Nov. 2, 1926. 1,605,638

S. BARUCH

SEAL AND KNOT PROTECTOR

Filed April 26, 1926

Fig. 1.

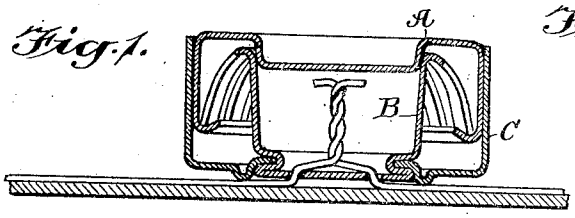


Fig. 6.

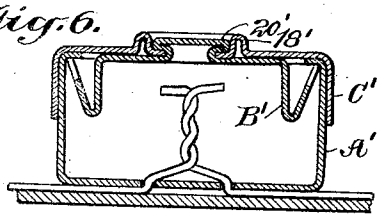


Fig. 2.

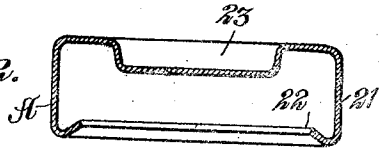


Fig. 7.

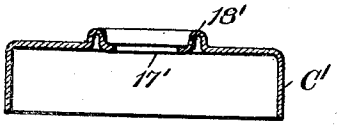


Fig. 3.

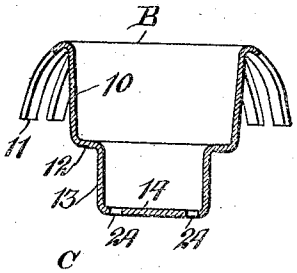


Fig. 8.

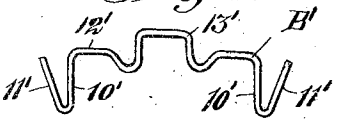


Fig. 4.

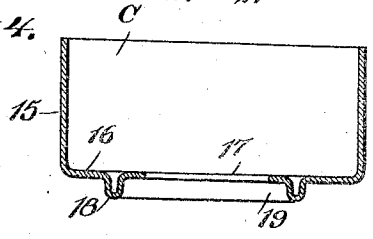


Fig. 9.

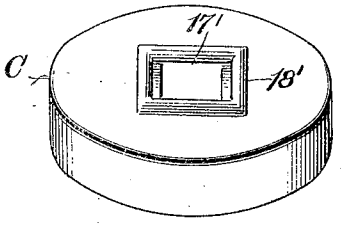


Fig. 5.

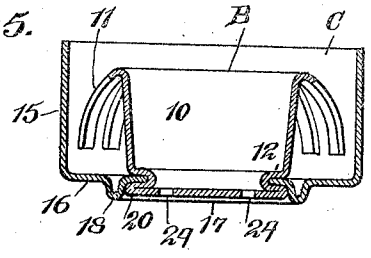
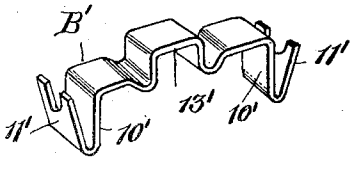


Fig. 10.



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UNITED STATES PATENT OFFICE.

SAMUEL BARUCH, OF NEW YORK, N. Y.

SEAL AND KNOT PROTECTOR.

Application filed April 26, 1926. Serial No. 104,626.

This invention is an improvement in the type of seal and knot protectors shown and more broadly claimed in my prior Patent 1,074,769, issued October 7th, 1913. In the construction illustrated in said patent, as well as that illustrated in the present application, the device is formed of three parts, two of which cooperate to form a chamber for the knot or other connected ends of the string or wire. These two members are so designed that when brought into engagement they interlock, and separation is prevented. The third member is permanently secured to one of the other two members, and forms a guard to prevent anyone from inserting a tool between the two main members to pry them apart or disengage the interlocking parts.

The main object of my invention is to provide connecting means whereby the separation of the guard member from the main member to which it is connected, cannot be effected, at least without leaving telltale evidence of the fact that the seal has been tampered with.

In connecting the members, I provide the guard with a bead or flange on its end wall, which encircles or defines a countersunk chamber or space within which the end of the chamber member is forced in connecting the parts. This bead serves to prevent anyone from inserting a tool beneath the bent over part of the chamber member.

Although I have illustrated my invention as applied to the specific type of construction illustrated in my prior patent, it will be evident that it may be applied to other constructions, as indicated by the other form illustrated in the accompanying drawings.

In these drawings:

Fig. 1. is a central longitudinal section through a seal or knot protector constructed in accordance with my invention, and showing in section a portion of a package wall

Fig. 2 is a similar view of the outer of the two telescoping casing parts.

Fig. 3 is a similar view of the inner of the two casing parts before attachment to the guard member.

Fig. 4 is a similar section of the guard member.

Fig. 5 is a section of the inner casing member and guard member connected together.

Fig. 6 is a view similar to Fig. 1, but showing a modified form.

Fig. 7 is a section of the guard member shown in Fig. 6.

Fig. 8 is a side elevation of the inner of the two interlocking members shown in Fig. 6.

Fig. 9 is a perspective view of the part shown in Fig. 7, and

Fig. 10 is a perspective view of the part shown in Fig. 8.

In the construction illustrated in Figs. 1 to 5 inclusive there are provided two main sections A and B and a guard section C. The guard section is permanently attached to the casing section B in such a manner that the separation of the two cannot be effected without marring or injuring one or the other of the two members. The casing member B has a peripheral wall 10 provided with an outwardly and backwardly turned flange which is preferably subdivided into resilient fingers 11. At the opposite end of the wall 10 there is a shoulder 12, a cylindrical portion 13 of reduced diameter, and an end wall 14. The guard section has a peripheral wall 15 of somewhat larger diameter than the member B, and an end wall 16. The end wall 16 has an aperture 17 of substantially the same size as the cylindrical portion 13 of the member B, and encircling said member, but spaced therefrom is an outwardly extending bead 18. This bead in cooperation with the inner edge portion encircling the aperture 17, forms a counter-sunk chamber or recess 19. The parts B and C are assembled as shown in Fig. 5. The cylindrical portion 13 is projected through the aperture 17 until the end wall 16 engages the shoulder 12. Upon using the proper tool or die, and the required pressure, the cylindrical portion 13 of the member B is expanded radially and collapsed axially so as to form a bead 20 which cooperates with the shoulder 12 to grip the inner edge portion of the end wall 16. This bead 20 comes within but very closely adjacent to the bead 18, and preferably slightly below the outermost portion of the latter. After the two parts are once assembled as shown in Fig. 5, they cannot be separated except by prying up the bead 20, but in order to do so it is necessary to insert a tool between the

bead 18 and the bead 20. Upon applying pressure to such tool to raise the bead 20, the tool will act instead to press down the bead 18, due to the fact that this bead is more easily bent or deformed than the closed folded double-thickness bead 20.

The parts are thus connected together in such a manner that they cannot be separated without mutilating the bead 18. If this be mutilated there is no way in which it can be restored to original form by the use of any ordinary tools, and thus it will show that the seal has been tampered with.

The construction shown in Fig. 5 is used in connection with the part A shown in Fig. 2. This part has a peripheral wall 21, an inturned flange 22, and an end wall 23. The parts are so designed that upon forcing the member B into the member A, the fingers 11 will snap past the flange 22 and prevent separation of the parts, while the guard member 15 will closely telescope with the peripheral wall 21 of the member A. One or the other of the two end walls 14 and 23 is provided with apertures 24 through which the ends of the cord or wire to be sealed may be extended so that these ends may be tied, twisted, or otherwise connected together within the chamber formed by the members A and B.

In the construction shown in Figs. 6 to 10 inclusive the same connecting means is employed between the guard and the inner member. The guard member C′ shown in Fig. 7 is substantially the same as the guard member C shown in Fig. 4. Likewise, the outer casing member A′ may be substantially the same as the casing member A shown in Fig. 2. That is, it has a peripheral wall, an end wall, and an inturned flange. The inner of the two interlocking members as shown in Figs. 8 and 10, includes a sheet metal strap B′ having terminal portions 11′ constituting spring fingers, portions 10′ which correspond to the peripheral wall 10, and transverse portions 12′ extending to a centrally disposed loop or bowed portion 13′. The guard member C′ has a rectangular aperture 17′, encircling which is a bead 18′.

In connecting the parts B′ and C′, the part 13′ is projected through the aperture 17′ and is crushed down and expanded to form a bead 20′ below and within the bead 18′, as shown in Fig. 6. It will be noted that in the form shown in Fig. 6 the apertures for the cord or wire are in the outer casing member A′, whereas in the form shown in Fig. 1, they are in the inner casing member B.

Various other forms may be designed within the scope of my invention as defined in the appended claims.

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

1. A seal and knot protector including two telescoping members, the outer member having a peripheral wall and an inturned flange, and the inner member having a plurality of spring fingers adapted to interengage with said flange to prevent separation of said members, and an annular guard member having a peripheral wall and an end wall, said end wall having an aperture therethrough and a bead encircling said aperture but spaced therefrom, said inner member having a portion extending through said aperture and engaging with the outer surface of said end wall within the portion encircled by said bead.

2. A seal and knot protector including a pair of members, one having an end wall provided with an aperture and a bead encircling said aperture but spaced therefrom, and the other having a portion projecting through said aperture and engaging with the outer surface of the wall closely adjacent to but within said bead, and a third member adapted to cooperate with one of said first mentioned members and interlock therewith to form a knot protecting chamber.

3. A seal or knot protector comprising two telescoping members each having an end wall and a peripheral wall integral therewith, interengaging portions on said members for preventing their separation, and a separate section on said inner member at its closed end for preventing the insertion of an instrument lengthwise between said members, said separate section having an aperture therein through which the other section of said inner member extends, said inner section having a bead compressed into engagement with the outer surface of the end wall of said separate section, and said separate section having a bead encircling said first mentioned bead and closely adjacent thereto.

4. A seal or knot protector including a pair of telescoping members each having a peripheral wall and an end wall, the end wall of one of said members having an aperture therethrough, and a locking member attached to said last mentioned member and including a strap having a portion extending through said aperture and pressed against the outer surface of the end wall adjacent to the aperture, and having terminal portions for yielding engagement with the other of said first mentioned members.

Signed at New York in the county of New York and State of New York this 23rd day of April A. D. 1926.

SAMUEL BARUCH.