Oct. 29, 1957 N. D. COMMISSO ET AL 2,811,280

DISPENSER FOR STORAGE BAGS

Filed April 12, 1955 2 Sheets-Sheet 1

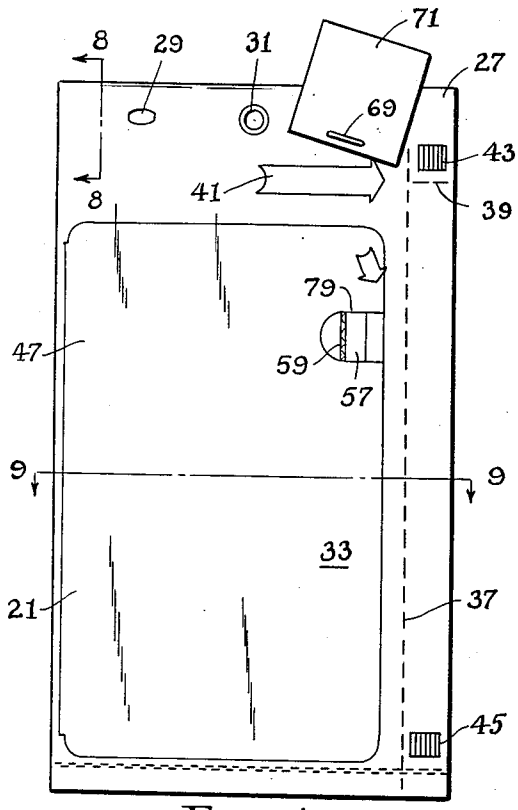


Fig. 1

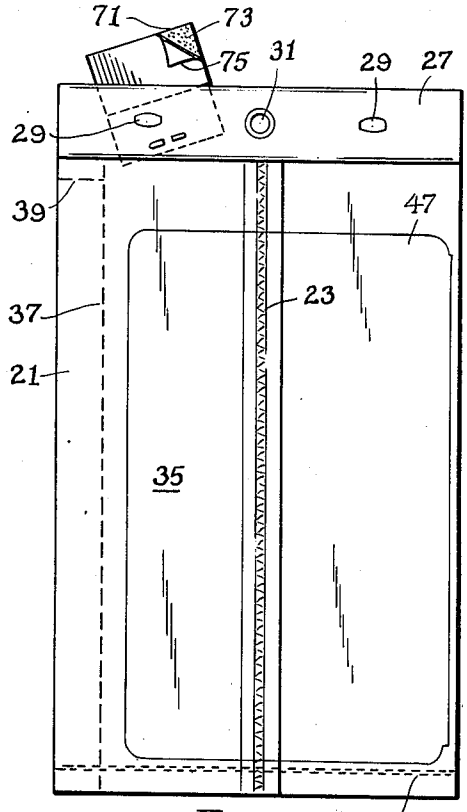


Fig. 2

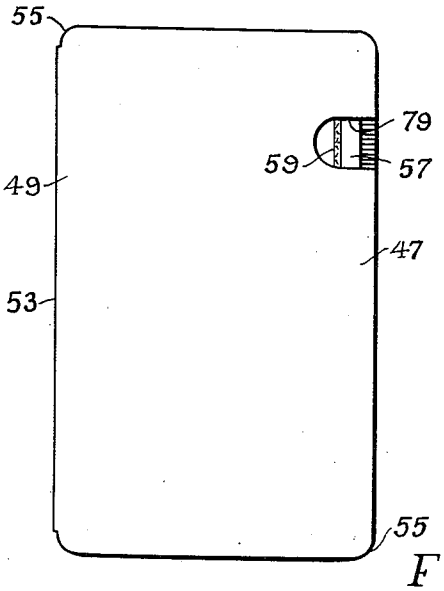


Fig. 4

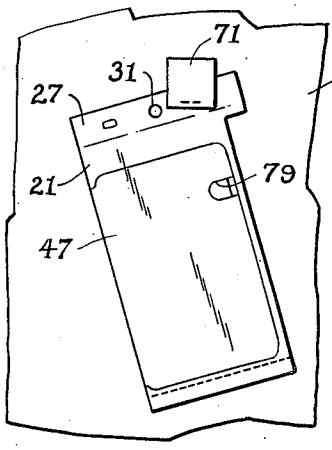


Fig. 3

Oct. 29, 1957 N. D. COMMISSO ET AL 2,811,280

DISPENSER FOR STORAGE BAGS

Filed April 12, 1955 2 Sheets-Sheet 2

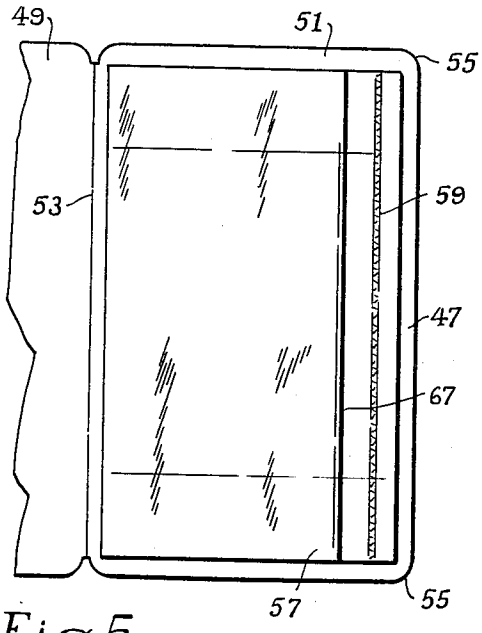


Fig.5

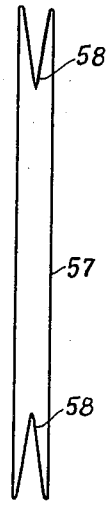


Fig.6

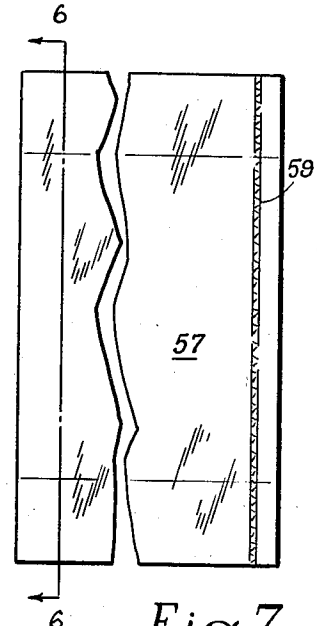


Fig.7

Fig.9

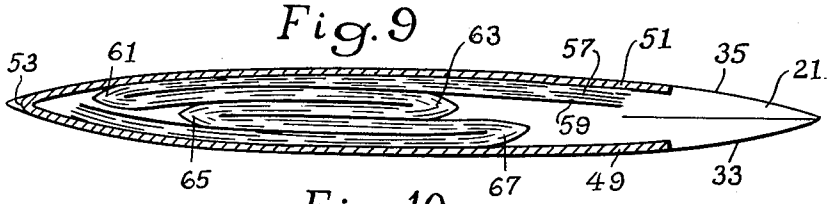


Fig.10

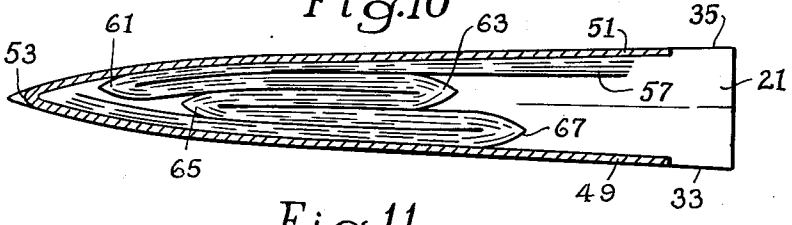
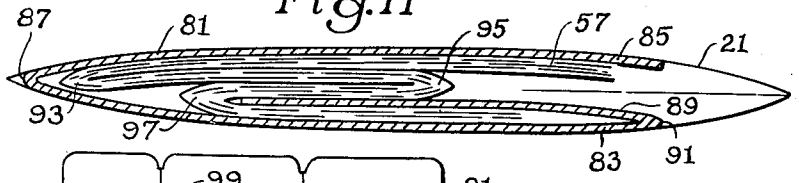


Fig.11



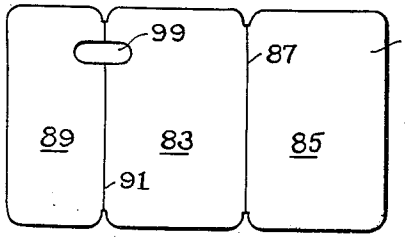


Fig.12

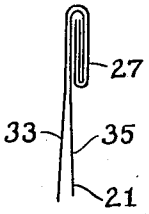


Fig.8

United States Patent Office 2,811,280
Patented Oct. 29, 1957

2,811,280

DISPENSER FOR STORAGE BAGS

Nicholas D. Commisso, Palmyra, Richard D. Hayes, East Rochester, and Richard M. Samuels, Brighton, N. Y., assignors, by mesne assignments, to Textron Inc., a corporation of Rhode Island

Application April 12, 1955, Serial No. 500,818

4 Claims. (Cl. 221—48)

The invention relates to a dispenser for storage bags.

An object of the invention is to provide a new or generally improved and more satisfactory storage bag dispenser.

Another object is to provide a dispenser for storage bags which permits only a single storage bag to be removed with each dispensing action.

Still another object is to provide a dispenser containing a nested arrangement of storage bags, each of which is adapted to be individually removed therefrom without affecting the nested arrangement of the remaining storage bags.

A further object is the provision of a dispenser having an enclosing wrapper which functions to contain and protect a nested arrangement of storage bags, and which is provided with perforated or weakened areas which may be easily severed to permit removal of the storage bags from the wrapper.

A still further object is to provide a storage bag dispenser having means for supporting the dispenser with the weight of the dispenser contents directed in a direction away from the dispensing opening.

A still further object is to provide a storage bag dispenser which is simple, convenient, and reliable in use, can be easily and economically manufactured, and presents a neat compact appearance.

These and other desirable objects may be attained in the manner disclosed as an illustrative embodiment of the invention in the following description and in the accompanying drawings forming a part hereof, in which:

Fig. 1 is a front elevation of the storage bag dispenser of the present invention;

Fig. 2 is a rear elevation of the structure shown in Fig. 1;

Fig. 3 is a view illustrating the device suspended from a supporting wall, shown in part, ready for use;

Fig. 4 is a front elevation of the storage bag support member shown removed from the enclosing envelope or wrapper;

Fig. 5 illustrates the support member of Fig. 4 in opened or expanded position, with a portion of its front wall being broken away, and showing the storage bags in their collapsed and nested position;

Fig. 6 is a transverse vertical section taken through a partially collapsed storage bag approximately on the line 6—6 of Fig. 7;

Fig. 7 is a front elevation of a storage bag, with its central position being broken away;

Fig. 8 is a vertical section taken approximately on the line 8—8 of Fig. 1;

Fig. 9 is a horizontal section taken through the device of the present invention, approximately on the line 9—9 of Fig. 1;

Fig. 10 is a view similar to Fig. 9, with an edge portion of the enclosing envelope or wrapper removed, illustrating the device in position for use;

Fig. 11 is a horizontal section similar to Fig. 9, taken through a modified form of the invention; and

Fig. 12 is a front or face view of the storage bag support member shown in Fig. 11, in its opened or expanded position.

The same reference numerals throughout the several views indicate the same parts.

With reference to the drawings, the storage bag dispenser of the present invention includes an outer or enclosing envelope or wrapper or container 21 made, preferably, from a thin flexible sheet material, as for example a translucent polyethylene plastic. In forming the envelope, the end portions of the sheet material are overlapped and sealed to each other by heat welding, or any other suitable means, to form a seam as shown at 23. The material is then flattened with the seam 23 disposed approximately centrally of the rear surface, and a second heat welded seam 25 is formed across the lower end of the material, slightly above its lower edge.

The upper end of the envelope 21 remains open until a nested arrangement of storage bags is inserted therein, after which the upper portion of the envelope is overlappingly folded to provide a reinforced or thickened top portion 27, as shown in Fig. 8. Since the sheet material employed in forming the enclosing envelope 21 and the storage bags is extremely thin, the conventional cross-hatching of these elements shown in section has been omitted from Figs. 6 and 8–11 for the sake of clarity and simplicity. Spot welds 29 secure the folds of the upper portion of the envelope together, after which the thickened portion 27 is provided with an approximately central opening 31 which is adapted to receive a suitable fastener, as for example a nail, for supporting the dispenser for display or during use.

Along the front and rear surfaces 33 and 35, respectively, of the envelope 21, adjacent to either the right or left edge thereof, are provided a plurality of spaced slits forming weakened areas or tear lines 37 and 39, along which the envelope 21 may be easily severed to provide a storage bag dispensing opening, as shown in Fig. 10. Since the slits are almost imperceptible, a colored broken line may be placed alongside of the slits to call the user's attention to the tear lines and further, suitable instructions or symbols, as for example as shown by the arrow 41, may be provided on the envelope, if desired. In addition colored squares 43 and 45, or other suitable symbols, are provided in positions as shown in Fig. 1 to denote alternative areas which may be gripped by the user when tearing away the removable edge portion of the envelope.

Contained within the envelope 21 are the storage bags, neatly nested within a support member 47 which maintains the bags in their nested arrangement for proper dispensing. In one form of the invention, the support member 47 includes a sheet of relatively stiff material, as for example cardboard, doubled or folded upon itself to form a front and rear wall 49 and 51, respectively, connected by a hinge portion 53, see Figs. 5 and 9. To prevent accidental rupture of the enclosing wrapper or envelope 21, the front and rear walls 49 and 53 of the support member are provided with rounded corners as shown at 55.

The storage bags 57, shown in Figs. 6 and 7, are made of very thin flexible sheet material, as for example translucent polyethylene plastic, to permit a good supply of storage bags to be disposed within the dispenser envelope without providing a bulky or heavy package. Each of the storage bags is formed of a seamless sleeve laid flat, and provided with an accordion pleat or fold 58 along each side edge, as seen in Fig. 6, to allow the bag to be collapsed into a flat position. One end of the sleeve is then closed, as for example by a heat weld 59.

In nesting the storage bags, a plurality of bags, as for

example ten bags, are first stacked upon each other in their flat collapsed condition, with their closed ends being arranged at the same end of the stack. Then, the stacked arrangement of storage bags is folded as a unit at **61** by moving the open ends of the storage bags towards their closed ends. This first fold **61** is spaced from the closed ends of the stacked bags a distance slightly less than the width of the rear wall of the supporting member. The portion of the stacked storage bags between the fold **61** and their open ends is then folded further as a unit in a serpentine fashion, as seen in Figs. 9 and 10, by providing folds **63**, **65**, and **67**, the number of folds of course being dependent upon the length of the storage bags. All folds, subsequent to the first fold **61**, are disposed to one side of a plane passing the closed ends of the storage bags and the first fold **61**. It will be noted that the folds **65** and **67** are offset to the right of the folds **61** and **63**, respectively, so that the left edge portion of the nested storage bags, that is the edge which will be disposed closest to the hinge portion **53**, of the support member, will not be provided with too great a thickness. Further, it will be noted that all of the folds are spaced laterally away from the closed ends of the storage bags so as to insure that these ends may be easily reached by the user without any interference from any other portions or folds of the bags. By this stacking and nesting arrangement, dispensing of only a single storage bag at one time, as hereinafter described, is made possible.

The storage bags in their nested arrangement, are then placed between the front and rear walls **49** and **51**, respectively, of the support member, with the closed ends of the storage bags lying adjacent to the free edges of the walls of the support member, as shown in Fig. 4. The support member, along with the nested storage bags, is then disposed into the envelope or wrapper **21**, with the open side edge of the support member adjacent to the removable side edge of the wrapper, as shown in Fig. 1. As previously described, the top portion of the wrapper **21** is then folded over upon itself and heat welded at spaced points as shown at **29**.

Secured, as by the staple **69**, to the thickened portion **27** of the wrapper **21** is a supporting tab **71** having an adhesive film **73** on the uppermost portion of its rear surface. A protective strip **75** covers the adhesive film **73** and may be easily peeled away just prior to use, as shown in Fig. 2. The supporting tab **71** as shown in Figs. 1–3, is fixed to the corner of the envelope **21** above its removable edge so that the envelope when supported solely by the tab **71**, will assume an inclined position, as shown in Fig. 3, with its open edge facing in an upward direction. In this manner, the weight of the support member **47**, and the storage bags nested therein, is directed away from the open edge of the wrapper **21**, and thus eliminates any tendency for the storage bags to accidentally fall therefrom. If desired, the storage bag dispenser may be supported both by a fastener passing through the opening **31** and the supporting tab **71**. In this case it is desirable to first support the dispenser on the fastener, and then secure the tab **71** after the envelope **21** has been pivoted into a position as shown in Fig. 3.

In use, the removable edge of the envelope **21** is first severed by tearing along the weakened areas **37** and **39** as heretofore descibed. The dispenser is then secured to a suitable surface, as for example, the door of a kitchen cabinet **77** (shown in part in Fig. 3), by either a fastener passed through the opening or by the support tab **71**, or both if desired. When supported solely by a fastener, it will be noted that the top portion of the wrapper **21** is of sufficient thickness to prevent the weight of the dispenser contents from tearing the wrapper in the vicinity of the fastener. The user may then reach into the envelope, grasp the closed end of a storage bag, and apply a pull approximately perpendicular to the open edge of the envelope. A cut-out or access opening **79** is provided in the front wall **49** of the support member **47** to enable the user to more easily reach the closed ends of the storage bags. It is believed evident from Fig. 10 that with each dispensing action the user removes the storage bag having its closed end nearest to the front wall **49** of the support member, and that each storage bag unfolds itself, when pulled outwardly, without affecting the nested relationship of the remainder of the storage bags. By placing the closed ends of the storage bags adjacent to the free ends of the front and rear walls of the support member **47**, the user can more easily grasp only a single bag, and in addition the user is insured that no foreign matter, such as dust, has entered into the bags.

In the second form of the invention, the construction of the wrapper **21** and the storage bags **57** are the same as heretofore described. In this modification, however, the support member **81** and the nested arrangement of the storage bags has been changed. The support member, as shown in Figs. 11 and 12 is provided with a front wall **83**, a rear wall **85** hingedly connected at **87** to the front wall, and an additional reinforcing or guide wall **89**, hingedly connected at **91** to fold between the front and rear walls **83** and **85**, respectively. Rounded surfaces are provided on all rounded corners to prevent accidental puncture of the wrapper **21** by the support member **81**. The storage bags **57** are folded at **93**, **95**, and **97**, after they have been stacked flat in overlapping flat relationship, in a manner generally similar to that described previously, with all the folds disposed on the same side of a plane passing through the closed ends of the storage bags and the fold **93**, and with the fold **97** being laterally spaced to the right of the fold **93**. As with the first described embodiment, the number of folds will, of course, depend upon the length of the storage bags, it being understood that the number of folds can be varied providing the same general folding arrangement is maintained. With this modified construction, however, the free ends of the storage bags extend in the same general direction as the closed ends of the bags.

The folded storage bags are then disposed between the front and rear walls **83** and **85**, respectively, of the support member **81**, with the guide wall **89** having its free end adjacent to the last fold **97**, as shown in Fig. 11. The nested arrangement of storage bags is placed within the envelope **21** and are dispensed therefrom as explained above in regard to the first described structure. The added guide wall **89** on the support member provides an additional stiffener holding the storage bags in their nested position, and in addition gives greater assurance that the storage bags, during dispensing, will each unfold in a certain sequence, with the fold **97** being the last to unfold. To assist the user in grasping the closed ends of the nested storage bags, a cut-out or access opening **99** is provided as shown in Fig. 12, this opening, when the support member is folded as in Fig. 11, lying forwardly of the closed ends of the nested storage bags.

As an added feature of the dispenser the storage bags, prior to folding, may be stacked so as to have the closed ends of alternate storage bags spaced laterally from each other. This, of course, will not affect the dispensing action, but will permit the user to more easily take hold of only a single bag.

Without adding any appreciable weight to the dispenser itself, it is obvious that the exterior surface of the envelope **21** can carry various indicia, such as the trademark of the manufacturer, suggested uses for the storage bags, or even advertising material.

With either of the modifications described, the nested arrangement of storage bags provides the user with a convenient and compact dispenser which is simple to use and which insures the user that only a single storage bag will be removed with each dispensing action. Further, the dispenser is complete in itself and requires no special technique in folding the storage bags or loading the dispenser envelope itself, and therefore satisfactory opera-

tion of the unit is not dependent upon any training or skill of the user.

It is seen from the foregoing disclosure that the above mentioned objects of the invention are well fulfilled. It is to be understood that the foregoing disclosure is given by way of illustrative example only, rather than by way of limitation, and that without departing from the invention, the details may be varied within the scope of the appended claims. For example, certain features of the invention may be used in dispensing a supply of bags which are arranged in flatwise or non-folded relation within the outer container. Also the tear line **37**, used in opening the outer container, is not necessarily parallel to one side edge of the outer container, but may under certain conditions be diagonal, or may be parallel to the top or bottom edge.

What is claimed is:

1. A dispenser for plastic storage bags, said dispenser including a flexible envelope closed at its bottom and side edges, said envelope having its top portion provided with a plurality of overlapping folds connected together to form a thickened top edge, a fastener receiving opening extending through said thickened top edge approximately centrally thereof, a support member contained within said envelope, said support member being formed of stiff sheet material and including at least a first and second wall connected to each other along one edge by a flexible hinge portion, a nested arrangement of plastic storage bags positioned between said first and second walls of said support member, with the closed ends of said storage bags disposed adjacent to the open edge of said support member, said nested arrangement of storage bags formed by a plurality of collapsed storage bags stacked in overlapped relationship and folded as a unit along a plurality of fold lines, said plurality of fold lines including a first fold line spaced from the closed ends of said stacked storage bags by a first distance slightly less than the width of said first and second walls of said support member, with the distances between subsequent fold lines being less than said first distance, all of said subsequent fold lines being disposed to one side of a plane passing through said first fold line and the closed ends of said stacked storage bags, said subsequent fold lines being laterally spaced away from the closed ends of said stacked storage bags toward said first fold line, said flexible envelope having a weakened area adjacent to said open edge of said support member, said weakened area forming a tear line along which said flexible envelope may be severed to provide a dispensing opening through which said storage bags may be individually removed without affecting the nested arrangement of said remaining storage bags, and a supporting tab secured to the thickened top edge of said flexible wrapper above said weakened area, said tab being adapted to be employed alone or in combination with a fastener passing through a fastener receiving opening to support said dispenser in an inclined position with the weight of its contents extending in a direction away from said dispensing opening.

2. A construction as defined in claim 1, wherein said support member includes only a first and second wall.

3. A construction as defined in claim 1, wherein said support member also includes a third wall connected to one edge of one of said first and second walls by a flexible hinge portion, said third wall having its free edge lying adjacent to the last fold line of said plurality of fold lines.

4. A dispenser for storage bags, said dispenser including a container closed at its bottom and side edges and having a reinforced top edge, a support member positioned within said container, said support member being formed of a stiff sheet material and including a first and second wall of like configuration hingedly connected to each other along one edge, a nested arrangement of storage bags disposed between said first and second walls of said support member with their closed ends being disposed in a position remote from said hinge connection between said first and second walls, said nested arrangement of storage bags including a plurality of collapsed storage bags stacked in overlapping relationship and folded as a unit in a serpentine manner along a plurality of fold lines, said plurality of fold lines including a first fold line spaced from said closed ends of said storage bags by a distance slightly less than the width of said support member, with the subsequent fold lines lying between but laterally spaced from the closed ends of said storage bags and said first fold line, said container having a removable edge portion lying adjacent to said closed ends of said storage bags and adapted to provide a dispensing opening through which said storage bags may be individually removed without affecting the nested arrangement of the remaining storage bags, and means for supporting said container in depending relationship with respect to a support member.

References Cited in the file of this patent

UNITED STATES PATENTS

442,214	Allen	Dec. 9, 1890
1,686,458	McColl	Oct. 2, 1928
1,952,382	MacGregor	Mar. 27, 1934
2,005,490	Baxter	June 18, 1935
2,348,041	Warner	May 2, 1944
2,558,920	Baggs	July 3, 1951