

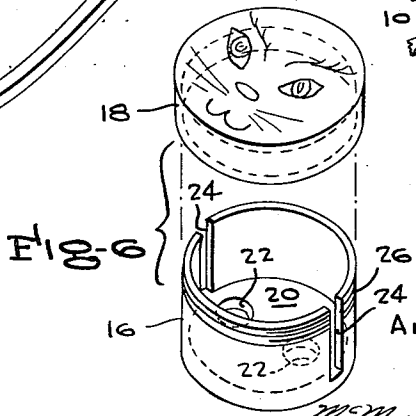
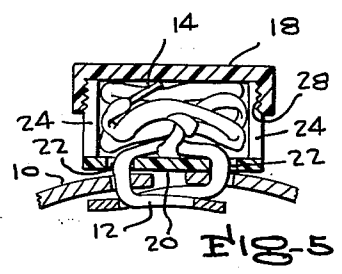
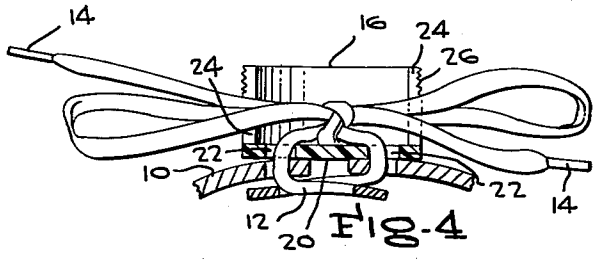
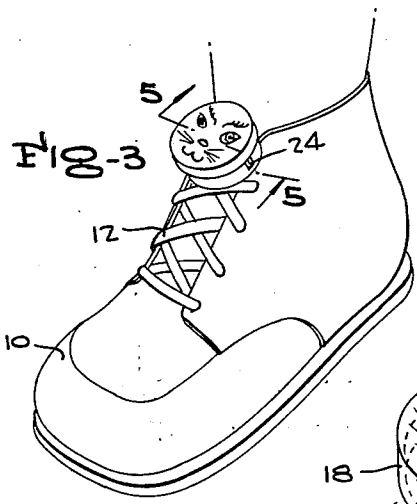
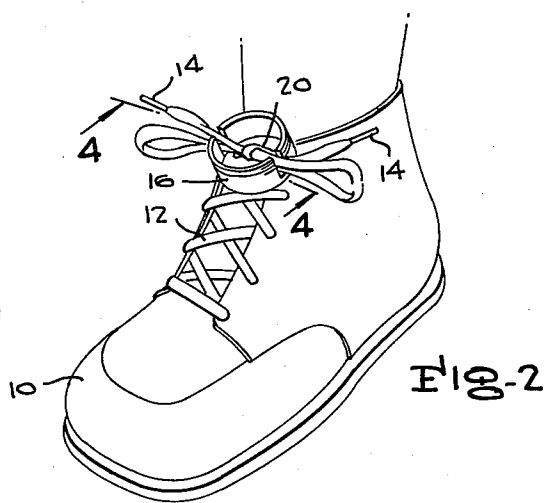
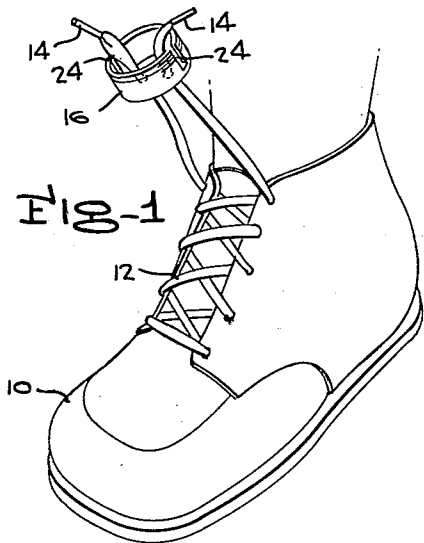
March 3, 1964

A. S. HAKIM

3,122,805

BOW KNOT FASTENER

Filed March 27, 1962



INVENTOR.

ALBERT S. HAKIM
BY

McMorrow, Bertram & Davidson
ATTORNEYS

1

3,122,805

BOW KNOT FASTENER

Albert S. Hakim, 326 De Siard, Monroe, La.

Filed Mar. 27, 1962, Ser. No. 182,734

1 Claim. (Cl. 24-119)

This invention relates to protective receptacles for shoe string knots, the purpose of which is to prevent accidental untying of bow knots, or deliberate untying thereof by small children.

The bow knot was invented in response to a need for a knot involving repeated use, which would provide reasonable security, yet be easily untied. While the bow knot achieves this end in reasonably satisfactory measure, it is at best a compromise, the security of the knot being somewhat less than perfect, and the knot being subject to easy conversion to a tight knot. For instance, the loop feature may be lost by entanglement of the loop with obstacles, and the knot may either be untied or rendered too tight, by manipulation of the fingers, especially in the case of very young children.

It is therefore a general object of the invention to provide protective means for a bow knot. More particularly, it is an object to provide a protective container for a knot, which is adapted to be mounted on a shoe string, followed by tying of the knot and stowing of the knotted portion of the string in the container.

A further object is to provide a protective container for knots, having structural features which avoid interference with the knot-tying operation. It is also among the objects to provide a device which completely isolates the knot, is decorative while unobtrusive, and which is easily utilized, simple in structure, low in cost, and easy of manufacture.

These and other objects, which will be readily apparent, are attained by the present invention, a preferred form of which is described in the following specification, as illustrated in the drawing, in which:

FIGURE 1 is a perspective view of a shoe, fully laced, and with the tipped ends of the lace threaded through openings in the bottom of the cup portion of the protective container,

FIGURE 2 is a view similar to FIGURE 1, showing the bow knot tied above the bottom of the container.

FIGURE 3 is a view similar to FIGURE 2, showing the cover in place on the container, after stowage of the bow knot within the container,

FIGURE 4 is a sectional view, enlarged, through the axis of the container, taken on the line 4-4 of FIGURE 2,

FIGURE 5 is view similar to FIGURE 4, taken on the line 5-5 of FIGURE 5, and

FIGURE 6 is an exploded view of the container and cover, shown in perspective.

Referring to the drawing by characters of reference, there is shown a child's shoe 10, secured by a lace 12, having tipped ends 14. The protective receptacle for the knotted ends of the lace comprises a receiving cup 16 and a mating cover 18 (FIGURE 6). Cup 16, which as shown has the form of a right circular cylinder, is open at the top, has a closed bottom 20, with a pair of circular openings 22, and its side wall is provided with a pair of diametrically opposite, longitudinally disposed slits 24, opening through the top edge of the wall, and extending

2

to bottom 20. The cap 18 telescopes over the side wall of cup 16, and the latter is provided with threads 26, which cooperate with mating internal threads 28 in the cap. In order to render the device decorative, as well as utilitarian, suitable designs may be imprinted thereon, preferably in a nursery motif, such as the stylized features of a kitten shown on the cover in FIGURES 3 and 6.

In use, the lace tips 14 are passed through openings 22 in the bottom of the cup 16, after lacing and prior to tying of the knot, and the cup is passed along the two parts of the string until it dwells on the instep portion of the shoe. Thereafter, the bow knot is tied, as shown in FIGURE 2, and during the tying operation the pair of slits 24 in the cup provide clearance for the lace ends so that the stages of knot tying involving the pulling in opposite directions, are accomplished in the normal manner, without interference by the cup. After the tying of the knot, the loops and free ends involved in the knot are gathered together and confined within the cup 16, after which the cover is screwed in place, in closing relation to the cup, completing the isolation of the knot. When screwed in place by an older person the assembly will be secure enough to resist separation by the infant. Other forms of attachment, such as a bayonet joint, for instance, may be used instead of screw threads.

Consistent with proper stowage of the bow knot and unobtrusiveness of the keeper, the latter is of relatively shallow construction, and in the particular embodiment shown, the ratio of the axial height of the cup to its radius is about equal to 1.0. For a thin-walled, cylindrical tube, this ratio is the same as what is known in Mechanics as the "slenderness ratio" and will be so referred to in the claim, for simplicity. Also, where the claim simply refers to the cup as "shallow" this is intended to refer to a device wherein the slenderness ratio is less than a maximum of about 1.0.

It will be seen that the foregoing provides a device which defeats both tightening and disengagement of a knot, whether due to accident, or by intention on the part of infants, yet responds readily to ministrations by older people, so that the main utilitarian aspects of the bow knot are preserved. At the same time, the protective device lends a decorative effect, which is in keeping with schemes of attire for the very young, and which furthermore affords stimulation and amusement to the wearer. If desired, a single opening in the bottom may be employed instead of the two openings 22, for introducing the lace ends.

The device may be conveniently fabricated, in mass production, from suitable plastic material, as by molding.

While a certain, preferred embodiment has been shown and described, various modifications will be apparent, in the light of this disclosure, and the invention should not, therefore, be deemed as limited, except insofar as shall appear from the spirit and scope of the appended claim.

I claim:

A protective receptacle for use in enclosing the knot of a shoe lace which includes lace ends, the receptacle comprising:

- (a) a receptacle cup of shallow, generally cylindrical, tubular form;
- (b) the cup having a bottom wall and a side wall having an outer edge;

3

- (c) the side wall being externally threaded adjacent said outer edge;
- (d) the cup having an internal volume sufficient to completely enclose the knotted ends of the shoe lace;
- (e) the bottom wall having a pair of spaced openings formed therein to permit the lace ends to be drawn therethrough prior to tying;
- (f) the side wall having spaced apart slots formed therein opening through the outer edge thereof to permit entrance of the lace ends therethrough during tying; and
- (g) closure means for the cup.

1,284,972

1,578,940

1,626,138

2,674,021

2,888,509

2,911,697

260,598

130,279

4

References Cited in the file of this patent

UNITED STATES PATENTS

Anthony ----- Nov. 19, 1918

Wacha ----- Mar. 30, 1926

Kohn ----- Apr. 26, 1927

Cataldi ----- Apr. 6, 1954

Ekvall et al. ----- May 26, 1959

Henderson ----- Nov. 10, 1959

FOREIGN PATENTS

Italy ----- Oct. 2, 1928

Great Britain ----- July 31, 1919