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[54] **ARTICLE-HOLDING TABS FOR PEEL-OPEN PACKAGES**
1 Claim, 14 Drawing Figs.

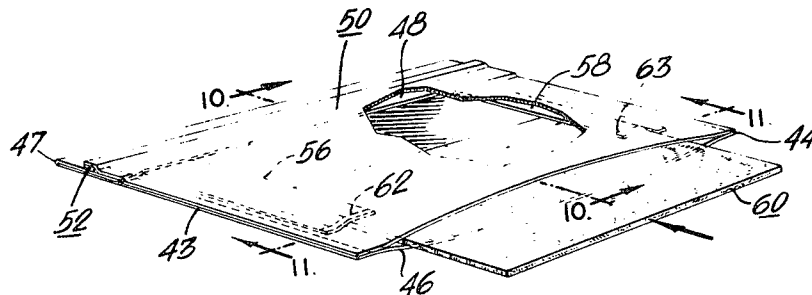
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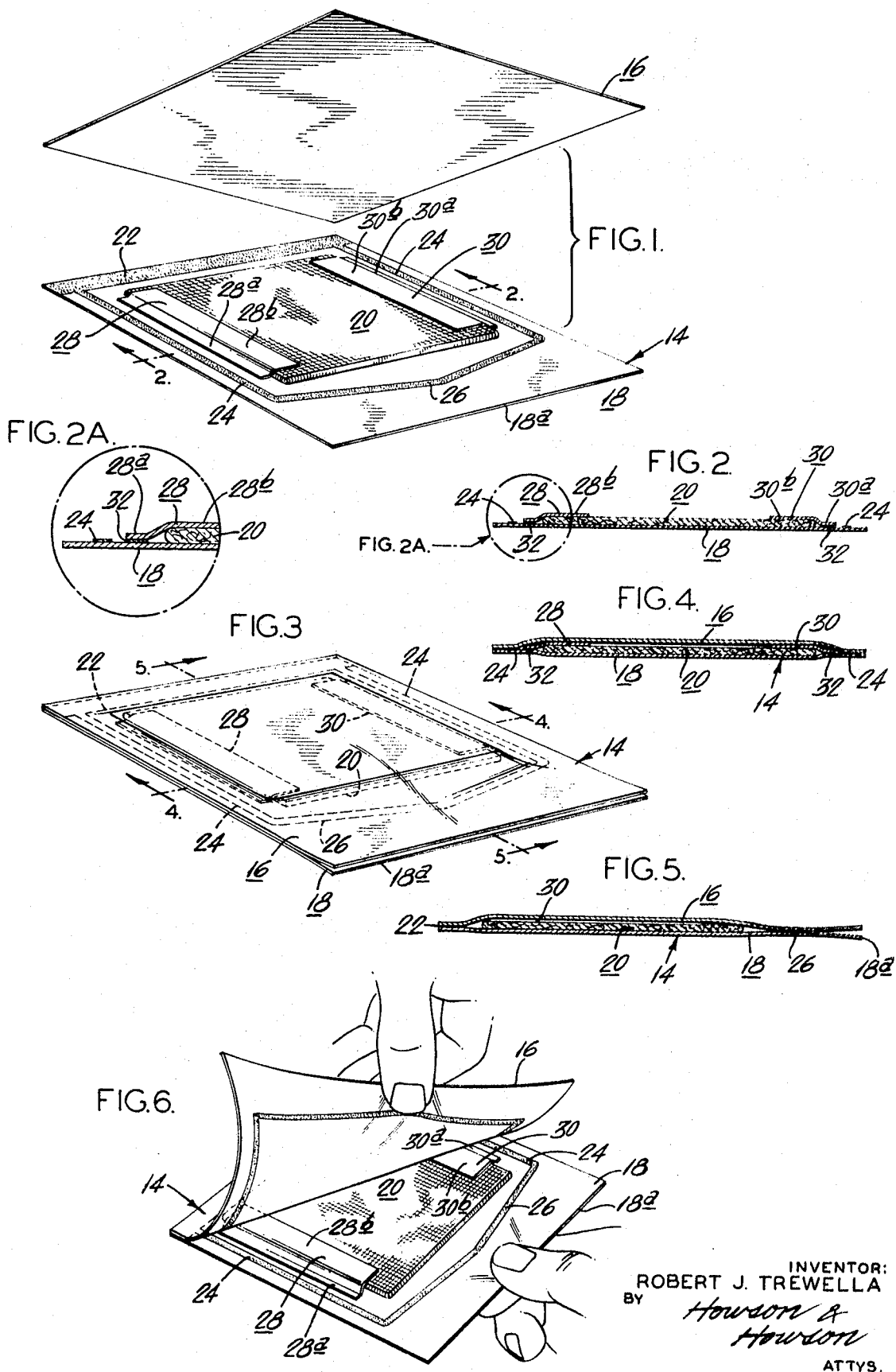
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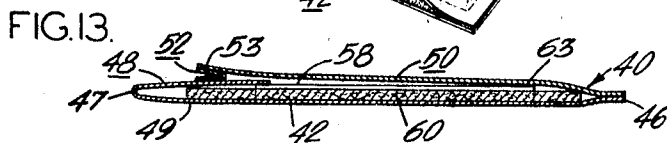
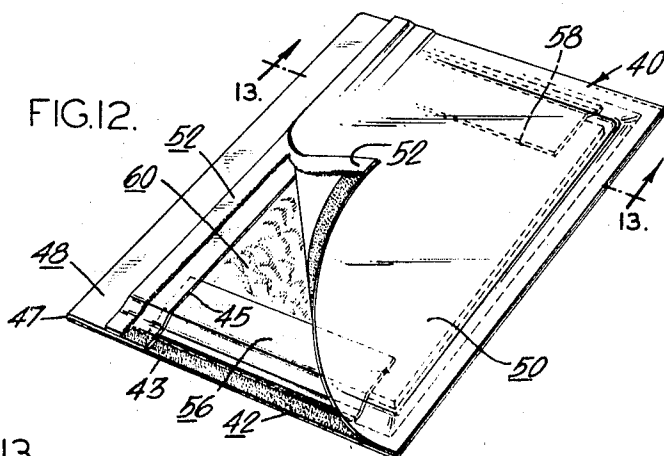
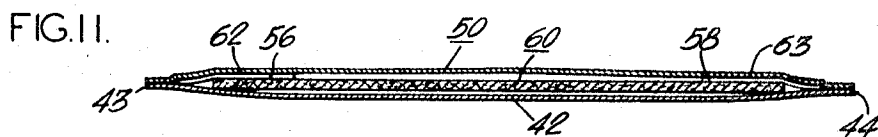
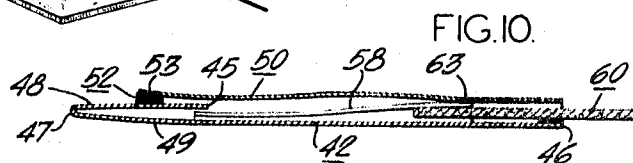
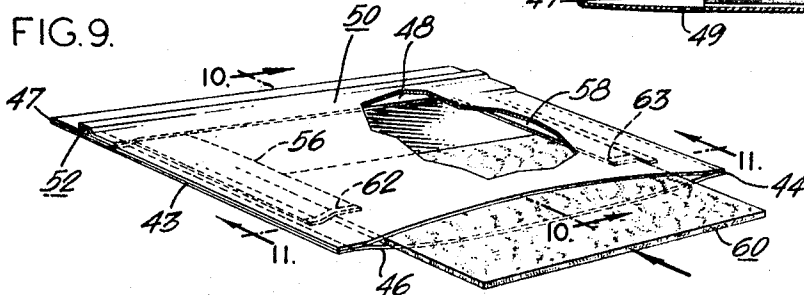
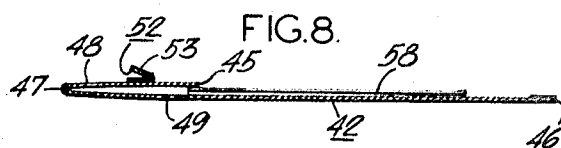
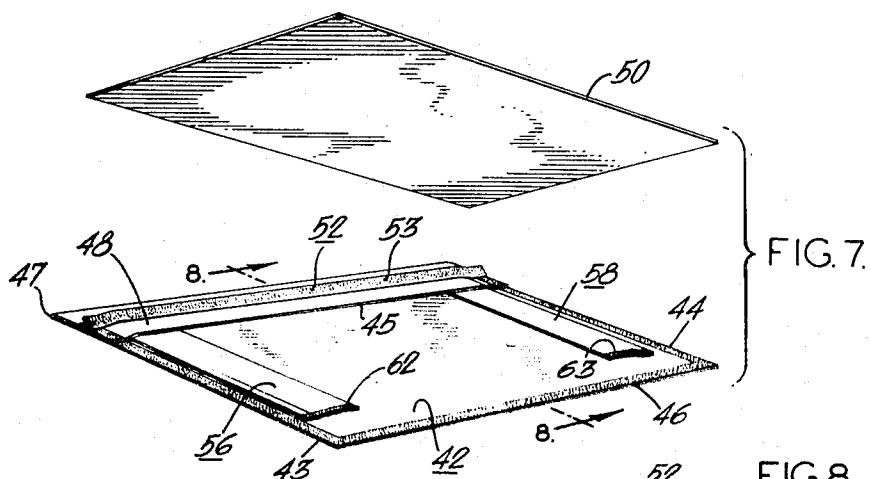
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ABSTRACT: Article-holding tabs for peel-open packages to maintain the contained article in a desired location within the package. The article-holding tabs preferably comprise a pair of spaced parallel elongated strips of flexible material which are adhesively secured along one longitudinal edge to the package interior surface. The tabs facilitate the filling and sealing of the package and also position and hold the article during opening of the package to permit removal by a sterile technique.







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ARTICLE-HOLDING TABS FOR PEEL-OPEN PACKAGES

The present invention relates generally to peel open packages and relates more particularly to article-securing means within such packages for maintaining a predetermined position of the contained article particularly during opening of the package to permit a withdrawal of the article in a sterile manner.

The present invention is especially suited for the packaging of sterile items such as dressings which must be removed from the package by a sterile technique in order to prevent contamination by contact with the package edges. It has been conventional to package sterile dressings in a double package, which essentially is a package within a package, so that the sterility of the bandage will not be lost when the package is opened. In a double package, the entire inner package is in a sterile state when removed from the outer package and the withdrawal of the bandage from the inner package thus avoids the risk of contamination.

In the present invention, the sterile article is secured in a predetermined position within a single package by means of a pair of parallel tabs which extend along opposite edges of the article and prevent the inadvertent movement of the article into contact with a contaminated package-edge during opening of the package. The invention is adapted for use with a variety of packages and contained articles although its most obvious use is in the packaging of sterile dressings.

It is accordingly a first object of the present invention to provide means for positioning and holding a packaged article within a package.

Another object of the invention is to provide means as described which will position and hold the article during the opening of the package.

Still another object of the invention is to provide means as described for positioning and holding a packaged article to permit removal of the article from the package by means of a sterile technique.

A still further object of the invention is to provide means for positioning and holding an article as described which can also serve to facilitate the filling of the package.

An additional object is to provide means as described of a simple construction which can be economically fabricated.

Additional objects and advantages of the invention will be more readily apparent from the following detailed description of embodiments thereof when taken together with the accompanying drawings in which:

FIG. 1 is a perspective view of a package employing the present article-holding tabs, showing the upper and lower package sheets in spaced relation just prior to sealing of the package;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1 showing the manner in which the article holding tabs secure the packaged article in a predetermined position;

FIG. 2A is an enlarged sectional view of the circled area of FIG. 2;

FIG. 3 is a perspective view showing the package of FIG. 1 in the sealed condition;

FIG. 4 is a sectional view taken along line 4—4 of FIG. 3;

FIG. 5 is a sectional view taken along line 5—5 of FIG. 3;

FIG. 6 is a perspective view showing the opening of the package of FIGS. 1-5;

FIG. 7 is a perspective view of another package embodying the present invention as it appears prior to insertion of the article to be packaged and with the cover panel thereof in spaced relation;

FIG. 8 is a sectional view taken along line 8—8 of FIG. 7;

FIG. 9 is a perspective view of the package of FIGS. 7 and 8 with the cover panel in place and showing the manner of inserting the article to be packaged beneath the article-holding tabs;

FIG. 10 is a sectional view taken along line 10—10 of FIG. 9;

FIG. 11 is a sectional view taken along line 11—11 of FIG. 9;

FIG. 12 is a perspective view showing the package of FIGS. 7-11 in a partially opened state; and

FIG. 13 is a sectional view taken along line 13—13 of FIG. 12.

Referring to the drawings, and particularly FIGS. 1-6 thereof, a relatively simple form of package generally designated 14 is illustrated comprising upper and lower sheets 16 and 18 of flexible packaging material. The sheets 16 and 18 are of equal size and rectangular shape and are adapted to form a sandwich-type of package adapted to contain a relatively flat rectangular article 20 such as a dressing. In this type of package, the sheets are secured together by means of a suitable adhesive which is applied between the sheets in a continuous circumferential strip spaced around the enclosed article. In the present package example, the adhesive is applied to the lower sheet 18 in a strip 22 along one end thereof, intersecting strips 24 parallel to but spaced from the sheet side edges, and a strip 26 connecting the ends of the strips 24 which is substantially spaced from the sheet edge 18a and which is bowed outwardly toward the sheet edge. When the sheet 16 is applied to the sheet 18, the adhesive will bond the sheets 16 and 18 together to form a seal around the packaged article 20.

The present invention provides means for securing the article 20 in a predetermined position on the sheet 18 and accordingly provides advantages during the sealing of the package and also during opening of the package, in the latter case permitting a sterile opening technique to be employed. The invention comprises a pair of article-holding tabs 28 and 30 secured to the sheet 18 in spaced-opposed relation. Each tab comprises an elongated strip of flexible sheet material which is secured along its outermost edge by a layer of suitable adhesive 32 as illustrated in the enlarged view of FIG. 2A. The tabs thus include longitudinally extending anchoring portions 28a and 30a and article-securing portions 28b and 30b, the article-securing portions passing over the side edges of the article 20.

For opening of the package, as shown in FIG. 6, the upper and lower sheet edges are grasped preferably adjacent the adhesive strip 26 and are peeled apart to separate the upper and lower sheets, thus revealing the article 20 contained therebetween. As shown in FIG. 6, the article-holding tabs 28 and 30 prevent any movement of dislocation of the article from its predetermined position and hence eliminate the risk that the article may have come in contact with portions of the sheets outside the adhesive perimeter. In the case of sterile packaging such as for dressings, while the package surfaces within the adhesive perimeter will be in a sterile condition, those portions outside the adhesive may easily become contaminated and hence the sterile article cannot be permitted to contact such portions.

To remove the article from the package by a sterile technique, the upper sheet 16 is folded back in the manner shown in FIG. 6 and the edge 18a of the lower sheet is turned under the sheet, thus permitting the bandage to be removed by forceps without contact with any portions of the package outside the adhesive perimeter. The article may be readily slid from the lower sheet in a direction parallel with the tabs.

In FIGS. 7-13 the invention is shown employed with a form of package broadly designated 40 which is in most respects similar to that disclosed in my copending application Ser. No. 838,881, filed July 3, 1969, now U.S. Pat. No. 3,570,751 assigned with the present invention to a common assignee. The package 40 is formed of a rectangular sheet 42 of flexible packaging material having side edges 43 and 44 and end edges 45 and 46. The sheet 42 is folded back on itself along fold line 47 to form a front panel 48 and a back panel 49. A suitable adhesive is applied between the opposed side edges of the front and back panels to form a pocket therebetween.

A cover sheet or panel 50 of flexible packaging material is secured to the sheet 42 formed as described above by adhesive layers extending around the perimeter of the sheet. An insert strip 52 of tearable material extends across the full width of the front panel 48 spaced from the edge 45 in parallel relation thereto. The strip 52 is adhesively bonded to the front panel and the upwardly extending face thereof is coated with a layer

of adhesive 53. The side edges 43 and 44 of panel 42 are similarly coated with a layer of adhesive extending from the insert strip to the edge 46 which is likewise provided with a layer of adhesive. The application of the panel 50 to the sheet 42 accordingly completes the package upon contact of the adhesive with the edges of the panel. The package is opened by gripping the upper portion of the insert strip and the attached portion of panel 50 and tearing back to sever the insert strip along its fold line as shown in FIG. 12.

The present invention is applied to the above-described package 40 by the provision of a pair of article-holding tabs 56 and 58 which extend parallel to and adjacent the side edges 43 and 44 of the sheet 42 respectively. The tabs 56 and 58 are formed of elongated strips of flexible packaging material and are secured to the sheet 42 by means of a suitable adhesive in the same manner as that described with respect to the preceding embodiment. The tabs 56 and 58 extend beneath the edge 45 of the front panel 48 thus serving as guides to facilitate the entry of the packaged article beneath the edge 45.

As shown in FIGS. 9 and 10, the package may be filled by placing the cover panel 50 in position and sealing the adhesive layers along the insert strip 52 and side edges 43 and 44 but leaving the adhesive layer along edge 46 in an unsealed state. As shown in FIGS. 9 and 10, the article 60 to be packaged, which may for example be a sterile dressing, is introduced between the edge 46 and the panel 50. To prevent the article fouling the end edges of the article-holding tabs 56 and 58, adhesive layers 62 and 63 applied to the upper end edges of the tabs 56 and 58 hold the tabs against the underside of the cover panel 50 as shown in FIG. 10 thereby permitting the article 60 to slide readily therebeneath. When the article has been slid into the desired position within the package, the edge 46 is sealed to the corresponding edge of the cover panel 50 by means of the adhesive layer deposited therealong.

When the package is opened as shown in FIG. 12, the cover panel 50 is peeled back to expose the contained article

without affecting the position of the article. The package is grasped during opening by holding the front panel 48 without contacting the article. The cover panel 50 may then be completely separated and the article removed by a sterile technique. By folding the edge 46 down away from the article, the article may be slid from beneath the tabs 56 and 58 and removed from the package without contact with portions of the package which might be contaminated.

Although only two types of packages have been illustrated, it can be understood that the present invention may be utilized with equal efficacy in a wide variety of packages, particularly of the peel-open type. The size and shape of the tabs may of course be varied to suit the proportions and dimensions of the package as well as the nature of the contained article.

Manifestly, changes in details of construction can be effected by those skilled in the art without departing from the spirit and the scope of the invention as defined in and limited solely by the appended claims.

I claim:

1. A peel-open package having article-holding means, said package comprising a rectangular back panel, a front panel extending partially over said back panel terminating thereover in an edge parallel to and spaced from an end edge of said back panel, and a cover panel extending over the remainder of said back panel, said cover panel being joined to said front panel adjacent said edge and to said back panel along the side edges thereof by peel-open-sealing means, said article-holding means comprising a pair of tabs secured to the inner surface of said back panel parallel to said back panel side edges and arranged in oppositely facing spaced relation, one end of each tab extending beneath said front panel, the opposite end of each tab being secured to the inner surface of said cover panel, each tab being adapted to overlie an adjacent edge of a packaged article to prevent movement of the article within the package.

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