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W. E. SACKNER

2,339,950

CORD OR PADDING MATERIAL

Filed Dec. 18, 1942

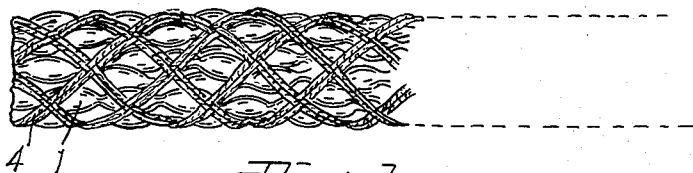


Fig. 1.

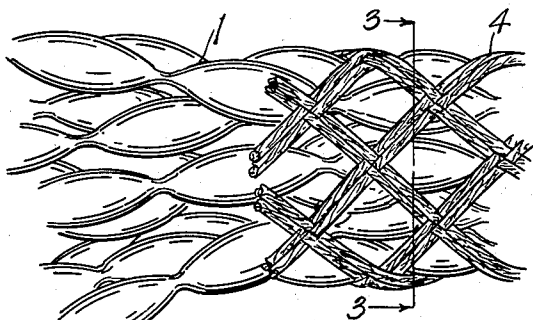


Fig. 2.

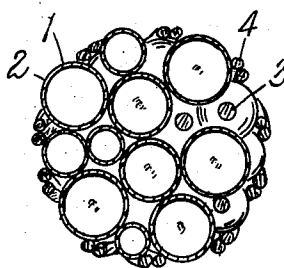


Fig. 3.



Fig. 4.

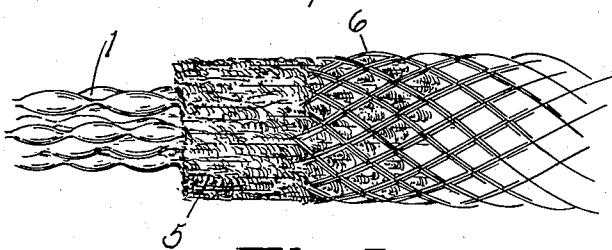


Fig. 5.

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UNITED STATES PATENT OFFICE

2,339,950

CORD OR PADDING MATERIAL

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Application December 18, 1942, Serial No. 469,407

1 Claim. (Cl. 87—6)

This invention relates to improvements in cord or padding material.

The main objects of this invention are:

First, to provide an improved core or beading material which is highly resilient and at the same time light in weight, strong and durable, and readily shaped or conformed to the desired installation.

Second, to provide a resilient core or beading material which is adapted for a wide range of uses.

Third, to provide a core or filler or beading material having the above advantages which may be rapidly and economically produced.

Objects relating to details and economies of the invention will definitely appear from the description to follow. The invention is defined in the claim.

Material which embodies the features of the invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary side view of a rope-like unit of core material embodying the invention.

Fig. 2 is an enlarged fragmentary view illustrating the character of the resilient strand component of my invention and the relation of a preferred form of covering thereto.

Fig. 3 is a sectional view on line 3—3 of Fig. 2.

Fig. 4 is an enlarged side elevation of one of the resilient strands showing the relation of the resilient air cells to each other in the strand.

Fig. 5 is a fragmentary side view of a modified form of core or filler material embodying my invention.

The embodiment of the invention illustrated in Figs. 1, 2 and 3 comprises a plurality of strands 1 of resilient material disposed in side by side generally parallel relation. Each strand comprises a plurality of elongated resilient air cells 2 integrally connected end to end or in linked relation by the relatively short connections 3. These strands are formed of cellulose material suitably compounded and treated or manipulated to provide the strands 1 in desired lengths as integral strands. In a suitable embodiment of the invention these air cells are of circular section and at the larger diameter are of the order of $\frac{1}{16}$ ". It will be understood, of course, that the dimensions of the air cells may be varied.

In all cases there are a plurality of these strands arranged in side by side relation and preferably with the air cells of adjacent strands staggered as is generally shown in Figs. 2 and 3. The number of strands vary according to the dimensions and resiliency desired of the core or filler

and the particular uses to which it is to be put.

In the embodiment illustrated in Fig. 1 the strands 1 of the bundle are bound together by the braided thread or cord open mesh covering 4. This braided covering is in sufficiently tight or binding relation to the bundle of strands so that it effectively binds the strands in place and preferably under substantially compacted or in compressed relation providing a rope-like unit. The initial compacting of the strands is at least sufficient to prevent material shifting of the strands in the unit without destroying the resiliency thereof and permitting the core or filler material to be manipulated to the shape of the object in which it is to be used.

In Fig. 5 the strands 1 form a core for a surrounding body 5 of fibrous material, a braided or other outer covering 6 being provided on this fibrous layer. The embodiment of the invention illustrated in Fig. 5 is desirable for use where a core or filler of substantial dimensions is desired. The material 5 is cheaper than the material 1.

Core material produced as described has the advantage of being very light in weight, of relatively high resiliency, and at the same time possesses very considerable tensile strength. It is flexible and readily adapted to a wide variety of uses where core material or beading is employed.

I have found that the du Pont product commercially known as "Bubbifil" is well adapted for use as the strands 1. It should be understood that I use the designation "cellulose material" in its broad meaning.

I have illustrated and described the invention in embodiments which I consider very practical. I have not attempted to illustrate or describe various modifications which I contemplate as it is believed this disclosure will enable those skilled in the art to adapt the invention as may be desired.

Having thus described the invention what is claimed as new and desired to secure by Letters Patent is:

A resilient core material comprising a plurality of strands of resilient material disposed in generally parallel bundled relation, each strand comprising a plurality of resilient air cells integrally connected end to end, a surrounding layer of resilient fibrous material completely embracing said cellular material, said layer being of substantial depth, and a braided thread open mesh covering binding and retaining said core materials in a somewhat compacted rope-like unit.

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