No. 631,078. Patented Aug. 15, 1899.

F. KING.

MEANS FOR EXTRACTING ARTICLES FROM THEIR BOXES, CANS, OR OTHER CONTAINERS.

(Application filed Jan. 10, 1899.)

(No Model.)

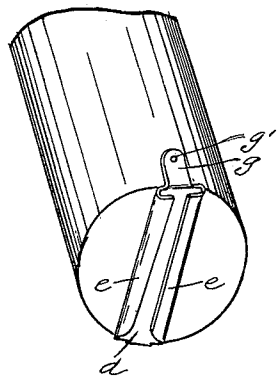


Fig. 3.

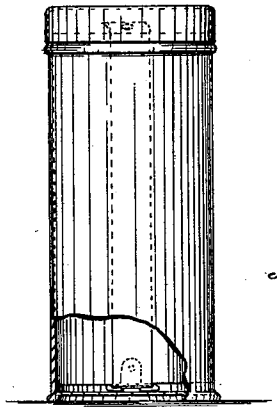


Fig. 4.

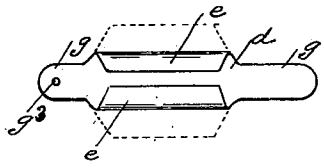


Fig. 8.

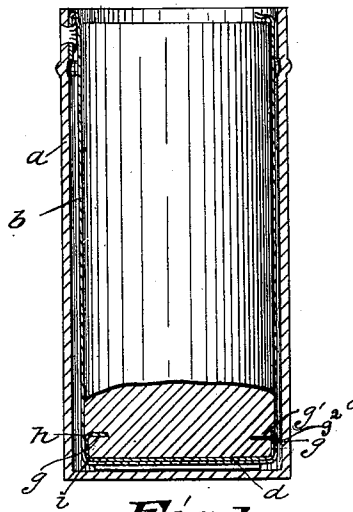


Fig. 1.

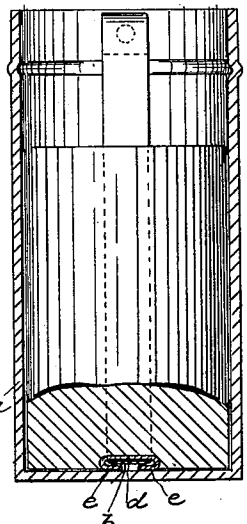


Fig. 2.

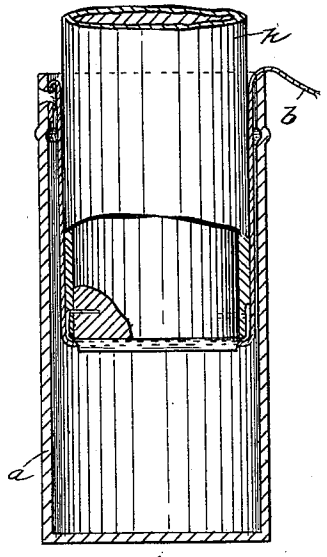


Fig. 6.

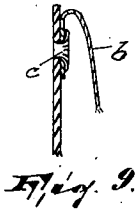


Fig. 9.

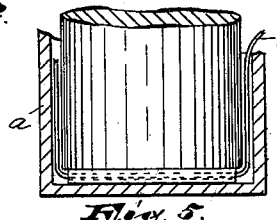


Fig. 5.

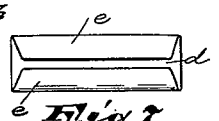


Fig. 7.

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UNITED STATES PATENT OFFICE.

FERDINAND KING, OF NEW YORK, N. Y., ASSIGNOR TO THE REX MINERAL SPRING COMPANY, OF SAME PLACE.

MEANS FOR EXTRACTING ARTICLES FROM THEIR BOXES, CANS, OR OTHER CONTAINERS.

SPECIFICATION forming part of Letters Patent No. 631,078, dated August 15, 1899.

Application filed January 10, 1899. Serial No. 701,707. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND KING, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Means for Extracting Articles from their Boxes, Cans, or other Containers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the packaging of articles of manufacture; and it has reference particularly to devices comprehended under this art wherein the container for the article consists of a box, can, or other receptacle of similar character.

The object of the invention is to provide simple, efficient, and practically inexpensive means for extracting the article, either entirely or partially, from its containing receptacle.

The invention consists in the combination of a receptacle and means for extracting from the same, either partially or entirely, the article contained thereby.

I have fully illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a vertical sectional view of a box or can provided with my improved extracting means for the article, said article being shown partially in elevation and partially in section. Fig. 2 is a view similar to Fig. 1 with the exception that the sections are taken in a plane substantially at right angles to the plane of the sections in Fig. 1. Fig. 3 is a view of the article, showing the same in perspective and provided with a certain device constituting a guide employed in connection with the extracting means. Fig. 4 is a view in side elevation of the container or receptacle, the article inclosed therein, and the extracting means for the latter, a portion of the receptacle being broken away to show said article and the extracting means. Fig. 5 is a view of the lower portion of a receptacle, the article contained therein, and the extracting means, illustrating a slight modification of my invention. Fig. 6 is a view similar to Fig. 1, but showing the article inclosed in a wrapper or permanent covering and also showing the package which said article and its wrapper constitutes in a slightly-elevated or partly-extracted position relatively to the receptacle. Fig. 7 is a view in elevation of the device which is employed as a guide in connection with my extracting means. Fig. 8 is a view in elevation of a modified form of this device; and Fig. 9 is a sectional view of the upper portion of the receptacle and the extracting means, showing the manner in which the latter is secured to the former.

In the practical application of my invention I propose to secure near the mouth and preferably on the inside of a box, can, or other similar receptacle *a* a strap or band *b*, of flexible material, which is passed down the inside of the receptacle, under the article contained therein, and up along the inside of said receptacle at a point substantially opposite to the point of securing said band, the free end of the latter projecting above the article for an appreciable distance. The band is preferably secured at the point above mentioned by means of an eyelet *c*, which, if the box be of tin, may be an integral part of said box, being formed by punching the same inwardly and turning back the edges of the aperture thus formed. It is preferred to bend the end of the band back upon itself, so that its end will be toward the bottom of the receptacle, substantially as shown in Fig. 9.

It will be manifest that if the free end of the band above described is drawn upon the article will be elevated or withdrawn from its container or receptacle. It will also be manifest that having withdrawn the article to the desired extent it may be maintained in that position by simply pressing the band against the outside of the container, (as in clasping the latter in the hand,) thus preventing the weight of the article from effecting a reverse movement of the band.

It will be obvious that where the article has a substantially circular or other rounded shape in cross-section some means for guiding the band, and thus preventing its lateral displacement, should be provided.

I have shown in the accompanying drawings a guiding means which consists of an elongated plate d, having overlapping flaps e projecting from its side edges.

If desired or necessary, owing to the shape of the container, the guide may be secured to the bottom of the article, and this I propose to accomplish by providing the plate d of the guide with an ear g, projecting from each of its ends, one of said ears being provided with a spur or pin g', which when the ears are bent upwardly at right angles to the plate projects into the article. It is preferable that the spur or pin be removable, and for this purpose it is provided with a head or enlargement g^2 and projects through an aperture g^3 in the ear of the plate. The ear which is free of the spur is bent at right angles midway its length, as at h, and also at right angles to the plate d, as at i, and projects into the article. In this case the article should be of a solid material, such as a cake or stick of soap, into which the ear may be readily inserted and wherein it will have a firm hold. If desired, both the ears may be provided with the spur or pin; but the construction I have described is the preferable and most practical one.

It may be desirable to provide the article with a permanent covering, as k, formed of several thicknesses of paper or in any other desired manner or of any other suitable material, and in this case the guide is secured thereto substantially in the manner already described in connection with an article having no wrapper. It is not absolutely essential in every adaptation of this guide that it be secured to the bottom of the article, for if said article approximates in shape the inside shape of the container and the guide is so disposed between the bottoms of the article and the container that it extends across the latter at its widest part, being sufficiently long for the purpose, its lateral displacement from beneath the article will be prevented by virtue of the fact that its ends will engage the walls of the container.

As shown in Fig. 2, the guide, whether with or without the ears, may be set into a transverse recess formed in the bottom of the article.

Although I have hereinbefore referred to guiding means which consist of an entirely separate and distinct element, I do not propose to be limited to that extent, for it is obvious that a transverse recess may be formed in the bottom of the article or of a package comprising the same to answer the intended purpose.

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

1. The combination of a box, can or other similar receptacle and an article contained thereby, a flexible band extending beneath said article, having one of its ends secured to the receptacle near the mouth thereof, and having the other of its ends projecting freely above the article, and a guide for said band disposed between the bottom portion of said article and the receptacle and operatively engaging one of them, substantially as described.

2. The combination of a box, can or other similar receptacle and an article contained thereby, a flexible band extending beneath said article and having one of its ends secured to the receptacle near its mouth and the other of its ends projecting freely above the article, and a guide for said band disposed between the bottoms of said article and the receptacle and consisting of a plate having overlapping flaps, and an upturned ear situated at each of its ends, one of said ears being rebent and engaging the article and the other of said ears being provided with a spur or pin also engaging said article, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of December, 1898.

FERDINAND KING.

Witnesses:
WM. S. JONES,
PERCY C. WALTON.