A reclosable plastic bag comprises first and second opposing body panels, a zipper, a slider, and an extending portion with a peg hole. The opposing body panels are joined to each other along a pair of sides and a bottom bridging the pair of sides. The zipper extends along the opening formed opposite the bottom. The slider is slidably mounted to the zipper for movement between a closed position and an open position. The slider has an extending portion that is easily graspable to facilitate movement of the slider. The zipper extends along the opening a slight distance below the upper edges of the first and second opposing body panels. The extending portion has a hole for receiving a peg to allow for hanging the plastic bag in a retail setting.
SLIDER WITH A PEG HOLE FOR USE WITH A ZIPPER ON A PLASTIC BAG

FIELD OF THE INVENTION

[0001] The present invention generally relates to reclosable plastic bags and, more particularly, to a reclosable plastic bag including a zipper slider having an extending portion with a hole for receiving a peg to allow for hanging the plastic bag in a retail setting.

BACKGROUND OF THE INVENTION

[0002] A reclosable plastic bag typically includes first and second opposing panels joined to each other along a pair of sides and a bottom bridging the pair of sides. The first and second panels are not joined along a mouth which is formed opposite to the sealed bottom. Rather, the bag is provided with a reclosable zipper extending along the mouth of the plastic bag. The zipper includes a male track and a female track. In reclosable plastic bags of the type disclosed in U.S. Pat. No. 5,067,208, utilizing a slider to open the zipper, the male track typically includes a male profile and a first fin extending downward from the male profile. Likewise, the female track in such bags with sliders includes a female profile and a second fin extending downward from the female profile. The first and second fins are thermally fused to or integrally formed with the respective first and second panels.

[0003] The male and female profiles are releasably engageable to each other. When the slider is in a closed position, the male and female profiles are interlocked with each other. In response to moving the slider to an open position, the male and female profiles are disengaged from each other. Once the male and female profiles are disengaged from each other, access to the interior of the bag may be obtained by pulling the first and second panels apart at the mouth.

[0004] Reclosable plastic bags of the foregoing type are a great convenience to the consumer especially to products such as deli meat, cheese, snacks and cereal where, typically, only a portion of the product is consumed at any given time. It is desirable to provide such prepackaged bags with some sort of tamper-evident feature. The consumer tears the enclosure above the zipper to gain access to the zipper and the package contents.

[0005] In some instances, the slider with zipper is located at the upper edges of the opposing body panels, and the tamper-evident feature comes from sealing the fins below the zipper. A peel-seal on the fins indicates to the consumer whether the bag has been tampered with. In instances where the zipper is located a slight distance below the upper edges of the opposing body panels, the top edge of the opposing body panels can be sealed along either side of the extending portion of the slider.

[0006] Furthermore, reclosable bags that include a hole for hanging the bag on a peg offer a convenient means of display in a retail setting. The customer is able to view the bag and its contents as it is displayed, often at eye level. Often, this hole is formed in the header of the plastic bag, which is the portion of the plastic bag above the zipper. Extra material is needed to make the header wide enough to accommodate the hole. Thus, a need exists for a package with a peg hole, but one that does not require extra material in the header.

SUMMARY OF THE INVENTION

[0007] A reclosable plastic bag includes first and second opposing body panels joined to each other along a pair of sides and a bottom bridging the pair of sides. The bag is provided with a reclosable zipper extending along an opening formed opposite the sealed bottom of the plastic bag.

[0008] A slider is slidably mounted to the zipper for movement between a closed position and an open position. The male and female profiles are engaged to each other while the slider is in the closed position. The male and female profiles are disengaged from each other in response to movement of the slider to the open position. The slider has an upper extending portion with a hole for receiving a peg to allow for hanging the plastic bag in a retail setting.

[0009] In one embodiment, the zipper extends along the opening a slight distance below the upper edges of the first and second opposing body panels, and the upper extending portion of the slider extends above the upper edges of the opposing body panels. The upper edges of the opposing body panels are sealed around the extending portion.

[0010] In another embodiment, the zipper is attached at the upper edges of the opposing body panels, and the extending portion extends entirely above the opposing body panels. The opposing body panels are not sealed around the extending portion. In either embodiment, the extending portion may have a rectangular shape or a curved shape, or any other shape.

[0011] The above summary of the present invention is not intended to represent each embodiment, or every aspect, of the present invention. This is the purpose of the figures and the detailed description which follow.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The foregoing and other advantages of the invention will become apparent upon reading the following detailed description and upon reference to the drawings.

[0013] FIG. 1 is an isometric view of an opening of a reclosable plastic bag showing a slider with an extending portion having opposing body panels sealed around the extending portion.

[0014] FIG. 2 is a front view of the bag opening in FIG. 1.

[0015] FIG. 3 is a sectional view taken generally along line 3-3 in FIG. 1.

[0016] FIG. 4 is an isometric view of the reclosable plastic bag of FIG. 1 hanging on a peg in a retail setting.

[0017] FIG. 5 is an isometric view of an alternate reclosable plastic bag hanging on a peg in a retail setting.

[0018] While the invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. It should be understood, however, that the invention is not intended to be limited to the particular forms disclosed. Rather, the invention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.
DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0019] Turning now to the drawings, FIGS. 1-3 depict a mouth portion of a reclosable plastic bag 10 embodying the present invention. The plastic bag 10 comprises first and second opposing body panels 12 and 14 joined to each other along a pair of sides 16 and 18 (see FIG. 4) and a bottom 20 (see FIG. 4) bridging the pair of sides 16 and 18. The bottom 20 may be a single folded panel, separate panels sealed together, a gusset made from one piece of material, or a gusset made from separate panels sealed together. The plastic bag 10 is provided with a reclosable zipper 22 extending along the mouth portion, which is formed opposite the sealed bottom 20 of the plastic bag.

[0020] The zipper 22 includes a male track and a female track. The male track includes a male profile 24 and a first depending fin or flange 26 extending downward from the male profile 24. Likewise, the female track includes a female profile 28 and a second depending fin or flange 30 extending downward from the female profile 28. If the zipper 22 is formed separately from the body panels 12 and 14 of the bag, the first and second fins 26 and 30 are thermally fused to inner surfaces of the respective first and second body panels 12 and 14. Alternatively, the zipper 22 may be extruded with the panels 12 and 14 such that the first fin 26 is integrally formed with the first body panel 12 and the second fin 30 is integrally formed with the second body panel 14.

[0021] To assist in opening and closing the plastic bag 10, a slider 32 is slidably mounted to the zipper 22 for movement between a closed position and an open position. In the closed position of the slider 32, the male and female profiles 24 and 28 are interlocked with each other. Movement of the slider 32 from the closed position toward the open position disengages the male and female profiles 24 and 28 from each other and allows a user to gain access to the interior of the plastic bag. Further details concerning the construction and operation of the zipper 22 and the slider 32 may be obtained from U.S. Pat. No. 5,067,208 to Herrington, Jr., et al., which is incorporated herein in its entirety by reference. The slider 32 has an extending portion 33 with a hole 35. The hole 35 in the extending portion 33 is a structure utilized for hanging the bag in a retail setting. Further, the extending portion 33 allows the consumer to easily open and close the plastic bag 10.

[0022] First and second upstanding panels 36 and 38 extend upwardly from the respective first and second opposing body panels 12 and 14. The first upstanding panel 36 is integrally formed with or thermally fused to the first opposing body panel 12. FIG. 3 shows a lowermost strip 36a of the first upstanding panel 36 integrally formed with an uppermost strip of the first opposing body panel 12. Likewise, the second upstanding panel 38 is integrally formed with or thermally fused to the second opposing body panel 14. FIG. 3 shows a lowermost strip 38a of the second upstanding panel 38 integrally formed with an uppermost strip of the second opposing body panel 14. One piece is “integrated together” with another piece when both pieces are made of the same piece of material. The first and second upstanding panels 36 and 38 may, alternatively, be formed from pieces of material separate from the respective first and second opposing body panels 12 and 14.

[0023] Each of the upstanding panels 36 and 38 includes opposing vertical ends in line with the sides 16 and 18, and the opposing vertical ends of the first upstanding panel 36 are thermally fused to the respective opposing vertical ends of the second upstanding panel 38 along the sides 16 and 18 to form a pocket in which the slider 32 and the zipper 22 are captured. The pocket prevents the slider 32 from going past the ends of the zipper 22 and provides adequate end strength that resists stresses applied to the profiles 24 and 28 during normal use of the bag.

[0024] If the plastic bag is used to prepackage food products such as deli meat, cheese, snacks and cereal which are later sold in a grocery store, it is desirable to provide the plastic bag with a tamper-evident feature. The first and second upstanding panels 36 and 38 are ideally suited for this purpose. To minimize tampering with the plastic bag 10, upper edges of the respective first and second upstanding panels 36 and 38 are joined to each other to seal the pocket and encase the slider 32 and the zipper 22 within the sealed pocket. The upper edges of the respective first and second upstanding panels 36 and 38 may be joined to each other either by thermal fusion or by integrally forming these upper edges with each other. The first and second upstanding body panels 36 and 38 are sealed around the extending portion 33 of the slider 32. The hole 35 in the extending portion 33 is located above the sealing line where the opposing body panels 12 and 14 are sealed around the extending portion 33 to allow for the plastic bag to be hung on a peg in a retail setting.

[0025] To permit a consumer to gain access to the interior of the plastic bag 10 when the pocket is sealed for tamper-evident purposes, the sealed pocket is preferably provided with a one-time breakable seal along the first and second upstanding body panels 36 and 38. If the consumer purchases a prepackaged plastic bag with the one-time breakable seal intact, it is highly unlikely that the contents of the plastic bag have been tampered with because the zipper 22 cannot easily be opened without breaking the seal. Even if the zipper 22 could be opened without breaking the seal, access to the interior of the plastic bag via the opened zipper 22 is difficult because the zipper 22 is nearly encapsulated in the sealed pocket. If, on the other hand, the consumer purchases a plastic bag with the one-time breakable seal broken, then it is more likely that the contents of the plastic bag have been tampered with. The bottom edges 40a and 40b (FIG. 3) on fins 26 and 30 are also sealed together or are integrally formed with a one-time breakable area of weakness to encapsulate the product to provide evidence that the contents of the plastic bag 10 have not been tampered with.

[0026] The extending portion 33 extends upward from the slider 32 to enable a user to more easily grasp and slide the slider along the zipper 22. In the absence of an extending portion 33, a user must reach into the pocket surrounding the slider 32 in order to grasp the slider. The extending portion 33 allows the user to easily move the slider without needing to separate the upstanding panels 36 and 38. The extending portion 33 may be provided with ridges that reduce the chance that a user is able to slide off the extending portion 33, making it easier to grasp. Further, the extending portion 33 may be curved to more closely fit the curvature of a user’s fingertips.
FIG. 4 illustrates a plastic bag 10 having the zipper 22 extending a short distance below the upper edges of the first and second opposing body panels 12 and 14. The extending portion 33 of the slider 22 is partially sealed by the upstanding panels 15 and 16, leaving the upper portion of the extending portion 33 with the hole 35 unsealed so as to hang the plastic bag 10 on a peg.

In another embodiment shown in FIG. 5, a package 50 includes a zipper 52 extending along the upper edges of the first and second opposing body panels 54 and 56. The extending portion 63 of the slider 62 extends entirely above the opposing body panels 54 and 56, and, thus, the opposing panels 54 and 56 are not sealed around the extending portion 63. To seal the product, the package 50 relies upon the sealing of the bottom edges of the flaps with a peel seal or integrally forming fins 26 and 28 with a one-time breakable area of weakness, such as shown at the bottom edges 40a and 40b of the fins 26 and 28 in FIG. 3.

The embodiments described above may have extending portion 33, 63 having either a curved or rectangular shape, or any other shape that enables a consumer to grasp the slider 32, 62. The extending portion 33, 63 may also have ridges that allows a consumer to more easily open and close the plastic bag 10, 50. The hole in the extending portion 33, 63 allows the plastic bag 10, 50 to hang on a peg in a retail setting.

An embodiment having the hole 35 in the extending portion 33 has an advantage in that it does not require extra material in the header, the portion of the bag above the zipper. Often, in prior art bags, a hole is formed in the header of a bag to allow for hanging on a peg. To accommodate a hole, more material is needed to make the header wider. The embodiments of this invention do not require extra material in the header and, thus, less material is used to produce the plastic bag, and less material is discarded when the consumer no longer needs the bag.

While the present invention has been described with reference to one or more particular embodiments, those skilled in the art will recognize that many changes may be made thereto without departing from the spirit and scope of the present invention. Each of these embodiments and obvious variations thereof is contemplated as falling within the spirit and scope of the claimed invention, which is set forth in the following claims.

What is claimed is:

1. A reclosable plastic bag, comprising:
   first and second opposing panels joined to each other along a pair of sides and a bottom bridging said pair of sides, said first and second said opposing panels forming an opening opposite of said bottom;
   a zipper extending along said first and second opposing panels adjacent to said opening; and
   a slider slidably mounted to said zipper for opening and closing said zipper, said slider having an upper extending portion having a hole for receiving a peg to allow for hanging said plastic bag in a retail setting.

2. The reclosable plastic bag of claim 1, wherein said zipper extends along said opening a slight distance below upper edges of said first and second opposing panels.

3. The reclosable plastic bag of claim 2, wherein said upper extending portion of said slider extends above said opposing panels.

4. The reclosable plastic bag of claim 3, wherein upper edges of said opposing panels are sealed around said extending portion before being opened by a consumer.

5. The reclosable plastic bag of claim 4, wherein said extending portion has a curved shape to fit the shape of fingertips.

6. The reclosable plastic bag of claim 5, wherein said extending portion has ridges to facilitate ease of opening and closing of said zipper.

7. The reclosable plastic bag of claim 4, wherein said extending portion has a rectangular shape.

8. The reclosable plastic bag of claim 1, wherein said zipper is attached at upper edges of said opposing panels.

9. The reclosable plastic bag of claim 8, wherein said extending portion of said slider extends entirely above said opposing panels.

10. The reclosable plastic bag of claim 9, wherein said extending portion has a rectangular shape.

11. A slider for opening and closing a zipper of a reclosable plastic bag, comprising:
   a main body configured to fit around and engage said zipper, and
   an upper extending portion from said main body, said upper extending portion having a hole for receiving a peg to allow for hanging in a retail setting.

12. The slider of claim 11, wherein said main body engages said zipper to interlock male and female body parts of said zipper to close said plastic bag.

13. The slider of claim 11, wherein said main body engages said zipper to unlock male and female body parts of said zipper to open said plastic bag.

14. A method for displaying a reclosable plastic bag having a slider, said method comprising:
   inserting a retail display peg through an opening in said slider, thereby allowing said plastic bag to hang from said peg.

15. The method of claim 14, wherein said plastic bag is sealed around an extending portion of said slider in which said opening resides.