This application is a continuation-in-part of application Serial No. 310,414, filed Sept. 20, 1963, and relates to a shoe lace knot retainer or protector.

An object of the present invention is to provide a shoe lace knot protector which is of the type to receive and protect a knot upon the shoe of a child wearer, and which, when mounted upon said shoe can be released only upon application of a manually-applied force by an adult of a magnitude greater than that capable of being applied by the child wearer.

Another object of the present invention is to provide a shoe lace knot protector which lends itself to ready mounting over the knot of a child wearer and which can only be dismounted by a person other than the child wearer.

A further object of the present invention is to provide a shoe lace knot protector which is of simple construction, and which is efficiently in use.

Other objects and advantages of the present invention will become apparent from the following description, taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a perspective view showing the shoe lace knot protector according to the present invention in place on the shoestring knot of a shoe worn by a small child. FIGURE 2 is an exploded view of the knot protector of the present invention. FIGURE 3 is a bottom plan view of the shoe lace knot protector of FIGURE 1. FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 5. FIGURE 5 is a cross-sectional view taken on the line 5—5 of FIGURE 4. FIGURE 6 is an exploded view of the assembly of FIGURE 4. FIGURE 7 is a plan view of another form of the shoe lace knot protector according to the present invention. FIGURE 8 is a side elevation view of the protector of FIGURE 7. FIGURE 9 is a cross-sectional view taken on the line 9—9 of FIGURE 8. FIGURE 10 is an exploded view of the knot protector of the assembly of FIGURE 8. FIGURE 11 is a plan view taken on the line 11—11 of FIGURE 10, and FIGURE 12 is a cross-sectional view taken on the line 12—12 of FIGURE 10.

Referring to FIGURES 1 to 6 of the drawing, the shoe lace knot protector of the present invention is generally indicated by the numeral 10 and comprises a receptacle 12 which has a continuous wall 14 closed at one end by a flat cover plate 16 and which is open at the other end 18. In the cover plate 16 there is a slot 20 which extends inwardly from the perimeter of the plate 16 and past the continuous wall 14 to a point 15 beyond and adjacent the central area 22 of the plate 16, as shown in FIGURE 3. The continuous wall 14 of the receptacle 12 is provided with an opening 24 which extends therealong for a part of its length and which is in communication with the slot 20. Extending about the perimeter of the cover plate 16 of the receptacle 12 is a flange 26 of the periphery of the cover plate 16 is provided with serrations 27 to form a gripping surface.

The protector also includes a cap member designated by the numeral 30 and which has a continuous wall 32 closed at one end by a flat cover plate 34 and open at the other end 36. The outer periphery of the cover plate 34 of the cap member 30, the abutment means or ring 38 being located inwardly thereof and spaced from the continuous wall 32 of the cap member 30 to provide a space 37 between the abutment means or ring 38 and the continuous wall 32 of the cap member 30.

The cap member 30 is disposed upon the receptacle 12 so that the other end 36 engages the flange 26 of the receptacle 12 with the continuous wall 32 of the cap member 30 surrounding the continuous wall 14 of the receptacle 12, and the portion adjacent the open end 18 of the receptacle 12 extends into the space 37 between the abutments or ring 38 and the continuous wall 32 of the cap member 30 and engages the abutment means or ring 38.

Interengaging means is between the portion adjacent the open end 18 of the receptacle 12 and the adjacent port on the continuous wall 32 of the cap member 30 for securing the cap member 30 and the receptacle 12 together. Specifically, the interengaging means embodies interengaging threads 40 and 42 which are formed on the portion adjacent the open end 18 of the receptacle 12 and the adjacent portion of the continuous wall 32 of the cap member 30 respectively.

The interengaging means or interengaging threads 40 and 42 on the portion adjacent the open end 18 of the receptacle 12 and the adjacent portion of the continuous wall 32 of the cap member 30 respectively, coact with the abutment means or ring 38, when the receptacle 12 and cap member 30 are moved into interengaged position or the position of FIGURES 4 and 5, to cause the interengaging means or interengaging threads 40 and 42 to be interengaged to a degree such as to resist release upon application to the receptacle 12 and cap member 30 of a manually-applied force by a child wearer and to be released only upon application to the receptacle 12 and cap member 30 of a manually-applied force by an adult of a magnitude greater than that capable of being applied by a child wearer.

With reference to the form of the knot protector as depicted in FIGURES 7 to 12, the construction of this protector is the same as that of the protector of FIGURES 1 to 6, except that the abutment means in the cap member 30 takes the form of a groove 50, which extends about the inner face of the cover plate 34 of the cap member 30, the groove being formed by indenting the central portion of the cover plate of the cap member. In addition, the indented central portion 51 of the cover plate 34 of the cap member 30 is provided with means for attachment of a bell 52 to the outer face of the indented central portion 51 of the cover plate of the cap member. Specifically, the not protector 10 of FIGURES 7 to 12 comprises a receptable 12' and a cap member 30'.

The receptacle 12' has a continuous wall 14' closed at one end by a flat cover plate 16' and which is open at the other end 18'. The cover plate 16' is provided with a slot 20' which extends inwardly from the perimeter of the plate 16' and past the continuous wall 14' to a point 15' beyond and adjacent the central area 22' of the plate 16', as shown in FIGURE 1. An opening 24' is in the wall 14' of the receptacle 12', the opening extending along the wall 14' for a part of its length and being in communication with the slot 20'. A flange 26' extends about the perimeter of the cover plate 16', the periphery
of the flange being provided with serrations 27 to form a gripping surface.

The cap member 30' has a continuous wall 32 closed at one end by a flat cover plate 34 and open at the other end 36. The outer periphery of the cover plate 34 is provided with serrations 35 to provide a gripping surface. Abutment means embodying a groove 50 extends about the inner face of the cover plate 34 of the cap member 30', the groove being formed by indenting the central portion of the cover plate 34'. The indented central portion 51 of the cover plate 34' is provided with means or a hole 55 and the placement of the hole 55 to the outer wall of the indented portion 51 of the cover plate 34'. The bell 52 is attached to the hole 55 by means of a rivet 56 which is projected through the hole 55 so that its head 57 bears against the inner face of the indented central portion 51 with the free end of the rivet extending into the domed housing 58 of the bell 52 and secured to the housing, as clearly seen in FIGURE 9.

The cap member 30' is disposed upon the receptacle 12' so that the other end 36' engages the flange 26' of the receptacle 12' with the continuous wall 32' of the cap member 30' surrounding the continuous wall 32 of the receptacle 12 and the portion adjacent the open end 18' of the receptacle 12' extends into the groove 50 and engages the indented central portion 51 of the continuous wall 32' of the cap member 30'.

Interengaging means is between the portion adjacent the open end 18 of the receptacle 12' and the adjacent portion of the continuous wall 32' of the cap member 30' for securing the cap member 30' and the receptacle 12' together. Specifically, the interengaging means embodies interengaging threads 40 and 42 which are formed on the portion adjacent the open end 18' of the receptacle 12' and the adjacent portion of the continuous wall 32' of the cap member 30', respectively.

The interengaging means or interengaging threads 40' and 42' on the portion adjacent the open end 18' of the receptacle 12' and the adjacent portion of the continuous wall 32' of the cap member 30', respectively, are formed with the groove 50, when the receptacle 12' and cap member 30' are moved into interengaged position or the position of FIGURE 9, to cause the interengaging threads 40' and 42' to be interengaged to a degree such as to resist release upon application to the receptacle 12' and cap member 30' of a manually-applied force by a child wearer and to be released only upon application to the receptacle 12' and cap member 30' of a manually-applied force by an adult of a magnitude greater than that of being applied by a child wearer.

In operation, the shoelace knot is slipped through the slot 20 and opening 24 or slot 20' and opening 24', until it is received within the receptacle 12 or 12', whereupon the cap member 30 or 30' is disposed upon the receptacle 12 or 12' so that the open end 36 or 36' engages the flange 26 or 26' of the receptacle 12 or 12' with the continuous wall 32 or 32' of the cap member 30 or 30' surrounding the continuous wall 14 or 14' of the receptacle 12 or 12' and the portion adjacent the open end 18 or 18' of the receptacle 12 or 12' extends into the space between the abutment means or ring 38 and the continuous wall 32 or 32' of the cap member 30 and engages the ring 38 or extends into the groove 50 and engages the inside wall portion 51 and the continuous wall 32' of the cap member 30'. With the cap member 30 thus mounted upon the receptacle 12, a manually-applied force is applied by an adult to the receptacle 12 and cap member 30 of sufficient magnitude to secure the receptacle and cap member together so as to resist or withstand release by application of a force applied by a child wearer of the protector.

What is claimed is:

1. A protector for a shoelace knot comprising a receptacle having a continuous wall closed at one end by a flat cover plate and open at the other end, there being a slot in the cover plate extending inwardly from the perimeter of said cover plate and past said continuous wall to a point beyond and adjacent the central area of said cover plate, said continuous wall being provided with an opening which extends therealong for a part of its length and which is in communication with said continuous wall of said receptacle, there being a receptacle having a continuous wall closed at one end by a flat cover plate and open at the other end, said cap member being disposed upon said receptacle so that said open end engages said flange, with said continuous wall of said cap member surrounding the continuous wall of said receptacle, and interengaging means between the portion adjacent the open end of said receptacle and the adjacent portion of the continuous wall of said cap member for securing the cap member and receptacle together, said interengaging means coacting with said flange, when the receptacle and cap member are moved into interengaged position, to cause the interengaging means to be interengaged to a degree such as to resist release upon application to the receptacle and cap member of a manually-applied force by a child wearer so that said cap member and receptacle may be released only upon application to the receptacle and cap member of a manually-applied force by an adult of a magnitude greater than that of being applied by a child wearer.

2. A protector for a shoelace knot comprising a receptacle having a continuous wall closed at one end by a flat cover plate and open at the other end, there being a slot in the cover plate extending inwardly from the perimeter of said cover plate and past said continuous wall to a point beyond and adjacent the central area of said cover plate, said continuous wall being provided with an opening which extends therealong for a part of its length and which is in communication with said slot, a flange extending about the perimeter of said cover plate, the slot in said cover plate also extending through said flange, a cap member having a continuous wall closed at one end by a flat cover plate and open at the other end, said cap member being disposed upon said receptacle so that said open end engages said flange, with said continuous wall of said cap member surrounding the continuous wall of said receptacle, and interengaging means between the portion adjacent the open end of said receptacle and the adjacent portion of the continuous wall of said cap member for securing the cap member and receptacle together, said interengaging means coacting with said flange, when the receptacle and cap member are moved into interengaged position, to cause the interengaging means to be interengaged to a degree such as to resist release upon application to the receptacle and cap member of a manually-applied force by a child wearer and to be released only upon application to the receptacle and cap member of a manually-applied force by an adult of a magnitude greater than that of being applied by a child wearer.

3. The protector according to claim 1, wherein said abutment means embodies a ring, and said interengaging means embodies interengaging threads formed on the portion adjacent the open end of said receptacle and the adjacent portion of the continuous wall of said cap member.

4. The protector according to claim 1, which includes in addition abutment means embodying a groove extending about the inner face of the cover plate of said cap
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member, said groove being inwardly of the continuous wall of said cap member, and wherein said interengaging means coacts with said groove and flange, when the receptacle and cap member are moved into engaged position, to cause the interengaging means to be interengaged to a degree such as to resist release, upon application to the receptacle and cap member of a manually-applied force by a child wearer.

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