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B. BENZON-PETERSEN

2,795,364

CARTONS

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Fig. 1.

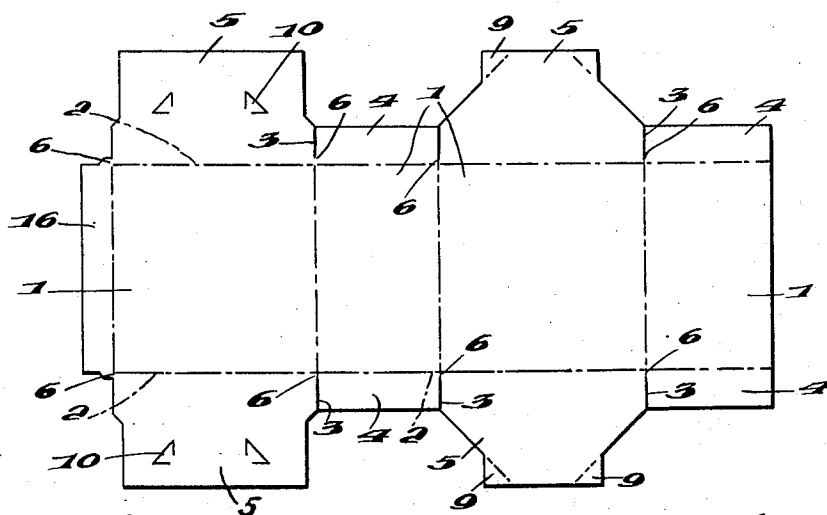


Fig. 2.

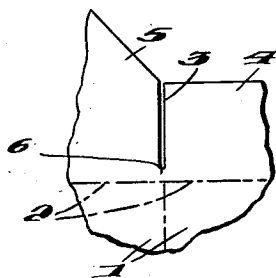


Fig. 4.

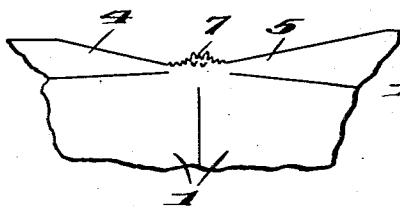


Fig. 3.

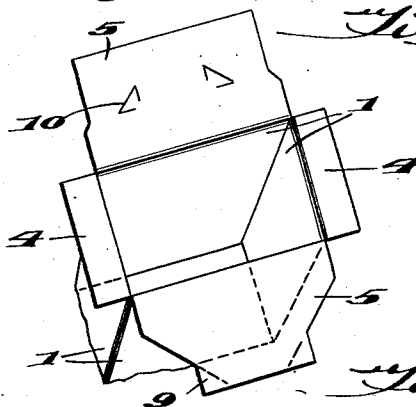
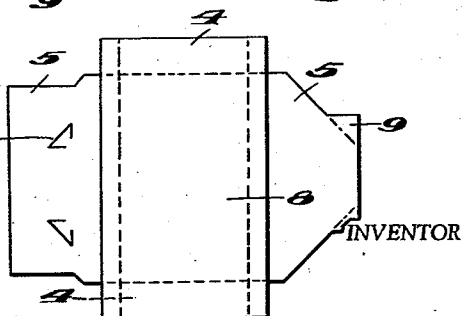


Fig. 5.



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2,795,364

CARTONS

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1 Claim. (Cl. 229—37)

This invention relates to a carton for pulverulent and the like articles.

The principal object of the invention is to provide a carton without any lining or internal bag therein which carton will nevertheless be air and powder-tight.

The air and powder-tight carton according to the invention comprises side walls, closure flaps provided at opposite ends of said side walls and separated by cuts in the carton blank and adapted to be engaged with one another and/or to be glued together, crease lines in said carton blank about which said flaps are foldable, and a sealing sheet which is disposed over each open carton end formed by overturning said flaps, and which is glued along a peripheral marginal portion to the inner surfaces of said flaps before the latter are folded into the position in which they close the carton, and is characterized in that the cuts do not extend altogether up to the crease lines provided for folding the flaps, whereby some carton material is left at the inner end of each cut, which carton material, when the flaps are overturned and the cuts are spread, is fibered and forms a fibre tuft at the inner end of each cut, by means of which fibre tufts the sealing sheet adheres to the carton in an air and powder-tight manner at the carton corners formed by the flaps being folded into the position in which they close the carton.

Further features and objects of the invention will become apparent from the following description, reference being had to the accompanying drawings illustrating a preferred embodiment of the invention. In the drawings:

Fig. 1 is a plan view of the carton blank.

Fig. 2 shows on a larger scale the portion of the carton marked with a ring in Fig. 1.

Fig. 3 is a perspective view of one end of the carton blank glued together to form a tube and with the flaps overturned.

Fig. 4 shows on a larger scale and as viewed from the inside of the tube the portion marked with a ring in Fig. 3.

Fig. 5 is an end view of the partly closed carton.

As appears from Fig. 1 the blank forming the carton shown as an example is punched in one piece and provided with crease lines. It has four side wall panels 1 which are separated by crease lines and form the four rectangular side walls of the carton which is rectangular in cross section and has the form of a parallelepiped. At each end the carton has panels forming closure flaps 4 and 5 situated in the prolongation of the side wall panels 1. The closure flap panels are separated from the panels 1 by crease lines 2 and inter sese by cuts 3. In addition, the carton as usual has a flap 16 for glueing together two opposite edges of the blank so that it forms a tube (Fig. 3). In the punching and creasing operation the cuts 3 defining the flaps 4 and 5 are not made quite as long as necessary for permitting overturning of the flaps 4 and 5 along the crease lines 2 to the position shown in Fig. 3, whereby some carton material 6 is left at the inner ends of said cuts. On overturning the flaps, said remaining carton material is torn whereby a fibre tuft designated 7 (Fig. 4) is left. This fibre tuft 7 which

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extends substantially upwards from the end plane of the carton formed by the overturned flaps, is well anchored in the carton material, thereby forming an extra-ordinarily good attachment for a sealing sheet 8 which is described more in detail in the following. This sealing sheet 8 is preferably made from a laminate or preferably from paper covered with wax, plastic or the like and is of such an extension that when it is mounted on and glued by means of a suitable adhesive to the flaps 4 and 5 and the fibre tufts 7 formed in the cuts 3 separating the flaps from each other, it extends across the hollow of the carton exposed by the overturned flaps 4 and 5. After said sealing sheet 8 has been mounted on and glued to the flaps 4 and 5 and the fibre tufts 7, which is preferably performed when the container is erected and filled with the article to be kept in the carton, first flaps 4 are folded inwardly over the sealing sheet 8 and then flaps 5 are folded inwardly over the sealing sheet 8 and the inwardly folded flaps 4 causing the portions of sealing sheet 8 glued to the flaps 4, 5 to be folded, after which the flaps 5 are caused to engage with each other in that tongues 9 on one flap 5 are introduced into cuts 10 in the other flap 5. After both ends of the carton have been closed in the above described manner, the article packed into the carton is enclosed therein in an air and powder-tight manner. Thanks to the fibre tufts 7 produced by the cuts 3 separating the flaps 4 and 5 from each other and situated in the corners of the finished carton the corners of the carton have also been made air and powder-tight, which has not been possible hitherto without very complicated carton constructions.

For opening of the carton the flaps 4 and 5 are first released from one another and swung aside, whereupon one or more perforations which are suitably adapted as to their size to the contents of the carton can be provided in the sealing sheet 8, which permits a convenient portioning out of the packed article. Said perforations can be realized in such a way that the carton forms a suitable powdering device.

As already described the flaps 4 and 5 can be adapted to engage with each other for a complete sealing of the carton and/or they can be glued to each other for the same purpose.

On its one side which is turned inwards in the finished condition of the carton the blank forming the carton can be coated with wax, plastic or the like or said blank can be formed by a suitable laminate to prevent moisture from penetrating through the walls of the carton to the article enclosed therein.

Of course, it is possible to give the described and shown carton any form whatever, without leaving the inventive idea.

Further modifications are conceivable within the scope of the inventive idea such as is defined in the appendant claim.

What I claim and desire to secure by Letters Patent is:

A carton of fibrous material comprising a plurality of walls forming a hollow open ended body portion of the carton, an end closure flap hingedly connected to each wall along a crease line at the open end, each of said flaps at said crease line being substantially coextensive in width with the width of the corresponding wall of the carton, such crease lines lying in substantially the same plane with the adjacent ends of all adjacent crease lines adjacent the corner junctions of the carton walls, the adjacent edges of adjacent flaps at each of said corner junctions being torn edges located directly adjacent such corner junction and providing a tuft of free fibrous strands directly at each of said corner junctions, a sealing sheet covering the open end of the hollow body

portion of the carton and overlapping all corner junctions and all flaps, said sheet lying substantially in the plane of said crease lines and being sealed to said flaps and to all of said tufts when said flaps are outfolded and lying in a substantially common plane whereby the carton may be sealed against seepage at all of said corner junctions when said flaps are secured in infolded relationship over the end of said hollow body portion.

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