

Dec. 27, 1938.

K. E. PRINDLE

2,141,252

PACKAGE

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Fig. 1.

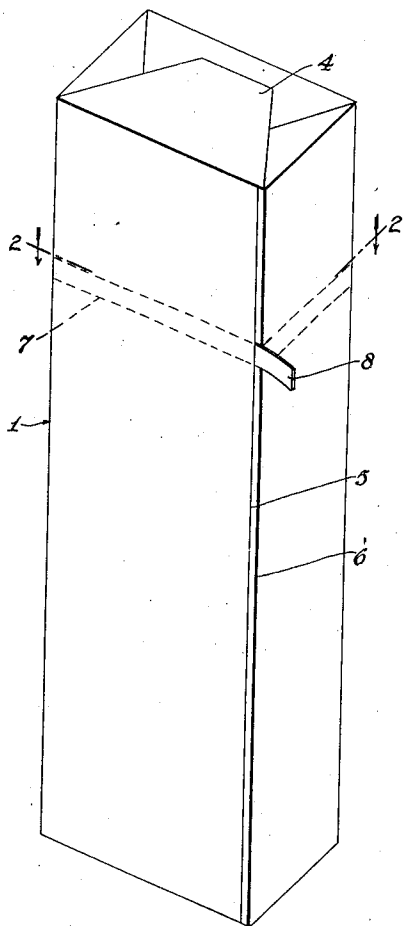


Fig. 2.

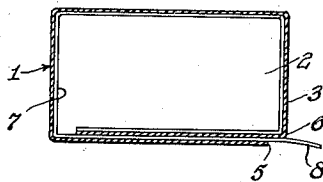
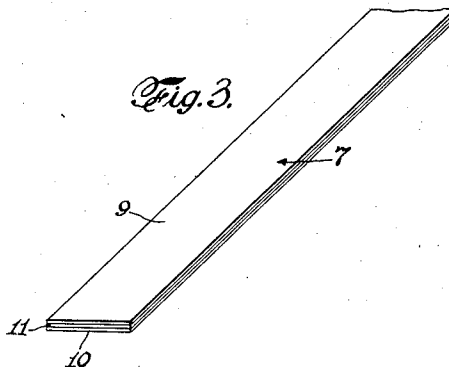


Fig. 3.



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PACKAGE

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5 Claims. (Cl. 229—51)

This invention relates to packages, and particularly to wrapped packages having means associated with the wrapper, whereby the wrapper may be manually removed expeditiously and with great facility and ease.

Today, numerous products are wrapped in moistureproof regenerated cellulose sheeting sold under the trade name "Cellophane" in order to retain said materials in their original fresh state. To secure this objective, it is necessary to seal the wrapper. Due to the nature of the moistureproof regenerated cellulose, the opening or the removal of the sealed wrapper to permit access to the contents of the package is somewhat difficult. Very often it becomes necessary to use some auxiliary device, such as for example, a knife to sever the sealed wrapper. Such a manner of removing the wrapper to obtain access to the contents of the package is inconvenient and highly undesirable.

Recently, there has been devised a package wrapped in moistureproof regenerated cellulose sheeting and provided with means purporting to permit easy severance and removal of the wrapper. This means comprises a rip-string formed of a narrow strip of regenerated cellulose. It is disposed intermediate the wrapper and the contents and has one end thereof projecting through the longitudinal seam of the wrapper on the package to constitute a pull-tab. To remove the wrapper, the pull-tab is pulled rearwardly. Because cut edges of regenerated cellulose are relatively sharp, it is intended that the edge of the rip-string will cut or sever the wrapper.

The aforementioned rip-string very often failed in use. Instead of the edge of the rip-string severing the wrapper, the edge of the wrapper material at the longitudinal seam severed the rip-string, with the consequence that the intended function of the rip-string was not obtained. Also, very often the rip-string was broken prior to use due to the formation of a crack therein.

I have found that I can overcome the above-mentioned disadvantages and defects by providing a rip-strip constructed in the manner hereinafter fully described and which, due to details of construction thereof, will not fail in its intended function.

It is therefore an object of this invention to provide a wrapped package having associated therewith means whereby the wrapper may be severed or removed expeditiously and with great facility and ease to permit access to the contents.

Another object of this invention is to provide a wrapped package having a rip-strip which, by

virtue of its construction, will not fail in its desired function.

Other and additional objects of this invention will become apparent from the following description, appended claims and accompanying drawing, wherein

Figure 1 is a perspective view of a package embodying the principles of this invention;

Figure 2 is a section taken on the lines 2—2 of Figure 1; and

Figure 3 is an enlarged exaggerated perspective view of an illustrative embodiment of a rip-strip constructed in accordance with the principles of this invention.

Referring now to the drawing wherein like reference numerals designate like parts, the reference numeral 1 designates a wrapped package, containing the principles of this invention, and comprising a package 2 containing the desired contents (not shown) and a wrapper 3 therearound being formed of moistureproof regenerated cellulose, such as moistureproof "Cellophane". The wrapper 3 may be wrapped around the package 2 in any well-known manner. In the form shown, the wrapper 3 consists of end folds 4 and a lapped seam 5, the latter preferably being adjacent to the edge 6 of the package. The end folds 4, and, preferably although not necessarily, the seam 5 are securely and tightly sealed. As shown in the drawing, at least the upper ply of the seam 5 has a continuous straight edge. Between the package 2 and the wrapper 3 there is provided a rip-strip 7, which is preferably of a length so that it will at least completely encompass the package 2, having one end 8 thereof passing between the plies constituting the longitudinal seam in the wrapper and projecting therefrom to constitute a pull-tab.

The construction of the rip-strip 7 is one of the essential features of this invention. Broadly, it is formed of a laminated material which is strong and rugged and in which the plies or laminae are coextensive. In one form of the invention, the superposed laminae 9 and 10 are formed of relatively narrow strips of transparent moistureproof regenerated cellulose adhesively secured together through the medium of an adhesive 11. In another embodiment of the invention, the superposed laminae 9 and 10 are formed of relatively narrow strips of transparent cellulose acetate. In still another embodiment of the invention, the lamina 9 is formed of a relatively narrow strip of transparent moistureproof regenerated cellulose and the lamina 10 is formed

of a relatively narrow strip of transparent cellulose acetate, or vice-versa.

Though the rip-strip 7 may be made of any desired width, I have found that satisfactory results are secured if it is of a width between $\frac{1}{8}$ and $\frac{1}{2}$ of an inch or more, and, preferably, $\frac{3}{8}$ of an inch.

In many cases it is desired to make the rip-strip 7 so that it will become apparent at even a mere casual glance. With this in view, I prefer to have the rip-strip 7 stand out prominently as by making it of an appropriate and attractive color. Though various means may be used for producing the colored rip-strip, I prefer to color the same by employing an appropriately colored adhesive which secures the laminae 9 and 10 together. Due to the transparency of the laminae 9 and 10, the colored adhesive will impart its color to the product. By this manner of producing a colored rip-strip, I obtain a colored product which is substantially permanent, does not change its shade, and does not in any way come in contact with the package.

The adhesive 11 employed for securing the laminae 9 and 10 together is of a type which, when set, is capable of bending without cracking and capable of forming a firm bond between said laminae.

As illustrative examples of adhesives which have given satisfactory results may be mentioned the following:

1. A plastic resin (natural or synthetic) of the requisite degree of tackiness;

2. A resin (natural or synthetic) and a plasticizer; and

3. A resin (natural or synthetic), a plasticizer and a cellulose derivative, such as nitrocellulose, cellulose acetate, cellulose ethers, etc.

If desired, in each of the foregoing examples a small quantity of an appropriate volatile solvent may be included.

To produce the colored adhesive, an appropriate pigment is incorporated in the selected adhesive composition. Hereafter are set forth several illustrative pigments which will produce the named color:

Pigment	Color
Titanium oxide.....	White.
Lead chromate.....	Yellow.
Chromic oxide.....	Green.
Bronze powder.....	Gold.
Aluminum powder.....	Silver.

The quantity of pigment employed is sufficient to impart the desired opacity and color to the adhesive. Usually, I have found that the desired opacity and color are secured when the pigment constitutes from 10% to 40% of the other ingredients constituting the adhesive composition.

Though the preferred embodiment contemplates the use of a colored adhesive to produce the colored strip, the latter can be secured by using appropriately dyed or pigment-colored laminae. In this embodiment, the adhesive may be colored or not as desired.

When a transparent uncolored rip-strip is desired, this is secured by using uncolored transparent materials for the plies and an uncolored adhesive of the type previously mentioned.

To produce the rip-strip 7, sheets of the materials to constitute the laminae 9 and 10 are adhesively secured together by means of a thin layer of the selected adhesive in any well-known manner. After the sheets have been laminated,

the laminated material is cut into strips of the appropriate width and length.

In the production of the rip-strip 7 when moistureproof regenerated cellulose is to constitute one or both plies, that variety which is from .001 to .0015 inch in thickness is preferably used. When cellulose acetate is to constitute one or both plies, that variety which is .0088 to .0120 inch in thickness is preferably used. The total thickness of the strip is therefore the sum of the thicknesses of the plies used plus approximately 10% thereof (the thickness of the adhesive).

The rip-strip 7, due to its thickness as above described, makes the tab 8 capable of being very easily gripped by the fingers. To open the wrapper 3, the tab 8 is pulled rearwardly. The longitudinal edges of the strip 7 cut or sever the material of the wrapper 3. Due to the laminated structure, the longitudinal edge of the rip-strip 7 is very strong and rugged and will not fail in its function. Because the longitudinal edge is stronger than the material constituting the wrapper, the course of least resistance will be followed and the wrapper severed. Also, in the event one of the lamina becomes broken, nevertheless, the other lamina would still be able to function. Still further, if for any reason whatsoever one of the laminae of the rip-strip 7 should fail, nevertheless the other lamina would still be able to function.

The rip-strip 7 may be disposed at any place intermediate the top and bottom of the package. Usually, it is positioned adjacent the top of the package. The sealing of the seam 5 will serve to anchor the strip 7 in place. If this is insufficient, then the end of the strip beneath the wrapper may be anchored to the wrapper or the package, as may be desired, by an appropriate adhesive, preferably a pressure-sensitive adhesive, applied to a small area adjacent said end whereby the strip is anchored by the application of pressure.

It is also to be understood that the rip-strip 7 need not wholly encompass the package 2. It may extend over only a portion of the perimeter thereof if desired.

The package 2 is deliberately hereindescribed very broadly. It may comprise a container formed of any material or it may be an already paper or otherwise wrapped package, or it may be the contents of the final package itself.

In the preferred form of the invention, the wrapper 3 is described as formed of moistureproof regenerated cellulose. It is to be understood that the invention is not restricted to such a wrapper and that it can be used with other wrappers, such as those formed of non-fibrous substances, such as cellulose acetate, cellulose ethers, regenerated cellulose, rubber hydrochloride, etc.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature or spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. A package having a sealed wrapper formed of a transparent non-fibrous material, said wrapper having a lapped seam in which at least the upper ply has a continuous straight edge, and a pull-strip associated therewith whereby the wrapper may be severed to permit access to the contents of said package, said pull-strip having a portion thereof projecting beyond said seam to constitute a pull-tab and comprising a relatively narrow laminated material in which each

of the laminae is formed of a narrow strip of a non-fibrous material, said laminae being adhesively secured together at the juxtaposed adjacent surfaces thereof, the longitudinal edges of said pull-strip severing the wrapper when said pull-strip is pulled rearwardly.

2. A package having a sealed wrapper formed of a transparent non-fibrous material, said wrapper having a lapped seam in which at least the upper ply has a continuous straight edge, and a pull-strip associated therewith whereby the wrapper may be severed to permit access to the contents of said package, said pull-strip having a portion thereof projecting beyond said seam to constitute a pull-tab and comprising a relatively narrow laminated material in which each of the laminae is formed of a narrow strip of a normally transparent non-fibrous material, said laminae being adhesively secured together at the juxtaposed adjacent surfaces thereof by a colored adhesive, the longitudinal edges of said pull-strip severing the wrapper when said pull-strip is pulled rearwardly.

3. A package having a sealed wrapper formed of a transparent non-fibrous material, said wrapper having a lapped seam in which at least the upper ply has a continuous straight edge, and a pull-strip associated therewith whereby the wrapper may be severed to permit access to the contents of said package, said pull-strip having a portion thereof projecting beyond said seam to constitute a pull-tab and comprising a relatively narrow laminated material in which each of the laminae is coextensive with the other and formed of a narrow strip of a normally transparent non-fibrous material, said laminae being adhesively secured together at the juxtaposed adjacent surfaces thereof by a colored adhesive, the longitudinal edges of said pull-strip severing the wrapper when said pull-strip is pulled rearwardly.

4. A package having a sealed wrapper formed of a transparent non-fibrous material, said wrapper having a lapped seam in which at least the upper ply has a continuous straight edge, and a pull-strip associated therewith whereby the wrapper may be severed to permit access to the contents of said package, said pull-strip having a portion thereof projecting beyond said seam to constitute a pull-tab and comprising a relatively narrow laminated material in which each of the laminae is formed of a narrow strip of a normally transparent non-fibrous material, at least one of said laminae being formed of cellulose acetate, said laminae being adhesively secured together at the juxtaposed adjacent surfaces thereof by a colored adhesive, the longitudinal edges of said pull-strip severing the wrapper when said pull-strip is pulled rearwardly.

5. A package having a sealed wrapper formed of a transparent non-fibrous material, said wrapper having a lapped seam in which at least the upper ply has a continuous straight edge, and a pull-strip associated therewith whereby the wrapper may be severed to permit access to the contents of said package, said pull-strip having a portion thereof projecting beyond said seam to constitute a pull-tab and comprising a relatively narrow laminated material in which each of the laminae is formed of a narrow strip of a normally transparent non-fibrous material, at least one of said laminae being formed of regenerated cellulose, said laminae being adhesively secured together at the juxtaposed adjacent surfaces thereof by a colored adhesive, the longitudinal edges of said pull-strip severing the wrapper when said pull-strip is pulled rearwardly.

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