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2,675,164

KNOCKDOWN COVERED CARTON

Filed Dec. 22, 1950

2 Sheets-Sheet 1

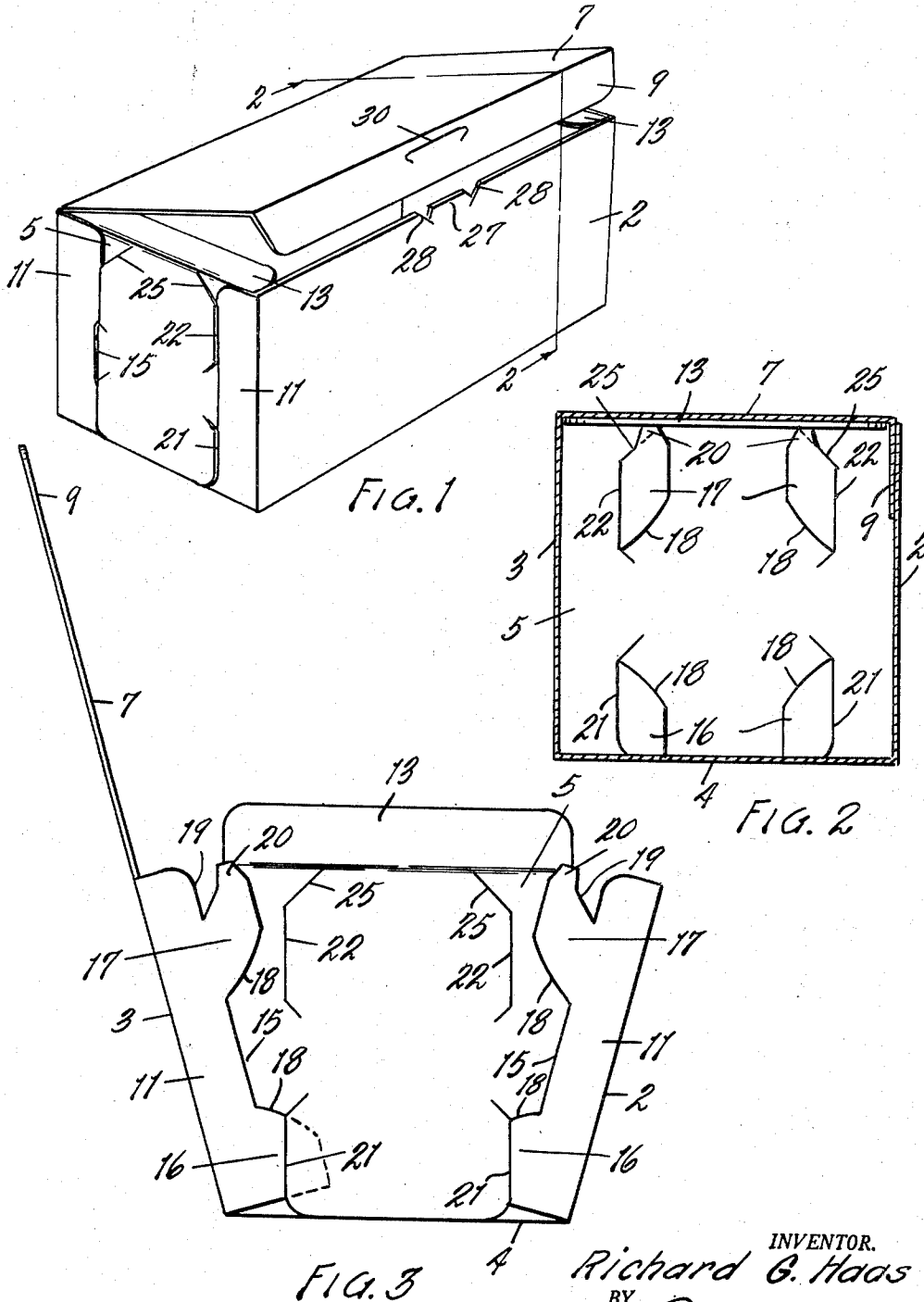


FIG. 3

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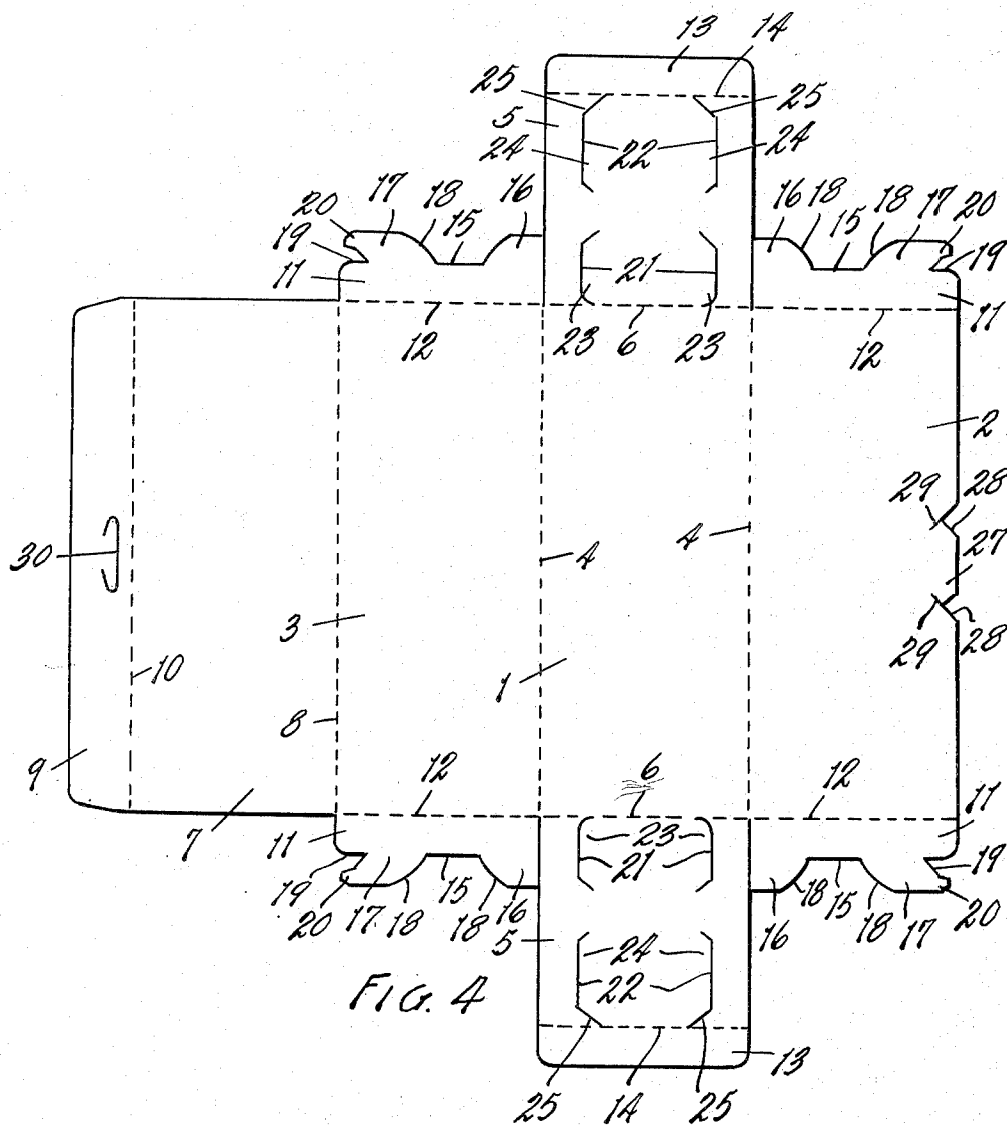


FIG. 4

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KNOCKDOWN COVERED CARTON

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4 Claims. (Cl. 229—36)

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This invention relates to improvements in knockdown covered cartons.

The main objects of this invention are:

First, to provide a covered carton formed of an integral blank which may be quickly erected from the flat blank form and which when erected is strong and rigid, the interengaging parts serving to effectively brace each other.

Second, to provide a carton of this character which may be economically produced from relatively light stock and at the same time is effectively retained in the erected position.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a front perspective view of a carton embodying my invention with the cover in partially closed position.

Fig. 2 is a transverse section on a line corresponding to line 2—2 of Fig. 1 with the cover in fully closed position.

Fig. 3 is an end elevational view illustrating certain of the steps of erecting the carton.

Fig. 4 is a plan view of the blank, the hinging scores or portions being indicated by dotted lines.

The embodiment of my invention illustrated is formed of an integral blank and comprises a bottom 1, front wall 2 and rear wall 3, the walls being hingedly connected to the edges of the bottom by the hinging scores indicated by the dotted lines 4—4. The end walls 5 are hingedly connected to the ends of the bottom by the hinging scores 6—6. The rear wall 3 has a cover 7 hingedly connected to its upper edge at 8. The cover is provided with a closure flap 9 hingedly connected to its swinging edge at 10. The front and rear walls have corner flaps 11 hingedly connected thereto at 12.

The end walls 5 have closure flaps 13 on their upper edges hingedly connected thereto at 14. The corner flaps have recesses or notches 15 formed in their outer side edges to provide spaced bottom and top tongues 16 and 17. The adjacent edges of these notches are formed with diverging curves 18. The upper edges of the corner flaps are notched at 19 to provide hook-like portions 20 on the upper ends of the tongues 17.

The end walls have vertically spaced pairs of slits 21 and 22 formed therein, these slits being of general U-shape and disposed in facing relation thus providing deflectable portions 23 and

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24 facilitating the engagement of the tongues with the corresponding slits. It will be noted that the lower ends of the slits 21 extend to the hinge connections 6 for the end walls to the bottom and that the upper ends of the slits 22 extend to the hinge connections 14 for the end closure flaps to the end walls.

When the carton is erected, the end walls are swung to erected position and the front and rear walls then swung upwardly as shown in Fig. 3 with the bottom tongues inserted through the slits 21. Continued erecting movement of the front and rear walls engages the tongues 17 with the slits 22 or the tongues are inserted through the slits and the upwardly projecting tips or hook portions 20 of the tongues 17 are engaged with the upper edges of the angularly disposed portions 25 of the slits 22, that is, they interlock therewith, as is shown in Fig. 2, thus locking the parts in erected position.

The bottom edges 26 of the corner flaps are aligned with the hinge connections 4 for the front and rear walls to the bottom so that when the walls are in completely erected position, the tongue portions 16 are in supported engagement with the bottom at the inner sides of the end walls, this resulting in a bracing of the parts. The tip portions 20 of the tongues 17 are engaged by the intumed end closure flaps 13. The curved edges 18 of the tongues facilitate the engagement of the tongues with the slits.

The front wall is provided with a dovetailed tongue 27 formed by the notches 28 and the slits 29 in the front wall. The closure flap 9 is provided with a C-shaped slit 30 which receives the tongues 27 of the cover flap when it is in closed position. This flap 9 is tucked between the front wall and the front edges of the end closure flaps 13. This results in a very secure locking of the cover in closed position. The cover holds down the end closure flaps which not only results in an effective closure at the ends of the cover but serves to retain the cover closure flap in locked position and prevents the corner flap tongues from becoming disengaged with the end walls. It will be noted that the corner flaps when their tongues interlock with the end walls, as described, provide a very effective interlocking engagement as well as a structure in which the parts cooperate to brace and support each other.

I have illustrated and described my carton, which is well adapted as a carton for baked goods or other merchandise, in a highly practical embodiment thereof. I have not attempted to illustrate or describe other embodiments or

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adaptations as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

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

1. A carton formed of an integral blank and comprising a bottom, front, rear and end walls hingedly connected to the bottom, and a cover hingedly connected to the upper edge of the rear wall, the cover having a closure flap on its swinging edge, the end walls having closure flaps on their upper edges, the front and rear walls having corner flaps hingedly connected to their ends, said corner flaps being of substantial horizontal dimension from adjacent the lower edges of the front and rear walls to adjacent the top edges thereof, the outer edges of the corner flaps having central notches therein providing spaced upper and lower tongues, the bottom edges of the corner flaps being aligned in the blank with the hinging connections for the front and rear walls to the bottom, the upper edges of the corner flaps being notched to provide upwardly directed hook-like tips for the upper tongues, the end walls having vertically spaced pairs of facing generally U-shaped slits with which corresponding tongues of said corner flaps may be engaged, the lower ends of the lower slits terminating at the hinging connection for the end walls to the bottom, the upper ends of the upper slits terminating at the hinge connections for the end wall closure flaps to the end walls so that when the carton is erected with the tongues of the corner flaps engaged in the corresponding slits, portions of the bottom edges of the bottom tongues are in supported engagement with the bottom and the hook portions of the upper tongues are in retaining engagement with edge portions of the upper slits and the tips of the upper tongues are in engagement with the end closure flaps.

2. A carton formed of an integral blank and comprising a bottom, front, rear and end walls hingedly connected to the bottom, and a cover hingedly connected to the upper edge of the rear wall, the cover having a closure flap on its swinging edge, the front and rear walls having corner flaps hingedly connected to their ends, said corner flaps being of substantial horizontal dimension from adjacent the lower edges of the front and rear walls to adjacent the top edges thereof, the outer edges of the corner flaps having central notches therein providing spaced upper and lower tongues, the upper edges of the corner flaps being notched to provide upwardly directed hook-like tips for the upper tongues, the end walls having vertically spaced pairs of facing generally U-shaped slits with which corresponding tongues of said corner flaps may be engaged so that when the carton is erected with the tongues of the corner flaps engaged in the corresponding slits, the hook portions of the upper tongues being in retaining engagement with edge portions of the upper slits, the bottom edges of the lower tongues being in supported relation with the bottom wall when the carton is erected.

3. A carton formed of an integral blank and comprising a bottom, front, rear and end walls hingedly connected to the bottom, and a cover

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hingedly connected to the upper edge of the rear wall, the cover having a closure flap on its swinging edge, the front and rear walls having corner flaps hingedly connected to their ends, said corner flaps being of substantial horizontal dimension from adjacent the lower edges of the front and rear walls to adjacent the top edges thereof, the outer edges of the corner flaps having central notches therein providing spaced upper and lower tongues, the adjacent edges of the tongues being divergently curved, the upper edges of the corner flaps being notched to provide upwardly directed hook-like tips for the upper tongues, the end walls having vertically spaced pairs of facing generally U-shaped slits with which corresponding tongues of said corner flaps may be engaged so that when the carton is erected with the tongues of the corner flaps engaged in the corresponding slits, the hook portions of the upper tongues being in retaining engagement with edge portions of the upper slits, the bottom edges of the lower tongues being in supported relation with the bottom wall when the carton is erected.

4. A carton formed of an integral blank and comprising a bottom, front, rear and end walls hingedly connected to the bottom, and a cover hingedly connected to the upper edge of the rear wall, the cover having a closure flap on its swinging edge, the end walls having closure flaps on their upper edges, the front and rear walls having corner flaps hingedly connected to their ends and having spaced upper and lower tongues, the upper tongues having upwardly directed hook portions, the bottom edges of the corner flaps being aligned in the blank with the hinging connections for the front and rear walls to the bottom, the end walls having vertically spaced pairs of slits with which corresponding tongues of said corner flaps may be engaged, the lower ends of the lower slits terminating at the hinging connection for the end walls to the bottom, the upper ends of the upper slits being angled and terminating at the hinge connections for the end wall closure flaps to the end walls whereby when the carton is erected with the tongue of the corner flaps engaged in the corresponding slits, portions of the bottom edges of the bottom tongues are in supported engagement with the bottom and the hook portions of the upper tongues are in retaining engagement with edge portions of the upper slits and the tips of the upper tongues are in engagement with the end closure flaps.

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