July 2, 1946. J. J. SULLIVAN 2,403,138

POURING CARTON AND BLANK

Filed June 21, 1944

Fig. 1.

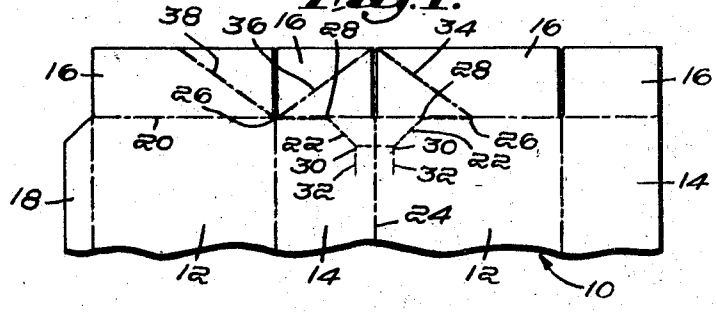


Fig. 2.

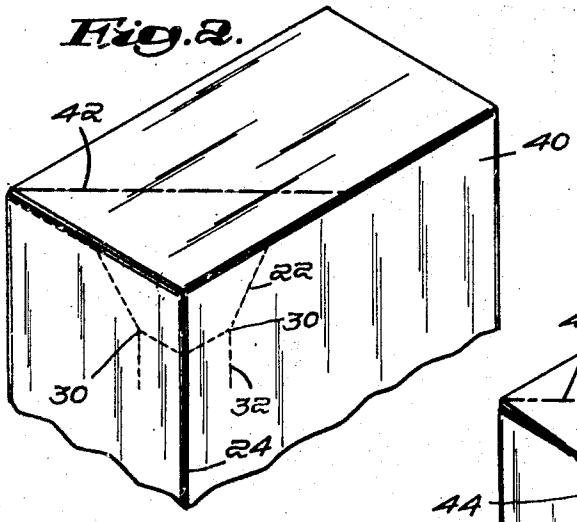


Fig. 3

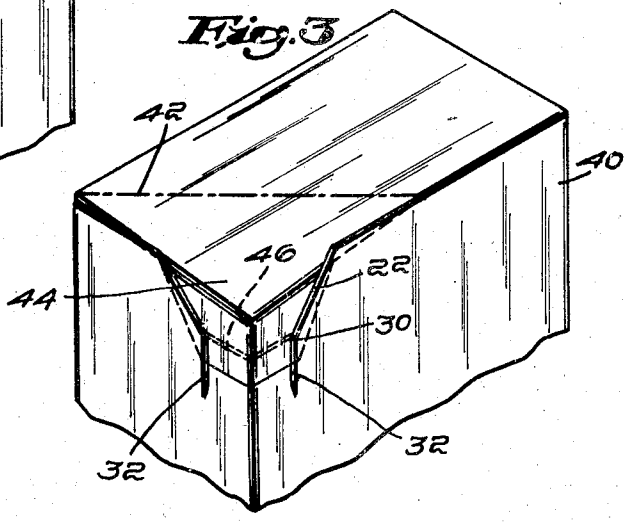
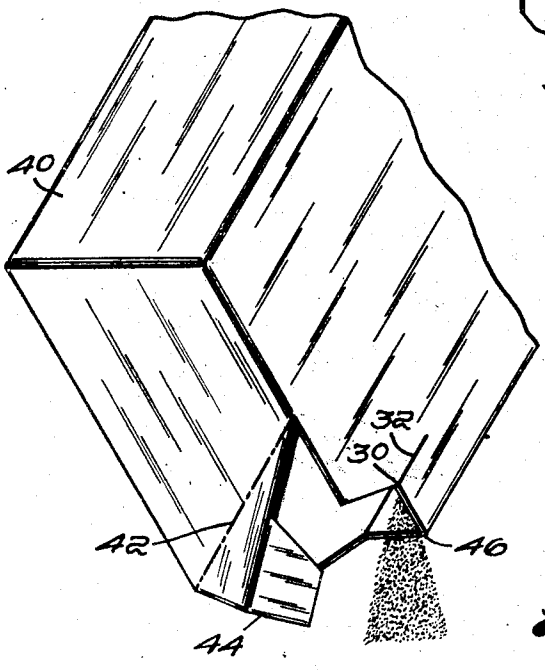


Fig. 4.



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POURING CARTON AND BLANK

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8 Claims. (Cl. 229—17)

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This invention relates to cartons provided with means for pouring or dispensing the contents therefrom and more especially to a standard carton blank and carton so constructed merely by scorings and perforations that the carton can be conveniently opened for pouring and can thereafter be conveniently reclosed and held in closed position keeping the contents from exposure to dust and the atmosphere. I am aware that numerous cartons for effecting this object have been heretofore suggested but to my knowledge such cartons have embodied the employment of elements additional to the carton, the cartons have been of special or unusual configuration requiring new and expensive forming machinery, and other features rendering the cartons more expensive and complicating their manufacture and use have been required. One primary object of my invention resides in the production of an extremely simple, new and improved carton of this nature solely embodying a standard carton blank so scored and perforated as to provide a pouring exit when the carton is broken open and adapted thereafter to be closed and held in closed position when not in use.

Standard cartons have heretofore been perforated along a curved line through one wall to provide a flap which when bent or broken outwardly leaves a hole through which the contents can be dispensed. This flap is however not adapted to reclosing of the carton and, after opening the carton, its contents are thereafter continuously exposed to the atmosphere. I have discovered that by perforating a carton blank along a line extending obliquely across two adjacent walls thereof adjacent to one corner of the carton to be formed and across the junction of said walls, together with two perforations respectively in said walls and extending from said line in a direction away from said corner, a pivoted corner closure flap is formed which when not in use can be pressed to closed position and into frictional engagement within slots provided by said two perforations and will remain in such position keeping the carton reclosed against exterior exposure. The production of such an improved blank and carton comprises a further object of the invention.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof selected for purposes of illustration and shown in the accompanying drawing in which,

Fig. 1 is a fragmentary end view of the carton blank,

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Fig. 2 is a fragmentary view of a carton formed from the blank of Fig. 1,

Fig. 3 is a like view showing the perforated corner flap broken open and pressed to closed position, and

Fig. 4 is a fragmentary view of the carton with the corner flap in open position.

My invention is applied to a standard carton blank 10 having front and rear body walls 12, edge walls 14, end flaps 16 connected to the walls, and a sealing flap 18 along the free edge of one body wall. The blank is scored along the junction line 20 between the body and edge walls and the end flaps and, in accordance with my invention, the blank is perforated along a line 22 extending from two points on the line 20 obliquely across two body and edge walls and across the scored junction 24 of these walls. In the preferred construction and, as illustrated, this perforated line 22 extends from two points 26 toward each other along the scoring 20 to points 28 and from thence obliquely across the faces to points 30 short of the junction 24 and from thence directly across such junction. The two adjacent faces are perforated along lines 32 from points 30 in a direction away from the scoring 20. The adjacent end flaps connected to the perforated walls 12 are also preferably scored obliquely thereacross from the points 26 along lines 34 and 36 as illustrated in Fig. 1, and the other body wall flap is also preferably likewise scored across one corner at 38.

When the blank as above prepared is folded into a carton 40, the three scored lines 34, 36 and 38 will coincide along the line 42 extending across a corner of the carton end. When it is desired to use the contents of the carton, the walls are broken along the perforated lines 22 and 32, thereby freeing the corner 44 for outward pivotal movement about the line 42. In such open position, as illustrated in Fig. 4 the contents of the carton can be poured from the corner spout 46 thus formed.

When the carton is not in use the closure 44 can be placed in the closed position illustrated in Fig. 3 in which position the two side walls of the closure corner engage frictionally within the slots at 32 whereby holding the corner in such closed position. It will be apparent that the frictional engagement will serve its holding function regardless of the use of the carton and numerous opening and closing of the corner closure.

It will now be apparent that my invention provides a carton which can be readily opened to a position providing a pouring spout, as illustrated in Fig. 4, and which embodies a closure 44 which

can be readily and conveniently replaced and held in the closed position, illustrated in Fig. 3, and thus protect the contents from dust and exposure to the atmosphere when the carton is not in use. It will furthermore be noted that these novel features are provided on a standard carton blank merely by perforating and preferably scoring the carton as described and illustrated. Also, while I have illustrated the faces 12 and 14 as perforated at 32 along lines extending away from the corner closure 44 it will be apparent that the perforations can extend in the opposite direction whereby placing the slots 32 in the walls of the corner closure 44.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A carton perforated adjacent to a corner thereof along a line extending across the junction of two faces radiating from said corner and obliquely across said two faces to two margins thereof radiating from said corner, the intersection of said line with said junction being substantially closer to said corner than to any other corner of the carton, and said two faces also being perforated respectively along two lines spaced from said junction and each intersecting the first named line and extending away therefrom, said perforations across the junction and across said two faces forming a corner closure having one edge portion adjacent to and receivable in the slots formed by the perforations along said two lines spaced from said junction.

2. The carton defined in claim 1 in which said perforated line extends along one of said two margins to an adjacent corner of the carton and a substantially equal distance along the other of said two margins, and in which the carton is scored from said adjacent corner to the end of said line on said other of the two margins.

3. The carton defined in claim 1 in which said perforated line extends obliquely across said two faces from said two margins in a direction toward but short of a predetermined point on said junction and from thence directly across said junction, and in which said two lines intersect the first named line at the two points where the line extending directly across the junction joins the obliquely extending lines.

4. A carton blank comprising front and rear body walls, edge walls connected thereto and end flaps on said walls at one end of the blank, the blank being scored along the junction of the flaps with the walls, one body wall and an adjacent edge wall being perforated obliquely thereacross

along a line extending from two points on said junction scorings to and across the junction of said body wall and edge wall, and said one body wall and edge wall being respectively perforated along two lines each intersecting the first named line and extending therefrom in a direction away from said scorings, said two lines being spaced from and located at opposite sides of the last named junction and providing slots for receiving the adjacent edge portion of the blank.

5. The carton blank defined in claim 4 in which the two end portions of said perforated line extend respectively along and coincide with the first named junction to points substantially equal distances from the second named junction.

6. The carton blank defined in claim 4 in which the two end flaps on said one body wall and adjacent edge wall are scored obliquely thereacross from points on the first named junction located at the two outer ends of said perforated line to substantially a common point located at the adjacent edges of said two end flaps.

7. The carton blank defined in claim 4 in which the two end flaps on said one body wall and adjacent edge wall are scored obliquely thereacross from points on the first named junction coincident with the two outer end portions of said perforated line to substantially a common point located at the adjacent outer corners of said two end flaps, and in which the end flap on the other body wall is scored obliquely across the free corner thereof adjacent to said edge flap along a line substantially symmetrical with said two scorings obliquely across the two end flaps, whereby the three scorings on the end flaps will coincide when the blank is formed into a carton and the flaps turned down to close the end of the carton.

8. A carton blank comprising front and rear body walls, edge walls connected thereto and end flaps on said walls at one end of the blank, the blank being scored along the junction of the flaps with the walls, one body wall and an adjacent edge wall being perforated obliquely thereacross along a line extending from two points on said junction scorings in a direction toward but short of a predetermined point on the junction of said body wall and edge wall and from thence directly across the second named junction, and said one body wall and edge wall being respectively perforated along two lines spaced from the second named junction and each intersecting the first named line and extending away therefrom and providing slots for receiving the adjacent edge portion of the blank.

JOHN J. SULLIVAN.