thereof whose spirals are right-hand, these sections being composed of a plurality of helical wires 1 which extend transversely of the fabric and the convolutions of each member or wire are interlocked or interwoven with the convolutions of the adjacent members. The helical members of one section are reversely arranged to those of the other section so that the outer and inner ribs formed by the outer portions of the convolutions extend in an opposite direction from the ribs of the other section. This arrangement prevents any tendency of the belt to creep sidewise on the drums or pulleys, as the members of one section tend to move in one direction, while the members of the other section tend to move equally in an opposite direction. This tendency of the two sections to move apart causes the belt or fabric to spread so that it is increased in width and eventually this spreading results in the tearing of the fabric. In order to prevent this disadvantage, I provide a plurality of rods 3 which extend transversely through the belt or fabric, with the ends of the rods connected with the ends of some the helical members, as shown at 4. Each rod also passes between the ends of the convolutions of a pair of the helical members.

Thus these rods fasten the parts together in such a manner that the tendency of the belt or fabric to spread is prevented and thus the rods prevent any change in the width of the fabric.

If desired, the rods may be connected to intermediate portions of the helical members, as shown at 2′.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A wire fabric composed of longitudinally extending sections, each section comprising helical members and each member having the

ends thereof secured to the ends of the adjacent member, the diagonally arranged ribs formed by said members extending in one direction in one section and in an opposite direction in the other section, and rods passing through certain of the helical members and having the ends thereof secured to the ends of the respective members where the latter are secured together and secured to certain other portions of the members whereby spreading of the fabric is prevented.

2. A wire fabric composed of sections, each section comprising helical members and each member having the ends thereof secured to the ends of the adjacent member, the diagonally arranged ribs formed by said members extending in one direction in one section and in an opposite direction in the other section, and rods passing through certain of the helical members and having the ends thereof secured to the ends of the respective members where the latter are secured together and secured to certain other portions of the members whereby spreading of the fabric is prevented.

In testimony whereof I affix my signature.

EDWARD F. PINK.