

July 19, 1955

J. L. QUINN

2,713,370

BAG

Filed Feb. 12, 1953

2 Sheets-Sheet 1

FIG. 1.

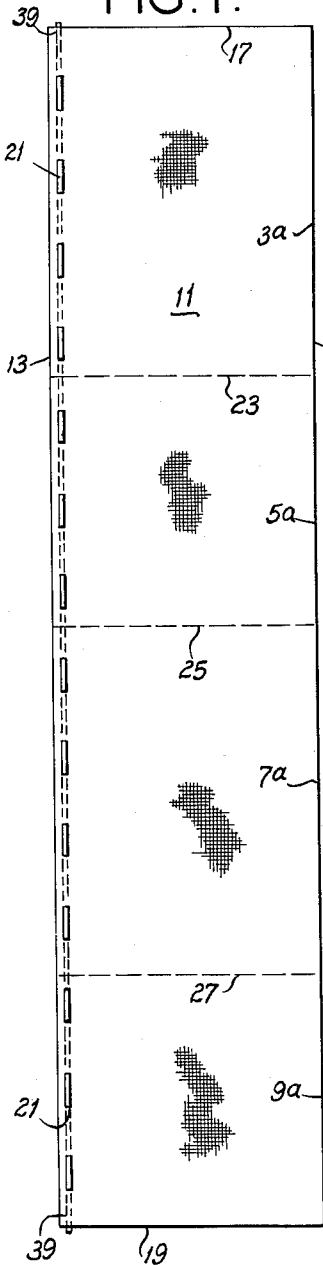


FIG. 2.

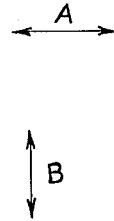
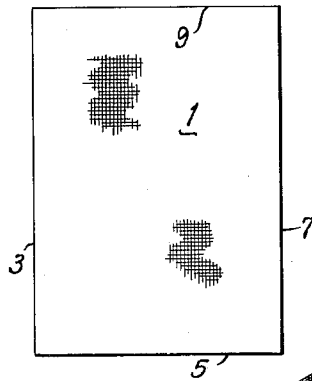


FIG. 3.

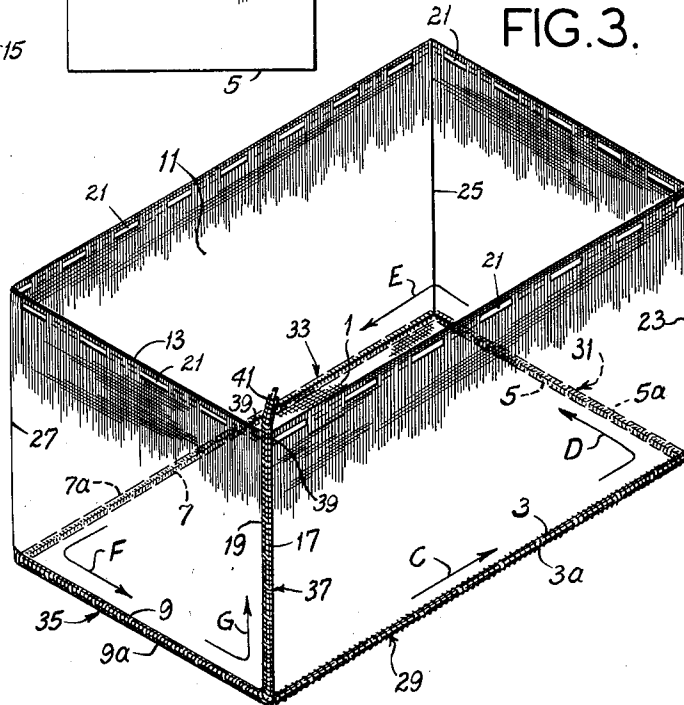
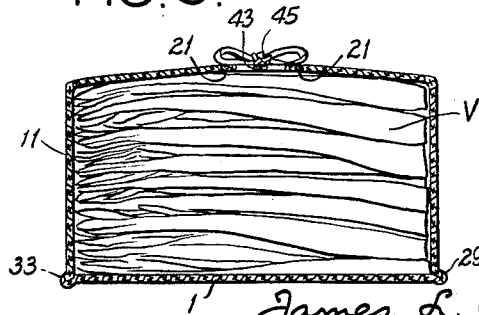


FIG. 5.



James L. Quinn,  
Inventor.  
Isenig and Pope  
Attorneys.

July 19, 1955

J. L. QUINN  
BAG

2,713,370

Filed Feb. 12, 1953

2 Sheets-Sheet 2

FIG. 4.

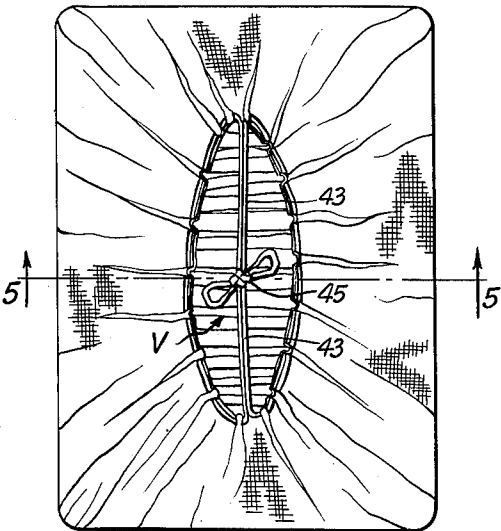


FIG. 6.

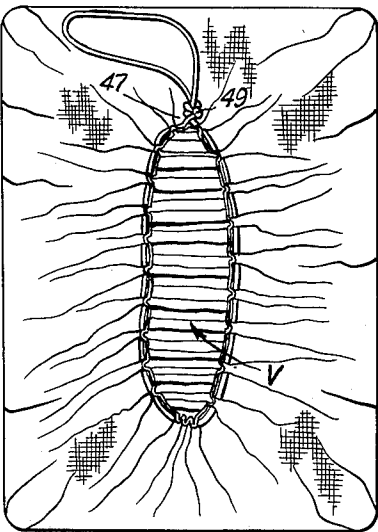
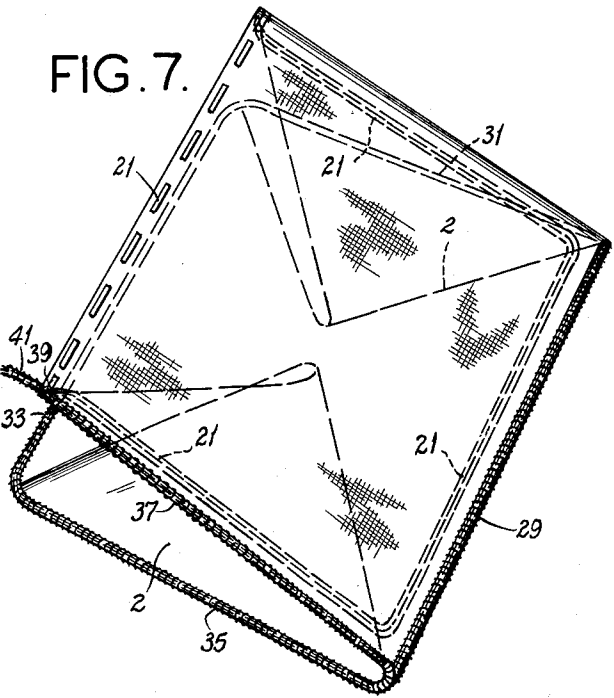


FIG. 7.



James L. Quinn  
Inventor,  
Koenig and Pope,  
Attorneys.

1

2,713,370

BAG

James L. Quinn, Jacksonville, Fla., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri

Application February 12, 1953, Serial No. 336,596

4 Claims. (Cl. 150—11)

This invention relates to bags, and more particularly to open-mesh bags for packaging produce such as celery stocks, carrots and other produce of similar elongate form.

Among the several objects of the invention may be noted the provision of a box-like, open-mesh ventilating bag for transporting produce of the class described; the provision of a bag of the class described to function as a replacement for more expensive crates or the like; the provision of a bag of the stated class which will receive and maintain produce of elongate form in protective parallel arrangements such as they had in the crate formerly used, the bag to have a shape when filled conforming approximately to the outlines of such a crate so that the bag may be handled and stowed like a crate; and the provision of a bag of the class described composed simply of two rectangular pieces of open-mesh material which may be rapidly and economically joined by one continuous seam. Other objects and features will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the article and construction hereinafter described, the scope of the invention being indicated in the following claims.

In the accompanying drawings, in which one of various possible embodiments of the invention is illustrated,

Fig. 1 shows a strip of open-mesh fabric for forming the ends and sides of my new bag;

Fig. 2 shows a rectangle of open-mesh fabric for forming the bottom;

Fig. 3 is an isometric view showing a finished bag in idealized extension, ready for filling;

Fig. 4 is a plan view of a closed and filled bag, illustrating one tying method;

Fig. 5 is a cross section taken on line 5—5 of Fig. 4;

Fig. 6 is a view similar to Fig. 4, showing an alternative tying method; and,

Fig. 7 is a view showing a partially folded condition of the bag.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Briefly, the invention consists of a bottom-forming rectangle of open-mesh fabric and a strip of fabric of length equal to the perimeter of the rectangle. Adjacent one edge of the strip is woven a draw cord. The other edge of the strip is joined to the perimeter of the rectangle by a seam starting at one corner of the rectangle and passing around it to where the two ends of the strip meet. The seam is then continued so as to join these two ends, thereby forming a bag which when extended will assume a parallelepiped shape. This form of bag, like the more costly crates which it replaces, will receive elongate vegetables such as celery, kale, rhubarb, carrots and the like in parallel stacking. Then upon pulling the draw cord and tying it, there results a parallelepiped package of the produce not unlike the said crates and adapted to be handled

2

and stowed as they are. For this result it is desirable that the width or length of the bag (the width preferably) be approximately equal to the average length of the produce which it is to contain.

Numeral 1 shows a rectangle of open-mesh fabric which may be cut from a strip extending in the direction A or a strip extending in the direction B. The rectangle 1 has marginal edges 3, 5, 7 and 9. In the event that the rectangle has been cut from a strip extending in the direction A, the edges 5 and 9 may be selvaged, or at least one edge 5 or 9 may be so selvaged. In the event that the rectangle has been cut from a strip extending in the direction B, the edges 3 and 7 may be selvaged, or at least one edge 3 or 7 may be so selvaged. This two-sided or two-ended selvaging, while not a necessity (as occurs when the rectangle is cut from a half strip), is preferable, since the usual woven open-mesh strip has two selvages available. It is to be further understood that if desired the rectangle may have no selvages.

Numeral 11 shows an open-mesh fabric strip, the length of which is substantially equal to the perimeter of rectangle 1. It is cut from a strip extending in the direction B, in which event both of its side edges 13 and 15 may be selvaged, but in any event, edge 13 must be selvaged. The ends 17 and 19 of the strip are not selvaged, the strip 11 having been cut from a longer strip length. Woven into the strip 11 adjacent the selvaged edge 13 is a draw cord 21. The edge 15 and strip 11 may be conceived to be divided into segments 3a, 5a, 7a and 9a, as determined by imaginary corner lines 23, 25 and 27, which will ultimately be located at the corners of the final bag. Thus we have the following pairs of equal lengths indicated in brackets: (3, 3a); (5, 5a); (7, 7a); and (9, 9a).

The bag is completed by placing together margins 3 and 3a and over stitching in the direction shown by arrow C, thus joining them to form a seam segment 29. Then the seam is continued by joining margins 5 and 5a, continuing the seam as a segment 31, as shown at arrow D. The seam is further continued by joining margins 7 and 7a, continuing the seam as a segment 33, as shown at arrow E. The seam is further continued by joining margins 9 and 9a, continuing the seam as a segment 35, as shown at arrow F. This allows bringing together the marginal ends 17 and 19 of the strip 11. The seam is then further and finally continued by joining the margins 17 and 19 of strip 11, continuing the seam as a segment 37, as shown at arrow G. At the end of the seam the end portions 39 of the draw cord 21 are also caught to anchor them. The seam may be drawn out for a small indeterminate distance, such as indicated at 41, depending upon how much selvage 13 can be stretched out for the purpose, without unduly distorting the finished right-angularity of the adjacent bag corner.

The result of the above-described operation which joins the members 1 and 11 by the continuous seam 29, 31, 33, 35, 37 is an open-mesh parallelepiped shape of bag such as ideally shown in Fig. 3. This shape is obtained when the bag is manipulated by pulling in opposite directions on the diagonally opposite pairs of corners. On the other hand, it will be understood that the bag may be folded flatwise for empty shipment by intucking the ends as indicated at 2 and overlaying the sides on the bottom (note Fig. 7 in this connection).

As above indicated, the bag is preferably for produce of elongate form, such as celery stock, kale, rhubarb, carrots and the like, which lend themselves to parallel stacking like cordwood. To fill the bag it is held more or less in the shape shown in Fig. 3 and the appropriate produce V inserted, as indicated in Fig. 5. All the

produce butts may be at one side of the bag and the crowns at the other side (as shown), or the butts and crowns may alternately lie in opposite directions (not shown). However, the produce is not piled as deep as the width of strip 11, so that ultimately by pulling the draw cord 21 in opposite directions the upper parts of the sides and ends of the bag may be pulled in, as shown in Figs. 4 and 6. The resulting double draw-cord extensions 43 may be then knotted in a four-cord knot, as indicated at 45. The contours of the resulting loaded bag are of generally parallelepiped form, not unlike the crates which they replace. Since the bags are made of open-mesh fabric, the produce receives proper ventilation, and the bags may be stacked and handled more or less as crates. However, they may be manufactured more economically and are lighter in weight.

In Fig. 6 is shown how the draw cord 21 may be pulled out at one side point, as indicated at 47, and then provided with a side knot, as shown at 49. This is alternative to the draw-cord pulling and knotting scheme shown in Fig. 4.

Both knotting arrangements are satisfactory, although the one shown in Fig. 4 is preferable. In cases wherein the draw-cord bags are made strong enough for the purpose, the knotted extensions of the draw cord allow the draw cord to be used as a satchel-like handle for the bag. While the knotted extension shown in Fig. 6 may also be used as a handle, it is not centered, as in Fig. 4.

If it is desired to have the loaded bag appear with sharper corners, a rectangular sheet of cardboard may be laid on the bottom 1 before filling. Then, after the produce V has been loaded, another rectangular sheet of cardboard may be laid on top of the produce before the top of the bag is closed in. Such sheets give added protection to the produce and sharper corners on the filled bag, but are not in general necessary.

It may be mentioned that the overstitched seam is of some importance, in that it is effective to join together adjacent marginal edges of open-mesh fabric, either when the fabric is selvaged on both joined edges or selvaged on one joined edge only, and even when unselvaged on either joined edge. This is because the joined marginal edges may be cylindrically bunched within such an overstitched seam. Therefore it will be seen that such a seam provides a strong attachment between adjacent pieces of open-mesh fabric, which is of course necessary in a bag of this class.

It is to be understood that the term rectangular, as used herein, includes a square shape.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above article and construction without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A ventilating bag for produce or the like comprising a rectangular bottom panel of open-mesh fabric and a side and top-forming strip of open-mesh fabric having a length generally equal to the perimeter of the bottom panel, the strip being joined along one lengthwise margin thereof to the perimeter of the bottom panel and having its ends joined together by a continuous stitched seam starting at the point where the ends of the strip meet one another and the perimeter of the bottom panel and continuing completely around the perimeter of the bottom panel to said meeting point and thence up the meeting ends of the strip to the top thereof.

2. A bag as set forth in claim 1 wherein a draw cord is incorporated in the other lengthwise margin of the strip.

3. A bag as set forth in claim 1 wherein the ends of the strip meet in line with a corner of the bottom panel.

4. A bag as set forth in claim 3 wherein a draw cord is incorporated in the other lengthwise margin of the strip, the ends of the draw cord at the ends of the strip being caught in the portion of the continuous seam joining the ends of the strip.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

Re. 18,905	Allen	Aug. 1, 1933
896,600	Thornton	Aug. 18, 1908
904,142	Moore	Nov. 17, 1908
1,941,510	Scruggs	Jan. 2, 1934
2,392,221	Brady	Jan. 1, 1946
2,393,151	Debate	Jan. 15, 1946
2,544,223	Ellis	Mar. 6, 1951