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FOLDING BOX PACKER AND CARRIER

Filed March 6, 1950

3 Sheets-Sheet 1

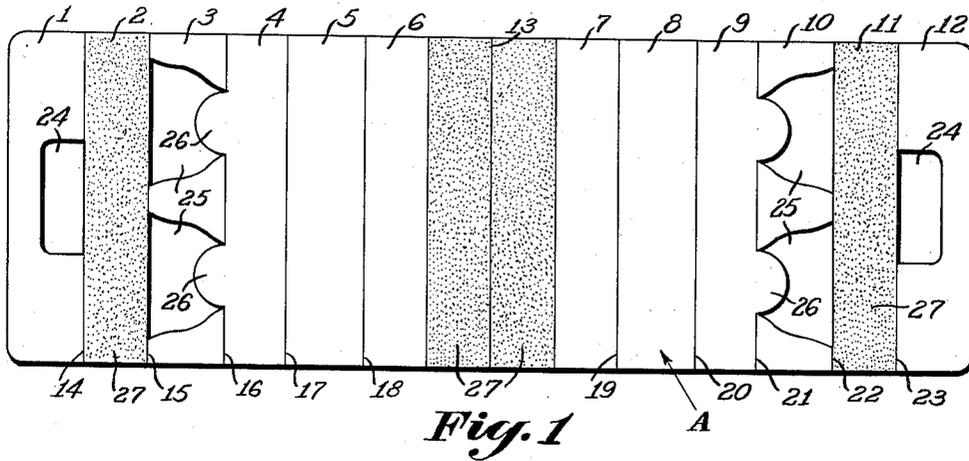


Fig. 1

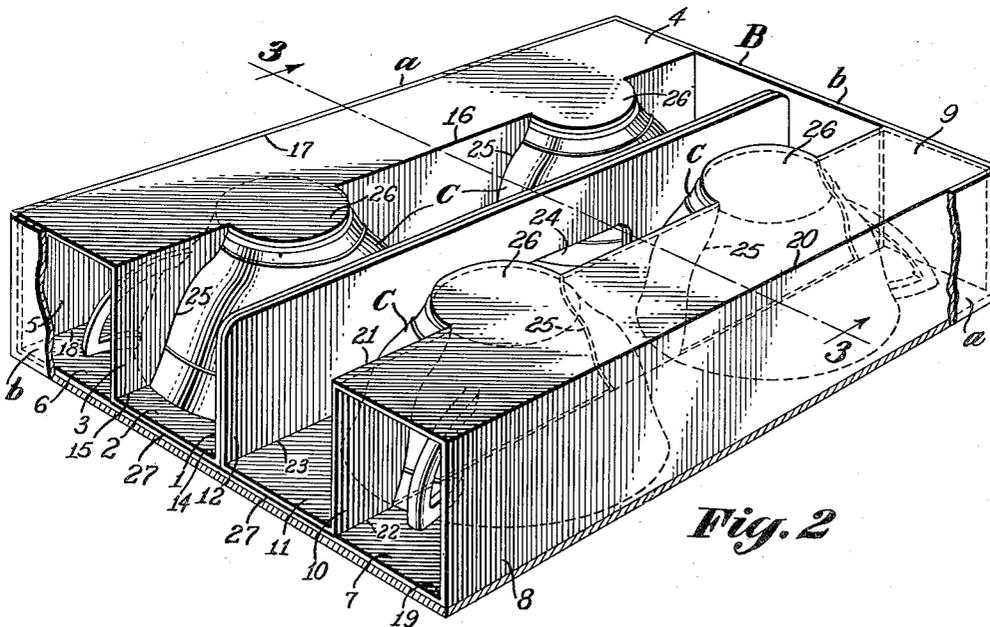


Fig. 2

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3 Sheets-Sheet 2

Fig. 3

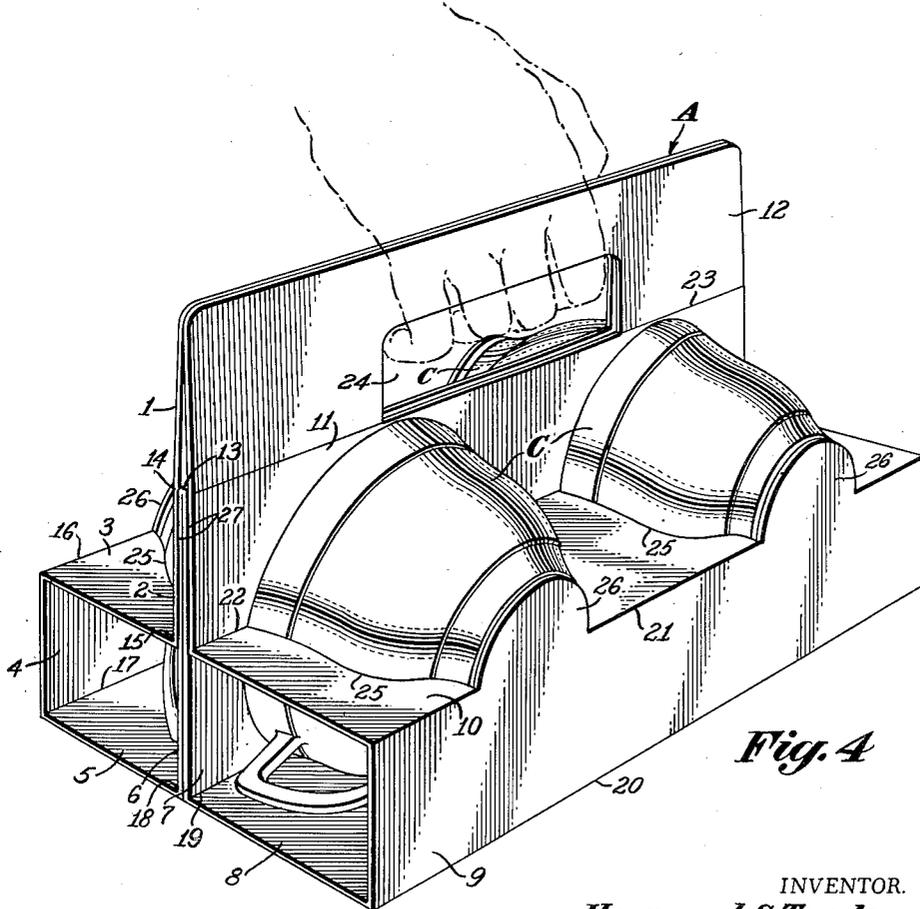
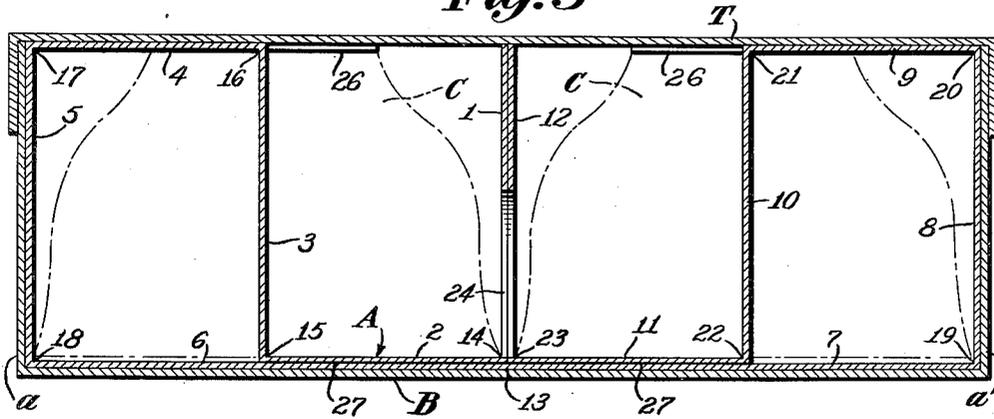


Fig. 4

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FOLDING BOX PACKER AND CARRIER

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1 Claim. (Cl. 224—48)

1

This invention relates to packers and fillers for use in packaging fragile articles in containers to protect them in transit and storage.

An object of the invention is to provide an improved and simplified packer so constructed that it can be lifted, together with the packed articles, from the container and readily carried or utilized for display purposes.

A further object of the invention is to provide such an improved combined packer and carrier as will efficiently protect fragile articles, such as cups, saucers, plates and the like in transit, and materially simplify both the packing and the removal of the articles from the container.

Further objects of the invention will more particularly appear in the course of the following detailed description.

The invention consists in the novel construction, arrangement and combinations of parts as are hereinafter more particularly described and claimed.

Three sheets of drawings accompany this specification as part thereof, in which like reference characters indicate like parts throughout.

In the drawings:

Figure 1 is a plan view of a blank for a packer for use in connection with cups;

Figure 2 is a perspective view of the improved packer as applied to a container, with the fragile cups in position;

Figure 3 is a vertical transverse cross section taken on line 3—3 of Figure 2;

Figure 4 is a perspective of the packer with its associated articles lifted from the container for use as a carrying receptacle;

Figure 5 is a plan view of a modified blank for use in the packaging of saucers or plates;

Figure 6 is a plan view of the packer formed from the blank of Figure 5 and positioned in a box container;

Figure 7 is a longitudinal cross section taken on line 7—7 of Figure 6; and

Figure 8 is a perspective view of this modified saucer or plate packer removed from the container.

In the drawings are illustrated two forms of packers adapted for use with cups and saucers or plates, but it will be understood that the invention can be modified as desired to suit the shapes and dimensions of a great variety of articles as may be desired in practice.

Referring to Figures 1 to 4 which illustrate the application of the invention to a packer and carrier for cups, it will be observed that the improved packer and carrier is formed from a substantially rectangular blank of suitable card-

2

board or the like which is identified generally by the reference letter A.

The blank A is provided with a medial transverse fold line 13 and with additional parallel fold lines 14 to 23 inclusive, which fold lines outline a plurality of panels numbered 1 to 12 inclusive.

The end panels 1 and 12 are formed with cut-outs 24 defining hand grips and the panels 2 and 11 immediately adjacent the outer panels 1 and 12 are coated with gum, glue or the like, 27.

The panels 3 and 10 next adjacent the gummed panels 2 and 11 are provided with cut-outs 25 conforming in shape and size to the cups which are to be packed in this particular packer. Preferably, in forming the cut-outs 25, flaps 26 will be left in, one associated with each cup cut-out and integral with the next adjacent panels 4 and 9.

The central panels 6 and 7 are coated with glue 27 over substantially half of their area next adjacent the medial fold line 13.

In assembling the packer from the blank thus formed and prepared, the blank is folded on each side of the medial fold lines 13 so as to bring the glue-coated surfaces of panel 2 and the coated part of the panel 6 into contact, and the glued portion of panel 7 and panel 11 into contact, in the course of which operation the panels 3, 9 and 10 and the uncoated portion of panel 7 are formed into a tubular member or cell with the cut-out portions 25 of panel 10 inwardly directed toward the free end panel 12 which is folded upwardly against the free end panel 1 of the opposite side. Similarly, the panels 3, 4 and 5 are formed into a similar tubular member on the opposite side with the cut-out portions 25 for the cups in the panel 3 facing toward the free end panels 1 and 12 extending medially of the packer.

With the blank in this position the cups C are placed with a portion of each cup extending through a cut-out 25 and the opposite portion of the cup engaging against the upturned free end panels 1 and 12, as is well illustrated in Figure 2.

With the packed filler in this position it is readily inserted into the container box B with the tubular members engaging the long sides *a* of the box B and the ends of the filler engaging the ends *b* of the box.

The position of the cups in the packed box is clearly disclosed in Figure 3 in which they are indicated by dotted lines, and the box will be provided as is customary with a telescoping top T.

To remove the packer and associated objects it is only necessary to grasp the medial superposed panels 1 and 12 through the hand grasp

openings 24 in the center of the box, and by pulling upwardly on these central free panels the packer is lifted into the position illustrated in Figure 4, thus forming a ready carrier for the articles and a highly attractive display container for the articles for merchandising purposes.

In the modified form of the invention illustrated in Figures 5 to 8, the dimensions and shape of the panels are modified to accommodate saucers or plates P, but these panels and fold lines are otherwise identical with the panels and fold lines in the previously described species. As an additional utility in connection with the packaging of plates or saucers, the hand grips are formed in a slightly different manner, as illustrated in these figures, in which these hand grips are formed by cut-out flaps 34 which are integral with the outer halves of the outermost panels 1 and 12 defined by medial fold lines 33, and in the folded position of the blank A1 flaps 34 are folded outwardly over the central edges of the saucers or plates, as is well illustrated in Figure 7, while the outer halves 35 of the handle panels are folded down, as is also well illustrated in that figure and in Figure 6.

A further modification is illustrated in connection with panels 3 and 10 in which the cut-outs for reception of the plates or saucers are made by forming flaps 30 defined by fold lines 31, each of the flaps 30 being bent inwardly to provide marginal contact with the saucers or plates, as is well illustrated in Figure 6.

As in the case of the carrier for cups, the carrier and packer is similarly removed by folding upwardly the halves 35 of the panels 1 and 12, and by inserting the hand through the associated hand orifices 24' these panels are lifted upwardly, thereby bringing the device into the position illustrated in Figure 8 with the plates standing on edge and back to back, as illustrated therein.

Both embodiments of the invention are characterized by the blank having the medial transverse fold 13 and the symmetrically positioned portions on each side, each formed with a tubular part, the confronting walls of said tubular cells formed with cut-outs for the reception of the fragile articles to be packed and carried. In each case, the device when packed in the container box B is folded outwardly with the free end panels superposed and extending medially of the box, and lengthwise thereof, with the tubular parts disposed against the side walls of the box. In each instance, the device is lifted from the box by pulling upwardly on the superposed free end panels, thereby folding the device on the medial fold line 13 and allowing each of the tubular members to depend on each side of the holding panels.

To assure a snug fit between the packer and the box, the blank for the packer will be of substantially the same width as the box, and of a length sufficient to form the panels adjacent and on each side of the medial fold line half the length of the box, the remaining panels each of a width substantially the same as the depth of the box, so that the tubular parts and free handle panels each conform in height with the depth of the box.

Various modifications in the proportions and shapes of the panels to accommodate various types of articles, will, as indicated above, readily suggest themselves to those skilled in the art.

Having thus described my invention, I claim:

Box packer and carrying receptacle for fragile articles comprising a one piece rectangular blank downfolded from its transverse center line and upfolded from transverse lines equidistant from said center line, the upfolded portions providing extensions extending beyond the apex of the dihedral angle formed by the downfolded portions, said extensions being in surface contact, together forming a carrying handle, said upfolded and downfolded portions being in adhered surface contact throughout transverse areas of uniform width extending downward from the apex of said dihedral angle, the latter bifurcating said receptacle below said apex, the lower parts of said upfolded and downfolded portions being creased to form collapsible tubular article receiving cells of rectangular cross-section extending outwardly from the outer sides of said dihedral angle in one position of said receptacle, the bifurcations of said receptacle being hingedly swingable along the line of the apex of said dihedral angle from a position of zero degrees value of said dihedral angle to a position of 180° value, whereby in said latter position said cells are arranged laterally of said carrying handle and spaced therefrom a distance equal to the width of said adhered areas.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,177,034	Fleming	Oct. 24, 1939
2,368,753	Elliott et al.	Feb. 6, 1945
2,375,056	Wesselman	May 1, 1945
2,476,102	Lobell	July 12, 1949
2,505,399	Hilton	Apr. 25, 1950
2,540,066	Williamson	Jan. 30, 1951

FOREIGN PATENTS

Number	Country	Date
686,684	France	Apr. 15, 1930