

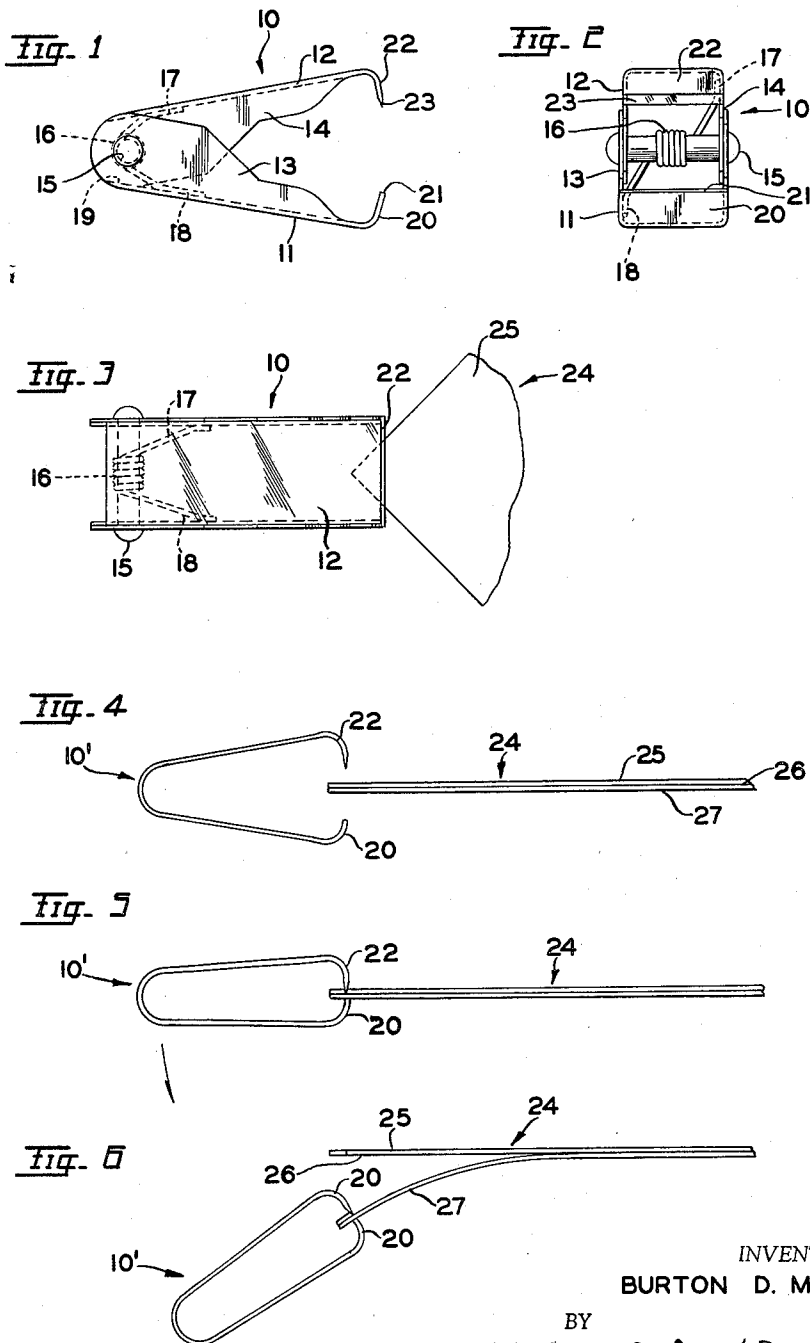
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HANDLING OF SELF-ADHERING LABELS AND THE LIKE

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3,044,923 HANDLING OF SELF-ADHERING LABELS AND THE LIKE

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The present improvements, relating as indicated to self-adhering labels and the like, are more particularly concerned with method and means for stripping or peeling therefrom the temporary backings with which the same are provided.

As is well known, these labels are produced and distributed in laminate form, with the labels proper having normally tacky adhesive coatings on their mounting faces and protective sheets or strips of disposable material overlying such coatings and being thus temporarily adhered to the labels. Each such label is of course separated from its backing for application to the surface on which it is to be displayed, and it is a primary object of my invention to make this operation extremely easy and rapid.

In present production of self-adhering labels of any appreciable size, the most common expedient used to facilitate backing removal is to cut each backing along an intermediate transverse line or to provide otherwise two separate sections of the same. When the label is then folded outwardly along the line of backing interruption between such sections, the edges of the latter lift so that they may be grasped for peeling by hand. The provision of such a "split back" is necessarily an incident of the original manufacture and so carried out at the present time that the label lacks adhesive along the line of the split, which is generally central. Moreover, two manual actions are obviously required for complete label separation.

A different approach also used consists of providing the label with an extension of the backing sheet along a margin, but again this involves special facility in the production, and the later removal of the backing by hand is here still potentially difficult and requires careful attention on the part of the user.

My invention makes it possible for a user easily and efficiently to peel a continuous, coextensive backing from a self-adhering label by means of an inexpensive and conveniently used hand tool, thereby to eliminate the necessity for such special manufacturing techniques as have been discussed above. With further regard to the common "split back" feature, the invention does not have to tolerate any discontinuities in the adhesive coating and, moreover, the label is completely peeled in a single motion, as compared to the two manual actions required by such prior expedient.

Other objects and advantages of the present invention will become apparent as the following description proceeds.

To the accomplishment of the foregoing and related ends, the invention, then comprises the features herein-after fully described and particularly pointed out in the claim, the following description and annexed drawing setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawing:

FIG. 1 is an elevational view of a hand-operated stripping tool in accordance with the present invention;

FIG. 2 is an end view, looking from the right in FIG. 1, of such tool;

FIG. 3 is a top plan view of the tool in association with a self-adhering label as supplied, the latter being shown fragmented; and

FIGS. 4, 5 and 6 illustrate the manner in which the backing is peeled from the label, the several such views showing successive stages in the operation with the stripping tool in each in simplified form.

Referring now more particularly to the drawing, the tool shown in full detail in FIGS. 1 to 3, and designated generally by reference numeral 10, is of a size to fit conveniently in the hand of a user and comprises two pivotally interconnected arms or sections 11 and 12 capable of being moved relatively by finger pressure. In this illustrated embodiment, the pivot is located adjacent one end of the assembly and the arms are biased so that their free ends are normally spaced apart, with the user closing his hand about the device to bring such free ends together.

Both such arms are of channel shape over the major extents of the same, but the lower arm 11 is of slightly greater width than the upper arm 12 to the extent that the sides or flanges 13 of the former are just outboard of the sides 14 of the latter when the two arms are brought together in the assembly with their respective sides extending inwardly. The two arms are interconnected in such assembled relation by a pivot pin 15 extending transversely through the several sides of the arms adjacent their outer or rear ends, the upper arm in effect being nested partially within the lower arm. A biasing spring 16 is wrapped about the pin 15 with its ends 17 and 18 respectively brought outwardly and forwardly against the inner surfaces of the two arms, whereby the latter are normally urged apart. To limit this movement, the sides of the upper arm adjacent the thus connected end are flattened, as shown at 19, or otherwise formed to bear against the inner surface of the lower arm and thereby act as a stop in the maximum open condition desired.

The free end of the lower arm is flattened and bent upwardly to form a bottom jaw 20 which, it is important to note, has a flat top edge or active surface 21. The free end of the upper arm is similarly shaped into a top jaw 22, but the outermost edge 23 thereof is sharpened as shown to serve as a cutter for a purpose to be described hereinbelow. These jaws are of course located with respect to one another and to the axis of the pivot so that their respective edges 21 and 23 come into contact when the arms are pressed together.

In FIGS. 3-6, reference numeral 24 designates a fragment of a conventional self-adhering label in the usual laminate form of supply, with the components shown in the latter figures of substantially increased thickness for convenience. The legend or design bearing label is thus indicated at 25 and the same carries the coating 26 of normally tacky adhesive on its bottom face. Adhered to such face is the temporary backing sheet 27, which is usually made of vegetable parchment, glassine or the like and thus heavier or stronger than the label paper.

To best illustrate the new manner in which such backing is peeled from the label, a series of successive stages have been shown in FIGS. 4-6, but since it is obviously unnecessary to repeat the detailed structure of the hand tool, the latter has been represented therein simply as a bent leaf 10' having the jaws 20 and 22 as aforesaid.

With the label 24 now grasped in one hand and the tool in the other, a corner of the label is inserted between the jaws in the manner illustrated in FIG. 3 and also in FIG. 4. The tool is then actuated to bring such jaws together to the condition shown in FIG. 5, wherein the cutting edge 23 has cut through the label 25, but not through the backing sheet 27. As indicated earlier, the latter is fairly difficult to cut and there is actually a snapping noise when the label paper is severed, so that with the normal pressure exerted it is not only difficult to cut completely through the backing as well but the user can tell when the label paper has been cut.

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With such closing pressure maintained on the tool, the same is moved downwardly or away in the direction indicated by the arrow in FIG. 5, so that the backing strip 27 is peeled from the label 25 in the manner shown in FIG. 6. It is clear then that the small corner of the label is severed and the backing sheet grasped simultaneously by the tool, with the latter manipulated relatively to strip the backing completely in a single motion.

The herein-described peeling action will accordingly be seen to be positive and quick, and the only caution needed is the very slight attention given to proper positioning of the tool on the label. With further regard to such tool, it will be obvious that a wide variety of implement designs could be utilized, the significant characteristics being the relatively movable cutting edge and opposed support surface and the suitability thereof for use by hand.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in the following claim or the equivalent of such be employed.

I, therefore, particularly point out and distinctly claim as my invention:

In the handling of a self-adhering label, comprising a sheet of material having an adhesive coating and a temporary backing thereon, the method of removing such

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backing which comprises by partially cutting the composite article with a hand tool to the extent that the sheet is severed and the backing therebeneath gripped by the tool in the same operation, such cutting and gripping occurring on a line which extends from one edge of the article to another, relatively manipulating such tool, with the backing gripped thereby, to free a portion of the sheet adjacent such line, grasping such freed portion of the sheet, and peeling the backing completely from the sheet by further relative movement of the tool, the latter throughout being the agency whereby the backing is manipulated.

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