March 2, 1948. J. J. SULLIVAN 2,436,981

POURING CARTON

Filed Oct. 5, 1944

Fig. 1.

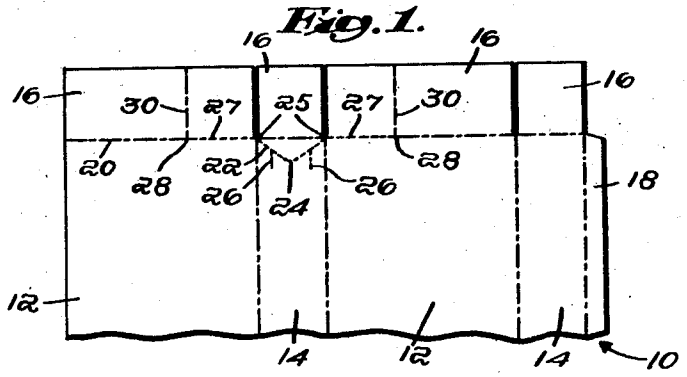


Fig. 2.

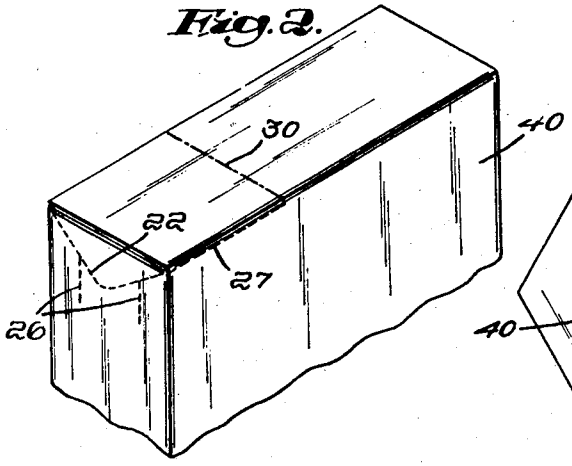


Fig. 3.

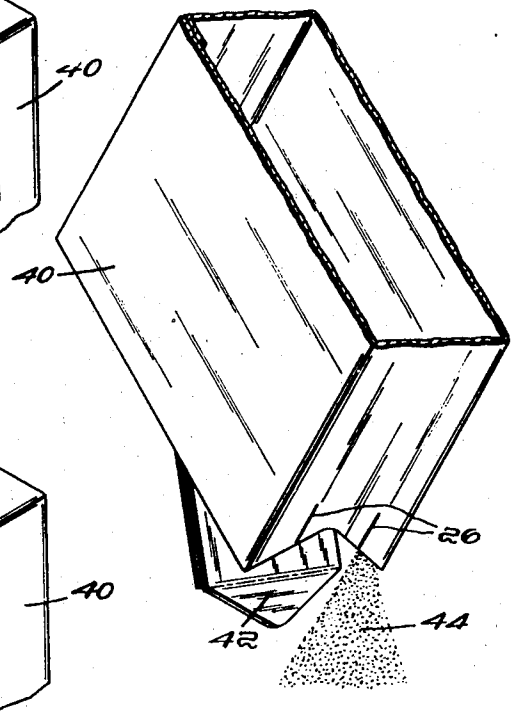
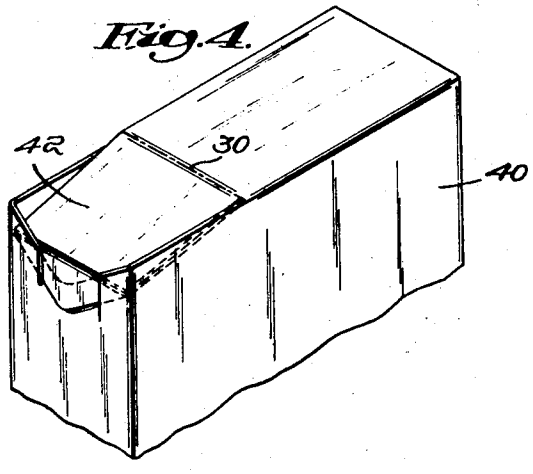


Fig. 4.



Inventor:
John J. Sullivan,
by Kenway & Witter
Attorneys

Patented Mar. 2, 1948 2,436,981

UNITED STATES PATENT OFFICE

2,436,981

POURING CARTON

John J. Sullivan, Arlington, Mass., assignor of one-half to Lawrie L. Witter, Boston, Mass.

Application October 5, 1944, Serial No. 557,275

1 Claim. (Cl. 229—17)

1

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 and completely reclosed and held in closed position keeping the contents from exposure to dust and the atmosphere, this application being companion to my copending application Serial No. 541,325 filed June 21, 1944, now Patent 2,403,138. 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 fully 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 certain lines including a U-shaped line extending inwardly from one end of the blank and the cutting, by perforating or otherwise, of the blank to provide two slits intersecting the U-shaped perforated line, a pivotal closure flap is formed which when not in use can be pressed to closed position within the carton and into frictional engagement with the adjacent carton walls and within the slits and will remain in such position keeping the carton tightly reclosed against exterior exposure. In the form of the invention herein illustrated the closure flap is formed from an edge wall of the carton and so constructed that it directly cooperates with the adjacent body walls and provides a tight reclosable closure. The production of an improved blank and carton of this

2

nature 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,

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

Fig. 3 is a fragmentary view of the carton with the closure flap in open position, and

Fig. 4 is a view like Fig. 2 but showing the flap in reclosed 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 U-shaped line 22 extending inwardly of one edge wall 14 from two corners 25 of such wall to an apex 24. This wall 14 is also cut or perforated along two lines 26 intersecting the line 22 at opposite sides of the apex 24 and extending inwardly of the blank therefrom. The blank is also preferably perforated along the crease line 30 at 27 from the corners 25 to two points 28 and from thence the blank is scored directly across the end flaps at 30.

When the blank as above prepared is folded into a carton 40, the two scorings 30 overlap and furthermore these scorings are preferably so located that they also overlap the outer end edge of the flap 16 therebetween. When it is desired to use the contents of the carton, the walls are broken along the perforated lines 22, 26 and 27 thereby freeing the closure flap 42 for outward pivotal movement about the scoring 30. In the open position illustrated in Fig. 3 the contents of the carton can be poured from a corner of the carton as indicated at 44.

When the carton is not in use the closure 42 can be placed in the closed position illustrated in Fig. 4 in which position the converging edges of the closure flap engage frictionally within the slots at 26 and the closure flap is disposed within the carton with its marginal walls in close and frictional contact with the adjacent walls 12 and 14. In such position the closure flap not only provides complete and tight reclosure of the carton about the entire margin of the closure flap

and the adjacent walls of the opening but furthermore the closure flap is securely maintained in that position by its frictional contact with the walls 12 and 14 and within the slits 26. The flap is brought to the closed position by gripping the apex and between thumb and finger and pulling the flap into the slots 26, and the closure flap is conveniently reopened merely by lifting it by contact of a finger with the apex end of the flap (Fig. 4). 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 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. 3, and which embodies a closure 42 which can be readily and conveniently replaced and held in closed position, illustrated in Fig. 4, and thus completely 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.

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

A rectangular carton having two parallel end walls, two parallel face walls and two parallel edge walls and perforated along two parallel lines extending from two spaced points at opposite sides of one end wall along the junction of said wall with the adjacent face walls to one edge wall and extending from thence across said edge wall away from said end wall and converging to a mid-point located substantially mid-way of said edge wall, the carton being adapted to be opened along said perforated lines to provide a closure flap disposed within and between the lines and pivotally attached to said end wall along a line connecting said spaced points, said edge wall being cut to provide two slits spaced from and at opposite sides of said mid-point and respectively intersecting said perforated lines at points located intermediately of said mid-point and the adjacent corners of the carton and extending therefrom in a direction away from said end wall, said closure flap including a V-shaped free end portion terminating in a finger gripping apex and the slits being adapted to receive and frictionally grip the V-margins of said free end portion and permit closing movement of the closure flap inwardly of the carton and in frictional contact with the two face walls and said edge wall whereby providing and maintaining complete and tight reclosure of the carton about the entire margin of the closure flap and the adjacent walls of the opening.

JOHN J. SULLIVAN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,931,270	Rice	Oct. 17, 1933
2,039,437	Moore	May 5, 1936
2,056,032	Berman	Sept. 29, 1936
2,316,701	Marshall	Apr. 13, 1943
2,358,923	Guyer	Sept. 26, 1944

FOREIGN PATENTS

Number	Country	Date
364,021	Germany	Nov. 16, 1922