

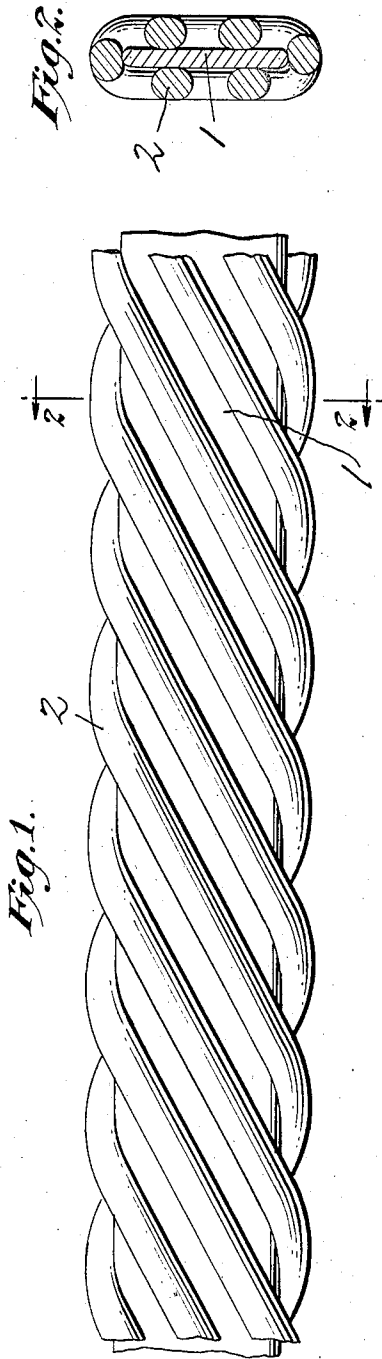
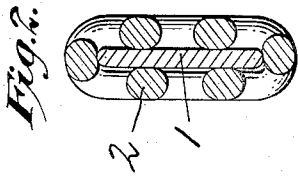
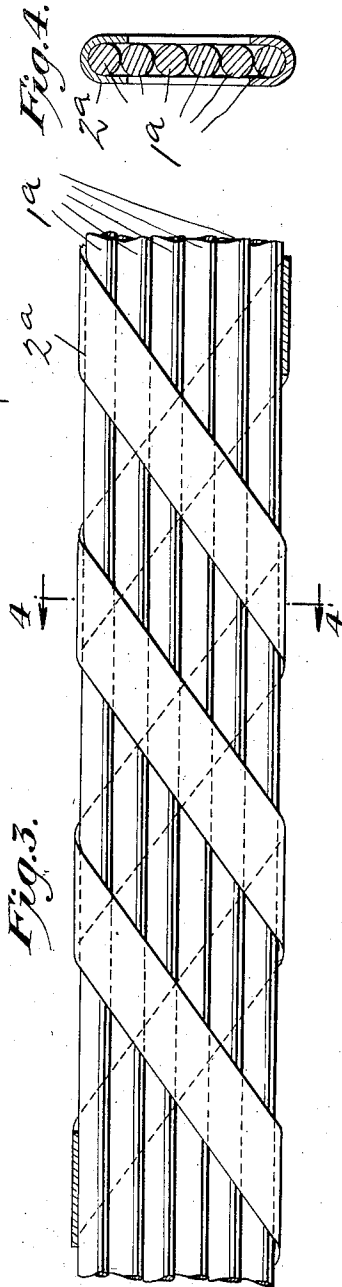
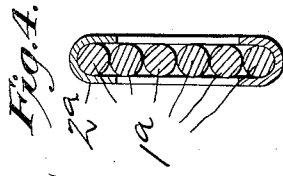
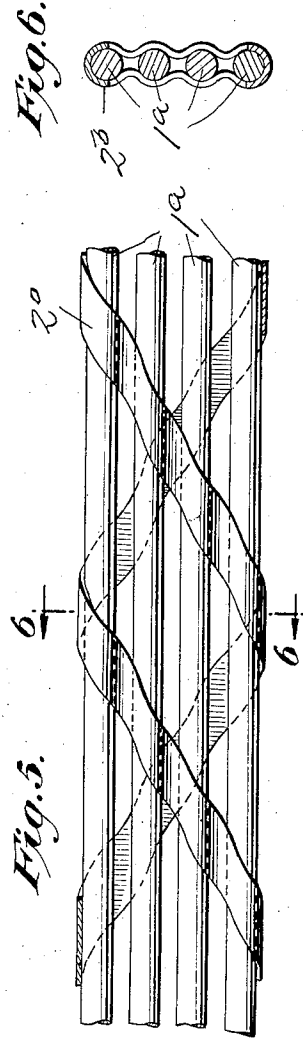
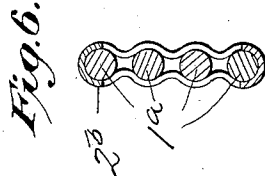
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T. GORE

1,774,748

REENFORCING ELEMENT FOR THE BEADS OF AUTOMOBILE SHOES

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REENFORCING ELEMENT FOR THE BEADS OF AUTOMOBILE SHOES

Application filed July 5, 1928. Serial No. 290,547.

This invention relates to reenforcing elements or gromets for the beads of automobile shoes, and has for its main object and feature the inexpensive production of a reenforcing element in which the component members will not chafe or cut and thus weaken each other, nor stretch unduly in use, and one in which all the component parts serve to sustain the stresses to which the element may be subjected.

In the art, as now practiced, it is the custom to form the reenforcing element either by braiding a plurality of round wires into a flat member or by securing a plurality of parallel round wires together by means of a fine wire that is threaded over and under the parallel wires. The result is that, in both cases, the wires bisect each other and thus set up considerable internal friction that tends to shorten the life of the element. It has also been found that reenforcing elements so constructed will stretch unduly under stresses. A further disadvantage resides in the fact that the reenforcing elements of the prior art are not easily made by machinery but are, as a rule, produced by hand.

I overcome all these difficulties by means of the present invention, three exemplifications of which are disclosed in the accompanying drawings.

In the said drawings:

Fig. 1 is a view in side elevation of a reenforcing element of the character indicated embodying a preferred and concrete form of the invention;

Fig. 2 is a cross-sectional view substantially on the plane of line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 1 showing a modified form of the invention;

Fig. 4 is a cross-sectional view substantially on the plane of line 4—4 of Fig. 3;

Fig. 5 is a view similar to Figs. 1 and 3 showing another modified form of the invention; and

Fig. 6 is a cross-sectional view substantially on the plane of the line 6—6 of Fig. 5.

The reenforcing element is flat and consists essentially of a flat core of high-tensile strength, said core being wrapped with high-tensile strength flat wire or flattened wires

laid with the convolutions thereof in spaced relation.

The core may consist, as shown in Figs. 1 and 2, of a single flat member 1, or, as shown in Figs. 3 to 6, of a plurality of round wires 1^a laid parallel and side by side to form a flat member. Around this core is wrapped one or more preferably flat or flattened wires laid with the convolutions thereof in spaced relation. In Figs. 1 and 2 the outer wire 2 is but slightly flattened, while in Figs. 3 and 4 the outer wire 2^a is considerably flattened. In Figs. 5 and 6 the outer wire 2^b is not only flattened but is crimped to conform to the round wires constituting the core, and the wires of the core are spaced.

In all the forms shown the core is of high-tensile strength and the outer wire is also preferably of high-tensile strength.

It will now be understood that there can be but very little chafing or internal friction between the core and outer wires and also that preferably the outer wire, as well as the core, serves to sustain stresses to which the element is subjected. The result is that there is less stretching and therefore a prolongation of life. Also, an element of this type can readily be made by means of machinery thereby bringing down the cost of production.

The element may be used in various ways. It can be cut into lengths and the free ends can be connected by a sleeve, or it can be coiled several times and simply be held together by the rubber which fills the interstices and which enters between the coils.

I claim:

1. A flat reenforcing element for the beads of automobile shoes, including a flat core of high-tensile strength, said core wrapped with wire laid with the convolutions thereof in spaced relation, each convolution engaging both edges of the core and extending in engagement with both faces of the core from edge to edge.

2. A flat reenforcing element for the beads of automobile shoes, including a core consisting of a single flat high-tensile strength member, said core wrapped with wire laid with the convolutions thereof in spaced rela-

tion, each convolution engaging both edges of the core and extending in engagement with both faces of the core from edge to edge.

3. A flat reenforcing element for the beads
5 of automobile shoes, including a flat core of high-tensile strength, said core wrapped with high-tensile strength flat wire laid with the convolutions thereof in spaced relation, each convolution engaging both edges of the core
10 and extending in engagement with both faces of the core from edge to edge.

4. A flat reenforcing element for the beads of automobile shoes, including a core consisting of a single flat high-tensile strength
15 member, said core wrapped with high-tensile strength flat wire laid with the convolutions thereof in spaced relation, each convolution engaging both edges of the core and extending in engagement with both faces of the core
20 from edge to edge.

Signed at the borough of Brooklyn, in the county of Kings, city and State of New York, this 29th day of June, 1928.

THOMAS GORE.