

Feb. 19, 1963

C. H. KEITH
CARTON

3,078,027

Filed May 9, 1960

2 Sheets-Sheet 1

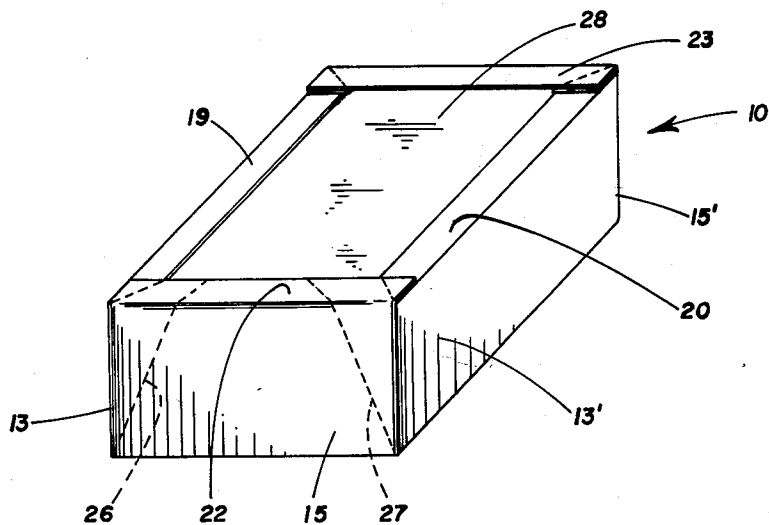


FIG. 1

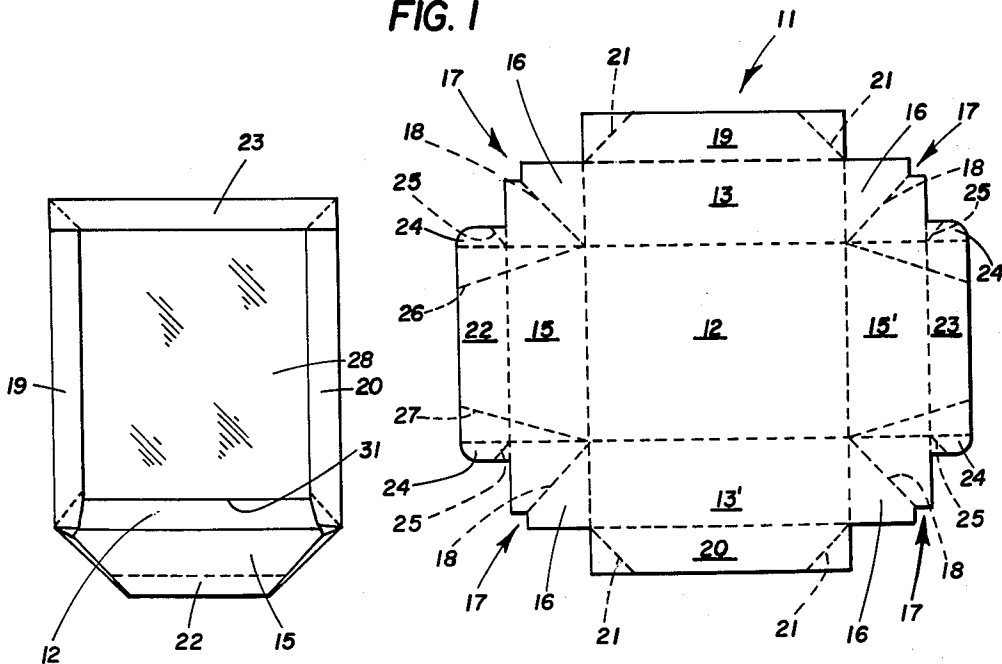


FIG. 2

FIG. 3

INVENTOR.
CLIFFORD H. KEITH

BY *John V. Larkin*
ATTORNEY

Feb. 19, 1963

C. H. KEITH
CARTON

3,078,027

Filed May 9, 1960

2 Sheets-Sheet 2

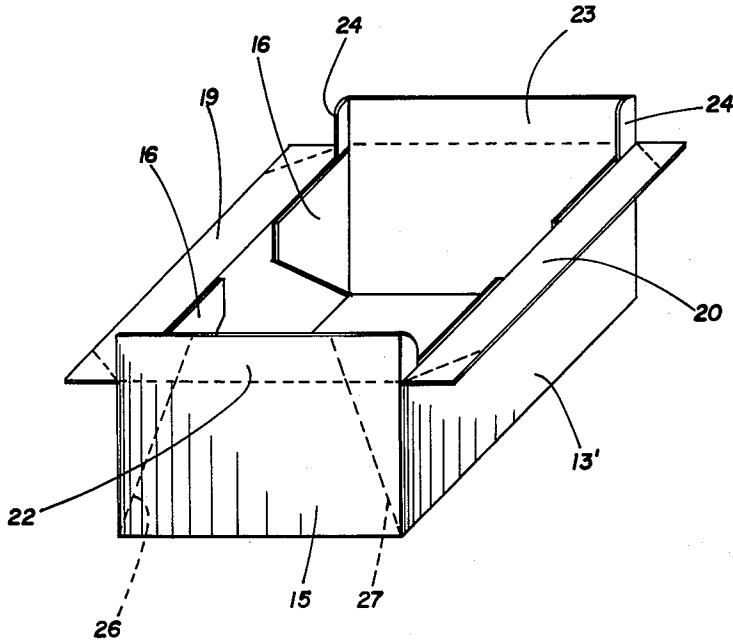


FIG. 4

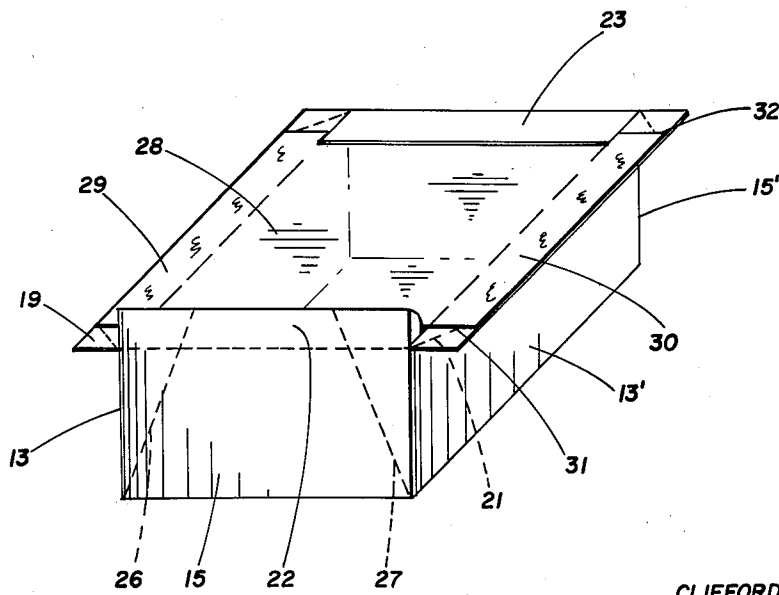


FIG. 5

INVENTOR.
CLIFFORD H. KEITH

BY

James V. Gleim
ATTORNEY

1

3,078,027
CARTON

Clifford H. Keith, Cincinnati, Ohio, assignor to The Mead Corporation, Dayton, Ohio, a corporation of Ohio
 Filed May 9, 1960, Ser. No. 27,575
 1 Claim. (Cl. 229-17)

This invention relates to a novel window type carton structure and to the method of making such a carton in a continuous operation.

In the packaging and impulse display of certain merchandise, the provision of a transparent window of film forming material on cartons for readily viewing the contents thereof is increasing considerably. And, so far as is known, such cartons have not been provided which can be set up, filled and have a transparent window applied thereto in a continuous type operation. Moreover, another deficiency of such known cartons is the lack of means for readily and intermittently dispensing the contents thereof with the assurance that the carton can thereafter be positively closed.

Accordingly, it is an object of this invention to provide a novel carton structure which includes a film window and a dual-purpose closure.

It is another object to provide an improved method for making such a carton during continuous commercial operations.

Another object of this invention is to provide an improved carton blank from which such a carton structure can be formed.

Other objects, uses and advantages of this invention will become apparent from a reading of the following specification, taken in conjunction with the accompanying drawings wherein:

FIGURE 1 is a perspective view of the improved carton of this invention;

FIGURE 2 is a plan view and illustrates the same in its dispensing position;

FIGURE 3 is a plan view of the blank from which the carton of FIGURE 1 can be formed;

FIGURE 4 is a perspective view of a partially completed carton; and

FIGURE 5 is a view similar to FIGURE 4 illustrating one method of applying a film window to the carton structure of this invention.

Referring to the drawings, the improved carton of this invention is generally indicated by reference numeral 10 in FIGURE 1 and is formed from blank 11 illustrated in FIGURE 3.

The substantially rectangular blank 11 may be made from any suitable material, such as paper board, cardboard, pasteboard and the like, and is suitably cut and scored to define a bottom panel or wall 12, a first pair of side panels or side walls 13 and 13' respectively foldably connected at the bottom edges thereof to opposed side edges of bottom wall 12, and a second pair of side panels or end walls 15 and 15' respectively foldably connected at the bottom edges thereof to opposed side or end edges of bottom wall 12.

A plurality of bellows forming panels 16 are respectively foldably connected to adjacent edges of adjacent pairs of side walls 13, 13' and end walls 15, 15'. Each of the bellows forming panels 16 are cut away at 17 and are diagonally scored at 18. If desired, scores 18 can perforate the bellows forming panels 16 throughout any length thereof.

A pair of narrow top side flaps 19 and 20 are respectively foldably connected at inner edges thereof to top edges of side walls 13 and 13'. Each of the ends of each of the top side flaps 19 and 20 are diagonally perforated at 21 for a purpose hereinafter described.

2

Similarly, a pair of narrow top end flaps 22 and 23 are respectively foldably connected at inner edges thereof to top edges of end walls 15 and 15'.

A plurality of bellows forming panels 24 are respectively foldably connected to adjacent portions of adjacent top end flaps 22, 23 and bellows forming panels 16. Each bellows forming panel 24 is diagonally scored at 25 for a purpose hereinafter described.

One end wall 15 or 15' and its associated top end flap 22 or 23 are suitably scored to provide a pouring or dispensing spout, and in the embodiment illustrated in the drawings, end wall 15 and its associated top end flap 22 are diagonally scored at 26 and 27, scores 26 and 27 converging toward each other in the direction of top end flap 22.

After blank 11 has been cut and scored in the above manner, the same is adapted to be erected to its article receiving position by folding side walls 13 and 13' and end walls 15 and 15' at substantially right angles relative to bottom wall 12 whereby bellows forming panels 16 are disposed inside carton 10 and are medially folded on scores 18 thereof to permit such right angle folding of walls 13, 13' and 15, 15'. The folded bellows forming panels 16 can be secured to the inside surface of respective side walls 13, 13' in any suitable manner, such as by gluing and the like, as illustrated in FIGURE 4.

After walls 13, 13' and 15, 15' have been erected, top side flaps 19 and 20 are folded perpendicularly outwardly from respective side walls 13 and 13' to the position illustrated in FIGURE 4, top end flaps 22 and 23 remaining in substantially the same plane as their associated end walls 15 and 15'.

Thereafter, the desired contents for carton 10 are placed in the substantially rectangular container through the open upper end thereof until the same has been filled to the desired level, the desired level normally being a plane passing across the outwardly folded top side flaps 19 and 20.

After carton 10 has been filled with the desired contents, a sheet of film-like material, and preferably, a transparent sheet of film-like material, such as polyethylene or the like, is placed across carton 10 whereby opposed side portions 29 and 30 thereof are superimposed upon the inside surfaces of top side flaps 19 and 20 in the manner illustrated in FIGURE 5. Opposed side edges 31 and 32 of film window 28 are disposed inwardly from end walls 15 and 15' in a sufficient distance so that bellows forming panels 24 do not interfere with the same.

The side portions 29 and 30 of film window 28 are secured to the inside surfaces of top side flaps 19 and 20 in any suitable manner, such as by gluing, heat sealing or the like.

After film window 28 has been secured to top side flaps 19 and 20, the top end flaps 22 and 23 are folded inwardly over film window 28 in the manner illustrated in FIGURE 5, wherein top end flap 23 is shown so folded and top end flap 22 ready to be so folded, whereby bellows forming panels 24 fold at diagonal scores 25 thereof to permit such folding of top end flaps 22 and 23.

Thereafter, top side flaps 19 and 20 are folded over adjacent end portions of top end flaps 22 and 23 whereby top side flaps 19 and 20 and top end flaps 22 and 23 create a substantially rectangular frame for window 28. The overlapping end portions of top side flaps 19 and 20 and top end flaps 22 and 23 are secured together in any suitable manner, such as by gluing or the like, to hold carton 10 in its completed position as illustrated in FIGURE 1. To further enhance the gluing of the end portions of top side flaps 19 and 20 to the overlapped end portions of top end flaps 22 and 23, the perforations 21 of top side flaps provide roughened surface for greater adherence of the glue.

When it is desired to dispense at least part of the con-

3

tents of the container 10, it is merely necessary to grasp top end flap 22 and pull outwardly thereon whereby the means attaching end portions of top side flaps 19 and 20 and top end flap 22 is broken. Thus, through the diagonal scores 26 and 27 formed in end wall 15 and its associated top end flap 22, end wall 15 and top end flap 22 are pulled to the position illustrated in FIGURE 2 whereby the contents of container 10 can be dispensed through the resulting spout projecting beyond the side edge 31 of film window 28.

After a desired quantity of carton contents have been dispensed through the spout previously described, carton 10 can be closed by merely inserting top end flap 22 beneath the adjacent end portions of top side flaps 19 and 20.

Therefore, it can be seen that there has been provided an improved dual-purpose closure type carton which, during continuous operation, can be set up, filled and have a transparent film window applied thereto.

While the foregoing presents preferred embodiments of the present invention, it is obvious that other modifications and/or equivalents may be employed without departing from the scope of the invention, which is defined in the appended claim.

What is claimed is:

A carton comprising a bottom wall, a pair of opposed side walls respectively foldably connected to said bottom wall and extending substantially perpendicularly therefrom, a pair of opposed end walls respectively foldably connected to said bottom wall and extending substantially

4

perpendicularly therefrom, a pair of top end flaps respectively foldably connected to said end walls and extending inwardly therefrom, a pair of top side flaps respectively foldably connected to said side walls and extending inwardly therefrom, a film window secured to the inside surfaces of said top side flaps and extending across said carton, said film window being folded upon itself throughout at least part of the width of said top side flaps, bellows flaps integral with and interconnecting adjacent side and end flap being suitably scored to provide a pouring spout, interconnecting adjacent top end flaps and said first-named bellows flaps, one of said end walls and its associated top end flap being suitably scored to provide a pouring spout, said pouring spout having inverted triangular side panels and a trapezoidal end panel defined by scored lines.

References Cited in the file of this patent

UNITED STATES PATENTS

20	1,279,589	Robson	Sept. 24, 1918
	1,845,456	Wagner	Feb. 16, 1932
	2,226,089	Anthony et al.	Dec. 24, 1940
	2,227,383	Snyder	Dec. 31, 1940
25	2,660,362	Schilling	Nov. 24, 1953
	2,861,732	Parker	Nov. 25, 1958
	2,886,231	Petersen	May 12, 1959
	2,923,211	Schwebs	Feb. 2, 1960
	2,932,439	Sparling	Apr. 12, 1960
30	2,942,769	Kuchenbecker	June 28, 1960

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,078,027

February 19, 1963

Clifford H. Keith

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 10, strike out "flap being suitably scored to provide a pouring spout," and insert instead -- end walls and additional bellows flaps integral with and --.

Signed and sealed this 12th day of November 1963.

(SEAL)

Attest:

ERNEST W. SWIDER

Attesting Officer

EDWIN L. REYNOLDS

Acting Commissioner of Patents