Sept. 14, 1943. J. W. TREW 2,329,565

DISPLAY PACKAGE

Filed Feb. 3, 1940 2 Sheets-Sheet 1

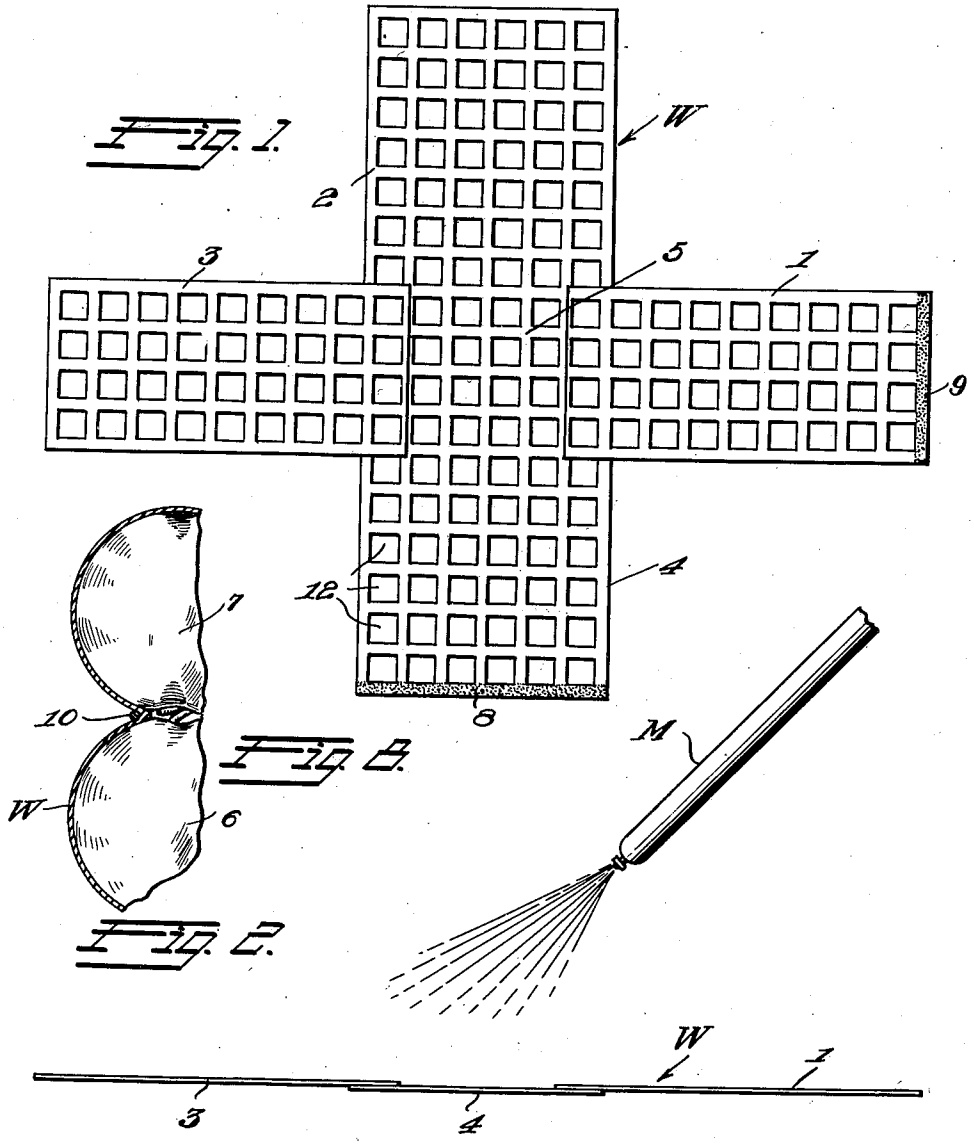


Fig. 1.

Fig. 3.

Fig. 2.

Inventor
James W. Trew.
By Watson E. Coleman.
Attorney

Sept. 14, 1943. J. W. TREW 2,329,565

DISPLAY PACKAGE

Filed Feb. 3, 1940 2 Sheets-Sheet 2

Fig. 3.

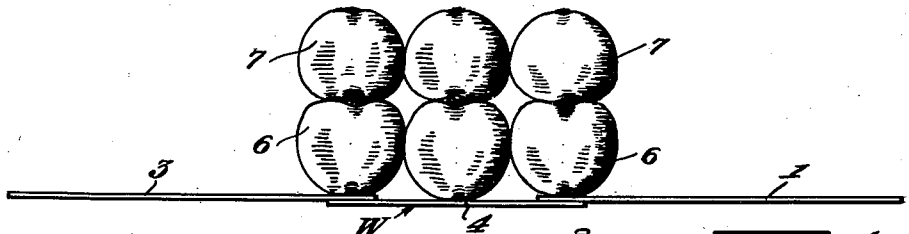


Fig. 4.

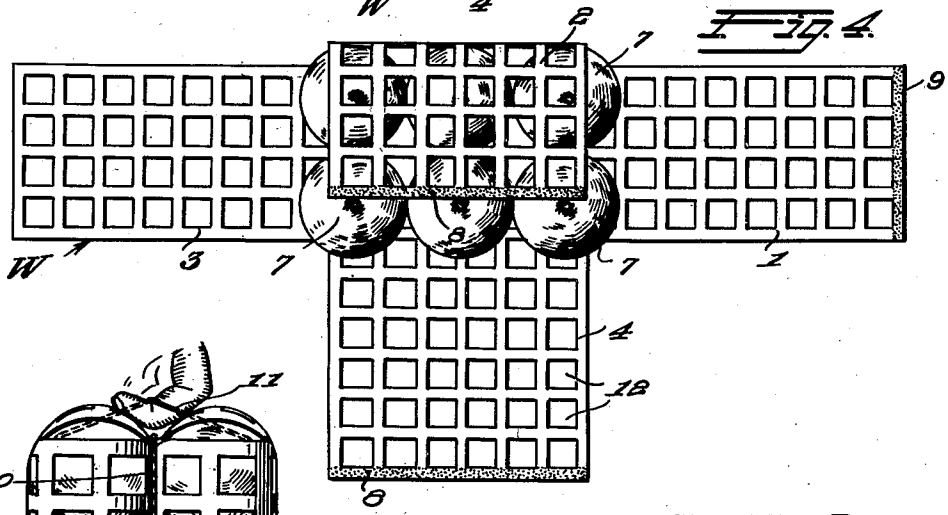
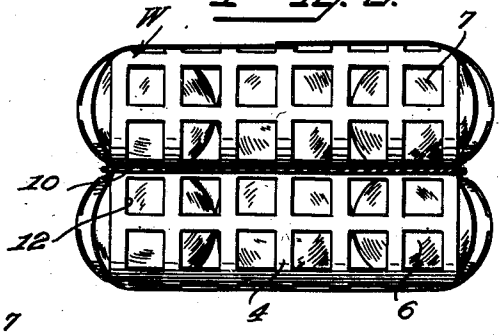


Fig. 7.

Fig. 5.



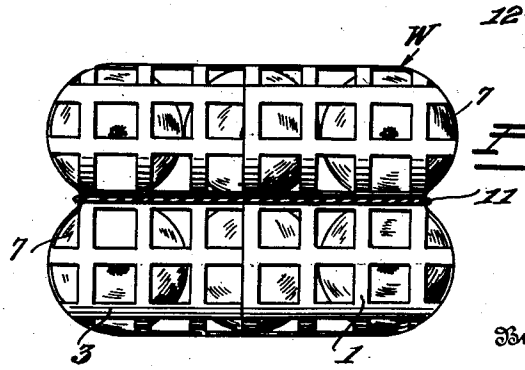


Fig. 6.

Inventor

James W. Trew.

By Watson E. Coleman.

Attorney

Patented Sept. 14, 1943

2,329,565

UNITED STATES PATENT OFFICE

2,329,565

DISPLAY PACKAGE

James W. Trew, Gettysburg, Pa.

Application February 3, 1940, Serial No. 317,180

4 Claims. (Cl. 229—87)

This invention relates to a display package, and it is primarily an object of the invention to provide a package especially designed and adapted for use in the merchandising of apples and other relatively large fruits or vegetables.

It is also an object of the invention to provide a package of this kind comprising an envelope or wrapper of a character to be readily placed about the package content and wherein said wrapper is so constructed and arranged to provide means to permit visual access to the package content to permit identification and inspection of the package content and wherein the structure of the envelope or wrapper is of a character to materially enhance the esthetic value of the package.

The invention has for a further object the production of a package wherein the various pieces of fruit or the like constituting the package content are effectively held in a manner whereby said pieces are prevented from having relative movement which would have a tendency to bruise or otherwise injure such pieces.

An additional object of the invention is to provide a package produced in a manner whereby the same can be readily handled and subjected to abnormal treatment without breaking the package.

The invention also contemplates for an object providing a package of this kind comprising the use of an envelope or container having a bursting strain within a range of 100 to 200 pounds (Mullen) and wherein said envelope or container just prior to application is caused to absorb an amount of moisture sufficient to render the stock pliable without weakening the initial tearing and bursting strengths of the stock.

A still further object of the invention is to provide a package embodying the use of an envelope or wrapper for the package content wherein tie members are employed to cause the envelope or wrapper to closely and tightly engage the package content and in a manner to maintain such content in a firm mass.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved display package whereby certain important advantages are attained and the article rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in plan of the wrapping element as herein embodied;

Figure 2 is a view in edge elevation of the wrapping element as illustrated in Figure 1 and illustrating the step of moistening such wrapping element;

Figure 3 is an elevational view illustrating the manner of placing the fruit upon the wrapping element;

Figure 4 is a view in top plan illustrating one of the folding operations comprised in the production of the package;

Figure 5 is a view in side elevation showing the application of one of the tie members as herein embodied;

Figure 6 is an elevational view at a one quarter turn with respect to Figure 5 showing the application of a second tie member;

Figure 7 is a fragmentary elevational view illustrating the convenience with which the package may be handled;

Figure 8 is an enlarged fragmentary view partly in section and partly in elevation illustrating the cushioning arrangement of the applied wrapper element between adjacent pieces of fruit.

As disclosed in the accompanying drawings, W denotes a wrapping element of a cruciform design in plan and embodies the elongated flaps 1, 2, 3 and 4. As particularly illustrated in Figure 1, the adjacent flaps in plan are perpendicularly related with the opposed flaps 2 and 4 of a width greater than that of the opposed flaps 1 and 3. The flaps 2 and 4 are to be referred to as the side flaps and the flaps 1 and 3 are to be referred to as the end flaps. All of these flaps 1, 2, 3 and 4 are of such length as to overlap in a manner to permit an effective enveloping of the package content as will hereinafter be more particularly set forth.

The flaps 1 and 3 are positioned intermediate the flaps 2 and 4 and the portion 5 of the wrapping element between the flaps 2 and 4 constitutes a central enveloping portion which in the making of the package constitutes a member upon which the package content is initially assembled.

The flaps 1 and 3 may, if desired, be integral with the body portion 5 the same as the flaps 2 and 4 but in the present embodiment of my invention the flaps 1 and 3 are separately formed and adhesively connected at desired positions to the body portion 5. This manner of applying the

flaps 1 and 3 not only results in a material saving in material but assures increased strength to the associated end marginal areas of the body portion 5 and the side margins of the flaps 1 and 3 and the portions of such flaps overlying the central portion 5 provide means to predetermine the line of fold of the flaps 2 and 4.

The wrapping element W is of paper stock having a bursting strain within a range of 100 to 200 pounds (Mullen) and also of a high tearing resistance. The wrapping element just prior to being used in making a package is moistened in a manner as generally indicated at M in Figure 2 to cause the wrapping element to absorb an amount of moisture sufficient to render the stock pliable without weakening the initial tearing and bursting strain of the stock.

With the wrapping element laid out as in Figure 1, the pieces 6 of fruit are placed upon the body portion 5 to provide a layer of fruit thereover with the stem faces of the pieces 6 of fruit upwardly disposed. In the present embodiment of the invention a second layer of fruit is superposed upon this bottom or initial layer and the pieces 7 of fruit in this top layer have their stem faces downwardly disposed or opposed to and contacting with the stem faces of the pieces 6 in the first or lower layer. By arranging the pieces of fruit in the two layers in this manner the fruit is caused to maintain a firm and compact assembly with the elimination of one piece 6 or 7 of fruit shifting or otherwise moving with respect to the other pieces of fruit within the pack.

It is to be stated at this time, however, that the completed package may comprise a single layer of fruit or more than two layers although at the present time it is believed that two layers of fruit is best suitable for commercial requirements.

After the applying of the pack of fruit upon the body portion 5 of the wrapping element W as particularly illustrated in Figure 3 of the drawings, one of the side flaps, as 2, is folded upwardly and inwardly to extend across the adjacent side portion of the fruit pack and to extend a material distance across the top face of the pack. The second side flap 4 is similarly engaged over the fruit pack. This application of the side flaps 2 and 4 causes the flap 4 to overlie the flap 2. Opposed surfaces of the folded side flaps 2 and 4 are provided thereacross with adhesive laminations 8 of latex or other material which will assure instantaneous adhesion. The latex adhesive is preferred due to the well known instantaneous adhesion of latex with latex together with its minimum efficiency as an adhesive when brought in contact with other materials.

After the side flaps 2 and 4 have been folded over and connected the end flaps 1 and 3 are disposed over the end faces of the fruit pack and caused to overlap each other above the overlapping portions of the side flaps 2 and 4. These flaps 1 and 3 are also provided along opposed surfaces with the transversely directed laminations 9 of adhesive material whereby these flaps 1 and 3 will be caused to be held in their folded positions. This folding of the flaps 1, 2, 3, and 4 about the pack of fruit is manually effected and only requires but a few moments of time. The operator in folding the flaps causes the same to have close engagement with the pieces of fruit but at the completion of this manual operation there is still a considerable amount of loose play between the pack of fruit and the applied wrapping W.

After the wrapping element W has been manually applied the resultant package has tightly applied lengthwise therearound, preferably by a tying machine, a cord 10 as illustrated in Figure 5. This cord 10 is tightly drawn around the package resulting in the flaps, and particularly at the corners of the package, being drawn inwardly between the laminations of the fruit pieces thus effecting a tighter contact of the wrapping element W with the fruit content. After this tying operation the package is given a quarter turn and a second cord 11 tightly engaged therearound as illustrated in Figure 6. This second cord 11 also serves to draw the portions of the wrapping element in tight contact with the fruit content thereby further assuring a compact package.

During the application of the wrapping element W to the package content and also during the application of the tying cords 10 and 11, the wrapping element W is pliable as herein before stated. After the completion of the package and as the excess moisture dries out of the paper stock, the wrapping element W will maintain its molded or constricted form about the package content. It is to be particularly pointed out that in the present embodiment of the invention the tying cords 10 and 11, and particularly at the corner portions of the package, compress or force portions of the wrapping element between adjacent pieces 6, 6, 7, 7 or 6, 7 of fruit, thus providing a cushioning means to prevent bruising of adjacent pieces of fruit by contact of such pieces of fruit during handling of the package. It is also to be noted that the tying cords 10 and 11 cross at the ends of the package and such crossed portions of the cords provide portions which may be readily grasped by the digit of a hand as illustrated in Figure 7 to facilitate carrying of the package.

It is also to be particularly noted that the wrapping element W over substantially its entire area is provided with relatively large openings 12. As disclosed in the accompanying drawings, these openings 12 are rectangular although I do not wish to be understood as limiting myself to any particular shape. These openings 12 while permitting circulation of air between the fruit pieces 6 and 7 of the package content, particularly serve as windows to permit visual access to the fruit so that the purchaser can readily determine the color, size and general condition of the fruit. This is a feature which is of material advantage in retailing.

I claim:

1. A package wrapper of fibrous material, said wrapper being initially cruciform to provide flaps, said flaps being of a length to overlap, adhesive laminations extending along the outer end marginal portions of opposed flaps, and the adhesive laminations of the opposed flaps being on opposite faces of said flaps for direct contact and being effective substantially immediately on such contact, the wrapper over substantially its entire area being provided with perforations.

2. A package wrapper of fibrous material, said wrapper being initially cruciform to provide flaps, said flaps being of a length to overlap, adhesive laminations extending along the outer end marginal portions of opposed flaps, and the adhesive laminations of the opposed flaps being on opposite faces of said flaps for direct contact and being effective substantially immediately on such

contact, the wrapper over substantially its entire area being provided with perforations, the width of one pair of opposed flaps being greater than the width of the flaps of the second pair.

3. A package wrapper of fibrous material, said wrapper being initially cruciform to provide flaps, said flaps being of a length to overlap, adhesive laminations extending along the outer end marginal portions of opposed flaps, and the adhesive laminations of the opposed flaps being on opposite faces of said flaps for direct contact and being effective substantially immediately on such contact, the wrapper over substantially its entire area being provided with perforations, the flaps of one pair being of a length greater than the length of the flaps of the second pair.

4. A package wrapper of fibrous material, said wrapper being initially cruciform to provide flaps, said flaps being of a length to overlap, adhesive laminations extending along the outer end marginal portions of opposed flaps, and the adhesive laminations of the opposed flaps being on opposite faces of said flaps for direct contact and being effective substantially immediately on such contact, the wrapper over substantially its entire area being provided with perforations, the flaps of one pair being of a length greater than the length of the flaps of the second pair, the longer pair of flaps being of a width less than the other pair of flaps.

JAMES W. TREW.