United States Patent [19]

Hawkins et al.

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[45] **Mar. 25, 1975**

[54] **SHOELACE PACKAGE**

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[52] **U.S. Cl.** **206/278,** 206/388, 206/491

[51] **Int. Cl.** **B65d 85/18,** B65d 85/04

[58] **Field of Search** 206/278, 491, 391, 388, 206/389; 242/86.1

[56] **References Cited**

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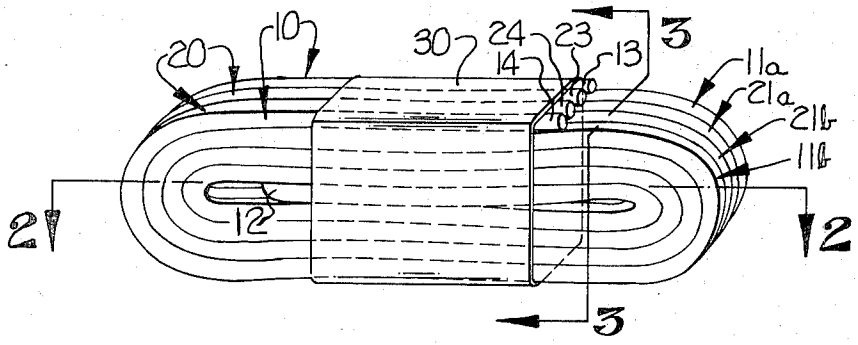
Primary Examiner—William T. Dixson, Jr.

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[57] **ABSTRACT**

An improved package for elongate strand material such as shoelaces comprises sets of flattened convolute strand windings positioned beside each other with their innermost windings being alongside each other and interconnected by a strand loop portion and with terminal ends of the strand arranged in the outermost windings of the sets and a wrapper transversely encircling the sets of windings for maintaining the same intact.

7 Claims, 8 Drawing Figures



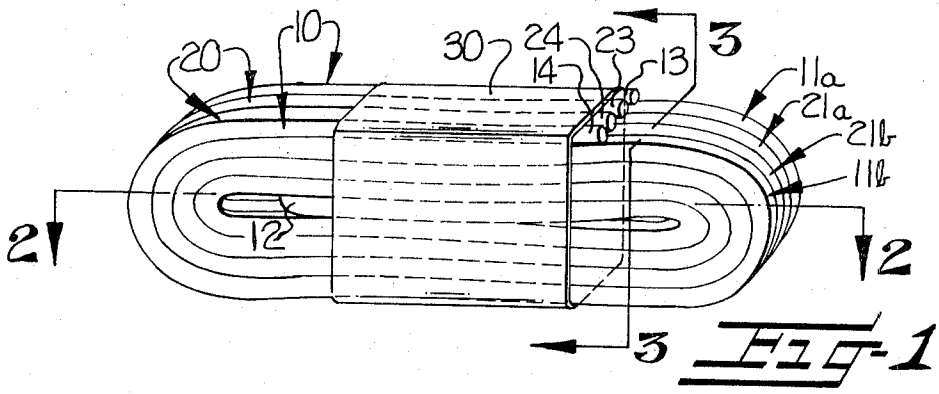


Fig-1

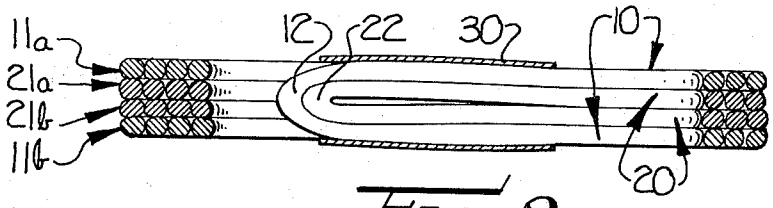


Fig-2

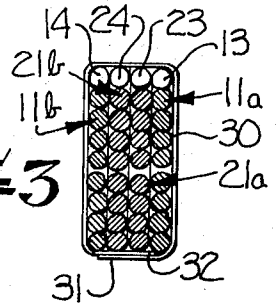


Fig-3

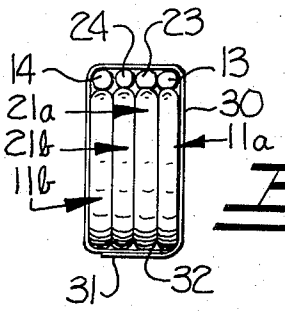


Fig-4

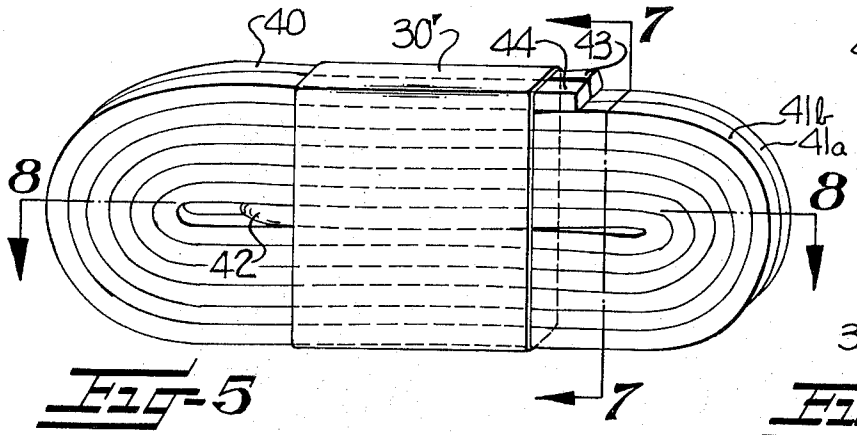


Fig-5

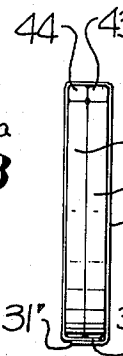


Fig-6

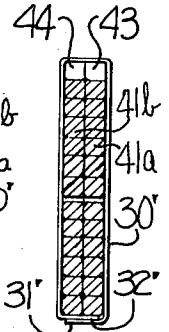


Fig-7

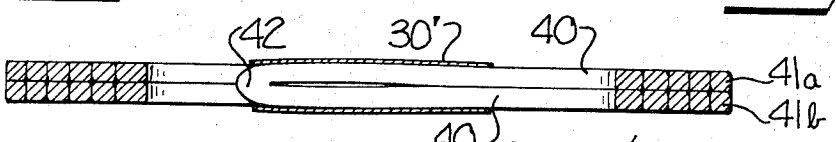


Fig-8

SHOELACE PACKAGE

The present invention relates to an improved package of elongate strand material, particularly elongate strand material such as shoelaces and the like.

Therefore, shoelaces have been conventionally packaged in pairs by winding the pair of shoelaces into a corresponding pair of convolute windings with one end of each of the shoelaces being located interiorly of its winding and with the opposite end of the respective shoelace being located on the outside of the winding. In accordance with the present invention, shoelaces may be packaged either singly or in pairs with each shoelace wound into a pair of convolute windings rather than into a single winding. Thus, a package of a pair of shoelaces in accordance with the instant invention would have four convolute windings instead of two windings in accordance with the prior art. This increasing or doubling of the number of convolute windings for each shoelace provides a number of advantages over the prior shoelace packages, as for example by substantially reducing the time required for winding each shoelace and by providing a broader, more uniform and stable shoelace package.

It is therefore an object of the present invention to provide an improved package of elongate strand material such as shoelaces, wherein the strand material is convolutely wound in neat, compact, stable relation.

It is a more specific object of this invention to provide a convolute wound package of elongate strand material comprising sets of flattened convolute strand windings positioned beside each other in parallel planes with their innermost windings being alongside each other and interconnected by a strand loop portion and with terminal ends of the strand arranged in the outermost windings of the sets, and a wrapper transversely encircling the sets of windings for maintaining the same intact.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawing, in which

FIG. 1 is a perspective view of the shoelace package according to a first embodiment of the present invention wherein the package contains a pair of shoelaces;

FIG. 2 is a horizontal sectional view taken substantially along line 2—2 in FIG. 1;

FIG. 3 is a vertical sectional view taken substantially along line 3—3 in FIG. 1;

FIG. 4 is an end elevational view of the shoelace package according to the first embodiment of the invention;

FIG. 5 is a perspective view of a shoelace package according to a second embodiment of the invention wherein the package contains a single shoelace;

FIG. 6 is an end elevational view of the shoelace package according to the second embodiment of the invention;

FIG. 7 is a vertical sectional view taken substantially along line 7—7 in FIG. 5; and

FIG. 8 is a horizontal elevational view taken substantially along line 8—8 in FIG. 5.

Referring now more specifically to the drawings, the first embodiment of the invention is shown in FIGS. 1-4 and includes two lengths of elongate strand material, such as a pair of shoelaces, formed into a convolute wound package. Shoelaces packaged in accordance with the present invention may be of conventional construction, such as braided or woven, or may comprise elongate solid strands such as rawhide. The shoelaces may be of substantially round cross section as shown in FIG. 2, or of various other cross sections such as square or substantially flat.

As shown in FIGS. 1-4, the pair of shoelaces 10, 20 comprise four sets 11*a*, 11*b*, 21*a*, 21*b* of flattened convolute strand windings with each shoelace of the pair being initially folded in a medial portion to form a pair of sets of the convolute windings. By providing a pair of sets of convolute windings for each shoelace rather than a single convolute winding as is conventional, a more stable or wider package is formed which is less likely to become disarranged or unwound. This is so since a fewer number of strand windings will be located in each set of the pair than if the same length strand were conventionally wound into a single convolute winding.

As seen most clearly from FIG. 2, shoelace 20 forms a pair of sets 21*a*, 21*b* of convolute strand windings correspondingly arranged with corresponding windings of each of the pair of sets being located alongside each other substantially in contiguous relation. Shoelace 10 also forms a pair of sets 11*a*, 11*b* of convolute strand windings which are positioned on opposite sides of sets 21*a*, 21*b* in straddling relation with corresponding windings thereof being correspondingly located on opposite sides of the windings of sets 21*a*, 21*b*.

Each set of convolute windings is connected to the corresponding set of the same pair through loop portions 12, 22 located at the radially innermost winding of each set. As seen in FIG. 2, loop portion 12 of shoelace 10 is disposed in straddling and nesting relation around loop portion 22 of shoelace 20.

As preferred, the loop portions 12, 22 of the shoelaces are located at the midpoint of the strand so that the terminal end portions 12, 14, 23, 24 are located on the same exterior surface of the package and substantially in side-by-side relation as shown in FIG. 1. If desired, however, the loop portions on one or both of the shoelaces may be so located that the terminal ends of the shoelaces are located in a staggered or offset arrangement on the surface of the package.

A wrapper 30 of any suitable material, such as paper, stiff foil or the like, transversely encircles all of the sets of windings to maintain the windings intact, with opposite ends 31, 32 of the wrapper being suitably secured to each other if necessary, as by adhesive. As shown in FIG. 1, the wrapper is positioned adjacent the terminal ends of the shoelaces to maintain the same neatly on the exterior surface of the package. If desired, the wrapper may be located so as to overlie all of the terminal ends of the shoelaces.

The second embodiment of the invention, as shown in FIG. 5, is very similar to the first embodiment except that only a single length of strand material 40 is included in the package. This embodiment of the invention is especially suited for packages of strand material of considerable length, such as boot laces of rawhide or the like, which are often packaged and sold separately rather than in pairs. As shown in the second embodiment, the strand material 40 is of substantially square cross section, but other cross sections such as round or substantially flat are equally useful in this embodiment.

According to this embodiment, the package includes two sets 41*a*, 41*b* of flattened convolute strand wind-

ings positioned with corresponding windings of each set alongside each other and connected by a strand loop portion **42** located at the innermost winding of each set. The terminal end portions **43, 44** of the strand are located in the outermost winding of each set, and preferably on the same exterior surface of the package.

As in the first embodiment, a wrapper **30'** of any suitable material such as paper, stiff foil or the like transversely encircles the sets of windings to maintain the same intact, with opposite ends **31', 32'** of the wrapper being secured together, if necessary, by suitable means.

While the present invention has been described with particular reference to shoelaces, it should be apparent that the invention is applicable not only to shoelaces but to other types of elongate strand material as well.

In the drawings and specification there have been set forth preferred embodiments of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation.

That which is claimed is:

1. A convolute wound package of elongate strand material comprising sets of flattened convolute strand windings positioned beside each other in parallel planes with the innermost winding of the sets being interconnected by a strand loop portion and with terminal ends of the strand arranged in the outermost winding of the respective sets, and a wrapper transversely encircling the sets of windings for maintaining the same intact.

2. A convolute wound package according to claim **1,** wherein the terminal ends of the strand are arranged in side-by-side relation.

3. A convolute wound package of elongate strand material wherein each half of the length of strand material is correspondingly arranged in a set of flattened convolute windings with the corresponding windings of the sets positioned beside each other in respective parallel planes, said strand having a medial loop portion interconnecting the innermost winding of the respective sets, terminal ends of the strand being arranged beside each other in the outermost winding of the respective sets, and a wrapper transversely encircling the sets of windings for maintaining the same intact.

4. A convolute wound package of a pair of shoelaces, wherein each shoelace comprises a pair of sets of flattened convolute shoelace windings with all of the sets of windings positioned beside each other in parallel planes with the innermost winding of each pair of sets being interconnected by respective shoelace loop portions and with terminal ends of the shoelaces arranged in the outermost winding of the respective sets, and a wrapper transversely encirlcing all of the sets of windings for maintaining the same intact.

5. A convolute wound package according to claim **4,** wherein one pair of said sets of shoelace windings is positioned between the other pair of said sets of shoelace windings.

6. A convolute wound package according to claim **4,** wherein the terminal ends of the shoelaces are arranged in side-by-side relation.

7. A convolute wound package of a pair of shoelaces, wherein each half of the length of each shoelace is arranged in a set of flattened convolute windings with the respective sets of windings positioned beside each other in parallel planes, each shoelace having a medial loop portion interconnecting the innermost winding of the respective sets, terminal ends of the shoelaces being arranged beside each other in the outermost winding of the respective sets, and a wrapper transversely encircling all of the sets of windings for maintaining the same intact.

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