

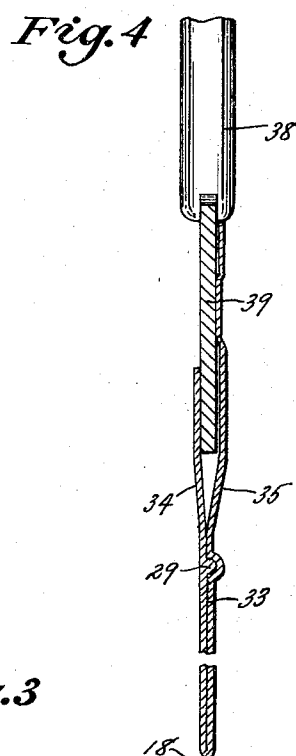
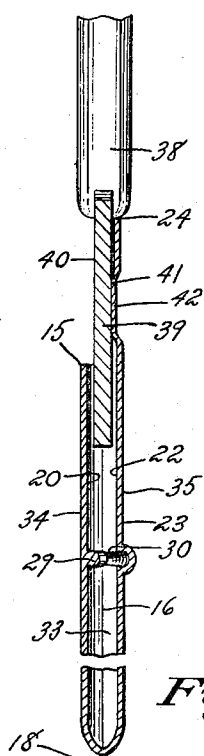
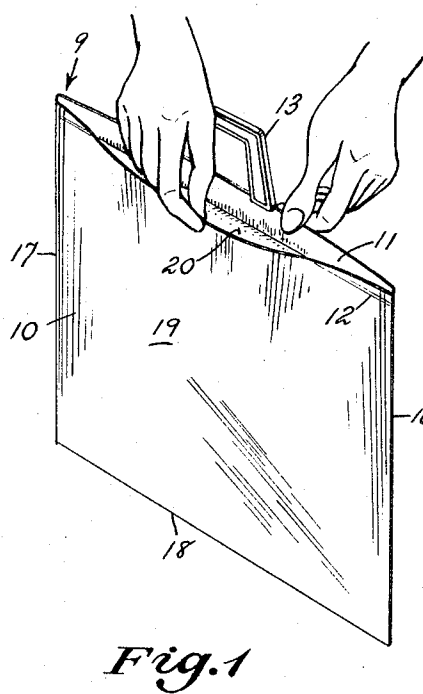
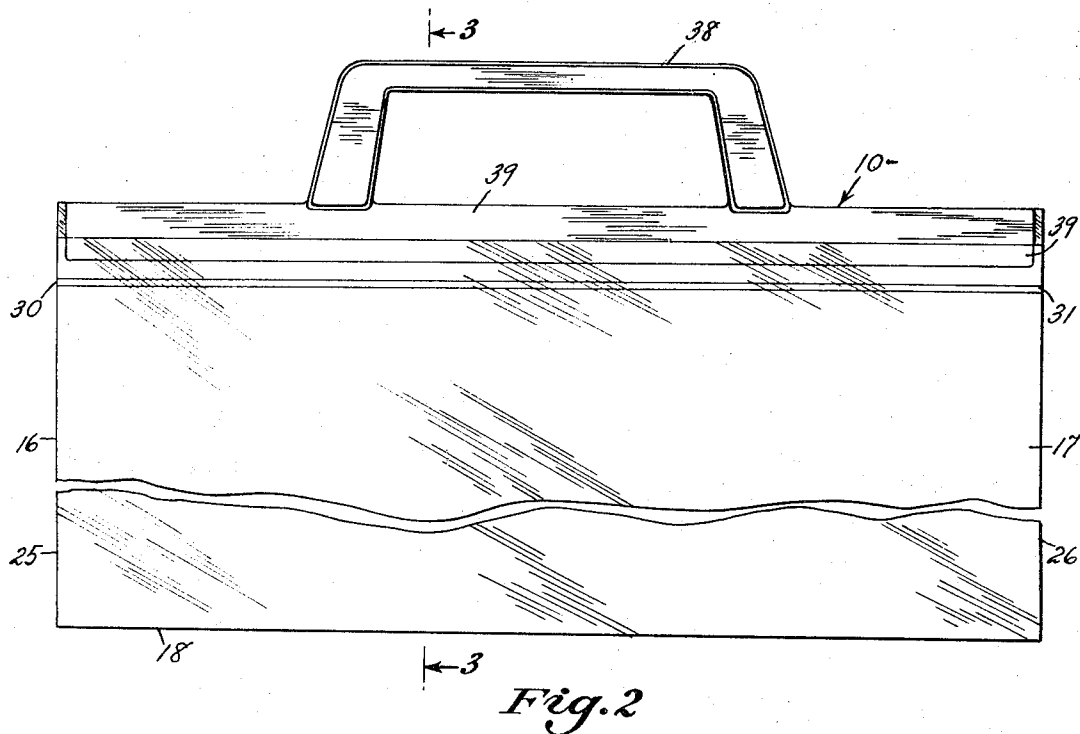
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S. KAMINS ETAL

3,344,977

SINGLE HANDLE BAG CONSTRUCTION

Filed Jan. 5, 1966



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3,344,977

SINGLE HANDLE BAG CONSTRUCTION

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2 Claims. (Cl. 229—54)

ABSTRACT OF THE DISCLOSURE

A synthetic resinous bag composed of two side wall elements of synthetic resinous material heat sealed along the side and bottom edges thereof, each including an integrally molded mating closure disposed below the upper edges thereof, and a handle element heat sealed to the inner surface of one of said wall elements.

This invention relates generally to the field of integral handle synthetic resinous carrying bags, and more particularly to an improved form thereof having many of the features of more expensively fabricated bags of this type, but which may be produced at a substantially reduced cost.

In bags of the type disclosed, for example, in the La Guerre patent, Number 3,140,038, it is customary to fabricate the bag in a manner to include two sidewall elements of synthetic resinous material which are heat-sealed along the side and bottom edges thereof. The upper edges are each heat-sealed to one of a pair of relatively stiff synthetic resinous handles. The handles in turn are provided with interconnecting means whereby the bag may be closed, and subsequently carried by grasping the handle. When it is desired to remove the contents of the bag, the handles are separated, thereby disengaging the interconnecting means and separating the sidewall elements to afford access to the interior of the bag. This construction, while attractive, strong, and convenient to use, is relatively costly to make, since the handle elements are relatively stiff to provide means for supporting the sidewalls which are relatively thin gauge material. Thus, the bulk of the material is in the handle elements.

Where the loading of the bag during its ultimate use will be with relatively lightweight material, and in which the stresses on the interconnected seams of the bag will be correspondingly light, the necessity of providing a pair of handles, each interconnected to one sidewall element of the bag is no longer present, although the desirability of an element which provides sealing and carrying means remains.

It is therefore among the principal objects of the present invention to provide an improved bag structure employing only a single handle element as contrasted with prior art double handle constructions.

Another object of the invention lies in the provision of an improved bag construction incorporating a single handle for carrying, in which the sealing means is formed integrally with the sidewall elements thereof, whereby the presence of a second handle for sealing purposes is unnecessary.

Yet another object of the invention lies in the provision of an improved synthetic resinous bag construction of the class described, in which the cost of fabrication may be of a relatively low order, as compared with existing prior art devices, thereby permitting relatively wide sale, distribution and use.

A feature of the invention lies in the fact that the sealing and unsealing functions previously performed by interlocking the previously present pair of handle elements

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are performed quite as readily by the user without the necessity of manually grasping the handles.

These objects and features, as well as other incidental ends and advantages, will more fully appear in the progress of the following disclosure, and be pointed out in the appended claims.

In the drawing, to which reference will be made in the specification, similar reference characters have been employed to designate corresponding parts throughout the several views.

FIGURE 1 is a view in perspective of an embodiment of the invention.

FIGURE 2 is a fragmentary side elevational view thereof.

FIGURE 3 is a fragmentary enlarged sectional view as seen from the plane 3—3 in FIGURE 2.

FIGURE 4 is a similar fragmentary enlarged sectional view, showing certain of the component parts in altered relative position.

In accordance with the invention, the device, generally indicated by reference character 9, comprises broadly: first and second sidewall elements 10 and 11, respectively, sealing means 12, and a single handle element 13.

As is usual with constructions of this type, the first and second sidewall elements are formed from relatively thin gauge polyethylene, rubber hydrochloride, or similar heat-sealable materials. The first element 10 includes an upper free edge 15, side edges 16 and 17, a lower edge 18, an outer surface 19 and an inner surface 20 (see FIGURES 1 and 3). The second sidewall element 11 is bounded by an inner surface 22, an outer surface 23, an upper free edge 24, a side edge 25 heat-sealed to the side edge 16, a side edge 26 heat-sealed to the side edge 17, and a lower edge 27 heat-sealed to the lower edge 18. As best seen in FIGURES 3 and 4, it will be observed that the edge 24 is disposed substantially above the edge 15 to facilitate mutual separation as seen in FIGURE 1, although it will be understood by those skilled in the art to which the invention relates, that this provision is not essential to operation of the sealing means 12.

The sealing means 12, as best seen in FIGURES 3 and 4 is formed integrally upon the sidewall elements 10 and 11, and positioned below and parallel to the upper edges 15 and 24. The means 12 includes an elongated projection 29 on the inner surface 20. Referring to FIGURES 1 and 2, the projection extends from a first end 30 at the side edge 16 to a second end 31 at the side edge 17. The sidewall element 11 includes a corresponding recess 31 co-extensive between the edges 25 and 26. The means 12 is interconnected by manual pressure exerted on the outer surfaces of the wall elements in well-known manner, the material from which the wall elements being made possessing sufficient resiliency to permit adequate flexing during engagement, and the maintenance of the same in engaged condition. As seen in FIGURE 4, when in interconnected condition, the wall elements 10 and 11 formed a sealed enclosure 33, as well as a pair of unsealed portions 34 and 35 on the wall elements 10 and 11, respectively.

The handle element 13 may be of a molded type resembling that disclosed in the above-mentioned Patent No. 3,140,038 with an absence of interlocking recesses and projections which are no longer required. It includes a handle forming loop member 38 as well as a transversely extending base member 39 integrally molded therewith. The base member 39 includes a pair of parallel surfaces 40 and 41, and a portion of the inner surface 23 is heat-sealed to the surface 39 in the area indicated by reference character 42.

When the device 9 is carried, stresses caused by the load disposed within the enclosure 33 are transmitted to the sealing means 12, and thus along the unsealed por-

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tion 35 to the sealed area 42 and the handle element 13. Since the interconnection at the upper portion of the wall element is continuous between the side edges of each of the wall elements, and the distance between the sealing means and the base member of the handle element is relatively short, no distortion as a result of the relatively light stresses encountered occurs, and the device may be carried exactly as in the case of double-handled construction.

To open the device 9, manual pulling is exerted directly upon the unsealed portions 34 and 35 as shown in FIGURE 1 in the drawing, resulting in a parting of the sealing means 12 from the central parts thereof in a progressive manner.

It may thus be seen that by resorting to integral sealing means disposed between the wall elements of the device, the necessity of a second handle element having interconnecting means for joining with a corresponding first handle element is completely eliminated, with a very substantial saving in materials, and a correspondingly lowered cost of fabrication. Where relatively light loads are carried, the device is substantially as durable as existing prior art devices, and is as conveniently used.

We wish it to be understood that we do not consider the invention limited to the precise details of structure shown and set forth in this specification, for obvious modifications will occur to those skilled in the art to which the invention pertains.

We claim:

1. Synthetic resinous bag construction comprising: first and second sidewall elements, each of said sidewall elements having mutually sealed side and lower edges

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defining an enclosure, and having upper free edges; integrally molded from a single sheet sealing means said sealing means comprising a protuberance on one sidewall adapted to snap into an aligned recess on the other sidewall and positioned along an axis parallel to and spaced below said upper edges to selectively seal said enclosure, leaving portions of said first and second wall elements unconnected above the sealing area; and handle means heat-sealed to the inner surface of one of said last-mentioned portions in the area disposed above said molded sealing means a continuously extending integrally molded portion of the sidewall not having the handle attached thereto being provided and being adapted to be grasped manually for unsealing the bag.

2. Structure as defined in claim 1 in which said upper edges of said first and second sidewall elements are in spaced parallel relation when said sealing means is in interconnected relation.

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**UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION**

Patent No. 3,344,977

October 3, 1967

Seymour Kamins et al.

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 1, after "edges;" insert -- sealing means --; line 2, for "sheet sealing means" read -- sheet, --; line 11, after "molded sealing means" insert a semicolon.

Signed and sealed this 4th day of March 1969.

(SEAL)

Attest:

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Attesting Officer

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Commissioner of Patents