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3,419,137

CLOSED-END PEEL PACKAGE

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FIG. 1

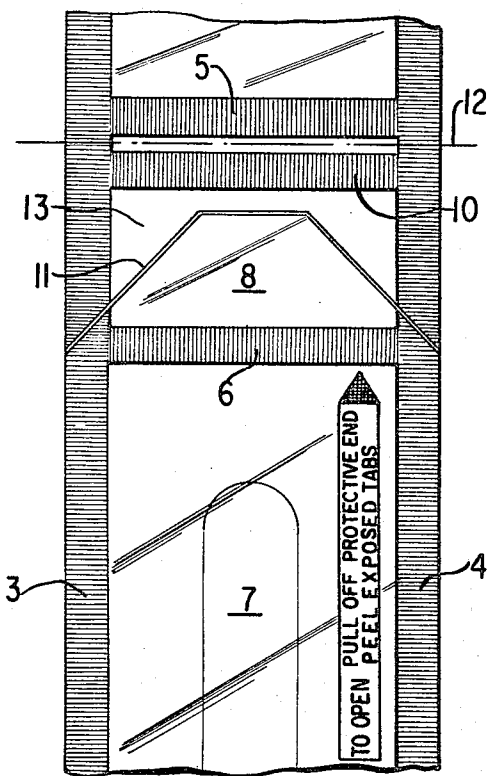


FIG. 2

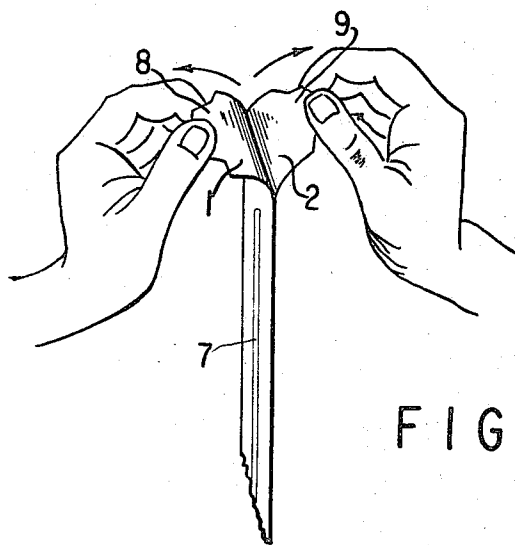
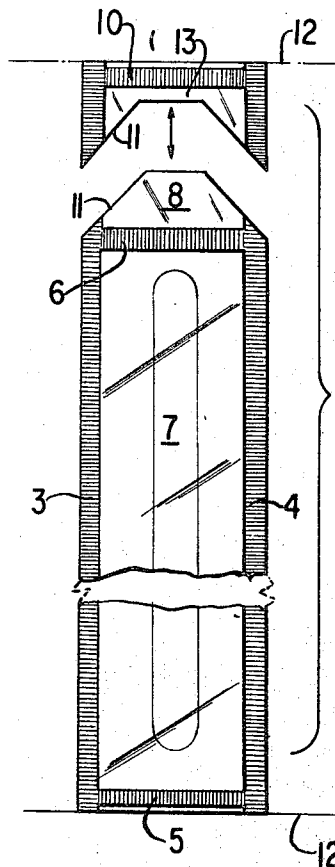


FIG. 3

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CLOSED-END PEEL PACKAGE

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5 Claims. (Cl. 206-63.2)

ABSTRACT OF THE DISCLOSURE

A package for sterile packaging of articles between upper and lower webs of sheet material sealed together around the enclosed articles, unsealed ends of the webs being provided for peeling apart the webs to make available the contents, and extensions of the unsealed ends being sealed together to keep the inner surfaces of said ends clean up to the moment of use, the extensions being readily removable, as by tearing, to free the ends for peeling.

Field of invention

In the field of packaging medical and surgical devices, particularly those which may be somewhat elongated, it is common to provide parallel webs of plastic sheet material (or one web of paper-like material and one of transparent plastic), to place the device between the webs, to heat seal the webs together around the device, and to cut the webs at a distance from the seal at one end to leave tabs which may be pulled apart when the package is to be opened to expose the packaged device for use. One or both webs are frequently gas permeable so that the interior of the package (and its contents) can be sterilized. Certain of the features just referred to are disclosed in Garth Patent No. 2,947,415, Aug. 2, 1960 (continuous line production of packages having one gas-permeable surface to permit sterilization), and in Salfisberg Patent No. 2,468,517, Apr. 26, 1949 (continuous line production of packages having unsealed projecting edges for peel-apart opening, FIGS. 6 to 9). When a Garth-type package (Garth's FIGS. 7 to 9) is provided with Salfisberg peel tabs (41 in Salfisberg's FIG. 9) it is apparent that dirt and other contamination can enter between the tabs and rest therein a position to drop on, and instantly contaminate, the sterile contents of the package when the package is peeled open. The present invention overcomes, very simply, this long standing difficulty.

Summary

The package is formed by heat sealing two webs together to form an envelope, facing portions of the webs extending beyond the seal line, e.g., at one end of an elongated package, to form tabs for peeling the webs apart to expose the contents, and the tabs being made integral with, but readily separable from, further extensions of the webs which are additionally heat sealed together to enclose the tabs.

A practical embodiment of this invention is shown in the accompanying drawing, in which:

FIG. 1 represents a plan view of the front end of one package and rear end of an adjacent package before severance;

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FIG. 2 represents an elevation of a complete package, illustrating the removal of the end extension, and

FIG. 3 represents a perspective view of a package with the extension removed and the peel tabs being pulled apart.

Referring to the drawings, the package is formed by heat sealing together two webs of similar or different material (plastic or paper) to form an envelope, the goods to be packaged being placed on the lower web and the upper web being laid over the goods and the heat seals being formed, generally, in a rapid continuous line operation. In the present instance the webs 1 and 2 are sealed together laterally along seal lines 3 and 4 which are continuous, the interior of each envelope being defined by a transverse bottom seal line 5 and a transverse upper seal line 6, said seal lines enclosing the packaged article, indicated at 7, which may be in the nature of a catheter or other more or less elongated surgical appliance. It is known in the manufacture of such packages or envelopes to provide freely extending tabs, 8, 9 at the upper end so that the contents of the package may be exposed (without handling) by grasping the tabs and pulling them apart as shown in FIG. 3. In the present case the webs, being sealed together continuously along both edges, are also sealed transversely at 10, this last seal line lying a short distance beyond the ends of the tabs and being spaced slightly from the transverse bottom seal line 5 of the adjacent envelope. In the same or another operation the tabs or defined by perforating or scoring the webs along the line 11 and the envelopes are completed by severing the sealed webs along a transverse line 12 between the line 5 of one envelope and the line 10 of the next one.

The perforation or scoring along line 11 weakens both webs sufficiently to permit the easy removal of the protective end piece 13 (bounded by lines 11 and 12) by a pulling or snapping operation, when the packaged article is to be used. Prior to that time, during periods of shipment, storage and handling, the tabs 8, 9 lie face to face with a minimum possibility of dust or other contaminant coming between them. From the illustration in FIG. 3 of the peeling open operation it will be evident that contamination which might have rested in the space, however small, between the tabs would be in a position to drop onto the packaged article as soon as the tabs were pulled apart. The presence of the end piece 13, up to the time of opening, eliminates this possibility.

It will be understood that various changes may be made in the form, construction and arrangement of the several parts without departing from the spirit and scope of the invention and hence I do not intend to be limited to the details shown or described herein except as the same are included in the claims or may be required by disclosures of the prior art.

What I claim is:

1. A sterilizable package formed by sealing together around the packaged article webs of material, characterized by the provision of unsealed facing tabs of said material extending beyond the seal line and readily severable extensions of said tabs marginally sealed together along seal lines completely enclosing said tabs.

2. A package according to claim 1 in which the tabs are connected to the extensions thereof along a line extending substantially from side to side of the package, the

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material of both webs being weakened along said connecting line to assure separation of the extensions from the tabs upon the application of pulling force.

3. A package according to claim 2 in which said connecting line lies farther from the seal line at its middle than at its end.

4. A package according to claim 1 in which the package is bounded by lateral seal lines and transversely disposed bottom and top end seal lines, the tabs being formed as extensions of the webs of material beyond the top end seal line to a line along which the material is weakened substantially from side to side of the package, and the severable extensions being formed integral with said tabs and bounded laterally by upward continuations of the

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lateral seal lines and upwardly by a seal line extending across the package and spaced from the top end seal line by a distance at least as great as the length of the tabs.

5. A package according to claim 4 in which said weakened line lies farther from the top end seal line at its middle than at its ends.

References Cited

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