May 9, 1944. B. ROUS 2,348,310

CONTAINER

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FIG. 1

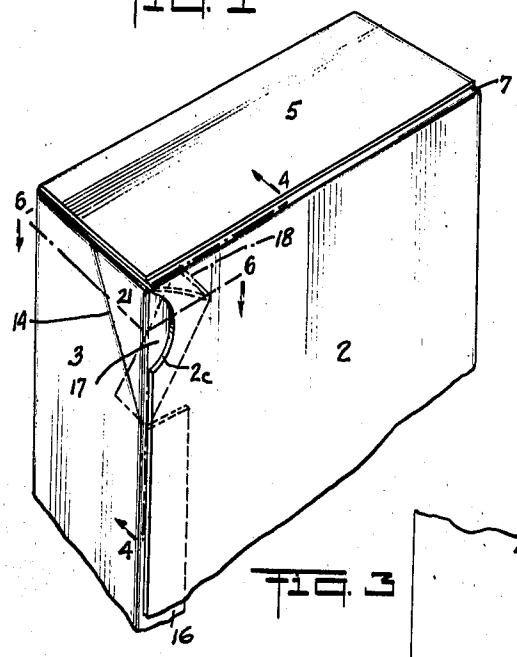


FIG. 2

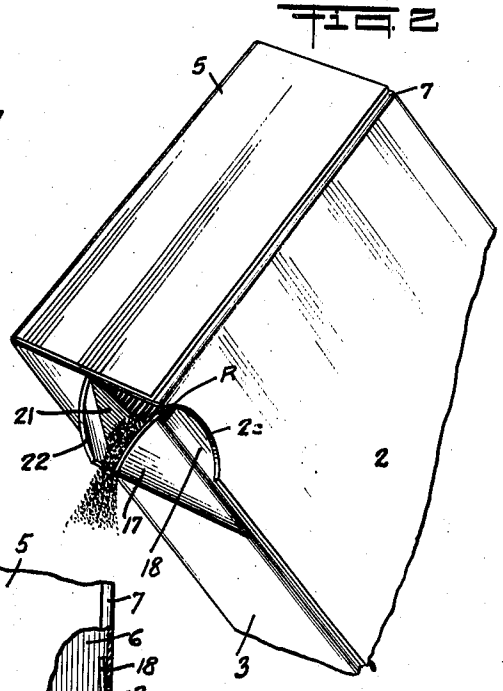


FIG. 3

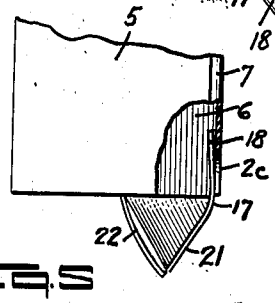


FIG. 4

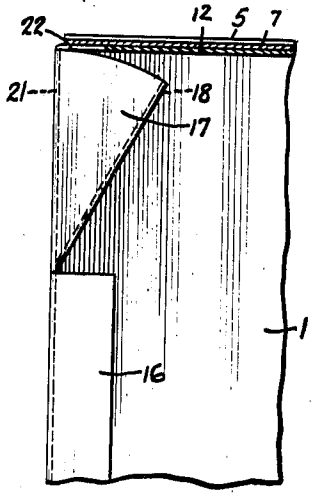


FIG. 5

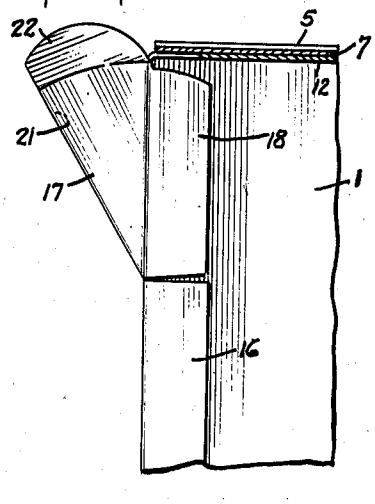
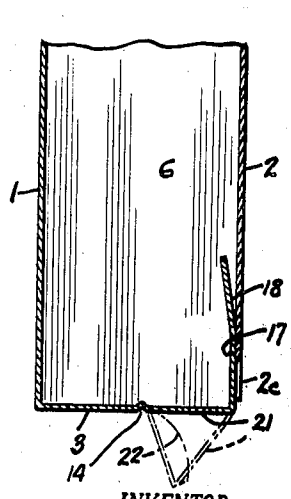


FIG. 6



INVENTOR.

Ben Rous

BY Mocks Blum

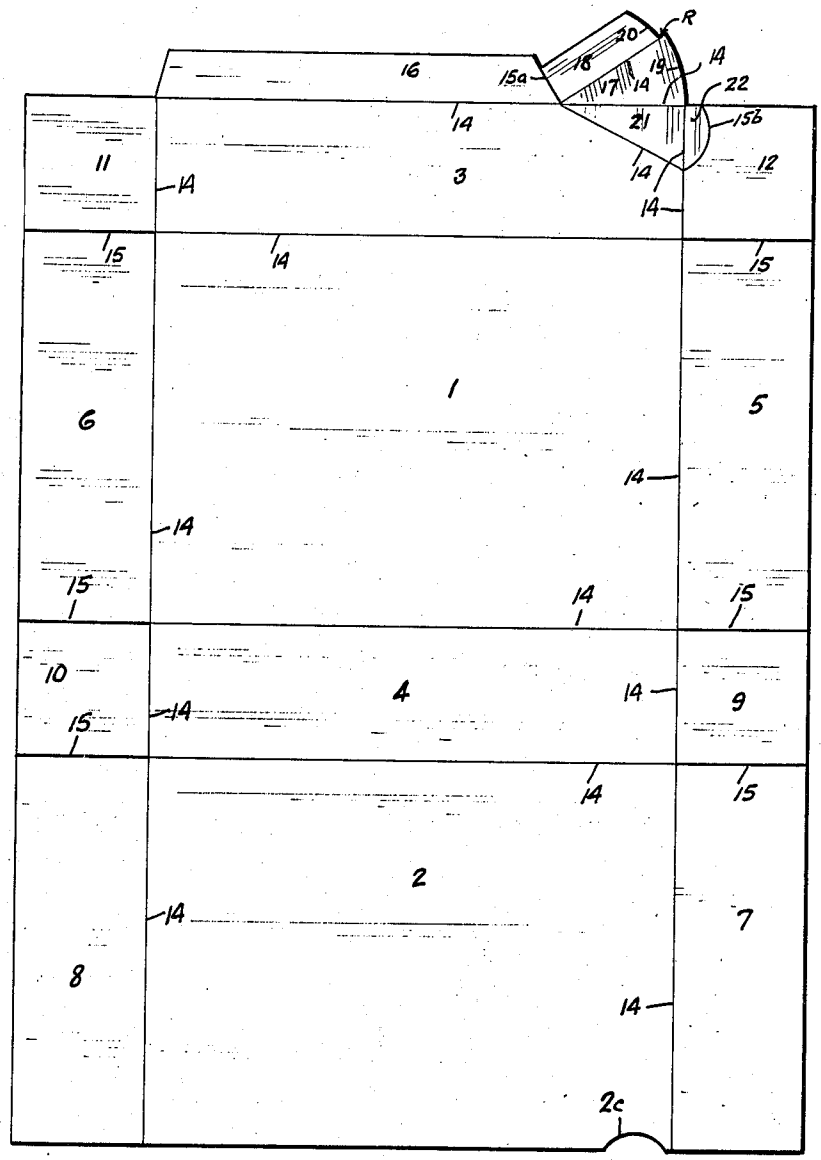
ATTORNEYS

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Fig. 7



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ATTORNEYS

Patented May 9, 1944 2,348,310

UNITED STATES PATENT OFFICE

2,348,310

CONTAINER

Ben Rous, Brooklyn, N. Y., assignor to Federal Carton Corporation, New York, N. Y., a corporation of New York

Application June 20, 1942, Serial No. 447,858

5 Claims. (Cl. 229—17)

My invention relates to a new and improved carton which can be made of cardboard or other suitable material and which is provided with an improved pouring spout.

One of the objects of my invention is to provide a device which can be made by cutting a single blank of paper and by providing said blank with hinge lines so that the device will be simple to manufacture and to assemble, and whereby the device can be assembled by conventional machinery.

Another object of my invention is to provide a carton in which the pouring spout is formed adjacent the corner thereof and which has improved means for holding the pouring spout in its open position.

Other objects of the invention will be stated in the annexed description and drawings, which illustrate a preferred embodiment thereof.

Fig. 1 is a perspective view of the improved carton, showing the spout in its closed position.

Fig. 2 is a perspective view showing the spout in its open position, and showing the carton tilted to dispense the powdered or flowable material which is located in the carton.

Fig. 3 is a partial top plan view showing a part of the top of the carton broken away, and showing the spout in its open position.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1, showing the front wall of the carton broken away and showing the spout in its closed position.

Fig. 5 is a view which is similar to Fig. 4, showing the spout in its open position.

Fig. 6 is a sectional view on the line 6—6 of Fig. 1. The full-line position of the spout in Fig. 6 indicates its closed position and the broken-line position of said spout in Fig. 6 shows its open position.

Fig. 7 is a plan view of the blank from which the improved carton is set up or assembled.

Referring to Fig. 7, the blank comprises a rear wall 1, a front wall 2, side walls 3 and 4. The rear wall 1 is provided at its respective opposed longitudinal edges with longitudinal flaps 5 and 6. The front wall 2 is provided at its respective opposed longitudinal edges with longitudinal flaps 7 and 8. The side wall-member 4 is provided at its respective opposed longitudinal edges with flaps 9 and 10 and the side wall-member 3 is provided at its respective opposed longitudinal edges with flaps 11 and 12. The reference numerals 14 indicate respective hinge lines at which the blank is embossed or otherwise shaped for easy bending. The reference numeral 15 indicates straight cutting lines at which the blank is slitted or cut through-and-through. The side wall-member 3 is provided with a lateral flap 16, and said side wall-member 3 is also continuous with a tapered flap 17, which has an edge flap 18. The edge 19 of the tapered flap 17 is arcuate. A supplemental cut-line 15a separates respective adjacent edges of the flap 16 and of the flap 18. These edges are inclined to the hinge line 14 which is located between the flaps 17 and 18. The edge 20 of the flap 18 is inclined to the respective hinge line 14. Fig. 7 is substantially to scale, although on a scale which is smaller than that of the commercial carton, and reference can be made thereto for further details.

The side wall-member 3 includes a triangular corner area or portion 21, whose edges are defined by three respective hinge lines 14, which are the edges of a right-angled triangle. This triangular area 21 is separated by a respective hinge line 14 from a finger-hold extension 22, which is cut out of the material of the flap 12, by means of the arcuate through-and-through cut along the line 15b.

While the invention is not limited to any particular method of assembling the carton, said carton may be assembled by hand as follows: The rear wall 1 is held in a horizontal plane, side-walls 3 and 4 are bent upwardly into respective vertical planes, and flaps 5 and 6 are bent upwardly into respective vertical planes. Front-wall 2 is bent into a horizontal plane. Flaps 11 and 10 are bent along their respective hinge lines 14, until said flaps 11 and 10 are aligned with each other, and said members 11 and 10 are located inwardly of flap 6. Flaps 12 and 9 are also bent along their respective hinge lines 14 until said flaps 12 and 9 are aligned with each other, and said flaps 12 and 9 are located inwardly of flap 5. Flap 7 is bent along its hinge line 14 until said flap 7 abuts the outer surface of flap 5. Flap 8 is bent along its hinge line 14 until said flap 8 abuts the outer surface of flap 6. Flaps 16 and 17 are bent along their coincident hinge lines 14 into a common horizontal plane, in which flap 18 is also located. The front wall 2 overlies the flap 16. Front wall 2 and flap 16 are connected by adhesive or other suitable connecting means, leaving the flaps 17 and 18 unconnected to, or free of, the front wall 2, which has the cut-out 2c. At the top of the box, the flaps 9, 12, 5 and 7 are connected to each other by adhesive or other suitable connecting means, so that the flaps 7, 9 and 12 are the internal flaps of the top of the carton, and the flap 5 is the top or external flap of the top of the carton. At the bottom of the carton, the flaps 10, 11, 6 and 8 are connected to each other by adhesive or other suitable connecting means. The flaps 10 and 11 are the internal flaps at the bottom of the carton, and the flap 8 is the external or bottom flap at the bottom of the carton.

The user can readily bend the flap 21 outwardly along the respective hinge line 14 which is provided between the area 21 and the main body of side-wall 3, thus bending the spout outwardly

into the pouring position which is shown in Fig. 2. Said respective hinge line 14 is the downwardly inclined hinge line which separates the main body of side-wall 3 and its area 21 in Fig. 7. As shown in Fig. 7, the outer or free edge of the flap 17 extends beyond the free edge 20 of the flap 18, so that the blank is shaped to provide a recess or notch R, which has an approximate L-shape. Fig. 2 shows the upstanding wall of this notch R, spaced from the arcuate wall of the cut-out 2c. However, by slightly pushing the spout inwardly, the upstanding wall of said notch R engages the adjacent edge of the wall 2, so that the free edge 19 of the spout flap 17 is then located above the top of the carton. The finger-hold flap 22 is then located above the top of the carton, so that the spout is held in convenient pouring position. The spout can be readily opened and partially or substantially closed by manipulating the same by means of the vertical finger-hold 22, while said finger-hold 22 projects above the top wall of the carton. When the spout opening is to be sealed, as when the carton is shipped, the finger-hold 22 is located inwardly of the flap 7, as indicated in Fig. 1 and in Fig. 4. The material of the carton has sufficient resilience, so that when the open spout is released, said spout will spring to and said spout will be retained in a position, in which one of the edges of notch R abuts an edge of the front wall 2, and the flap 22 is maintained in vertical position.

Hence, if the spout is opened and it is then released, said spout will be resiliently held in its open and pouring position. By bending the finger-tab 22 down, and forcing the flap 18 inwardly, the open spout can be sealed. The resilience of the blank will then hold the spout in sealing position.

When the carton is filled at the plant, any suitable temporary sealing means can be provided in order to hold the spout sealed until the ultimate consumer desires to open the carton and to use the spout. Said sealing means can consist of a rectangular flap which is integral with front-wall 2, and which is connected to said front-wall 2 along a score line which coincides with the edge line of cut out 2c. Such sealing means can be detachably pasted across the outer surfaces of flap 17 and side wall 3.

The blank can be made of cardboard or any other suitable bendable material.

In the assembled or completed carton, the walls 2 and 3 are in adjacent angular relation, and they have a common edge which is straight, save for the cut-out 2c.

The wall 3 may be designated as the spout-wall. Said spout-wall 3 has an outer integral area or spout flap 21 which is bendable along a line which is inclined to the edges of the carton. Said outer integral spout-flap 21 is bendable into and out of the plane of the respective wall 3. Said outer spout-flap 21 is integral with an inner spout-flap 17, which is bendable to a position which is internal relative to the other wall 2, which is angularly adjacent to the spout wall 3.

I have shown a preferred embodiment of my invention, but it is clear that numerous changes and omissions can be made without departing from its spirit.

I claim:

1. A carton which consists of an integral blank which is folded into carton shape, each outer wall of said carton being of rectangular shape, said blank having hinge-lines which constitute edges of wall-members which respectively constitute the outer walls of said carton when said blank is folded into carton shape, said blank having an extension flap at an edge of said blank, said extension flap being turnably connected along a hinge-line to only a part of the edge of the adjacent wall-member so that said extension flap is spaced from a corner of said adjacent wall-member, said adjacent wall-member having a diagonal hinge-line which intersects two of its edges which meet at said corner, the area between said diagonal hinge-line and said two edges constituting an outer spout-member, said outer spout-member having a tapered inner spout-member which is turnably connected to said outer spout-member along a hinge-line which is coincident with said first-mentioned hinge-line, said extension flap being fixed to the inner surface of one of said outer walls, said outer spout-member being outwardly movable relative to its respective outer wall, said inner spout-member being movable outwardly of the carton and back into the carton, said inner spout-member having an extension which is located inwardly of the carton when the inner spout-member is located outwardly of the carton.

2. A carton according to claim 1, in which said outer spout-member has a tab which extends beyond said adjacent wall-member when the spout members are in pouring position.

3. A carton according to claim 1, in which said outer spout-member has a tab which extends beyond said adjacent wall-member when the spout members are in pouring position, said tab having a tab-edge which forms the free edge of said inner spout-member, said free edge of said inner spout-member and said tab edge having a single common point at said corner.

4. A carton which comprises a spout-wall and another wall which is in direct adjacent angular relation to said spout-wall, said spout-wall having an integral tapered outer spout-member at a corner-portion of said spout-wall, said outer spout-member being bendable outwardly relative to said spout-wall along a hinge-line which intersects two edges of said spout-wall, said two edges meeting at the corner of said corner-portion, said outer spout-member being integral with an inner tapered spout member which is located inwardly of and in sliding relation to said other wall, said spout-members being movable to a sealing position in which said outer spout-member is in the plane of said spout-wall, said inner spout member having an extension flap thereto, said inner spout-member being movable wholly out of said carton when said spout-members are in pouring position, said extension flap being located at the inner face of said other wall when said spout-members are in pouring position, said outer spout-members having a finger-hold tab hinged thereto at the free edge of said outer spout member, said tab being movable into the carton when said spout-members are in sealing position.

5. A carton according to claim 4 in which said extension flap is shorter than said inner spout-member so that a notch is formed at the free edges of said inner spout-member and of said extension flap.

BEN ROUS.