Nov. 9, 1954 R. D. HAYES 2,693,836

BAG CONSTRUCTION

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Fig. 2

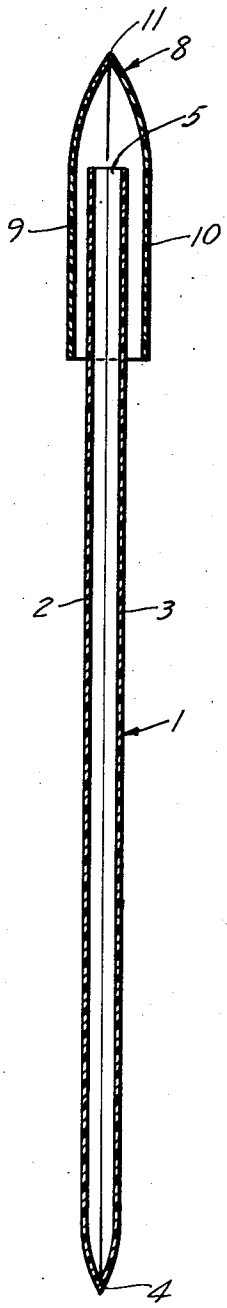
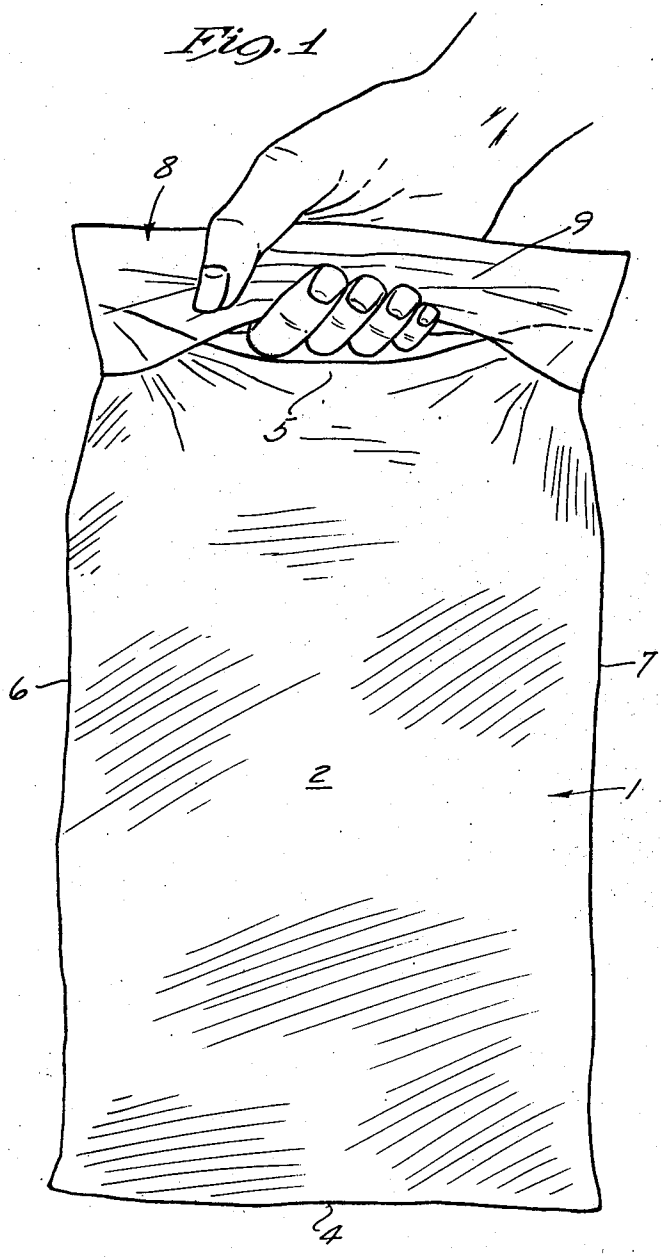


Fig. 1



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Fig. 3

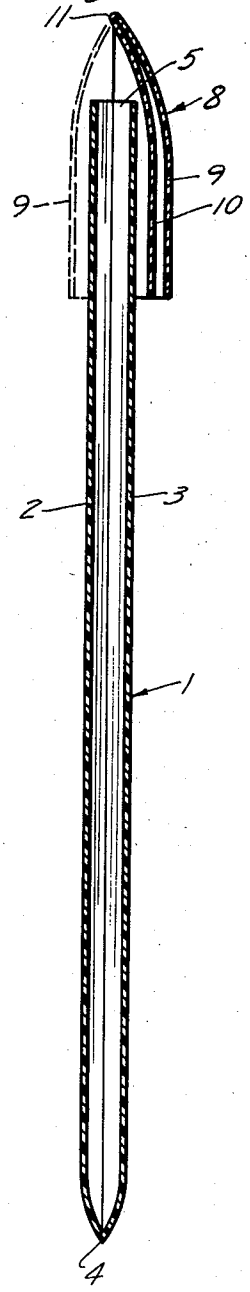


Fig. 4

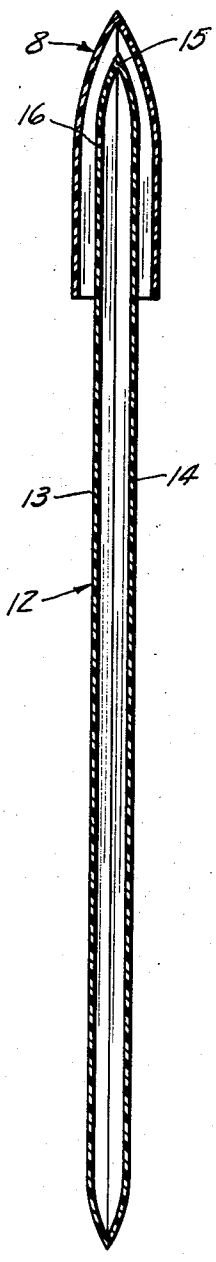


Fig. 5

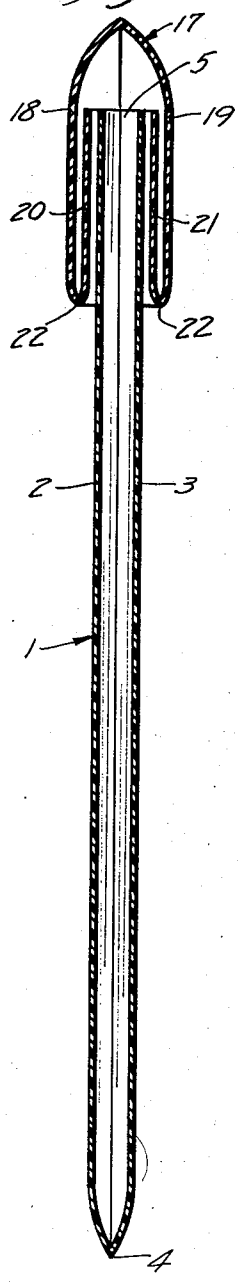
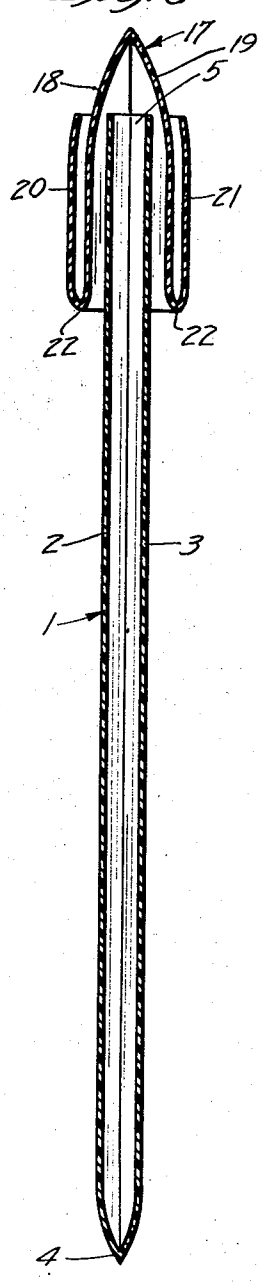


Fig. 6



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2,693,836

BAG CONSTRUCTION

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Application March 31, 1951, Serial No. 218,616

3 Claims. (Cl. 150—3)

My invention relates generally to bag construction and more specifically to novel closure and carrying means therefor.

An important object of my invention is the provision of novel closure means for the open upper end portions of bags, said closure means providing handle members whereby the bags may be carried.

Another object of my invention is the provision of combination closure and carrying means for bags as set forth which permit free and unobstructed access to the interior of the bags.

Another object of my invention is the provision of closure and carrying means for bags as set forth which, when utilized as closure means, effectively prevent escape of material from the bag.

Generally stated, the invention consists of the novel devices, combinations of devices, and arrangement of parts hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Fig. 1 is a view in side elevation illustrating the closure means utilized as a carrying handle;

Fig. 2 is a vertical section of a bag showing my novel closure means attached thereto;

Fig. 3 is a view corresponding to Fig. 2, but showing a different position of some of the parts;

Fig. 4 is a view corresponding to Fig. 2, but showing a modified form of bag;

Fig. 5 is a view corresponding to Fig. 2, but showing a modified form of closure and carrying means; and

Fig. 6 is a view corresponding to Fig. 2, but showing a still different form of closure and carrying means.

In a preferred embodiment of the invention illustrated in Figs. 1 to 3 inclusive, a flat tubular bag is indicated in its entirety by the numeral **1** and comprises front and rear walls **2** and **3** respectively, a closed bottom portion **4**, and an open upper end portion **5**.

The bag structure may be made in any suitable manner and from various materials, but preferably is constructed from a single thin transparent sheet of synthetic resin such as polyethylene or the like. The bag **1** is formed by folding a length of the sheet material on itself to form the front and rear elements **2** and **3** and the adjoining edge portions secured together by suitable means such as by the application of heat and pressure. For the purpose of the present example, it may be assumed that the sheet material is folded to form the bottom **4** and that the heat sealing is applied to the opposite side edges **6** and **7** of the bag, see Fig. 1. Obviously, sealing the edges **6** and **7** by means of heat applied thereto can only be accomplished with the use of such synthetic resins as lend themselves to this type of joinder. In bags of the above type made from cloth, paper, or the like, the sealing would be accomplished by the use of adhesives, sewing, or the like.

I provide novel bag closure and carrying handle means for the bag **1** in the nature of a thin sheet of material **8**, folded longitudinally upon itself to form downwardly extending front and rear flap elements **9** and **10** respectively. The opposite ends of the flaps **9** and **10** are secured together and to the opposite side edges **6** and **7** of the bag **1** adjacent the open upper end **5** thereof, said flaps **9** and **10** overlying the upper end portions of the front and rear walls **2** and **3** respectively.

With reference to Fig. 3, it will be seen that my improved closure may be folded backwardly on the fold line **11** thereby providing access to the interior of the bag through the open upper end **5** thereof for the reception of materials to be contained therein or for the ready discharge of said materials. However, when the closure **8** is inverted to its bag-closing position of Fig. 2, it will effectively prevent accidental spilling of the contents in the bag, assuming, of course, that said contents are in a dry state. As illustrated in Fig. 1, my improved bag may be readily carried by pulling upwardly upon the central portions of the flap elements **9** and **10** and insertion of the user's fingers therebetween and the upper end of the bag. If desired, the bag **1** may be originally constructed with the closure initially positioned, as indicated by full lines in Fig. 3, so that the bag may be filled without loss of time in opening the same. Thereafter, the closure may be inverted to bring the flap element **9** into its dotted-line position to effectively close the bag.

By reference to Figs. 1 to 3 inclusive, it will be noted that the upper edge portion of the closure **8** is in spaced relationship to the top of the bag **1**. However, I do not wish to limit the invention to this specific arrangement inasmuch as it is sometimes desirable to construct the bag with the upper end **5** thereof in substantially abutting relationship to the interior of the closure adjacent the fold line **11**, particularly when my novel bag is utilized for the purpose of containing granular material such as beans, dried peas, rice, and the like.

In the modified form illustrated in Fig. 4, a bag **12** is shown as comprising front and rear wall elements **13** and **14** respectively, and a closed upper end **15**. In this instance, the bag **12** is shown as being provided adjacent its upper end with an opening **16** in the nature of a slot extending across the width of the front wall **13** thereof and by means of which access may be had to the interior of the bag **12**. The bag **12** has a combination closure and handle means identical in all respects to the closure **8** of Fig. 1 and which is identified in its entirety and in detail by numerals corresponding to the numerals of Figs. 1 to 3 inclusive. When the closure **8** of the bag **12** is used as a carrying handle, the portion of the bag above the slot **16** will be more-or-less crumpled downwardly in a manner to completely close the slot **16** so that foreign matter such as dust, rain, or the like will not be permitted to come into contact with the contents of the bag while the same is being carried.

In the modified form of closure illustrated in Fig. 5, the bag is identical to the bag of Figs. 1 to 3 inclusive, and is identified by the same numerals. The closure therefor, indicated in its entirety by the numeral **17**, comprises front and rear flap elements **18** and **19** respectively which are provided with extended portions **20** and **21** that are folded backwardly upon themselves on fold lines **22** in a manner to cause the extended portions **20** and **21** to lie between the adjacent flap elements **18** and **19** and the adjacent front and rear walls **2** and **3** in the open end portion **5** of the bag. As is the case with respect to Figs. 1 to 4 inclusive, the closure of Fig. 5 is coextensive in length with the width of the bag, the opposite ends thereof including the ends of the folded portions **20** and **21** being secured to the opposite side edges of the bag. Folded portions **20** and **21** add strength to the closure **17**, both when the same is used as a closure and in its use as a carrying handle.

Fig. 6 illustrates the closure of Fig. 5 having the extended portions **20** and **21** of the flap elements **18** and **19** respectively folded outwardly instead of inwardly, so that the flap elements **18** and **19** are disposed therebetween and the adjacent bag walls **2** and **3**. Otherwise, the closure **17** of the bag of Fig. 6 is identical to that of the bag of Fig. 5.

While I have shown and described several forms which my novel bag structure may take in practice, it will be understood that the same is capable of further modification without departure from the spirit and scope of the invention as defined in the claims.

What I claim is:

1. In combination, a tubular bag including front and

rear wall elements, said bag being open at its upper end portion, and a bag carrying and closure means comprising front and rear flap elements normally loosely overlapping the upper end portions of the front and rear bag wall elements respectively, said flap elements being joined together at their upper edge portions above the upper end portion of the bag and at their ends to each other and to adjacent side edges of the bag, said flap elements in said normal loose overlapping relation providing a handle for said bag adapted to receive a user's fingers between said flap elements and the upper end portion of the bag intermediate the side edges thereof for carrying the bag, one of said flap elements being foldable along its upper end portion over the other of the flap elements to position both flap elements on a common side of the bag and expose the open upper end thereof for access thereto.

2. In combination, a tubular bag including front and rear wall elements, said bag being at its upper end portion, and a bag carrying and closure means comprising a sheet of material folded to provide downwardly extending front and rear flap elements normally loosely overlapping the upper end portions of the front and rear bag wall elements respectively, said flap elements being joined together at their ends to each other and to adjacent side edges of the bag, said flap elements in said normal loose overlapping relation providing a handle for said bag adapted to receive a user's fingers between said flap elements and the upper end portion of the bag intermediate the side edges thereof for carrying the bag, one of said flap elements being foldable along its upper edge portion over the other of the flap elements to position both flap elements on a common side of the bag and expose the open upper end thereof for access thereto.

3. In combination, a tubular bag including front and rear wall elements, said bag being open at its upper end, and a bag carrying and closure means comprising an inverted cross sectionally U-shaped member embracing the open upper end portions of the bag, said member defining front and rear flap elements normally loosely overlapping the upper end portions of the front and rear bag wall elements respectively, said flap elements being joined together at their ends to each other and to adjacent side edges of the bag, said flap elements in said normal loose overlapping relation providing a handle for said bag adapted to receive a user's fingers between said flap elements and the upper end portion of the bag intermediate the side edges thereof for carrying the bag, one of said flap elements being foldable along its upper edge portion over the other of said elements to position both flap elements on a common side of the bag and expose the open upper end thereof for access thereto.

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