

Aug. 27, 1963

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3,101,865

BOTTLE CARRIER

Filed Oct. 12, 1960

3 Sheets-Sheet 1

FIG. 1

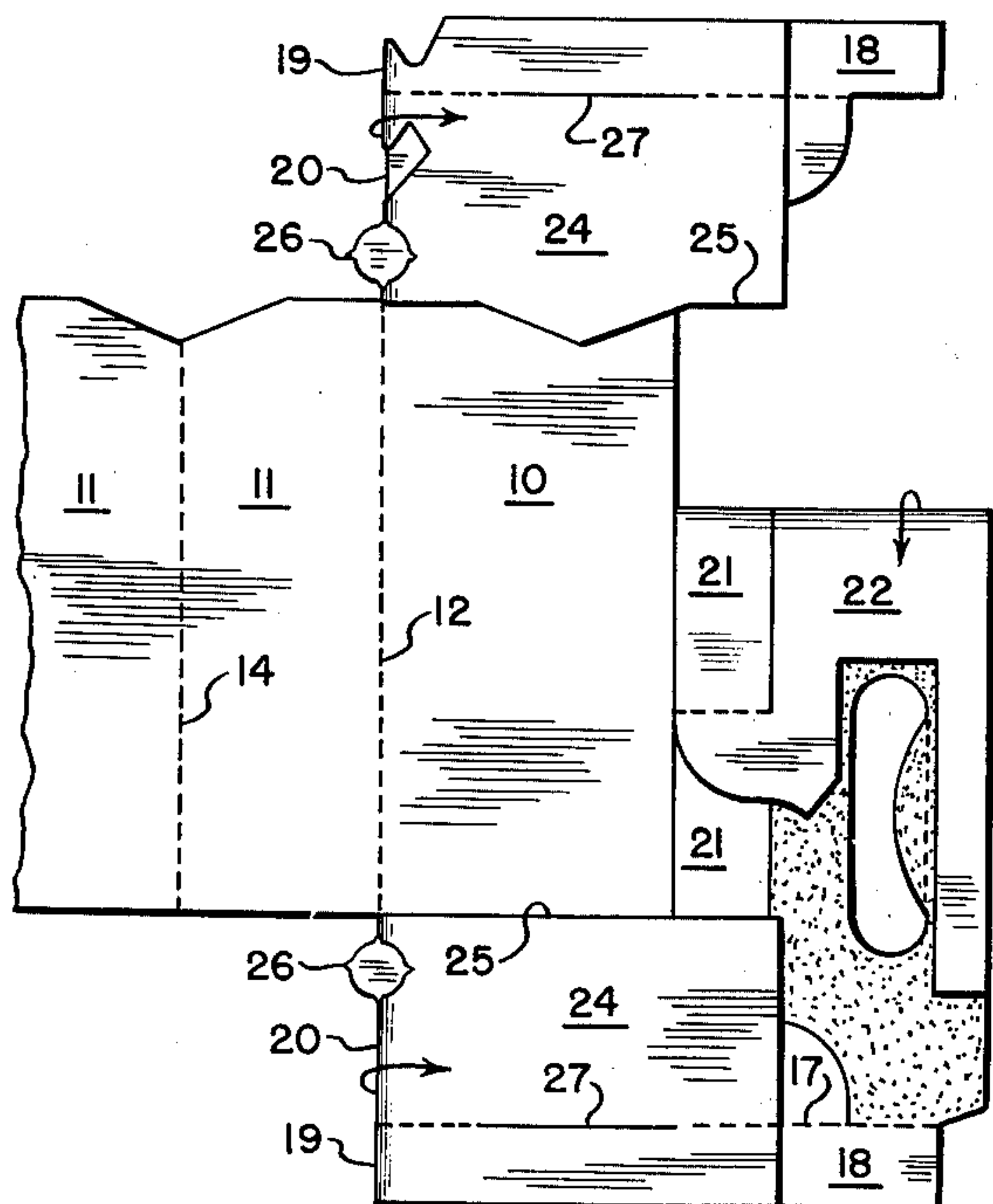
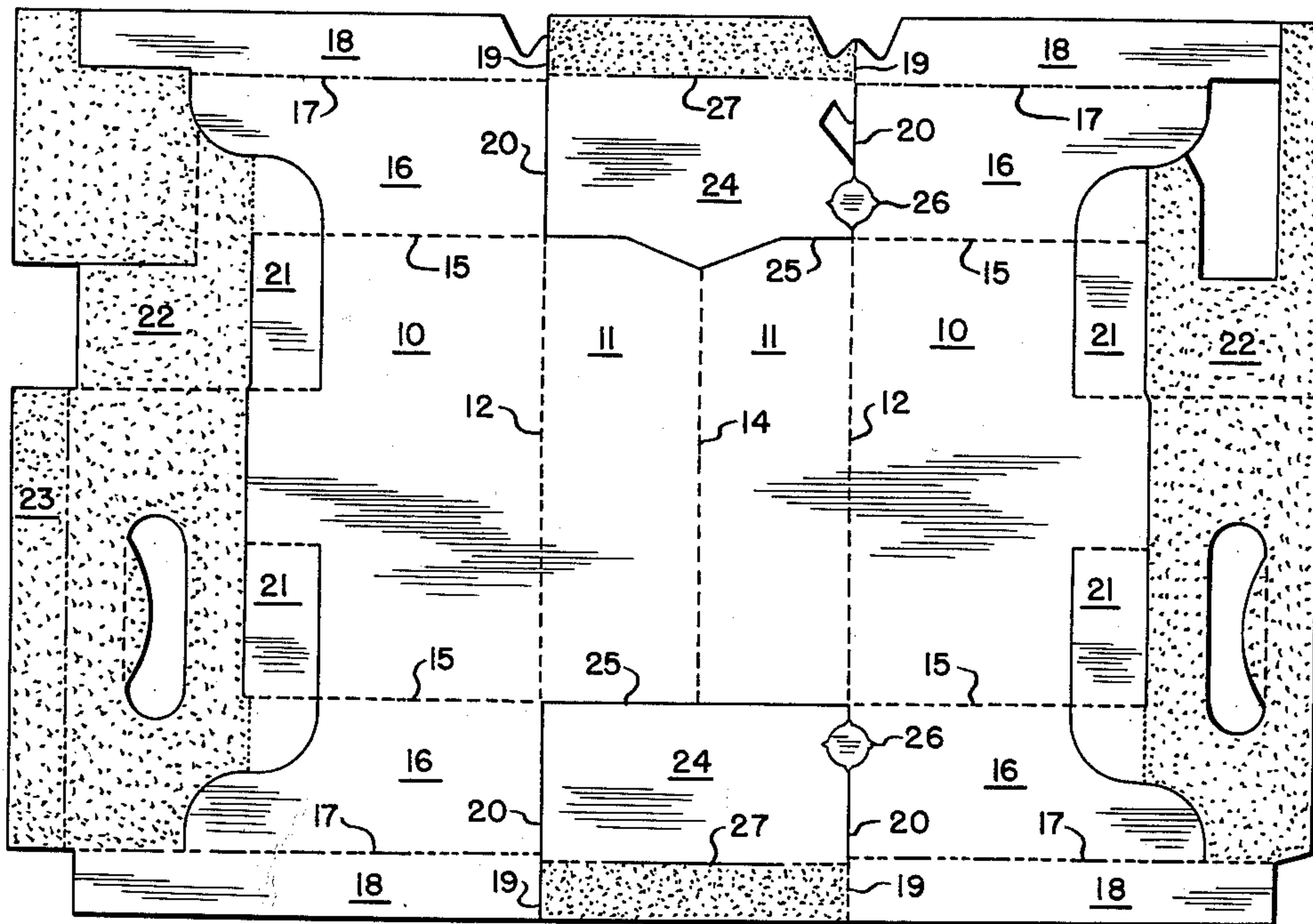


FIG. 2

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FIG. 4

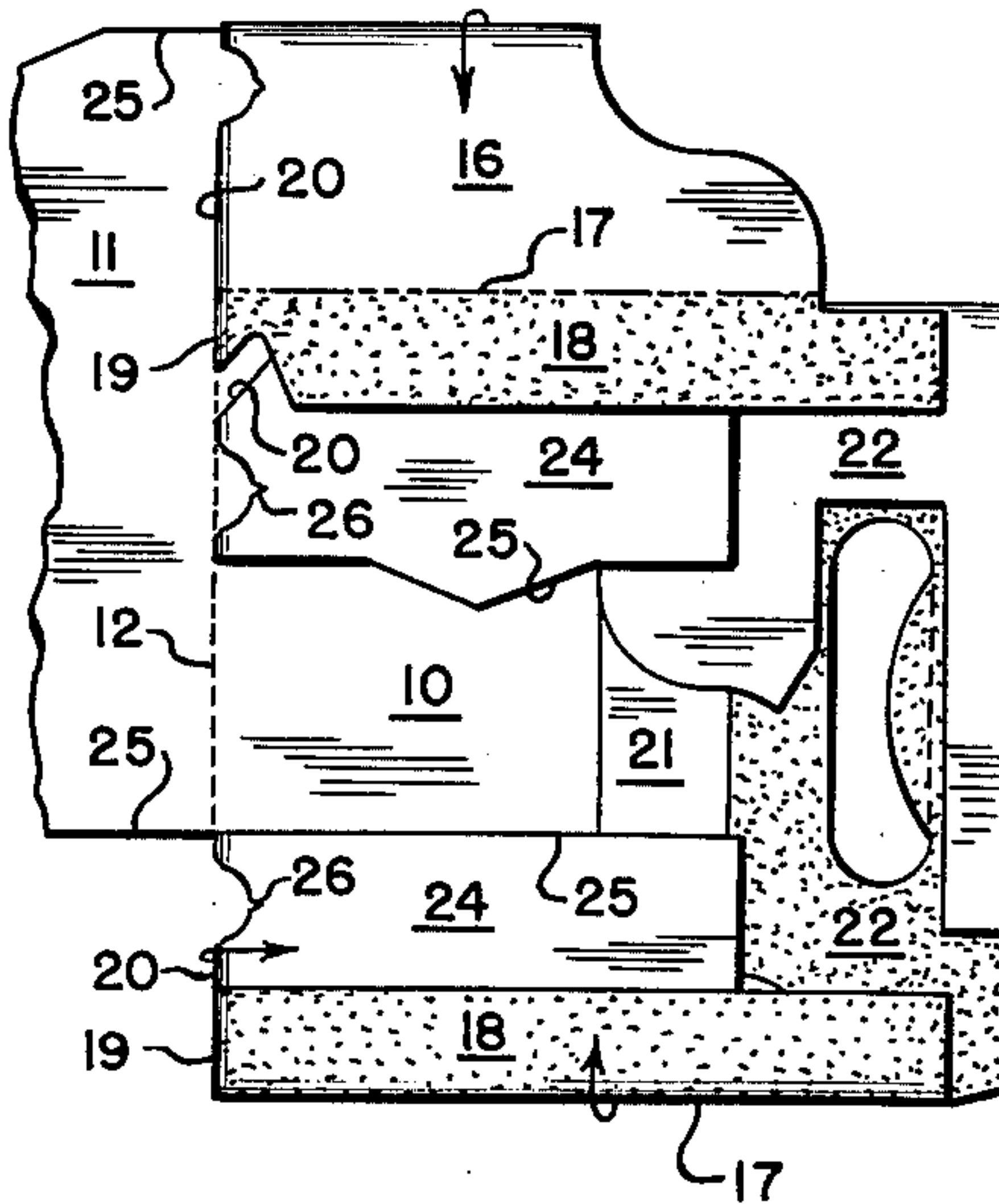
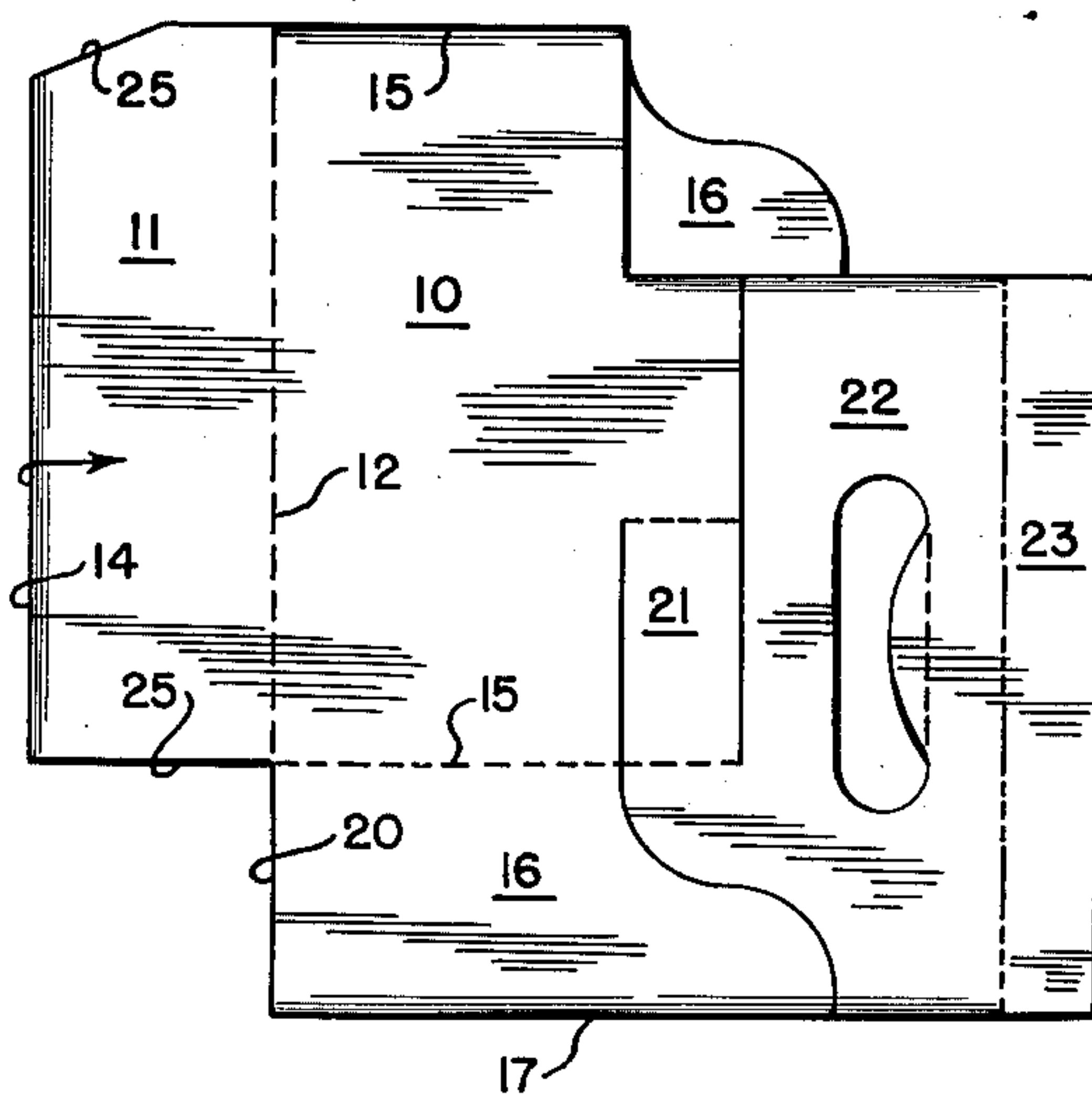


FIG. 5



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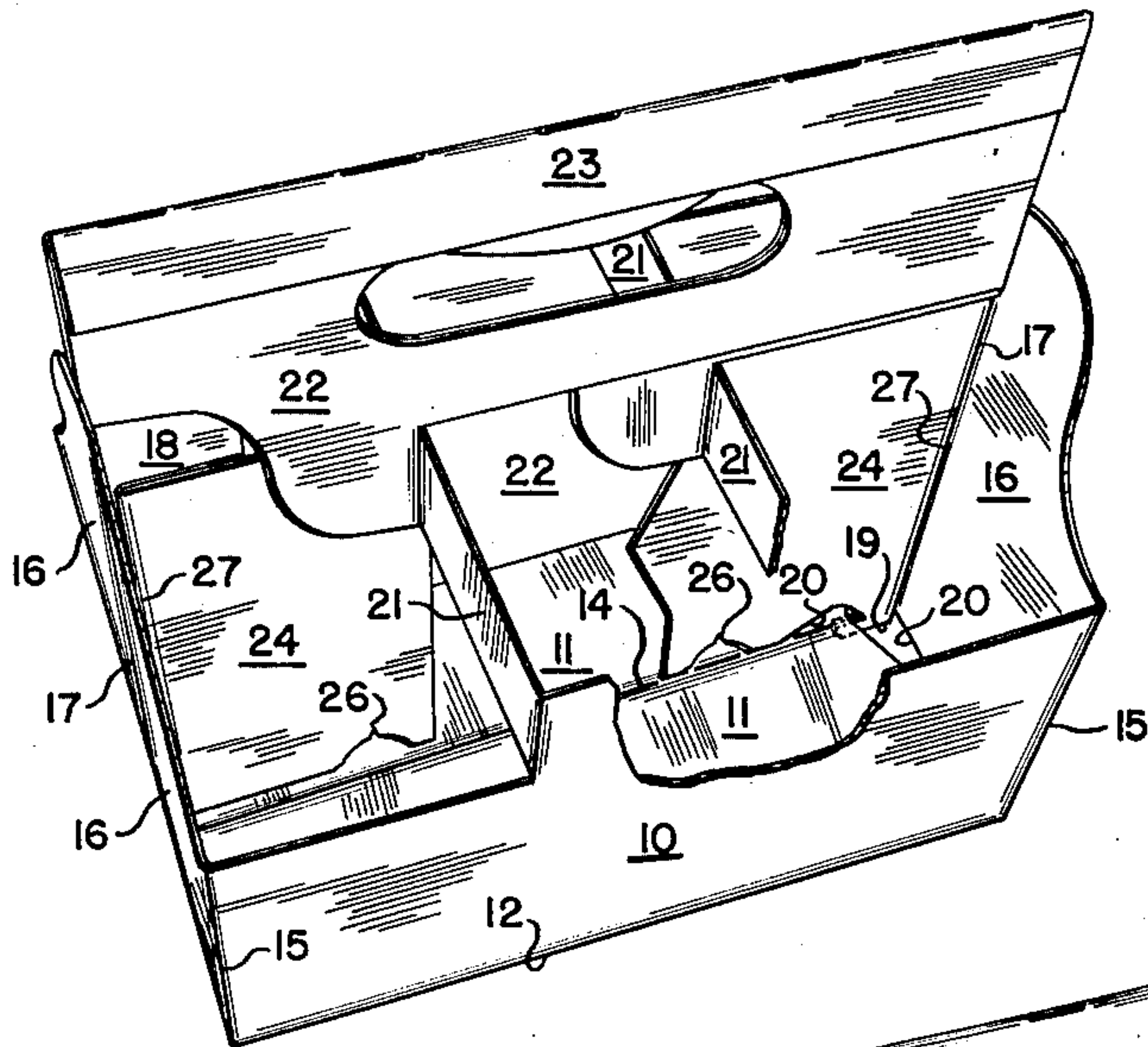


FIG. 6

FIG. 7

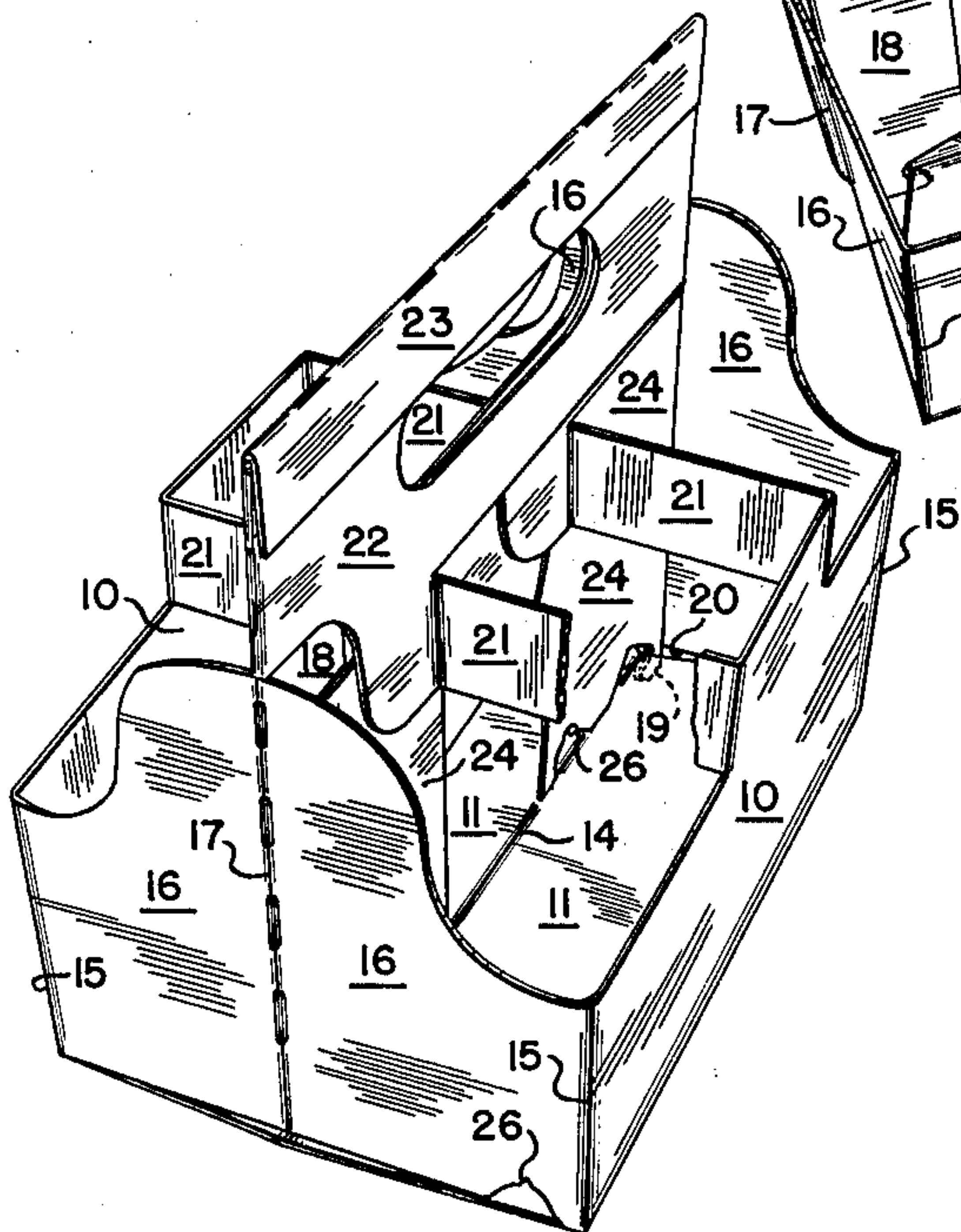
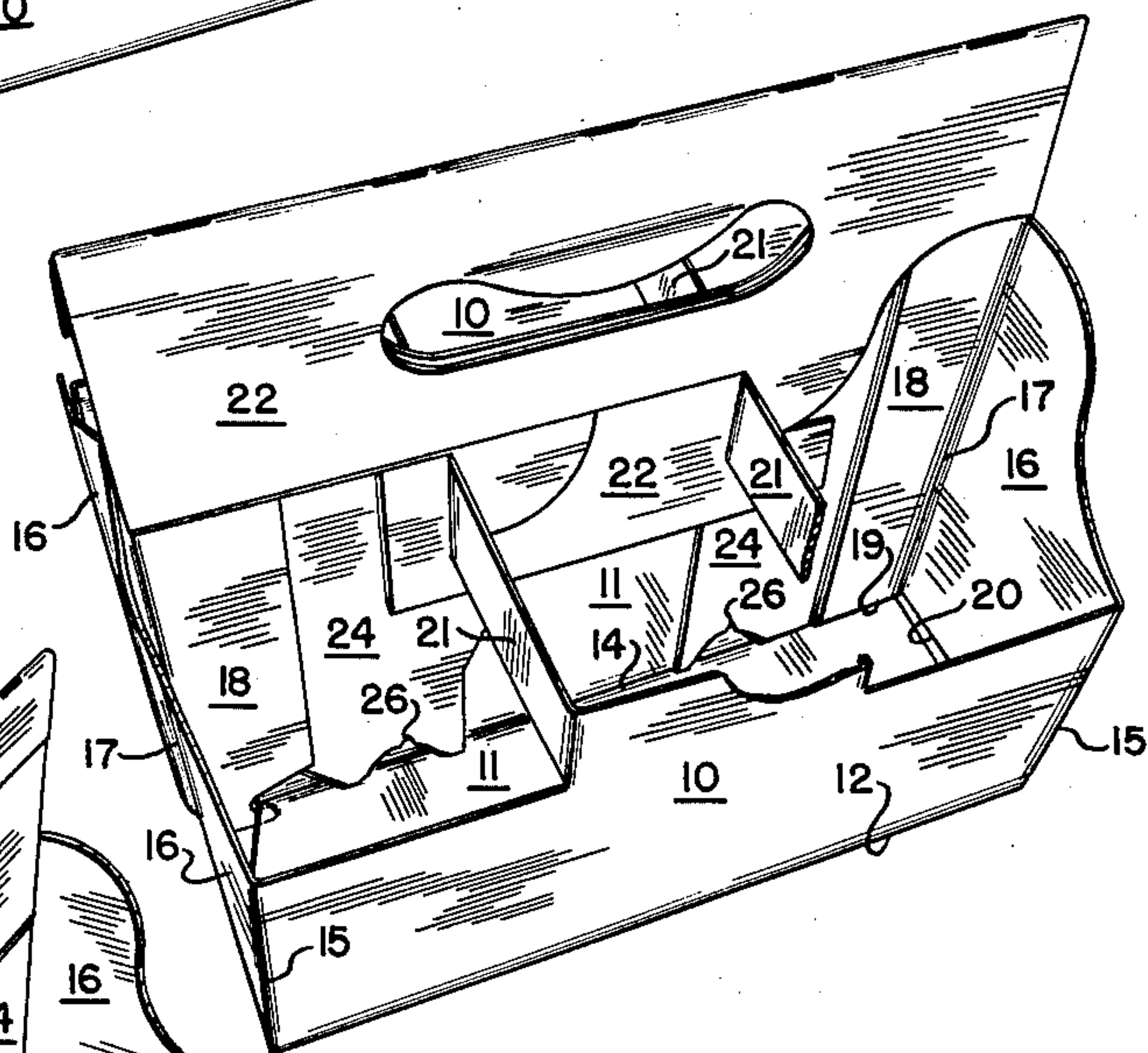


FIG. 8

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## BOTTLE CARRIER

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2 Claims. (Cl. 220-113)

This invention relates to bottle carriers and, more particularly, to a bottle carrier blank characterized by increased economy of paper board yet by increased carrier strength without sacrifice of full bottle separation and protection.

The bottle carrier-blank construction of this invention is of that type characterized by two side wall panels joined along their bottom edges by a bottom wall panel, each of the side wall panels being provided along each side edge with an end wall panel terminating in an adjacent outboard glue panel and being provided along its upper portion with a handle-forming section and a transverse divider-forming section. The recited panels thus define the parameter of the one-piece blank from which all portions of a fully partitioned bottle carrier are formed. It is generally characteristic of such blanks that there is discarded the portion of the blank encompassed by the bottom edges of the end wall panels and glue panels and by the side edges of the bottom wall panel. In those instances in prior art blank constructions where the aforementioned portion of the blank is not discarded, it has been the practice to use this portion as reinforcement merely for the bottom panel.

Pursuant to the present invention, the aforementioned portion of the blank encompassed by the bottom edges of the end wall and glue panels and by the side edges of the bottom wall panel is so joined and separated from the various portions of these panels that this normally waste portion of the blank forms a reinforcement for the glue panels and also contributes to the provision of a full length central partition panel between the two endmost bottle-carrying receptacles of the erected carton. That is, the bottle carrier blank of the present invention is provided with a reinforcing partition panel extending between each side edge of the bottom panel and the adjoining bottom edges of the adjacent end wall panels and glue panels, each of the reinforcing partition panels being connected substantially only to the bottom edge of one of the glue panels adjacent thereto.

This novel feature of the invention will be more readily understood by reference to the accompanying drawing in which:

FIG. 1 is a plan view of the carrier blank of my invention;

FIGS. 2 through 5 show progressive stages in the gluing and folding of the carrier blank of FIG. 1;

FIG. 6 is a side perspective view with parts broken away, of the assembled and erected bottle carrier formed from the blank of FIG. 1;

FIG. 7 is a side perspective view, with parts broken away, of the opposite side of the carrier shown in FIG. 6; and

FIG. 8 is an end perspective view, also partly broken away, of the carrier shown in FIGS. 6 and 7.

As shown in FIG. 1, the bottle carrier blank of the invention comprises certain conventional features. Thus, the blank comprises two side wall panels 10 formed integrally with a bottom panel 11 joined to the side wall panels along the bottom edges 12 thereof. The bottom panel is provided with a conventional central fold line 14 to permit the glued blank to be folded about bottom panel 11. Each side wall panel 10 is provided along each side edge 15 thereof with an integrally joined end wall panel 16, and the outboard edge 17 of each end wall

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panel terminates in a glue panel 18. The bottom edge 19 of each glue panel 18 and the bottom edge 20 of each end wall panel 16 are aligned with one another and with the bottom edge 12 of the side wall panels 10. The upper portion of each side wall panel is provided with conventional divider strip sections 21 and with handle sections 22, both of the latter advantageously terminating in handle glue flaps 23.

The bottle carrier blank of the invention is characterized by the provision of a reinforcing partition panel 24 positioned within the boundaries of each side edge 25 of the bottom panel 11 and the adjoining bottom edges 19 and 20 of the adjacent glue panels 18 and end wall panels 16. Each of the two reinforcing partition panels 24 is integrally and permanently joined only to the bottom edge 19 of one of the adjacent glue panels, all other edges of the panel 24 being free of any permanent connection to any other portion of the blank. However, inasmuch as the sole connection between each reinforcing partition panel 24 and the remainder of the blank is a relatively short fold line along the bottom edge 19 of one glue panel, and inasmuch as assembly of the carrier involves the machine-folding of the panel 24 about the aforementioned short fold line (edge 19), it has been found expedient to provide the panel with an additional temporary connection to the side panel bottom edge 20 adjoining the aforementioned fold line (edge 19) by means of nicks 26 which are severed after the panel 24 has been folded over on the adjoining end wall panel 16 and glue panel 18. Accordingly, it is with this temporary connection in mind that it has been specified elsewhere herein and in the claims that the reinforcing partition panel 24 is connected substantially only to the bottom edge 19 of one of the adjacent glue panels.

Inasmuch as the reinforcing partition panel 24 is glued ultimately only to the glue panel 18 to whose bottom edge 19 the panel 24 is connected, the panel is provided with a longitudinal fold line 27 aligned with the fold lines 17 formed by the juncture of each end wall panel 16 with its adjoining glue panel 18. The fold line 27 forms the inner boundary of an outer edge portion of the panel 24 which extends widthwise thereof and which is aligned with the glue panel 18 to which it is attached. One of the reinforcing partition panels 24 is also advantageously provided with a contour which is consistent with the provision of a conventional hook at the bottom of one end wall adapted to be locked to a concave indentation in the adjoining side edge 25 of the bottom panel.

In assembly of the bottle carrier blank of the invention, the glue panels 18 to which the outboard edges of the reinforcing partition panels are to be joined are provided with a thermally activated adhesive so that this junction will be made instantly when the panels 24 are folded over about the bottom edge 19 of the glue panel as shown in FIG. 2. The other details of the folding and gluing of the carrier blank is indicated by the arrows and dotted areas, respectively, in FIGS. 2 through 5. When completely assembled and erected as shown in FIGS. 6 through 8, it will be seen that the glue panels 18 are reinforced with a dual thickness of paper board comprising the portion of the reinforcing panel 24 outboard of the fold line 27 and the corresponding portion of the panel 24 on the inboard side of the fold line 27 where the two portions are adhesively connected to one another and to the glue panels 18. The remainder of the panel 24 projects inwardly along the central line of the carrier to form a central partition extending substantially the full height and full length of each endmost bottle compartment. In spite of this reinforcement of the glue panels and provision of additional central partitioning material, the blank of the present invention uses significantly less



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paperboard than prior art blanks of equivalent strength and partitioning.

We claim:

1. In a bottle carrier blank having two side wall panels joined along their bottom edges by a bottom wall panel, each of the side wall panels being provided along each side edge with an end wall panel terminating in an adjacent outboard glue panel, the improvement which comprises a reinforcing partition panel extending between each side edge of the bottom panel and the adjoining bottom edges of the adjacent end wall panels and glue panels, each of the reinforcing partition panels being connected substantially only to the bottom edge of one of the glue panels adjacent thereto and along a line normal to the longitudinal direction of said one of the glue panels, said reinforcing partition panel having an outer portion extending the major portion of the width thereof and aligned with said one of the glue panels, the bottom edge of each glue panel and the bottom edge of the adjoining end wall panel being aligned with one another and with the bottom edge of the adjoining side wall panel.

2. In a bottle carrier blank having two side wall panels the upper portion of which is provided with handle-forming and transverse divider strip-forming sections and the lower portion of which is integrally joined to a bottom wall panel, each of the side wall panels being provided along

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each side edge with an end wall panel terminating in an adjacent outboard glue panel, the improvement which comprises a reinforcing partition panel extending between each side edge of the bottom panel and the adjoining bottom edges of the adjacent end wall panels and glue panels, each of the reinforcing partition panels being connected substantially only to the bottom edge of one of the glue panels adjacent thereto and along a line normal to the longitudinal direction of said one of the glue panels, said reinforcing partition panel having an outer portion extending the major portion of the width thereof and aligned with said one of the glue panels, the bottom edge of each glue panel and the bottom edge of the adjoining end wall panel being aligned with one another and with the bottom edge of the adjoining side wall panel.

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