

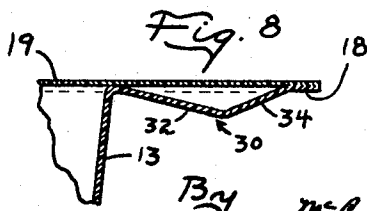
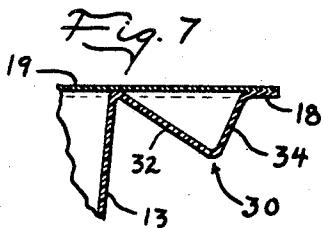
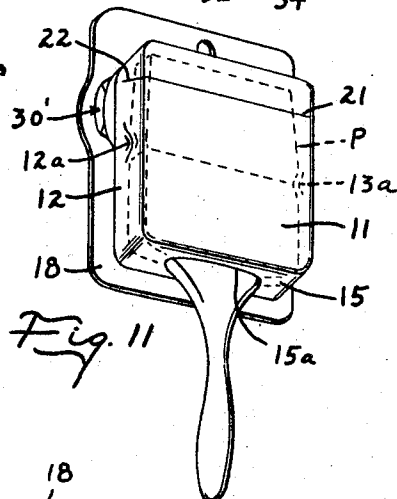
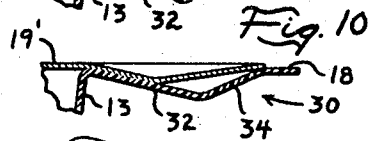
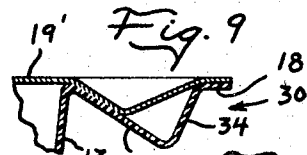
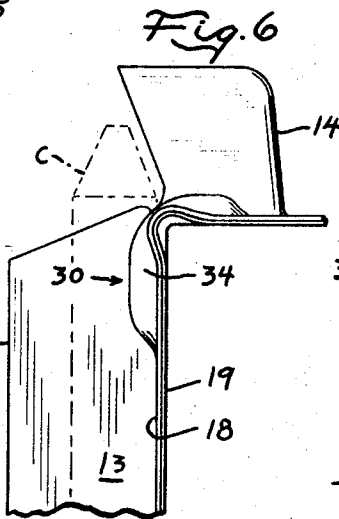
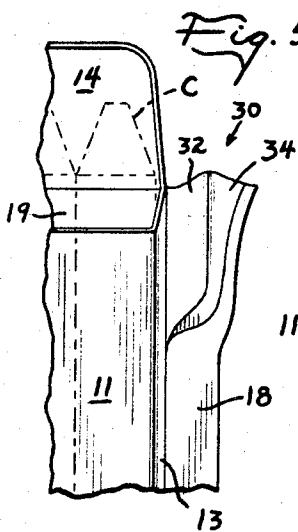
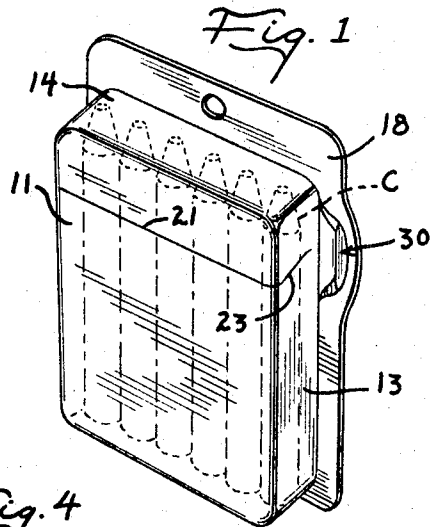
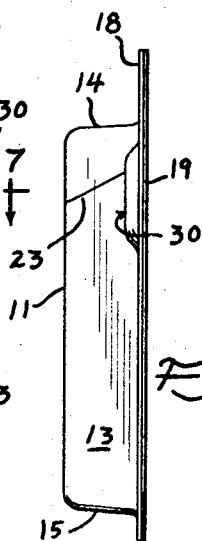
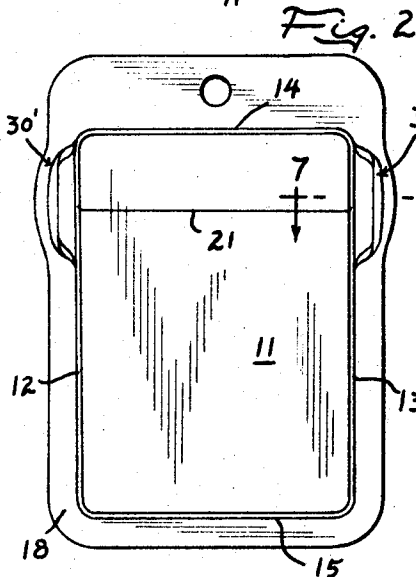
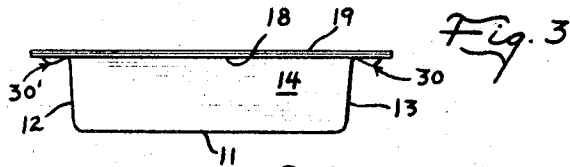
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CONTAINER WITH SELF-CLOSING COVER

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CONTAINER WITH SELF-CLOSING COVER

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10 Claims

ABSTRACT OF THE DISCLOSURE

The container has walls defining spaced sides and a rearwardly facing open side. A peripheral flange extends outwardly of the walls, and a back member is sealed thereto. A separation line divides the container into a body portion and a cover portion which is swingable about a hinge line. Channels are formed in the flange and extend crosswise of the hinge line to urge the cover portion to closed position.

The present invention relates generally to containers and more particularly to a container having a self-closing cover.

It is a general object of the present invention to provide a container of simplified construction which has a self-closing cover.

Another object is to provide a container in accordance with the above which can be used repeatedly and is relatively long lasting.

Still another object is to provide a container which has means providing a hinged, self-closing cover and which means is integral with the container and formed from the container material.

Other objects are to provide a container which is economical, versatile, and easily manufactured.

These, together with other objects and advantages of the invention, will become apparent as the invention becomes better understood from the following detailed description when taken in conjunction with the following drawings, wherein:

FIGURE 1 is a perspective view of a preferred embodiment of the present invention;

FIG. 2 is a front elevational view of the embodiment shown in FIG. 1;

FIGS. 3 and 4 are top and side elevational views thereof, respectively;

FIGS. 5 and 6 are enlarged fragmentary front and side views, respectively, showing the cover portion in open position;

FIGS. 7 and 8 are greatly enlarged sectional views taken along line 7—7 of FIG. 2 and illustrating the relationship of the parts with the cover portion in closed and open positions, respectively;

FIGS. 9 and 10 are views similar to FIGS. 7 and 8, respectively, and showing a slightly modified arrangement; and

FIG. 11 is a perspective view of a modified embodiment of the invention.

Reference is now made more particularly to the drawings which illustrate the best presently known mode of carrying out the invention and wherein similar reference characters indicate the same parts throughout the several views.

In the embodiment shown, the container has a front wall 11, spaced side walls 12 and 13, and upper and lower end walls 14 and 15. The upper, lower, and side walls extend rearwardly from the front wall 11 and define a rearwardly open side. These walls 12—15 terminate in a common plane at the rear side, and a peripheral flange 18 extends outwardly therefrom at the rear side. The portions of the container thus far described are advantageously formed of plastic material which is sufficiently

stiff to be normally form sustaining, yet resilient for a purpose which will hereinafter become apparent. One suitable material for this purpose is polypropylene. A thin back member 19, which is preferably flexible or bendable, is joined to the peripheral flange 18 as by heat-sealing, adhesive, or the like. In this manner, the container provides a compartment for holding any of various materials, as desired. As illustrated in FIG. 1, these materials may be crayons C, for example.

The container is cut, scored, or at least weakened along a line 21 extending across the front wall 11, a line 22 extending along side wall 12 (see FIG. 11), and a line 23 extending along side wall 13 (see FIG. 1). These lines define a line of separation intermediate the upper and lower ends of the container and divide the container into a lower body portion and an upper cover portion. In this manner, the cover portion of the container can be flexed or bent, as shown in FIGS. 5 and 6, about a hinge line at the rear side of the container and adjacent the peripheral flange 18, to expose the contents of the container. Preferably, the lines 22 and 23 terminate short of the peripheral flange 18 to add initial rigidity to the side walls 12 and 13. The container is arranged so that the initial flexing or movement of the cover portion to open position, extends lines 22 and 23 to a point adjacent, but not through the peripheral flange. Thus, initially, the cover portion is in a closed position adjacent the body portion as shown in FIGS. 1—4, and is movable to the open position shown in FIGS. 5 and 6 by swinging along a hinge line at the peripheral flange and at the ends of the separation line. Lines 22 and 23 are advantageously inclined upwardly from the line 21 in front wall 11. This allows the cover portion to swing outwardly of the contents when moved to open position (see FIG. 6).

The container is advantageously self-closing; that is, the cover portion is normally urged to closed position. For this purpose, channels, generally designated 30 and 30', are provided in the peripheral flange 18. The channels are preferably formed from the flange material and thus are integral with the flange. In this manner, except for the back member, the container can be formed from a single sheet of synthetic resin. The channels are located at either end of the separation line and preferably extend crosswise of the hinge line, as shown in the drawings. The channels preferably have a generally V-shaped cross section at the hinge line, including legs 32 and 34, best shown in FIGS. 7—10. As shown, the channels are advantageously disposed away from the plane of the flange 18 toward the front side 11 of the container. Leg 32, the one closer to the compartment, is preferably longer than leg 34. In this manner, when the cover portion is moved toward open position, the legs move toward the hinge line with leg 32 urging or buckling leg 34 outwardly, as best shown in FIGS. 8 and 10. When the opening force is removed, the legs will tend to return to their normal position and resiliently urge the cover portion to the closed position. In this manner, the container is self-closing and, in fact, the cover portion of the container has a "snap action" to the closed position. Thus, the structure of the channels cooperates with the cover portion, body portion, and peripheral flange 18 to provide a particularly advantageous container.

As best shown in FIGS. 7 and 8, the back member 19 may be formed of a stretchable synthetic resin. In such event, the back member is advantageously sealed to the flange portion 18 outwardly of the channels. When the cover portion is moved to open position, the lateral movement of the legs 32 and 34 causes a lateral stretch of the back member 19, as shown in FIG. 8. In this manner, any resiliency of the back member 19 also urges the legs back to their normal position to further aid in the self-closing function of the package.

As best shown in FIGS. 9 and 10, the back member 19' may be formed of a non-stretchable material such as coated aluminum foil. In such event, it is preferable that the back portion not be sealed to the flange in the area of the channels and is best secured to the inner leg 32, as shown.

The container of the present invention is reusable and is particularly adapted for storage of all or a portion of the contents after initial opening. The contents may be any of various substances, limited only by the imagination of the packager. For example, an opening 15a may be provided in bottom wall 15 to accommodate the handle of a paint brush P. Depressions 12a and 13a are provided in the side walls 12 and 13 to urge the bristles inwardly of the side walls for ease in reclosing the package. In this manner, the container can be utilized for initially packaging and, after opening, storing a product of this nature.

It is now deemed obvious that the present invention provides a versatile container with a reclosable cover portion which can be easily opened for access to the contents. It is also deemed obvious that the container is of simplified construction and yet can be used repeatedly.

What is claimed is:

1. A container with a self-closing cover comprising: a body portion having sides and an open end, a cover portion overlying the open end in a closed position, the cover portion being swingable about a hinge line at one side of the body portion for movement to an open position, a flange of generally resilient material joined to both portions adjacent said one side, and means formed in the flange from the material thereof and extending generally crosswise of the hinge line for resiliently urging the cover portion to the closed position.

2. A container as set forth in claim 1 wherein the body portion, cover portion, and flange are formed of resilient plastic material; and wherein the flange is integral with the body and cover portions.

3. A container as set forth in claim 1 wherein the sides of the body portion define a compartment, the flange extends outwardly of the compartment, and the last-mentioned means comprises a longitudinal channel in the flange and having a generally V-shaped cross section at the hinge line.

4. A container as set forth in claim 3 wherein the channel has first and second legs defining the V-shaped cross section, said legs being of unequal width with the wider leg more nearly in the plane of the flange than the narrower leg, and wherein the wider leg is closer to the compartment than is the narrower leg.

5. A container as set forth in claim 4 wherein the channel is disposed outwardly of the flange and hinge line in a direction away from that to which the cover swings to open position, wherein the legs each move toward the hinge line as the cover portion swings to open position,

and wherein the leg movement pushes at least a portion of the shorter leg outwardly of the compartment.

6. A container with a self-closing cover comprising: wall means of generally resilient plastic material and defining upper and lower ends, spaced sides, and a rearwardly facing open side; a peripheral flange integral with the wall means and extending outwardly therefrom at the rear side; said wall means being separable along a separation line intermediate said ends to define a body portion and a cover portion; said separation line extending adjacent, but not through, the peripheral flange; the cover portion being swingable from a closed position adjacent the body portion to an open position along a hinge line at the peripheral flange and at the ends of the separation line; means formed in the peripheral flange at either end of the separation line and extending crosswise of the hinge line for resiliently urging the cover portion to the closed position; and a flexible back member overlying the open side and secured to the peripheral flange.

7. A container as set forth in claim 6 wherein the peripheral flange defines a plane at the rear side; the last-mentioned means comprises first and second longitudinal channels extending crosswise of the hinge line, each at an end of the separation line and disposed laterally from said plane; said channels each having sides spaced apart at the juncture with said plane, and said channel sides arranged to spread when the container is opened.

8. A container as set forth in claim 7 wherein the back member is of generally stretchable material and is secured to the flange outwardly of the channels, whereby moving the cover portion to open position spreads the channel sides and stretches the back member.

9. A container as set forth in claim 7 wherein the back member is of generally non-stretchable material and is secured to the channel side adjacent the wall means, whereby the spreading of the channel sides is free of any restraint by the back member.

10. A container as set forth in claim 7 wherein each channel is disposed forwardly of said plane and has a generally V-shaped cross section at the hinge line; and wherein the channel has sides of unequal width, the wider side being closer to the wall means than the narrower side.

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