

SHOESTRING TYING APPARATUS

TECHNICAL FIELD OF THE INVENTION

5 The present invention relates to a shoestring tying apparatus; and, more particularly, to an apparatus capable of easily tying and untying the shoestring in such a way that the tied string does not easily come undone.

10 BACKGROUND ART

 In general, a knot, using a shoestring, is formed on a footwear such as a sport shoe to prevent the footwear from slipping off. Such a knot is formed by drawing both
15 ends of the shoestring, binding the drawn both ends together and forming a butterfly shape, resulting in forming the knot. However, it is time consuming to tie the knot in addition to being cumbersome. Further, it has a shortcoming in that the knot sometimes comes undone by
20 itself in walking. In order to alleviate this problem, an attempt has been made to utilize a so-called magic tape, i.e., Velcro fastener as registered trade mark, instead of the string, but the tying effect, i.e., binding effect thereof is lesser than that of the string. Further, the
25 Velcro fastener usually deforms the shoe and consequently, its use is usually limited to juvenile shoes.

DISCLOSURE OF THE INVENTION

30 It is, therefore, a primary object of the present invention is to provide an apparatus for tying a shoestring of footwear in such a way that which the shoestring does not easily come undone it self.

 In accordance with one aspect of the present
35 invention, there is provided a shoestring tying apparatus

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comprising a cover body made of an elastic material and including a pair of wing portions, each having an extension horizontally extended inwardly from a lower portion thereof, respectively, and being contractible by
5 being properly compressed inwardly, a pair of auxiliary holes, each formed at top of the body, and a shoestring-rest pin mounted on a tip of each of the extension portions; and a bottom plate including a pair of string access holes, a partition projected upwardly between the
10 string access holes such a way that an inner portion of the cover body is divided into two hollow portions; wherein each end of the shoestrings is passed through the string access hole and the auxiliary hole at one side of the string rest pin and passes out of in a reverse order
15 at the other side thereof, and when each end thereof is horizontally drawn outwardly, the shoestring passing out tightly compresses the remaining shoestring in the cover body at a corner of the string access hole, maintaining a tightening condition and when the cover body is lifted up
20 upwardly while pressing inwardly the wing portions, the tightening condition is terminated.

BRIEF DESCRIPTION OF THE DRAWINGS

25 The above and other objects and features of the present invention will become apparent from the following description of preferred embodiments given in conjunction with the accompanying drawings, wherein:

30 Fig. 1 shows an exploded perspective view of an apparatus for tying a shoestring in accordance with a preferred embodiment of the present invention;

Fig. 2 represents a cross sectional view of the apparatus of Fig. 1 assembled during a shoestring tying condition;

35 Fig. 3 illustrates a cross sectional view of the

apparatus of Fig. 2 during a releasing condition; and

Fig. 4 offers a partially schematic view of the apparatus shown in Fig. 1 assembled together during the use.

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MODES OF CARRYING OUT THE INVENTION

Referring now to Figs. 1 to 4, there is shown the inventive shoestring tying apparatus in accordance with a preferred embodiment of the present invention.

As shown in Fig. 1, the inventive shoestring tying apparatus includes a cover body 10 made of an elastic material and a bottom plate 30 assembled with the body 10. The cover body 10 is provided with a pair of wing portions 12, each having an extension portion 14 horizontally extended inwardly from a lower portion thereof, respectively, a pair of auxiliary holes 16, each formed at top of the body 10, and a shoestring rest pin 18 mounted on a tip of each of the extension portions 14. When the wing portions 12 are compressed, the extension portions 14 are contracted inwardly. Further, the extension portions 14 are provided with a jaw 20 at a tip end thereof for preventing the wing portions 12 from excessively contracting and a fixing hole 22 at a side wall thereof for inserting an extra outlet shoestring 44 thereinto (Fig. 4).

On the other hand, the bottom plate 30 has a pair of string access holes 32, a partition 34 projected upwardly between the string access holes 32 in such a way that an inner portion of the cover body 10 is divided into two hollow portions.

Further, the cover body 10 is provided with a pair of projections 24 downwardly projected from bottom of the top surface thereof and the bottom plate 30 is provided with a pair of recess grooves 36 corresponding to the

projections 24, the cover body 10 and the bottom plate 30 being adhered to each other by an adhesive applied between the projections 24 and the recess grooves 36. At this time, it is preferred that the string rest pins 18 are placed on top of an outer periphery of the string access holes 32. It should be noted the cover body and the bottom plate may be integrally formed each other.

The shoestring tying apparatus structured as described above is operated as follows:

As shown in Fig. 2, each end of the shoestrings inserted through a last hole 40 of footwear is passed through the string access hole 32 and the auxiliary hole 16 at one side of the string rest pin 18 and then passes out in a reverse order at the other side thereof. During this operation, the wing portions 12 is slightly tightened, allowing the string rest pin 18 to get positioned at center of the string access hole 32. The shoestring that passes out in the reverse order will be herein after referred to as an outlet shoestring 42 and the remaining shoestring in the cover body 10, as an inlet shoestring 44. When each of the outlet shoestrings 42 is horizontally drawn outwardly, the inlet shoestring 44 tightly compresses each of the outlet shoestrings 42 at a corner of each of the string access holes 32. This condition will be referred to as a tightening condition. On the contrary, when the cover body 10 is lifted up upwardly while pressing inwardly the wing portions 12 in a direction of an arrow, this results in terminating the tightening condition since the inlet and outlet shoestrings 44 and 42 do not interrupt mutual movements as shown in Fig. 3.

As best understood from Fig. 4, an extra outlet shoestring 44 is directly inserted into the fixing hole 22 of the extension portion 14 or is folded in two and the folded outlet string is inserted thereinto to prevent a

part of the tied shoestring from dragging on the ground.

While the present invention has been described with respect to certain preferred embodiments only, other modifications and variations may be made without departing
5 from the scope of the present invention as set forth in the following claims.

what is claimed is:

1. A shoestring tying apparatus comprising:

5 a cover body made of an elastic material and including a pair of wing portions, each having an extension horizontally extended inwardly from a lower-portion thereof, respectively, and being contractible by being properly compressed inwardly, a pair of auxiliary holes, each formed at top of the body, and a shoestring
10 rest pin mounted on a tip of each of the extension portions; and

a bottom plate including a pair of string access holes, a partition projected upwardly between the string access holes such a way that an inner portion of the cover
15 body is divided into two hollow portions;

wherein each end of the shoestrings is passed through the string access hole and the auxiliary hole at one side of the string rest pin and passes out of in a reverse order at the other side thereof, and when each end thereof
20 is horizontally drawn outwardly, the shoestring passing out tightly compresses the remaining shoestring in the cover body at a corner of the string access hole, maintaining a tightening condition and when the cover body is lifted up upwardly while pressing inwardly the wing
25 portions, the tightening condition is terminated.

2. The shoestring tying apparatus of claim 1, wherein the cover body is provided with a pair of projections downwardly projected from bottom of the top surface thereof and the bottom plate is provided with a pair of
30 recess grooves corresponding to the projections, the cover body and the bottom plate being adhered to each other by an adhesive applied between the projections and the recess grooves.

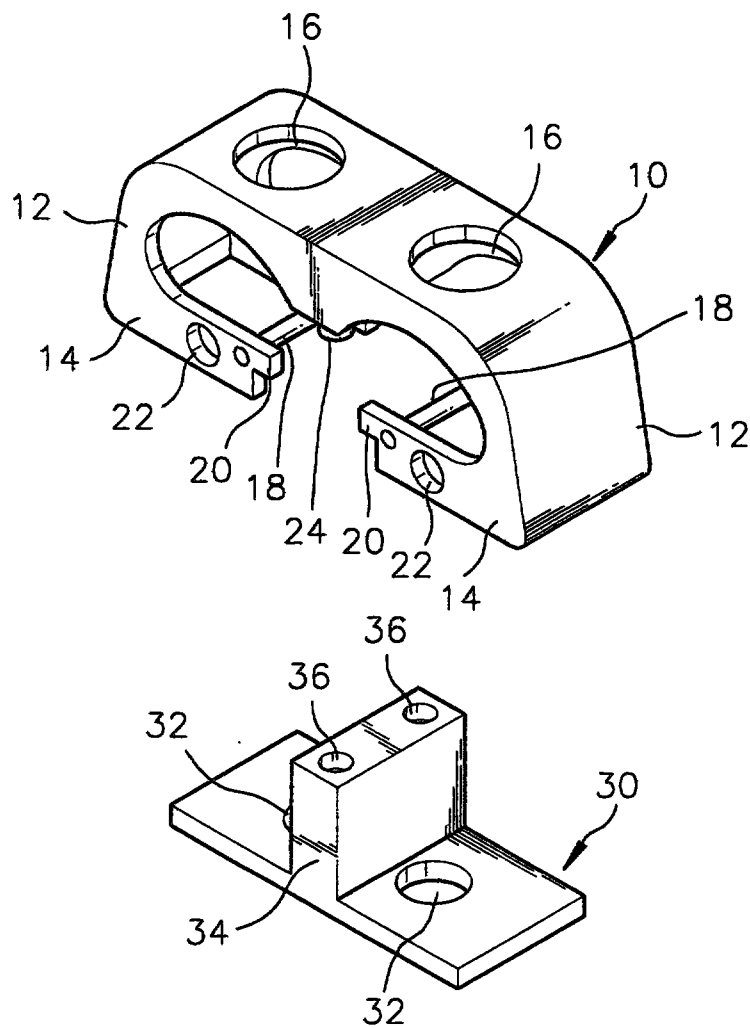
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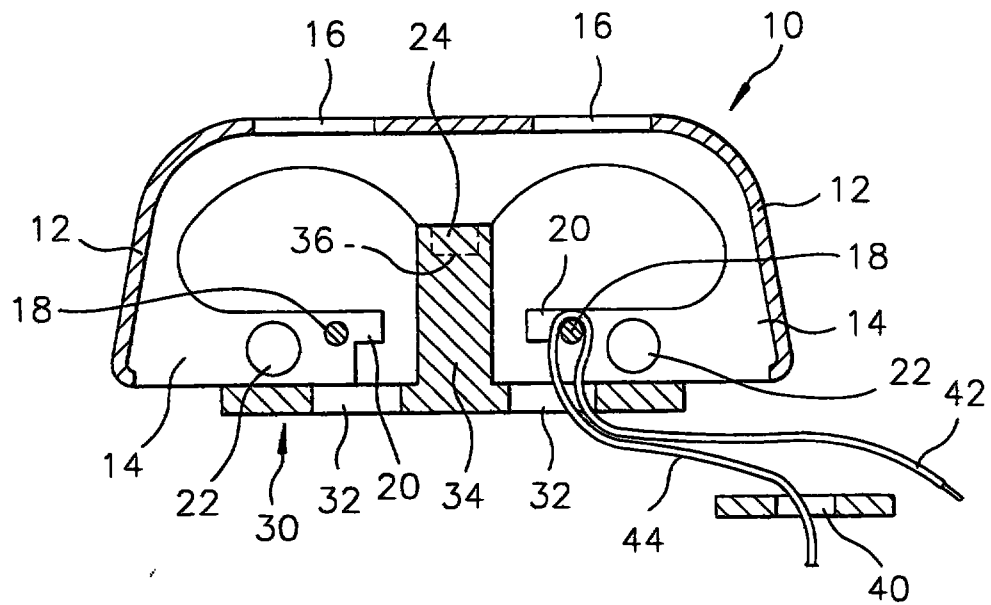
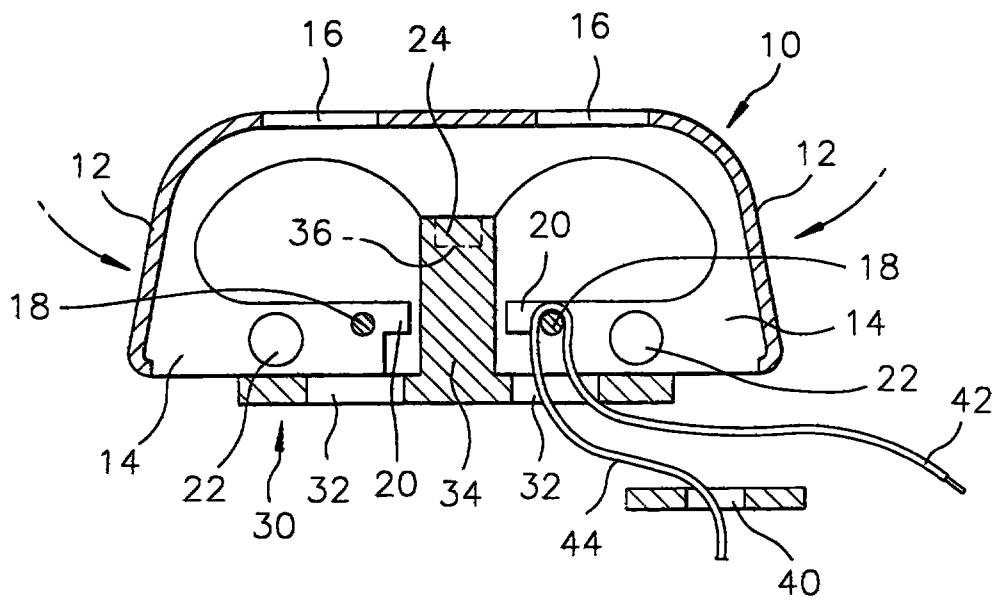
3. The shoestring tying apparatus of claim 1, wherein the cover body and the bottom plate are integrally formed.
4. The shoestring tying apparatus of claim 1, wherein the extension portion further is provided with a jaw at a tip end thereof for preventing the wing portion from-
excessively contracting.
5. The shoestring tying apparatus of claim 1, wherein the extension portion further is provided with a fixing hole at a side wall thereof for inserting the shoestring passing out thereinto.
6. The shoestring tying apparatus of claim 1, wherein the string rest pin is placed on top of an outer periphery of the string access hole.



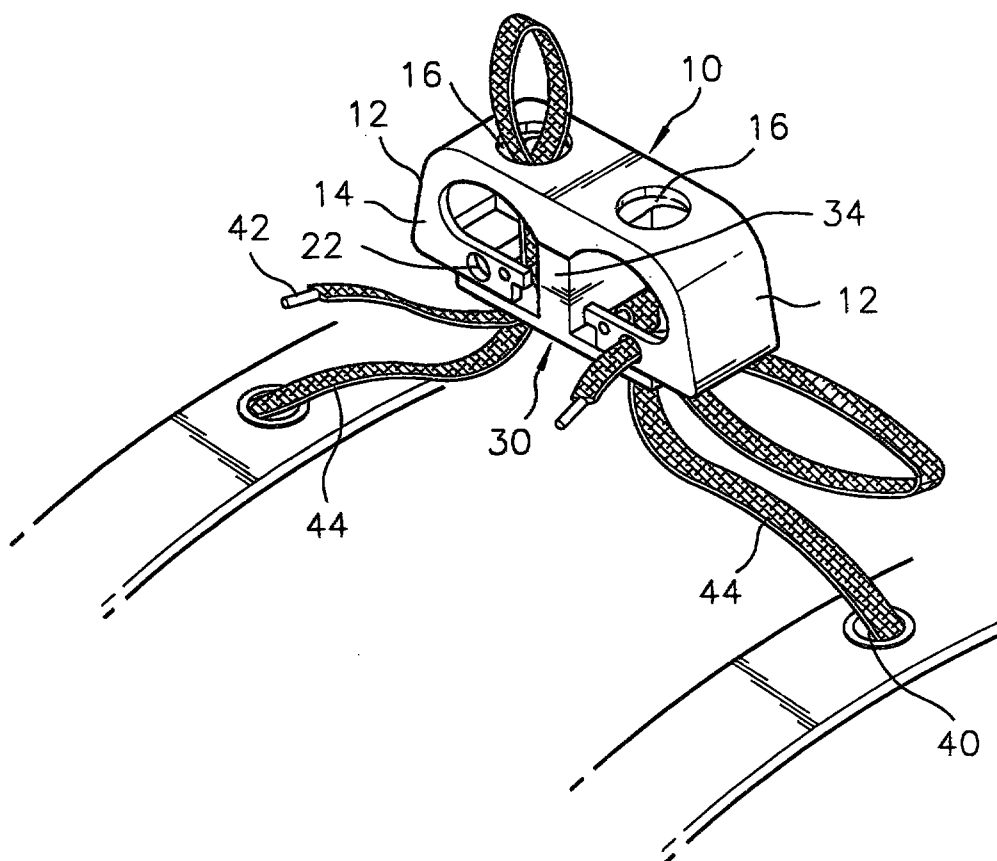
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FIG. 1

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FIG. 2**FIG. 3**

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FIG. 4



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/KR99/00478 (22) International Filing Date: 25 August 1999 (25.08.99) (30) Priority Data: ① 1998/17750 U / 18 September 1998 (18.09.98) / KR/ ① (71)(72) Applicant and Inventor: LEE, Hae, Gon [KR/KR]; Haekang Apt. 101-211, Cheonjeon 6-ri, Shinbuk-eub, Chooncheon-si, Kangwon-do 200-820 (KR). (74) Agent: JANG, Seong, Ku; KEC Building, 17th floor, 275-7, Yangjae-dong, Seocho-ku, Seoul 137-130 (KR).		(81) Designated States: AT, AU, BG, BR, CA, CH, CN, DE, DK, ES, FI, GB, HU, ID, IL, IN, JP, LU, MX, NO, NZ, PL, PT, RO, SE, SG, TR, UA, US, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. IPD 1 appl. = 1 inv. IPC = A43C 7/00, 2 A43B 11/00, 14/00. A43C 7/08.

(54) Title: SHOESTRING TYING APPARATUS

(57) Abstract

The shoestring tying apparatus includes a cover body (10) made of an elastic material and a bottom plate (30) assembled with the body. The cover body (10) has a pair of contractible wing portions (12), each having an extension portion (14) horizontally extended inwardly from a lower portion thereof, respectively, a pair of auxiliary holes (16), each formed at top of the body, and a shoestring rest pin (18) mounted on a tip of each of the extension portions (14). The extension portions (14) have a jaw (20) at a tip end thereof for preventing the wing portions (12) from excessively contracting and a fixing hole (22) at a side wall thereof for inserting a shoestring passing out thereinto. The bottom plate (30) has a pair of string access holes (32) and a partition (34) projected upwardly between the string access holes (32) in such a way that an inner portion of the cover body (10) is divided into two hollow portions.

