The present invention relates, generally classified, to closure means for sheet material containers having opposed complementary walls and wherein a limited marginal portion of the container is capable of being detached in a manner which permits access to be had to the container's contents, and has reference, more particularly, to a built-in opener which is suitably adapted for incorporation in envelopes, bags, sacks and the like.

Stated more specifically, the invention pertains to envelopes, bags and sacks which are customarily made from paper and equivalent sheet-type plastic materials and has to do with readily closable and openable envelopes of varying types which as a general rule are used for mailing letters, cards, magazines and similar marketable articles.

Briefly, the concept pertains to an envelope (bag or sack) having a sealed or equivalently closed marginal portion which is designed and constructed so that it provides a multiple-rip strip member susceptible of being readily caught held of and reliably torn off in a manner to expose the envelope's contents for withdrawable use and wherein the receptacle portion remains intact and consequently undamaged during the strip-detaching and opening step.

Several embodiments of the invention are herein revealed. Each of these, generically speaking, is characterized by two opposed walls marginal edge portions of which are appropriately fastened for mailing or other handling needs. In each instance a generally straight tear-line or the like is provided. This, in turn, defines and provides a bodily detachable strip-like portion which, when caught hold of and ripped off opens the space and permits the intact contents (mail, articles of food, commodities and merchandise and goods) to be removed.

In carrying out the invention it is desirable to employ a tear-line. This line is characterized by small closely related perforations or, alternatively, severable weakened portions. The wall portions defining the detachable strip, are located outwardly of the scored line and are sealed or otherwise joined together so that the envelope's contents are prevented from slipping beyond the tear-line.

As will be more clearly apparent from the views of the drawing one embodiment is an envelope. Other embodiments are "envelopes" of a different sort, for example, cellophane and equivalent plastic grocery store commodity sacks and bags.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a plan view observing the rear side of an envelope embodying the improved self-contained opener;

FIGURE 2 is a view on an enlarged scale showing the front and back walls and the specially constructed flaps and the manner in which they appear with the sheet material blank spread out and in readiness to be transformed into the complete envelope;

FIGURE 3 is an exaggerated detail sectional view taken on the plane of the section line 3—3 of FIGURE 1;

FIGURE 4 is a fragmentary perspective view of the opener-equipped end portion of a cellophane or an equivalent plastic bag or sack (one which is used for vendible commodities and merchandise and goods, generally speaking whereby each embodiment of the inventive concept different from that illustrated in FIGS. 1 to 3 is shown; and

FIGURE 5 is a view similar to FIGURE 4, that is in fragmentary perspective form and wherein the opener-equipped end portion is one wherein a seal is a part of the opener as will be hereinafter pointed out with greater particularity.

As is doubtless evident from the instant disclosure the expression "envelope" is being used advisedly in that the inventive concept pertains to merchandising bags and sacks particularly those wherein opposed front and back or equivalent walls have cooperating edge portionsfastened together and provided inwardly of and parallel to the fastening means with a scoreline, tear-line or a pull-type opener not including currently objectionable pull-tabs and cord openers.

Reference is had first to FIGURES 1 to 3, inclusive, and more particularly to FIGURE 2 wherein it will be evident that the body portion of the envelope is defined by a front rectangular wall 8 the upper lengthwise portion of which is provided with a conventional-type closing flap 10 foldable on the line 12 and having its interior lip coated with adhesive material 14. The panel-like rear or back wall 16 has its upper edge 18 in line with the fold-line 12 and its lengthwise lower edge 20 in line with the bottom fold-line 22 which delineates the inward lengthwise edge of a gummed bottom flap 24 which has an attachable adhesive coated surface 26. There is a non-coated narrow strip-like surface 28 and parallel thereto and extending across the wall a separable score-line 30 is provided. This feature is also referred to as a tear-line and in the preferred embodiment thereof it is made up of a row of closely spaced small holes or openings (apertures) 32 which register with a similar arrangement of openings 34 defining the complemental tear-line 36 provided on the back wall 16 inwardly of the marginal edge 20.

The tear-line 36 and edge 20 define a narrow attachment band having a gummed surface 38 which aligns with and is attachable to the non-adhesive surface 28.

In practice that especially constructed back wall 16 is swung from left to right on the marginal fold-line 40 thus bringing the two walls 8 and 16 together in overlapping registering relationship. The gummed end flap 42 is folded in on the line 44 and over the adjacent edge portion of the wall 16 and to satisfactorily accomplish this it will be noticed that the end portion 46 terminates adjacent but not directly in line with the end portion of the tear-line made up of the component portions 30 and 36. The fact that the surface 38 is fastened to the surface 28 defines a narrow band-like detachable strip member which in effect is the built-in opener. In the embodiment illustrated the opener instead of being two-ply, as is customary, is composed of three plies for the reason that the gummed flap 24 has to be folded up and adhered to the cooperating surface of the exterior bottom edge portion of the wall 16 as is brought out in FIGS. 1 and 3, particularly FIG. 3. It follows that the opener means here comprises a three-ply detachable strip member which is normally retained in place by the rows of registering apertures 32 and 34 defining the combined tear-line 30 and 36. The third-ply (the gummed flap 24) ensures the provision of a sturdy and reliable easy-to-rip opener strip. It will be further noted that an opener strip of the construction shown is such that the mail or other contents of the envelope cannot slip out of the confines of the intended receptacle portion and lodge in between the sealed plies comprising the triple-ply tear-strip.

In FIG. 4 the container comprises a cellophane or an equivalent bag or sack which is denoted generally by
the numeral 48. Here again the opposed walls which may be designated as front and back walls are denoted at 50 and 52. The terminal wall portions which are overlapped and denoted generally at 52 are in this instance joined by way of the folds of the cap-like label or closure 54. This comprises a cardboard or an equivalent rectangular label which is bent upon itself between its ends as at 56 and which has its half-portions 58 overlapping the lips which go to make up the mouth of the bag, these being secured in place by staples or equivalent fasteners 60. The portions, that is the marginal edge portions which go to make up the mouth in conjunction with the stapled cap provide in this instance the detachable or readily removable tear-strip and to permit the taring step to be accomplished there is a tear-line at 62 made up of a straight row of closely spaced small or fine apertures or holes 64. This tear-line 60 is along the edges 64 thus providing the bag with a novelly intact receptacle portion with a discharge mouth at one end which mouth is opened by detaching the tear-strip along the severable tear-line 62.

The same general built-in opener idea prevails in the modification depicted in FIG. 5 wherein the numeral 66 designates a plastic (cellophane or the like) commodity bag or sack having opposed walls 68 and 70 and provided at one end or margin thereof with lip portions 72 which are sealed together to provide a normally closed mouth. A heat-sealed line extends across at 74 and incorporated in part in this line are the apertures or holes 76 which go to make up the severable tear-line 78.

In the case of products packed in air-tight heat-sealed bags, the feature of having the perforations 76 in a row just barely within the outer marginal limits of the seal 74 will obviously make the bag easy to open and will at the same time retain the air-tight feature preventing leakage of the contents from the bag and preventing dust or dirt from getting into the receptacle portion of the bag. It is submitted that any feasible device that makes plastic bags practical for satisfactory packaging and easier to open constitutes a worthy contribution to the field of invention herein under advisement.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A container of the class described comprising a pair of opposed complementary sheets providing connectible walls and defining a receptacle portion, and opener means embodied in at least one marginal portion of said container, said opener means being normally intact but manually tearable and comprising a multi-ply severable elongated strip portion which can be bodily torn away and then detached and wholly removed, the portions of said walls defining said strip portion and which are located outwardly of the tear-line being fastened together from end-to-end in a manner to prevent any of the container’s contents from entering and lodging itself between said wall strip-forming portions.

2. A container comprising opposed front and back walls having corresponding terminal end portions thereof contacting and overlapping each other but providing an openable and closable mouth which is capable of being used in filling the container space and subsequently removing the contents of the container space therefrom by way of the mouth, an elongated U-shaped label commensurate in length with the length of said mouth and constituting a closure and folded upon itself between its ends and having its half-portions overlapping the cooperating mouth-forming wall portions and being secured to each other, and rows of registering but longitudinally spaced perforations extending across said mouth portion and proximal to cooperating lengthwise edge portions of the folds of said label, said label, the intervening wall portions and the cooperating perforations cooperating in defining a bodily detachable opener strip, whereby to facilitate opening said mouth.

3. A plastic bag for packaging and retailing commodities comprising opposed front and back walls having their cooperating marginal edges joined and defining fluid-tight, air-tight bag, said bag being openable at one end and having terminal lip portions of the openable end superimposed upon each other and heat-sealed, said heat sealed lip portions combining with each other in providing a normally sealed bag closure, said closure having a row of perforations extending from one transverse end to the other transverse end, said row of perforations being spaced inwardly from and being parallel with the free outer lengthwise edges of the heat-sealed lips, and being parallel with, proximal to but spaced slightly from the innermost sealed portions of the lips, whereby to provide a two-ply tear strip capable of being detached and bodily removed while permitting minimal but still intact portions of the seal to remain temporarily closed.

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