

April 11, 1961

R. E. HARRAH

2,978,769

PLASTIC BAG OR CONTAINER

Filed July 7, 1958

2 Sheets-Sheet 1

Fig. 4.

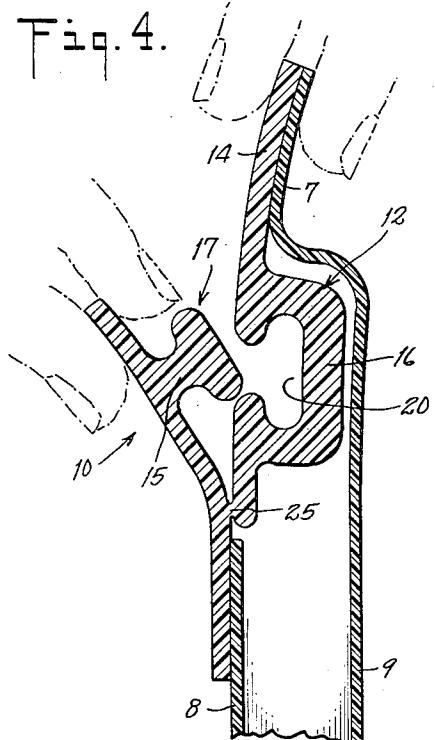


Fig. 5.

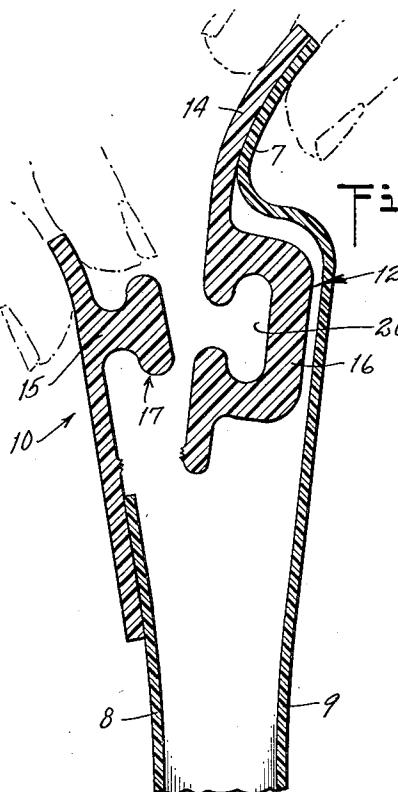
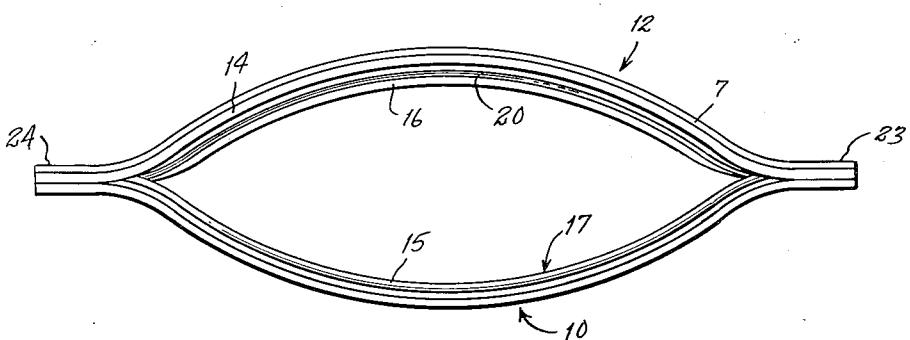


Fig. 6.



INVENTOR.

RALPH E. HARRAH

BY

R. E. Speeck
ATTORNEY

April 11, 1961

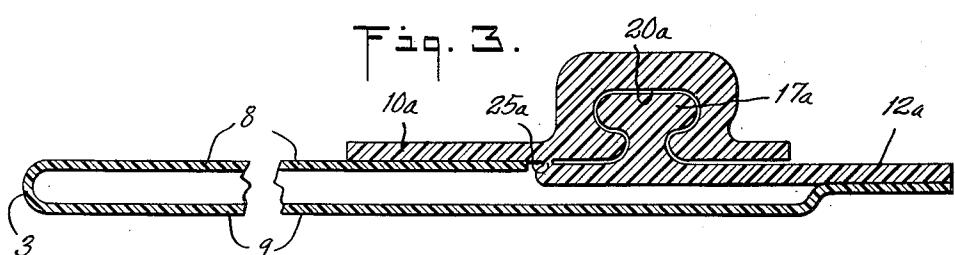
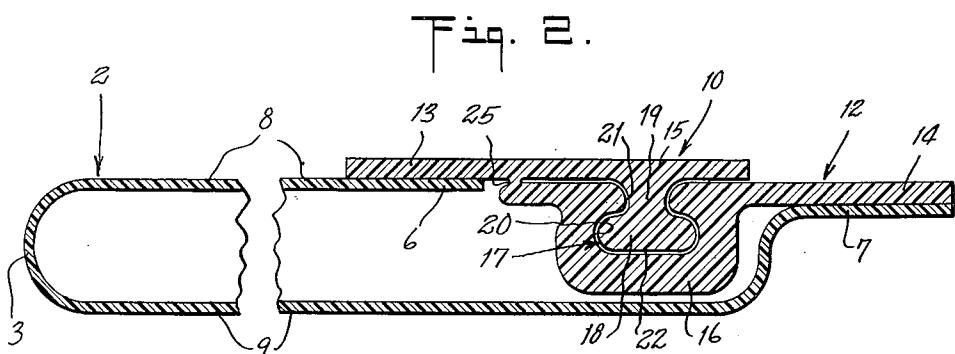
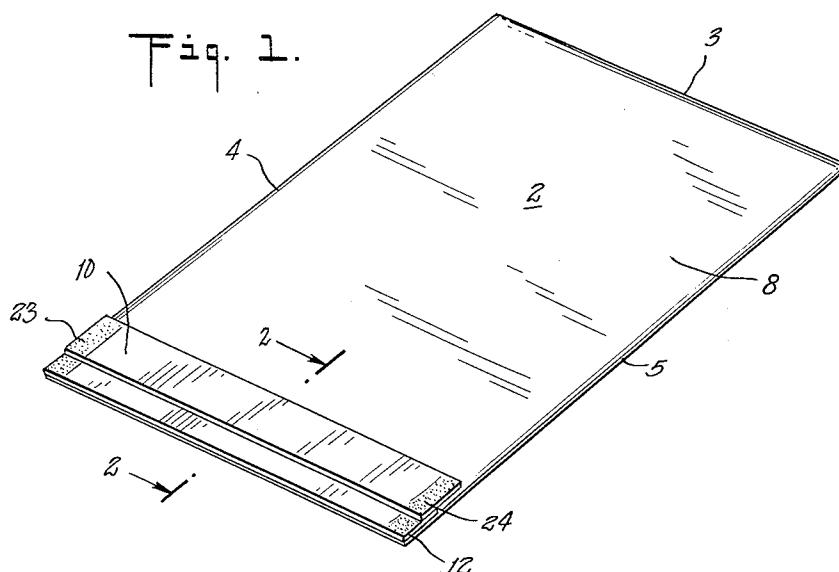
R. E. HARRAH

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INVENTOR.
RALPH E. HARRAH
BY *R. E. Harrah*
ATTORNEY

United States Patent Office

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PLASTIC BAG OR CONTAINER

Ralph E. Harrah, Meadville, Pa., assignor to Talon, Inc.,
a corporation of Pennsylvania

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2 Claims. (Cl. 24—201)

This invention relates to a bag or similar container having interengaging means for closing an opening therein, and more particularly, to a bag or the like having auxiliary means adapted to provide an air-tight seal for the closure means.

Various types of bags, pouches or the like are now being utilized for packaging many different articles, such as foodstuffs and other perishable goods. It is desirable that such goods be packaged in substantially air-tight and moistureproof containers in order to prevent them from drying out and to preserve the quality thereof at least from the time they are packaged until they are used. Heretofore, many types of bags or pouches have been suggested and used having fastening or closure means arranged therewith for closing an opening therein, but they were not entirely satisfactory and were not too effective in protecting the contents from spoilage or deterioration for any reasonable length of time.

It is the general object of the present invention to provide an improved bag or container having front and back sheet-like walls with the mated edges united together and in which the free upper edges of the walls are spaced from one another and are adapted to define an opening therebetween. There is arranged along the free edges, continuous fastening means and, in addition, auxiliary means for hermetically sealing the opening when the bag or container is initially formed and which can be easily opened to gain access to the interior of the bag when desired. The fastening means comprises two overlapping closure strips secured to the free upper edges of the front and back walls of the bag or container and extending the length thereof. The marginal edges of the overlapping closure strips are enlarged or relatively thick to form offset interlocking portions which confront one another. These interlocking portions consist of one or more co-operating longitudinal and continuous grooves and rib-like portions formed on the thickened marginal edges of the closure strips. These closure strips are initially interconnected by a web-like portion which also extends the length of the free edges substantially parallel to the interlocking means inwardly thereof.

It is another object of my invention to provide an improved bag or container made of flexible material having overlapping closure strips with interlocking rib-like portions and grooves arranged therealong which may be manually pulled in a direction transverse to the interlocking means and closure strips to effect a quick and convenient release of the one strip from the other and so as to break the web-like interconnecting portion between the closure strip to provide an opening in the bag or container.

It is a further object of this invention to provide an improved bag or container of the type above described which is relatively inexpensive in its manufacture and, at the same time, efficient and effective in its use.

Various other objects and advantages of this invention will be more apparent in the course of the following speci-

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fication, and will be particularly pointed out in the appended claims.

In the accompanying drawings, there is shown for the purpose of illustration, several embodiments which my invention may assume in practice.

In these drawings:

Fig. 1 is a perspective view of a bag or container embodying the present invention, showing the opening closed,

Fig. 2 is an enlarged sectional view taken on line 2—2 of Fig. 1,

Fig. 3 is a view similar to Fig. 2 showing a modified closure strip arrangement in accordance with my invention,

Fig. 4 is a view similar to Fig. 2, showing the initial separation of the closure strips in the process of opening the bag or container,

Fig. 5 is a view also similar to Fig. 2, showing the complete separation of the closure strips and the breaking of the web-like interconnecting portion, and

Fig. 6 is a top plan view of the bag or container embodying my invention, showing it in partially opened position.

Referring more particularly to the drawings, there is shown in Fig. 1, a bag or container 2 which is preferably made of vinylite or polyethylene sheeting or of some other heat-sealable thermoplastic synthetic resin material. Such materials are substantially impervious to air and moisture, and may be prepared in suitable thin sheets which are translucent and substantially transparent, so as to be suitable for use in the instant bag or container. A sheet of this material is preferably formed with a fold at the bottom edge 3 and is preferably heat-sealed along the side edges 4 and 5 so as to provide spaced-apart free edges 6 and 7 at the top of the bag or container, the free edge 6 being on the front wall portion 8 and the free edge 7 being on the back wall portion 9.

There is preferably heat-sealed to the free edges 6 and 7, a pair of closure strips 10 and 12, respectively, which have plane or web portions 13 and 14, respectively, and relatively thick marginal edge portions 15 and 16, respectively. The marginal edge portions 15 and 16 of these closure strips are provided with a suitable continuous interlocking means of the type shown generally in the patent to Sundback, No. 1,959,318, issued May 15, 1934.

Such an interlocking means, as shown, consists of a continuously longitudinally extending solid rib-like portion 17 arranged on the marginal portion 15 of the strip 10 having an enlarged head portion, as at 18, and a constricted neck portion, as at 19. In the marginal edge portion 16 of the other closure strip 12 there is arranged a continuous longitudinally extending groove 20 having a restricted opening, as at 21, and an enlarged bottom or well portion, as at 22, with the groove being in alignment with and corresponding in cross sectional shape to the rib-like portion 17 of the opposed strip. With the closure strips in confronting or overlapped relation, as more clearly shown in Figs. 2 and 3 of the drawings, the groove 20 is aligned with the rib-like portions 17 of the opposed strip which corresponds in cross section to the groove so that the same are interlocked when pressed together. The terminal edges of the closure strips 10 and 12, with which the groove and rib-like portion are in interlocked relation, are preferably heat-sealed together at the sides 23 and 24 and to the back wall portion 9.

In accordance with the present invention, the closure strips 10 and 12 are interconnected by a relatively thin web-like portion 25 which extends continuously along the strips substantially parallel to the groove 20 and the rib-like portion 17 preferably on the inner side thereof and at a spaced distance therefrom. Accordingly, it will be

seen that when the closure strips 10 and 12 have been heat sealed to the free edges 6 and 7 of the bag or container, there is provided a bag or container construction which completely is sealed at all edges thereby protecting the contents of the bag or container from air or moisture. It will be understood that the web-like portion 25 is merely a temporary seal for the opening of the bag or container so as to protect more fully the contents of the bag or container from the time it is initially packaged until it is desired to use the contents thereof. The bag is opened merely by pulling apart the closure strips 10 and 12 so as to disengage the groove and web-like portion interlocking means as shown in Fig. 4. The web-like portion 25 is then torn or cut by means of a sharp instrument thereby permitting access to the interior of the bag or container. The opening in the bag or container can again be closed merely by pressing the closure strip together by means of the thumb and forefinger as shown in the afore-said Sundback patent.

The embodiment shown in Fig. 3 of the drawings of the closure strips 10 and 12 are merely reversed to that of the embodiment previously described. That is to say, the closure strip 10a, having a longitudinally extending groove 20a, is attached to the free edge of the front wall portion 8 and the closure strip 12a, having a rib-like portion 17a, is attached to the free edge of the back wall portion 9. These closure strips are interconnected by the web-like portion 25a. This construction functions in the same manner as the embodiment previously described.

As a result of my invention, it will be seen that there is provided an improved bag or container made of a flexible material which is extremely light and inexpensive in its construction and so constructed that the proposed opening therein is initially completely sealed whereby an air-tight and moistureproof construction is obtained which is a decided advantage in packaging certain goods. It will also be seen that the seal can easily be broken so as to provide an opening therein when it is desired to gain access to the contents of the bag or container and that the opening can again be closed by the interlocking means carried by the closure strips merely by manually squeezing them together.

While I have shown and described an embodiment and a modification thereof which my invention may assume

in practice, it will be understood that these embodiments are merely for the purpose of illustration and description and that other forms may be devised within the scope of my invention as defined in the appended claims.

5 What I claim as my invention is:

1. Closure means of the class described, comprising a pair of elongated closure strips made from a flexible material disposed in overlapped relation, each of said closure strips having co-operating interlocking means arranged 10 on confronting faces thereof and extending continuously therewith, and means arranged integral with said closure strips temporarily interconnecting the same so that the space between said closure strips is completely sealed and which means may be broken to permit access through the 15 space between said strips when the interlocking means of said closure strips is disengaged.

2. Closure means of the class described comprising a pair of elongated closure strips made from a flexible material disposed in overlapped relation, one of said closure 20 strips having a plane portion extending in one direction with at least one longitudinally extending rib-like portion arranged continuously therewith adjacent the marginal edge thereof, the other of said closure strips having a plane portion extending in the opposite direction and 25 substantially parallel to the plane portion of said first closure strip with at least one longitudinally extending groove arranged continuously therewith adjacent the marginal edge thereof in which groove said rib-like portion of the first closure strip is disposed for resilient locking engagement therewith, and a longitudinally extending, relatively thin, web-like portion arranged to one side of said rib-like portion and said groove substantially parallel thereto and temporarily interconnecting said closure strips continuously therewith which web-like portion is adapted 30 to be broken to permit free access through the space between the closure strips when said rib-like portion is disengaged from said groove.

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