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G. LICHTENSTEIN, NOW BY JUDICIAL CHANGE OF NAME G. LANE

EJECTOR FOR TOBACCO CONTAINERS AND THE LIKE

Filed July 26, 1940

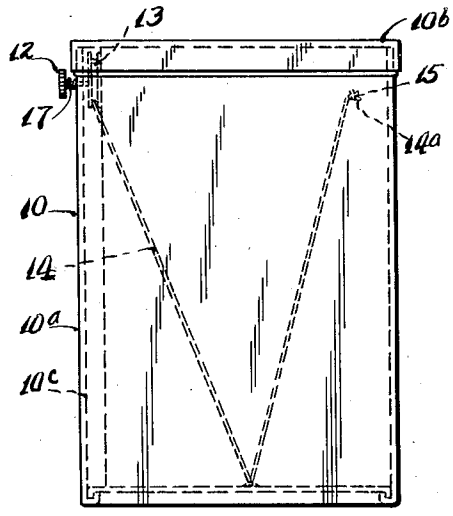


Fig. 1.

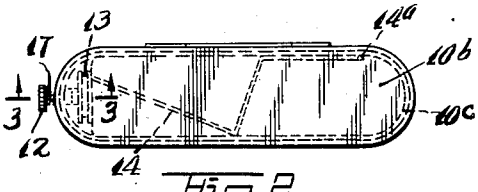


Fig. 2.

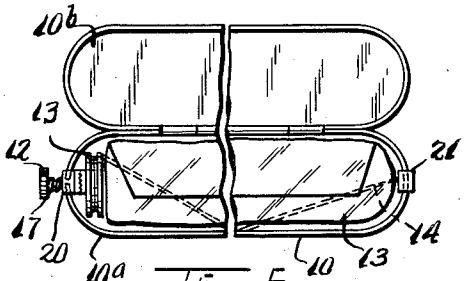


Fig. 5.

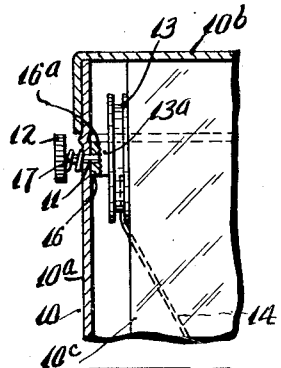


Fig. 3.

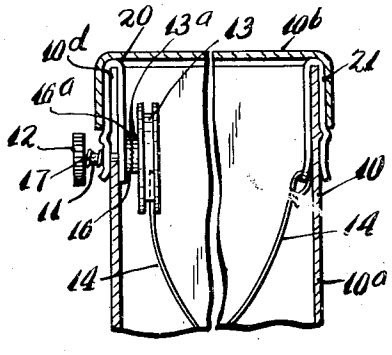


Fig. 4.

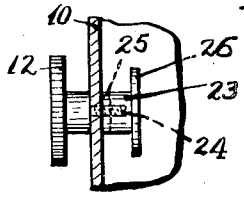


Fig. 6.

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EJECTOR FOR TOBACCO CONTAINERS AND THE LIKE

George Lichtenstein, New York, N. Y., now by judicial change of name George Lane

Application July 26, 1940, Serial No. 347,664

5 Claims. (Cl. 206—41.1)

This invention relates to new and useful improvements in an ejector for tobacco and the like containers.

The invention proposes an ejector as mentioned, which is capable of being used in combination with a tobacco tin having a tobacco package therein, or other types of tins or containers having packages therein.

The invention proposes to characterize the ejector by a string which is extended down between one side of the package of the tin, and beneath the package, and up between the other side of said package and tin, and having its ends arranged in a certain way so that the string may be drawn to force the package upwards out of the top of the tin or container.

More specifically, the invention proposes to secure one end of the string to a top portion of the tin. It is also contemplated to secure the other end upon a drum which is mounted on a spindle extended to the exterior and provided with knob by which the spindle and drum may be turned for winding up the string.

Still further the invention proposes to so construct the ejector, that it may be used as an attachment capable of being mounted upon standard tobacco tins and other containers.

Still further, the invention proposes the construction of an ejector as mentioned which is simple and durable, and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a front elevational view of a tobacco tin with an ejector constructed in accordance with this invention.

Fig. 2 is a plan view of Fig. 1.

Fig. 3 is a fragmentary enlarged vertical sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a fragmentary enlarged vertical sectional view of a tin provided with an ejector constructed in accordance with a modified form of this invention.

Fig. 5 is a plan view of the tin and the ejector shown in Fig. 4, but illustrated with the cover of the tin in an open position.

Fig. 6 is a fragmentary vertical sectional view of another form of the invention.

The ejector for tobacco, and the like, tins, in accordance with this invention, is used in combination with a standard tobacco tin 10 having the usual tin body 10a and the hingedly mounted top cover 10b. The usual package of tobacco 10c is disposed within the body 10a. This package 10c includes the usual paper package. While the ejector will be described as applied to a tobacco tin, it should be borne in mind that it can just as well be used with other similar merchandise.

The ejector includes a spindle 11 which is mounted through the top portion of one side of the tin body 10a. A knob 12 is mounted on the outer end of the spindle 11 by which it may be turned. A drum 13 is mounted on the inner end of the spindle 11.

A string 14 has one end attached to the drum 13 and is adapted to be wound thereon, and extends down between one side of the tobacco package 10c and the tin body 10a, and continues beneath the central portion of the package 10c, as illustrated in Fig. 1, and then continues up between the other side of the package 10c and the tin body 10a to a point 14a. This point is located at the top portion of the tin body 10a. The string 14 is secured at this point to the tin body by a holding staple 15 or other fastening element, or other holding arrangement.

There is means for releasably holding the spindle 12 non-rotatively. This arrangement serves to hold the package 10c in various extended positions as will be hereinafter more fully described. This means includes a stationary disc 16 coaxially mounted about the spindle 11 and fixedly secured to the side wall of the tin body 10a. This disc 16 has a roughened outer face 16a which engages with a roughened face on a hub portion 13a of the drum 13. A spring 17 is coaxially mounted on the spindle 11 and acts between the knob 12 and the tin body 10a for urging the spindle 11 outwards. This action engages the rough faces of the hub 13a and the disc 16. Thus the drum 13 is held against rotation.

The article is used in the following way:—The cover 10b of the tin is opened. Then the knob 12 is pressed in slightly to disengage the roughened surfaces of the disc 16 and the hub 13a. The knob 12 is now turned so as to wind up some of the string 14. When the string is thus wound up it will lift the tobacco package 10c upwards out of the container. The package 10c is projected but a small distance and then the top of the package is opened in the usual way and the tobacco is taken out as required.

The tobacco package 10c may be reengaged into the tin body 10a by pressing the knob 12

inwards to disengage the roughened surfaces of the disc 16 and hub 13a and then the knob 12 is turned so as to let out some of the wound string 14. The package 10c then can be moved downwards into the tin. The cover 10b may then be closed.

In Figs. 4 and 5 a modified form of the invention has been disclosed which distinguishes from the prior form in the fact that the ejector has been constructed in the nature of an attachment which may be mounted upon a conventional tobacco tin and which may then be used to project the tobacco package from the tin, as desired. In accordance with this form of the invention, the ejector is used in combination with the tin 10 having the body portion 10a, the hinged cover 10b, and the tobacco package 10c. The tin body 10a is formed with a cut or opening 10d extended inwards from its top edge at one side. This cut 10d may be formed with a pair of scissors, or shears, or other cutting implement. The ejector includes a clip 20 which is engaged on the top edge of the tin body 10a over the cut or opening 10d. A spindle 11 is rotatively supported on the clip 20 and extends through the opening 10d. This spindle 11 supports the knob 12, the drum 13, and the spring 17, as previously described. The clip 20 comprises merely a strip of metallic spring material which is bent into the shape of an inverted U. The spindle 11 is rotatively mounted through the lower parts of the arms thereof.

The drum 13 is provided with the string 14 which is adapted to extend beneath the tobacco package 10c as previously explained. However, the remote end of the string 14 is attached to a clip 21 which is releasably mounted on the top of the tin body 10a. This clip 21 is also constructed from a strip of spring material bent into the shape of an inverted U. The arms thereof are adapted to engage over the inner and outer faces of the tin body 10a. The string 14 is attached to the inner arm of this clip.

In other respects this form of the invention is identical to the previous form, and identical parts may be recognized by the same reference numerals.

The operation of this form of the invention is as follows:

The ejector is placed on the tobacco tin by mounting the clips 20 and 21 on the top edge of the tin. Before the clip 20 may be placed on the tin body, it is necessary that the cut or opening 10d be formed in the tin body. The ejector is now ready to function and works in a manner identical to that previously described. When all of the tobacco has been consumed, the ejector is removed merely by slipping the clips 20 and 21 off of the tin body. The ejector may now be placed on a new package of tobacco.

In Fig. 6, the knob 12 is connected to the winding pulley 23 by a threaded stem 24 projecting from the knob member 12. The string is secured to the pulley 23 through a slot 25. The pulley is provided with a flange 26 to keep the wound string on the pulley.

While the ejector has been described specifically as it applied to a package of tobacco, it should be clearly understood that it may be used on other similar types of packages.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed, and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. In combination with a tobacco tin or the like container having a package therein, a spindle mounted through the top portion of one side of said tin, a roughened stationary portion formed on the inside of said tin and encircling said spindle, a knob for turning said spindle mounted on the outer end thereof, a drum mounted on the inner end of said spindle, and a string wound on said drum and extending down between one side of said package and tin and beneath said package and up between the other side of said package and tin, having its extended end secured to the top portion of said tin, and means for releasably holding said spindle non-rotatively, comprising a roughened portion on said drum engaging the roughened stationary portion of said tin.

2. In combination with a tobacco tin or the like container having a package therein, a spindle mounted through the top portion of one side of said tin, a roughened stationary portion formed on the inside of said tin and encircling said spindle, a knob for turning said spindle mounted on the outer end thereof, a drum mounted on the inner end of said spindle, and a string wound on said drum and extending down between one side of said package and tin and beneath said package and up between the other side of said package and tin, having its extended end secured to the top portion of said tin, and means for releasably holding said spindle non-rotatively, comprising a roughened portion on said drum engaging the roughened stationary portion of said tin, and resilient means for urging said roughened portions together.

3. In combination with a tobacco tin or the like container having an opening extended inwards from its top edge at one side and also having a package therein, a clip engaged on the top edge of said tin over said opening, a spindle mounted on said clip and extending through said opening, a knob for turning said spindle mounted on the outer end thereof, a drum mounted on the inner end of said spindle, a string wound on said drum and extending down between one side of said package and tin, and beneath said package, and up between the other side of said package and tin, and having its extended end secured in the top portion of said tin with a clip which is attached on said string and releasably mounted on the top of said tin.

4. In combination with a tobacco tin or the like container having a package therein, a string having one end secured to the top portion of said tin at one side thereof and its free end extended down between one side of said package and said tin beneath said package in intimate contact therewith and up between the other side of said package and said tin, a spindle mounted through the top portion of said tin on the side opposed to the side to which said string is attached, a knob for turning said spindle mounted on the outer end thereof, a drum mounted on the inner end of said spindle and having the free end of said string attached thereto causing said string to be wound thereon to raise said package as said spindle is turned, a stationary roughened portion formed on said container and encircling the inner end of said spindle, and a

complementary roughened portion formed on the adjacent face of said drum and engageable with said roughened portion for holding said spindle against turning.

5. In combination with a tobacco tin or the like container having a package therein, a string having one end secured to the top portion of said tin at one side thereof and its free end extended down between one side of said package and said tin beneath said package in intimate contact therewith and up between the other side of said package and said tin, a spindle mounted through the top portion of said tin on the side opposed to the side to which said string is attached, a knob for turning said spindle mounted on the outer end thereof, a drum mounted on the inner end of said spindle and having the free end of said string attached thereto causing said string to be wound thereon to raise said package as said spindle is turned, a stationary roughened portion formed on said container and encircling the inner end of said spindle, and a complementary roughened portion formed on the adjacent face of said drum and engageable with said roughened portion for holding said spindle against turning, and an expansion spring coaxially mounted on the outer end of said spindle and operating between the adjacent faces of said container and said knob for urging said spindle into a position in which said roughened portions will be engaged.

GEORGE LICHTENSTEIN.