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E. W. HUBER

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SELF-DESTROYING PRESSURE SENSITIVE LABEL

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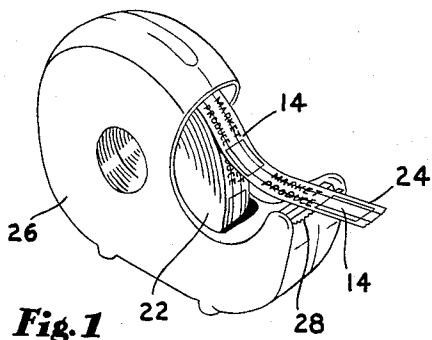


Fig. 1

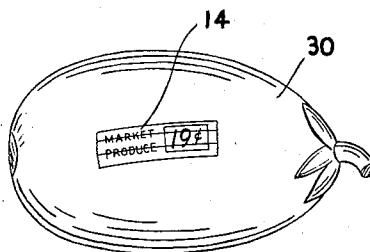


Fig. 2

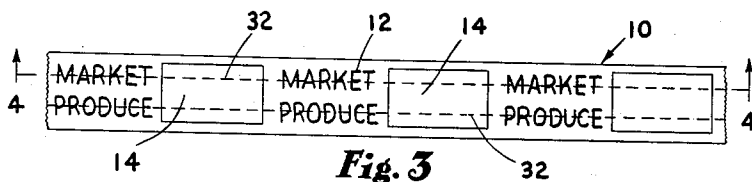


Fig. 3

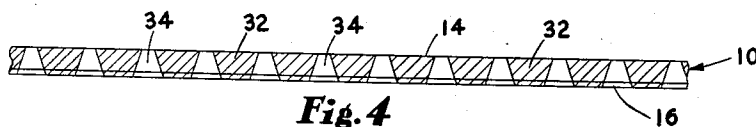


Fig. 4

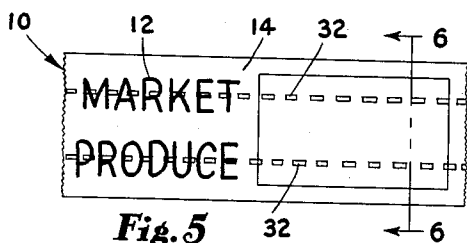


Fig. 5

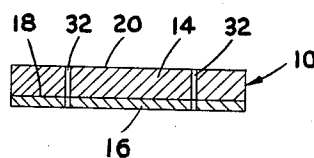


Fig. 6

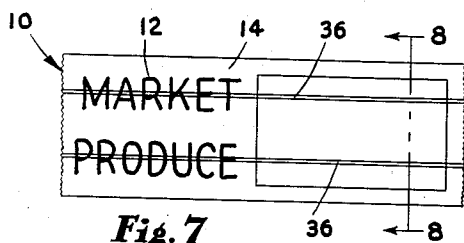


Fig. 7

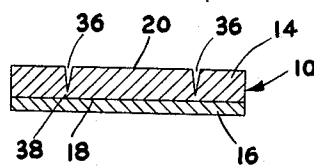


Fig. 8

INVENTOR.

ERWIN W. HUBER

BY

A. Hermsdorf
ATTORNEY

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SELF-DESTROYING PRESSURE SENSITIVE LABEL

Erwin W. Huber, Towson, Md., assignor to Topflight Corporation, a corporation of Pennsylvania

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3 Claims. (Cl. 40—2)

This invention relates to improvements in a self-destroying label and, more particularly, to a self-destroying label having pressure sensitive adhesive on one surface thereof to permit ready attachment of the label to an article to be labeled thereby.

It is common practice at present to provide various kinds of labels arranged in strip form, the strip being coiled upon itself and mounted in a dispenser. One surface of the label strip is provided with pressure sensitive adhesive material. The dispenser is provided with severing means, whereby a single label may be pulled, for example, beyond the severing means and then quickly separated from the coil of labels by said severing means.

The label strip may be formed from various types of material such as paper, synthetic resin film, cloth, and metal foil. The pressure sensitive adhesive coating on one surface of said material adheres more firmly to said material than to the opposite surface, whereby tapes of this type readily may be coiled and permit uncoiling of the outer end of the strip from the coil of tape. Such an arrangement is satisfactory when the label strip is of such material and texture that it has sufficient body to permit such uncoiling without tearing the label strip while being uncoiled. However, certain types of material, for example various types of laminated paper, do not have sufficient strength to permit satisfactory uncoiling of a strip of such material to which a pressure sensitive adhesive has been applied to one surface. Under such circumstances, it is common practice to apply a protective strip to cover the pressure sensitive adhesive on one surface of the labels or strip so as lightly to adhere to the adhesive, yet permit separation of the pressure sensitive label from the protective strip without harm to the label, for example. Such protective strips comprise a number of different types of material such as cloth having starch filler or otherwise which readily separates from the adhesive, varnished paper, and the like. The provision of such a protective strip however adds expense to the product and also requires the additional step of removing the protective strip from the pressure sensitive side of the label tape, for example, before the label may be applied to an article.

Pressure sensitive labels are used extensively at present for many purposes, particularly where the labels are to more or less be permanently applied to an article such as containers, books, tools, and many other items. The use of such labels recently has been introduced into the super-markets and comprises ready means of applying the price to vegetables and other types of produce sold by such markets, particularly where it is otherwise difficult to label the article with the price. Conventional pressure sensitive labels used for purposes of applying the price to vegetable produce however only semi-permanently affixes the labels to the produce, whereby they rather readily may be peeled from the produce such as eggplants, watermelons, avocados, and the like.

Under circumstances where eggplants might be labeled fifteen cents and avocados, in the next vegetable compart-

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ment in the market, are labeled twenty-nine cents, super-market operators have found that shoppers will peel a label from a lower priced item and apply it to a higher priced item, removing the label of the higher priced item, whereby at the checking counter, the substitution of labels may not be detected unless the checking clerk has in mind the various prices of the items. The checking of purchased items usually is done quickly and a deception therefore readily may be worked upon the checking clerk by such a substitution as described above.

It is the principal object of the present invention to provide a pressure sensitive label readily applicable to items of various kinds and particularly garden produce items, the label being of such nature that it easily may be uncoiled from a roll of such labels when originally applying the label to an article, yet when an attempt is made to remove such label from the article, said label will be damaged or disintegrated to a sufficient extent that the condition of the label, if removed from one article and applied to another, readily and visibly will serve to indicate that the label has been tampered with and thereby call the condition to the attention of the checking clerk for example.

Another object of the invention is to provide a self-destroying pressure sensitive label of the type referred to above, which preferably comprises only a strip of label material to which pressure sensitive adhesive has been applied to one surface, the strength of the label being sufficient to permit uncoiling of the same from a coil thereof without requiring a backing strip to protect the adhesive, yet after the label has been applied to an article or any surface to which it will adhere, intact removal of the label from said surface is not readily possible without damaging the label to a certain extent sufficient to indicate that tampering with the label has taken place.

Still another object of the invention is to provide a strip of pressure sensitive labels with weakening means so designed and arranged that one or more labels may be peeled from a coil thereof mounted in a container for example without damaging the labels, yet said weakening means will be effective to cause separation of certain parts of the labels from other parts thereof when an attempt is made to peelably remove the label from a surface to which it has been affixed after removal from the dispenser.

Details of the foregoing objects and of the invention, as well as other objects thereof, are set forth in the following specification and illustrated in the drawing comprise a part thereof.

In the drawing:

Fig. 1 is a perspective view of an exemplary dispenser containing a coiled roll of pressure sensitive labels embodying the principles of the present invention.

Fig. 2 is a side elevation of an article of market produce to which a label embodying the principles of the present invention has been applied in exemplary manner.

Fig. 3 is a top plan view of a strip of pressure sensitive labels arranged in end-to-end relationship and embodying one example of weakening means in accordance with the principles of the present invention.

Fig. 4 is a longitudinal sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a view similar to Fig. 3 but illustrating a single label such as one which has been severed from a coil thereof and shown on a larger scale than in Fig. 3 to illustrate in greater detail the weakening means of the embodiments shown in Fig. 3.

Fig. 6 is a transverse sectional view of the label shown in Fig. 5 and taken on the line 6—6 of the latter figure.

Fig. 7 is a plan view similar to Fig. 5 but illustrating another embodiment of weakening means applied to said label in accordance with the principles of the invention.

Fig. 8 is a transverse sectional view of the label shown in Fig. 7 as seen on the line 8—8 of said figure.

In accordance with the present invention, sheet-like material of any suitable type is used to form a strip 10 upon one surface of which printing 12 is applied to represent any suitable type of marking so as to comprise a label 14. The sheet material 10 may be paper, suitable synthetic resin, textile fabric of the woven or unwoven type, metal foil, or the like. Under circumstances where the label has a space or other area upon which writing is to be applied such as by a marking pencil, it is preferable of course that the writing surface be capable of having a mark applied thereto. Even a shiny surface such as is present on metal foil readily is capable of receiving printing inks of various kinds in accordance with existing practice at present, and such material also is capable of having markings applied thereto even by certain kinds of writing instruments including pencils, or by rubber or similar stamping heads.

The sheet material 10 also preferably, in accordance with the preferred embodiment of the invention, has sufficient strength that a layer of suitable thickness of pressure sensitive adhesive 16 may be applied thereto so as to adhere more firmly to the surface 18 than to the top surface 20, whereby a coil 22 of a strip arrangement of labels may be formed and the outermost end 24 may be pulled longitudinally from the coil 22, as when the coil is mounted in a dispenser 26, without causing damage to the individual labels 14 for example. The outermost layer as viewed in Fig. 1 readily may be severed from the remaining coil by suitable severing means such as a knife 28 fixed to the dispenser, in accordance with customary practice.

By using strip material 10 of suitable strength as described above so as to permit ready uncoiling of the outermost end of a strip of labels from the coil, there is no need to provide a protective or backing strip, for example, to the pressure sensitive surface of the labels, thereby saving the expense of such protective strip, as well as eliminating the need to separate the protective strip from the pressure sensitive label prior to applying the label to an article. Under certain circumstances, it is customary that the strip material 10, prior to having the adhesive layer 16 applied thereto may be treated in such manner that the surface 20 of the strip is more or less resistant to the adhesive 16, while the surface 18 is rendered highly receptive to the adhesive, in accordance with conventional practice. Such conditions on these surfaces are produced by priming materials and these details, per se, do not comprise part of the present invention.

The principal purpose of the present invention is to provide either individual labels 14, or a strip arranged in end-to-end relationship, with weakening means which preferably will not interfere with peelably separating the endmost label for example from the coil 22, yet after one or more of such labels have been applied to any article such as an item of produce 30, comprising an eggplant for exemplary purposes only, the label 14 is only semi-permanently affixed to the article 30 and, when an attempt is made to remove the label from such article especially for purposes of applying it to a higher priced item, for example, certain portions of the label will be separated from other portions thereof, whereby the label no longer is intact. If such non-intact label is applied to another article, the disarrangement of the label will call attention to a checking clerk for example that tampering has taken place relative to the label.

The labels 14 and particularly a strip of such labels may be weakened by a number of different means so as to render them incapable of readily being removed intact from an article to which they have been applied. One such embodiment of weakening means is illustrated in the embodiment shown in Figs. 3 through 6. This em-

bodiment comprises the forming of rows of incisions or perforations 32, preferably arranged longitudinally of the labels and strip thereof. Such incisions may be formed in a strip of the labels for example prior to the same being printed, or after printing the same. In the trade, perforations of this type are known as a skip-split. The length of each perforated incision, and the intact strip material between successive perforations will depend largely upon the type of material, the thickness thereof, the adhesive strength of layer 16, and the number of rows of such perforations will depend upon the width of the strip 10. The uncut material of the strip 10 between adjacent ends of the perforated incisions will serve as tie bars 34 such as shown in somewhat exaggerated manner in Fig. 4. Such tie bars prevent the ready separation of adjacent ribbons of the strip 10 on opposite sides of the rows of perforated incisions 32. Inasmuch as the rows of perforations 32 are disposed longitudinally of a strip of such labels however, it will be seen that the tie bars 34 will be ample to retain the labels intact while being withdrawn longitudinally from the coil or roll 22 as the labels are fed from the dispenser 26.

A typical example of skip-split pattern of perforated incisions in a relatively light weight paper tape may comprise a slit one-quarter inch long, with a skip of one thirty second inch between each slit in the row of perforations 32. Hence, the tie bars 34 under these circumstances will be one thirty second inch long to connect the ribbons of the strip 10 on opposite sides of said rows of perforations. In a relatively narrow tape up to one-half inch wide, a single row of perforations substantially midway between the opposite edges of the tape will be sufficient to render said tape self-destroying in accordance with the invention. Possibly in a tape one-half inch wide though, it may be found to be more practical to provide a pair of spaced rows 32 of perforations similar to that illustrated in Figs. 3 and 5. In tapes of greater widths than one-half inch, the number of rows of perforations should be in proportion to the width of the tape to render the tape suitably self-destroying.

Another embodiment of the invention is illustrated in Figs. 7 and 8, wherein, rather than use a skip-split pattern of incisions in the strip 10, substantially continuous partial incisions 36 may be formed so as to extend inward from the top surface 20 of the label 14 but terminate short of the surface 18 to which the adhesive 16 is applied, as shown best in Fig. 8. Under such circumstances, the uncut remaining portion 38 will comprise tying means between the ribbons of the strip 10 between the continuous partial incisions 36. Such arrangement will serve similarly to the tie bars 34 in the embodiment of Figs. 3 through 6 to hold the strip 10 and individual labels 14 intact so that they may be removed from the coil 22 by being pulled longitudinally from the dispenser 26, yet when attempted removal of the labels in intact condition from an article to which they have been affixed is made, the uncut portion 38 of the strip or labels is too weak to permit the individual ribbons of the label strip from remaining intact, whereby the label will be destroyed or at least substantially mutilated during such attempted removal.

Although the weakening means illustrated in the drawings and described herein by way of specific examples comprise either interrupted rows of incisions or substantially continuous partial incisions, it is to be understood that other types of weakening means may be provided in the labels 14 or strips 10 thereof so as to render the labels capable of being self-destroyed when removal thereof from an article to which they have been affixed is attempted. Hence, these specific examples are not to be regarded as comprising all types of weakening means contemplated within the purview of the present invention, but rather are to be considered as exemplary. Any

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other type of suitable weakening means is to be regarded as being within the contemplation of the invention as long as the same permits ready removal of one or more labels for example from a coiled strip thereof, yet renders the label mutilated when removal thereof from an article to which it has been affixed is attempted.

I claim:

1. A strip of self-destroying labels of the pressure sensitive type comprising a series of sheet type labels having pressure sensitive adhesive on one surface thereof operable to secure said labels to an article, said adhesive having greater adherence to said surface to which it is applied than to the opposite surface of said labels, whereby said strip of labels may be coiled for peelable separation of the outermost layer of labels from said coil thereof to maintain said labels and adhesive in protected condition, said labels being formed with longitudinal weakening means between the outer edges thereof, whereby when removal of one of said labels from an article to

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which it is applied is attempted said weakening means causes certain portions of said label to be separated from other portions so as to afford destruction of said label.

2. The self-destroying label according to claim 1 in which said weakening means comprises at least one row of perforations intermediate of and substantially parallel to opposite side edges of said label.

3. The self-destroying label according to claim 1 in which said weakening means comprises at least one substantially continuous cut incompletely severing said label.

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