

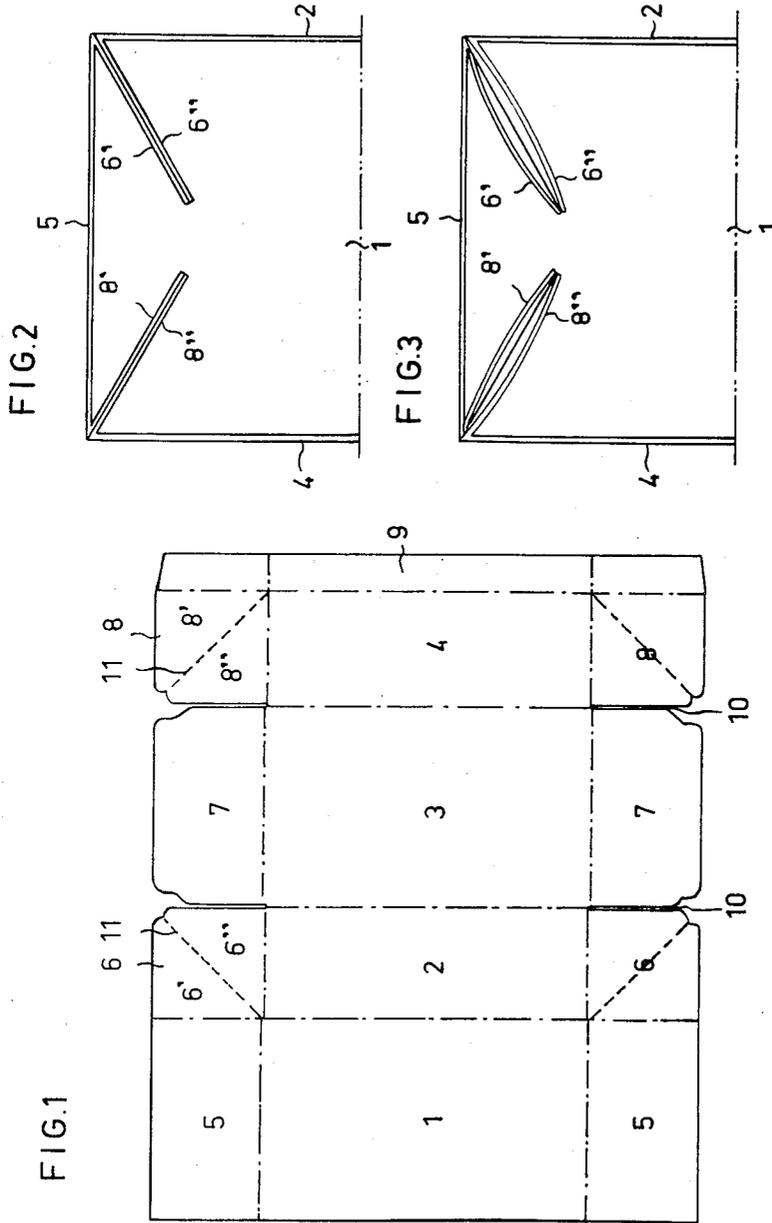
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CARTONS

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3,120,334
CARTONS

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This invention relates to a carton in the shape of quadri-
lateral box of cardboard or like material which at least at
one end has a separate closure member hinged to one
side of the carton, and interconnected closure members
hinged to the remaining three sides of the carton, the
opposed pair of said interconnected closure members hav-
ing diagonal crease lines extending to the free corners of
said closure members so that said members can be doubled
and come to lie inwardly of the intermediate closure
member whereupon the separate closure member permits
being folded down onto said intermediate member. Such
a design of the closure members has not made it possible
hitherto to provide any tight sealing of the carton, and at
least when the carton is used for packing finely divided
material, it has therefore been necessary to provide a
lining therein. The carton according to the present inven-
tion eliminates this drawback and is essentially charac-
terised by the fact that the diagonal crease lines are rel-
atively deep scores in that side of the opposed pair of
interconnected closure members, which is to face the in-
terior of the carton. Said scores guarantee that the mem-
bers in which said scores are provided are doubled into
surface contact with one another, which results in a tight
sealing of the carton.

These and further features of the invention and the
advantages thereof will become apparent from the follow-
ing description, reference being made to the accompany-
ing drawing, in which:

FIG. 1 is a developed plan view of the carton blank;

FIGS. 2 and 3 show the interconnected closure mem-
bers in their closed position both according to the inven-
tion and the previously known embodiment, respectively.

The substantially rectangular carton blank is divided
by means of longitudinal and transverse crease lines (indi-
cated by dash and dot lines) into several panels. There
are four rectangular panels 1-4 of which panels 1, 3 are
broad and panels 2, 4 are narrow. The panels 1-4 will
form the four sides of the erected carton. At both ends
the panels 1-4 have four end closure flaps 5-8, the end
closure flaps 5, 7 being broad and the end closure flaps
6, 8 being narrow. Moreover, the blank has a glue flap
9 at one side edge, which flap is to be glued to panels 1
and 5 so that there is formed an open tube of rectangular
cross section, which is open at the ends.

The end closure flaps 5-8 preferably are of a length
equal, or approximately equal, to the width of the narrow
panels 2 and 4 so that each of the broad end closure flaps
5, 7 correspond to the cross section of the erected carton.
The end closure flaps 5 preferably are of such a length as
to provide a seal against the crease lines between the
panel 3 and the end closure flaps 7, in the erected carton.

The end closure flaps 7 are separated from the end
closure flaps 6-8 by cuts 10 and hinged to the panel 3
through a crease line. The end closure flaps 5, however,
are integral with the narrow end closure flaps 6 and 8, at
least when the blank is in the shape of an open tube.

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Each of the narrow end closure flaps 6 and 8 is pro-
vided with a diagonal crease line 11 which runs to the
free corner of the flap. The end closure flaps 6 and 8
can thus be doubled and come to lie inwardly of the inter-
mediate end closure flap 5. The end closure flap 7 hinged
to the panel 3 is then swung down and attached to the
end closure flap 5 by gluing, heat-sealing or like process
suitable to perform in a filling machine.

According to the invention, the diagonal crease lines 11
in the end closure flaps 6 and 8 consist of relatively deep
scores provided in that side of the end closure flaps 6 and
8 which is to face to the interior of the carton. Said
scores 11 preferably are of a depth approximately equal to
half the cardboard thickness. By reason of the scores 11
the two sections 6', 6'' and 8', 8'', respectively, of the end
closure flaps 6 and 8, respectively, will be in surface
contact with one another, as will appear from FIG. 2. FIG.
3 shows the corresponding sections in the previously
known embodiment.

By coating the outer side of the end closure flaps 6 and
8 with glue, wax, thermoplastic or like material the sec-
tions 6', 6'' and 8', 8'', respectively, can be fixed to one
another in surface contact when the carton is closed. The
edge of the end closure flaps 5 can also be coated with
glue, wax, thermoplastic or like material to fix it to the
corresponding crease lines between the panel 3 and the
end closure flaps 7 when the carton is closed.

The above embodiment of the invention was described
for purposes of illustration rather than limitation. All
possible variations and modifications of the invention are
understood as being included within the scope of the ap-
pended claims.

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

1. A blank for producing a quadrilateral container com-
prising a one-piece blank of rectangular outline, said
blank including two pairs of alternately disposed, rectan-
gular panels connected on mutually parallel fold lines,
said blank including upper and lower fold lines defining
the upper and lower margins of said side panels, a sealing
flap extending from opposite ends of each of said side
panels at said upper and lower fold lines and having end
margins co-linear with said parallel fold lines, one of the
said side panels at the end of said blank and the sealing
flap extending therefrom having a glue flap connected
thereto and extending the length of said blank, the sealing
flaps at the ends of another of said side panels having free
end margins, and one of each of the sealing flaps of the
remaining side panels being foldably connected at ad-
jacent ends, the sealing flaps flanking said sealing flap hav-
ing free said end margins having diagonal cut-score lines
on the inner surfaces thereof and originating from the
upper and lower margins of said side panels and bisecting
the same and extending toward said free edges, said sealing
flaps having a height equal to the width of said side panels
upon which said cut-scored sealing flaps are connected.

2. The blank of claim 1 in which said cut-score lines
penetrate at least one-half the thickness of said blank for
insuring sealing of said blank when said blank is formed
into a sealed carton.

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