

Sept. 10, 1929.

N. DESSAUER

1,727,754

KNOT PROTECTOR

Filed March 20, 1928

Fig. 1.

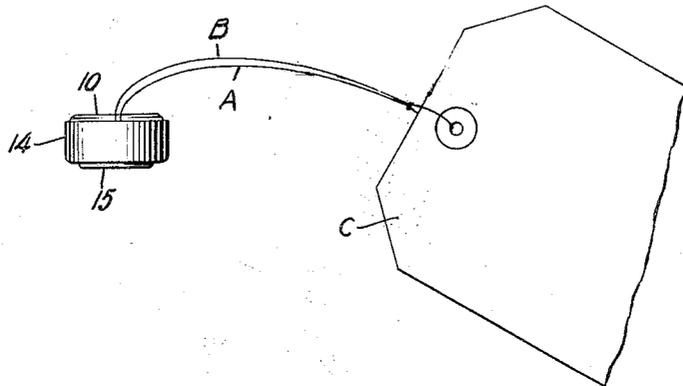


Fig. 2.

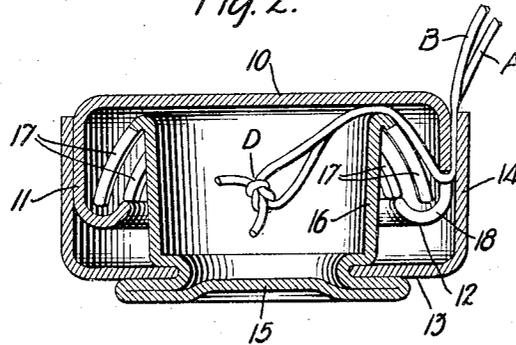
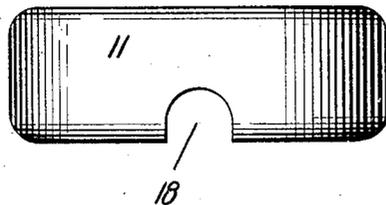


Fig. 3.



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KNOT PROTECTOR.

Application filed March 20, 1928. Serial No. 263,167.

This invention is an improvement in protecting devices adapted to prevent the untying of a knot. The invention is primarily intended for use where the knot merely serves to secure together two string ends rather than where the knot holds the strings taut around a package or container.

The main object of the invention is to design the cooperating parts of the protector so that they may be quickly and easily applied to the knot and permanently connected together with the knot inside and without the necessity for threading the string ends through apertures in either of the protector parts.

In its preferred embodiment the invention involves certain improvements over the construction illustrated and broadly claimed in the Baruch Patent 1,074,769, issued Oct. 7, 1913. In the form illustrated in said patent one of the two cooperating parts of the structure has a pair of apertures therein through which the two ends of the cord or wire are passed before said ends are secured together within the protector. The construction embodies two cylindrical telescoping walls which comparatively snugly fit one within the other, the outer of these walls being independent of the means which locks the two parts together. To place a knot within the chamber and lead the two strings from the knot over the free edge of the inner wall, thence between the spring fingers, thence around the free edge of the flange bearing wall, and thence outwardly between the two snugly fitting cylindrical walls is impractical and interferes with the closing together of the two parts, particularly if the strings engage the ends of the spring fingers. As the string lying between the two snugly fitting cylindrical walls offers a resistance to the closing of the two parts, the two parts will hold together for a time even though they are not pressed together sufficiently far to interlock. Thus an attempt to use the device in the manner referred to does not insure the interlocking engagement of the protector parts and in some cases prevents it.

I have discovered that by providing a notch or recess in the flange against which the

spring fingers seat, but not of sufficient depth to reach to the end wall of the corresponding part, the string ends may be laid in the notch and the two parts snapped together with ease and accuracy, and the string will be locked between the telescoping walls and the knot locked within the center chamber. As the string thus comes outside of the spring fingers and the portion of the shoulder with which said fingers engage, it does not in any way interfere with the interlocking engagement of the parts, but the string is clamped at two points as well as the knot being held in the inner chamber where it cannot be untied or tampered with.

In the accompanying drawings I have illustrated one embodiment only of my invention.

In these drawings:

Fig. 1 is a side elevation of the knot protector applied to the ends of a shipping tag, label, or the like;

Fig. 2 is a central longitudinal section through the protector; and

Fig. 3 is a side elevation at right angles to the plane of Fig. 2 and showing one only of the two members of the protector.

In the construction illustrated, the protector includes two parts which when telescoped will automatically interlock to form a chamber for the knot. One of these members has an end wall 10, a cylindrical peripheral wall 11, and an inwardly extending flange or shoulder 12 at the free edge of the peripheral wall. The other member is made up of two sections permanently connected together. One section has an end wall 13 and a cylindrical peripheral wall 14 adapted to receive and snugly fit the peripheral wall 11 of the first mentioned member. The other section has an end wall 15 projected through an aperture in the end wall 13 and flanged over to permanently connect the sections. It also has a cylindrical wall 16 adapted to project freely through the flange or shoulder 12 and from the free edge of this wall 16 there are provided a plurality of spring fingers 17 extending outwardly and backwardly toward the end wall 13.

Upon forcing the two sections together, the

spring fingers bend inwardly as they go past the flange 12, and then snap out to the positions shown in Fig. 2 so as to engage the inner side of the shoulder or flange 12 and prevent the separation of the two parts.

In carrying out my invention the shoulder or flange 12 is provided with a notch or recess 18 of such size that the two string ends may lie therein as shown in Fig. 2.

In applying the device, one of the two strings A, B from the tag, label or other device C, is passed through an aperture, for instance a button hole of a garment, and the two strings are tied together to form a knot D. The two strings at a short distance from the knot are laid in the notch 18, and the two parts of the protector are telescoped to the limiting position so that they interlock, as shown in Fig. 2. The two strings will thus extend from the knot around the free edge of the wall 16 between the latter and the end wall 10, thence outside of the spring fingers to the inner edge of the notch, and thence between the two snugly fitting telescoping cylindrical walls 11 and 14. These two walls will grip the strings so as to firmly hold them in position.

If any one attempts to liberate the knot by inserting a tool between the telescoping members to separate them, the tool will leave tell-tale evidence of the tampering, but in any event, the freeing of the strings between the two telescoping walls will not free the knot because the knot cannot pass between the edge of the wall 16 and the end wall 10, and any attempt to pull on the strings to force the knot through this space will cut the strings at the sharp edge of the metal at the inner edge of the notch. This might not be the case if the strings pass around the curved surface of the flange or shoulder 12 instead of at an acute angle around the sharp edge of the metal wall in which the notch is formed.

If either string be broken in attempting to release the knot the string cannot be reinserted, and even a brief inspection will show that the device has been tampered with.

The device may be applied at any time after the knot is tied, which is not the case if the strings must be threaded through apertures in the device before the knot is tied.

It will, of course, be understood that the device is shown in Figs. 2 and 3 on a greatly enlarged scale. In practice the device may be made as small as one-half inch in diameter or even less.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A knot protector including two members, each having an end wall, and a cylindrical peripheral wall, said peripheral walls being adapted to snugly fit one within the other and grip between said walls a pair of strings terminating in a knot within said protector,

said members having interengaging parts to permanently prevent separation of the members, said interengaging parts including an inwardly turned portion at the free edge of the cylindrical wall of the inner member and means on the other member to snap over said inwardly turned portion and the free edge of the inner cylindrical wall having a recess in which the strings may lie out of the path of movement of said interengaging parts as the parts are moved toward engaged position.

2. A knot protector including a pair of members, one having an end wall, a cylindrical peripheral wall, and an inwardly extending flange at the free edge of said peripheral wall, said flange having a notch therein, and the other member including an end wall, and a pair of spaced cylindrical concentric walls, one adapted to snugly fit the exterior of the first mentioned wall and entirely conceal said notch, and the other adapted to extend through and past said flange and having spring fingers for engaging with the inner surface of said flange, whereby the strings from a knot within said protector will be clamped between said first mentioned end wall and said last mentioned cylindrical wall and will be gripped between the juxtaposed parallel surfaces of said snugly fitting cylindrical walls, and the notch being of sufficient depth so that the string is out of the path of the spring fingers when the members are assembled.

Signed at N. Y. in the county of N. Y. and State of N. Y. this 17th day of March, A. D. 1928.

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