

Sept. 2, 1958

S. B. VAY
PORTABLE COMMODE

2,849,726

Filed June 28, 1955

3 Sheets-Sheet 1

Fig. 2.

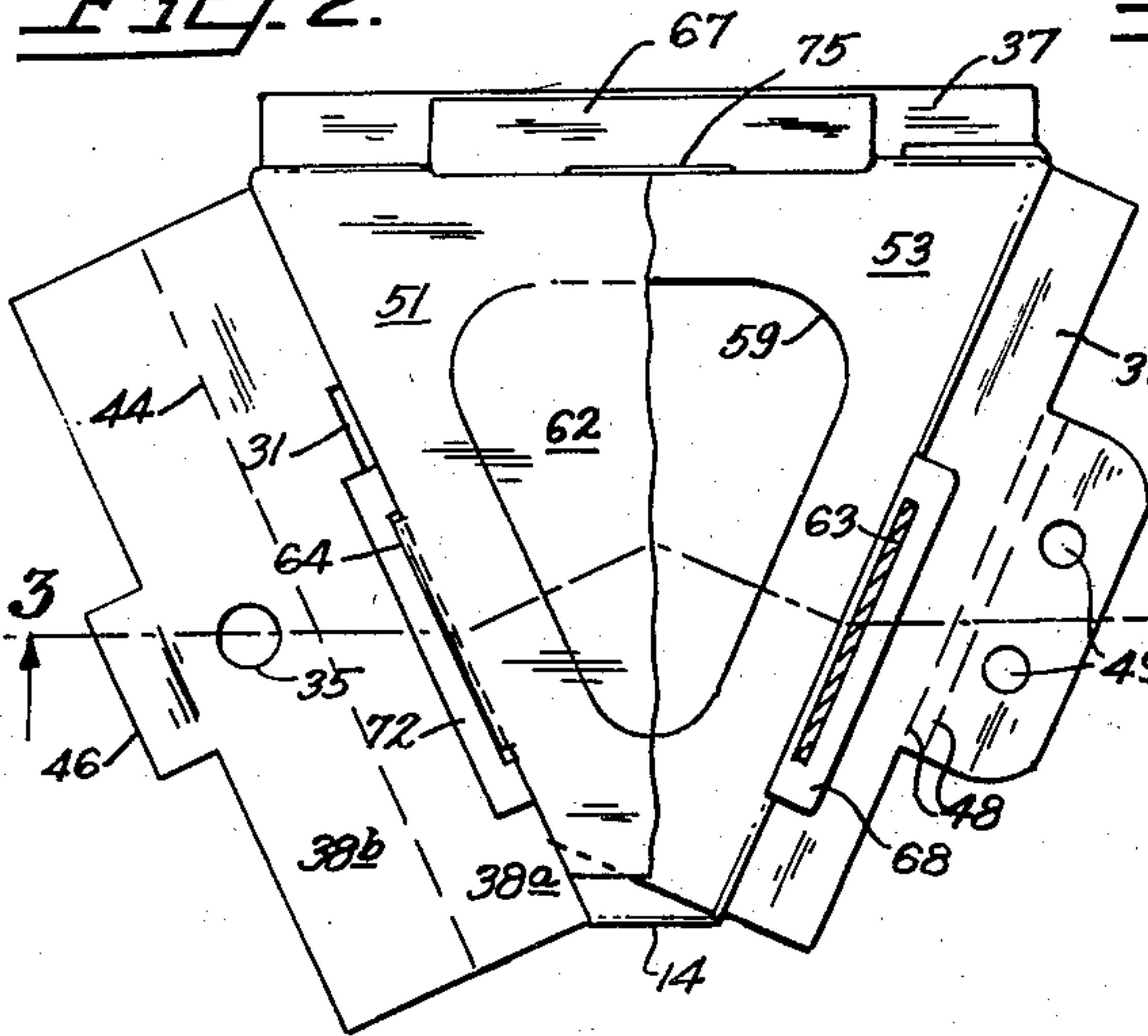


Fig. 4.

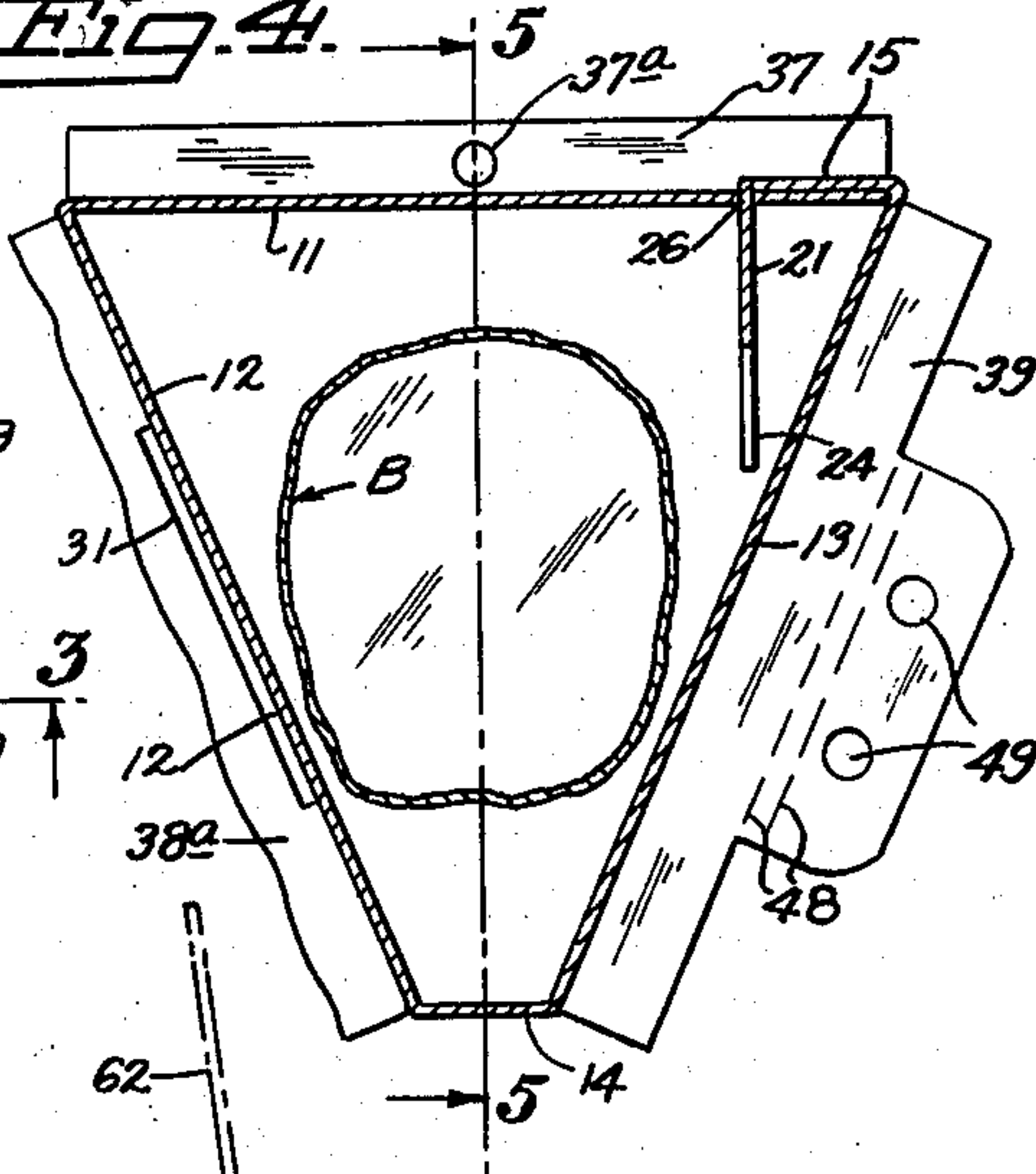


Fig. 3.

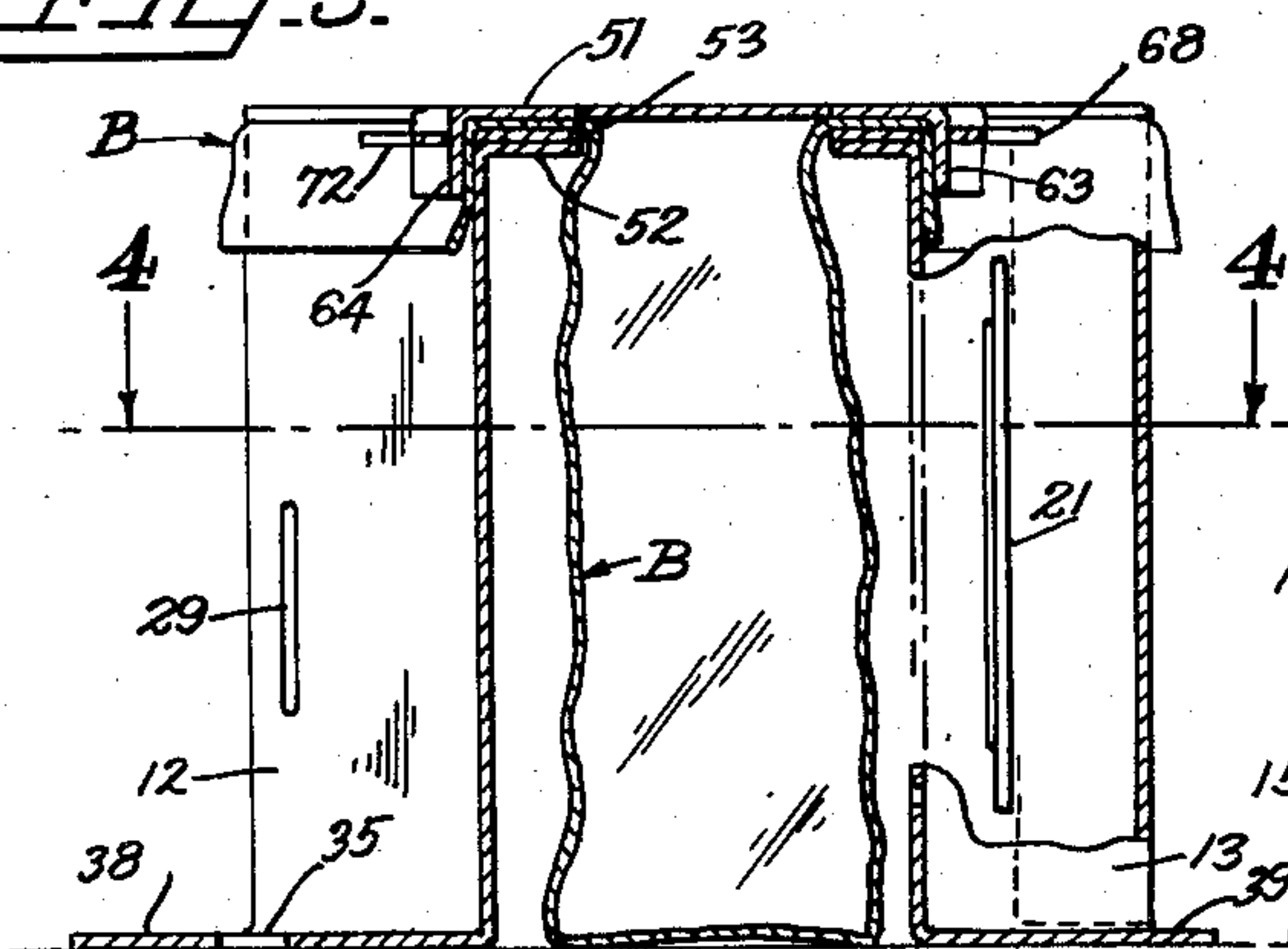


Fig. 5.

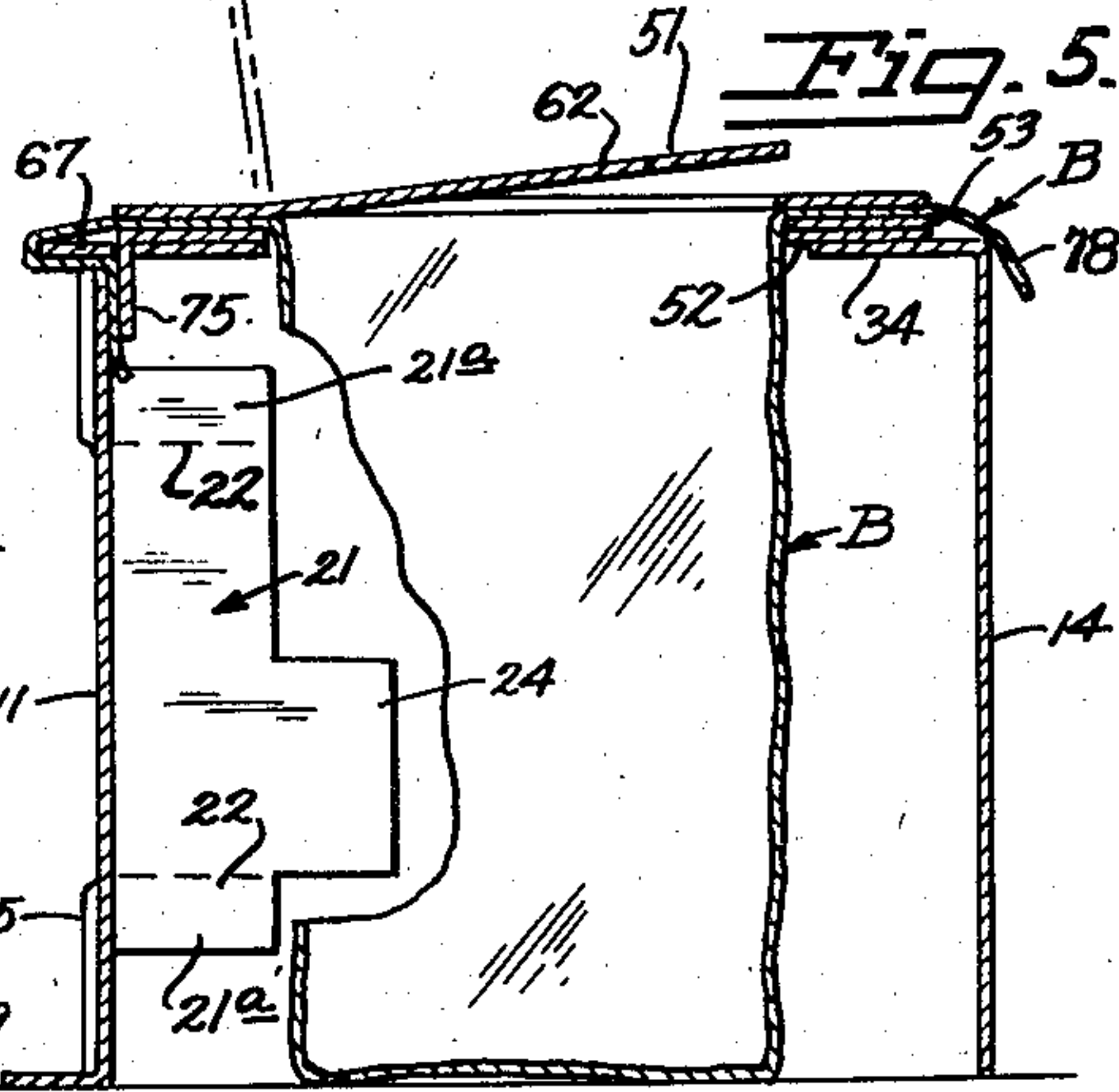


Fig. 1.

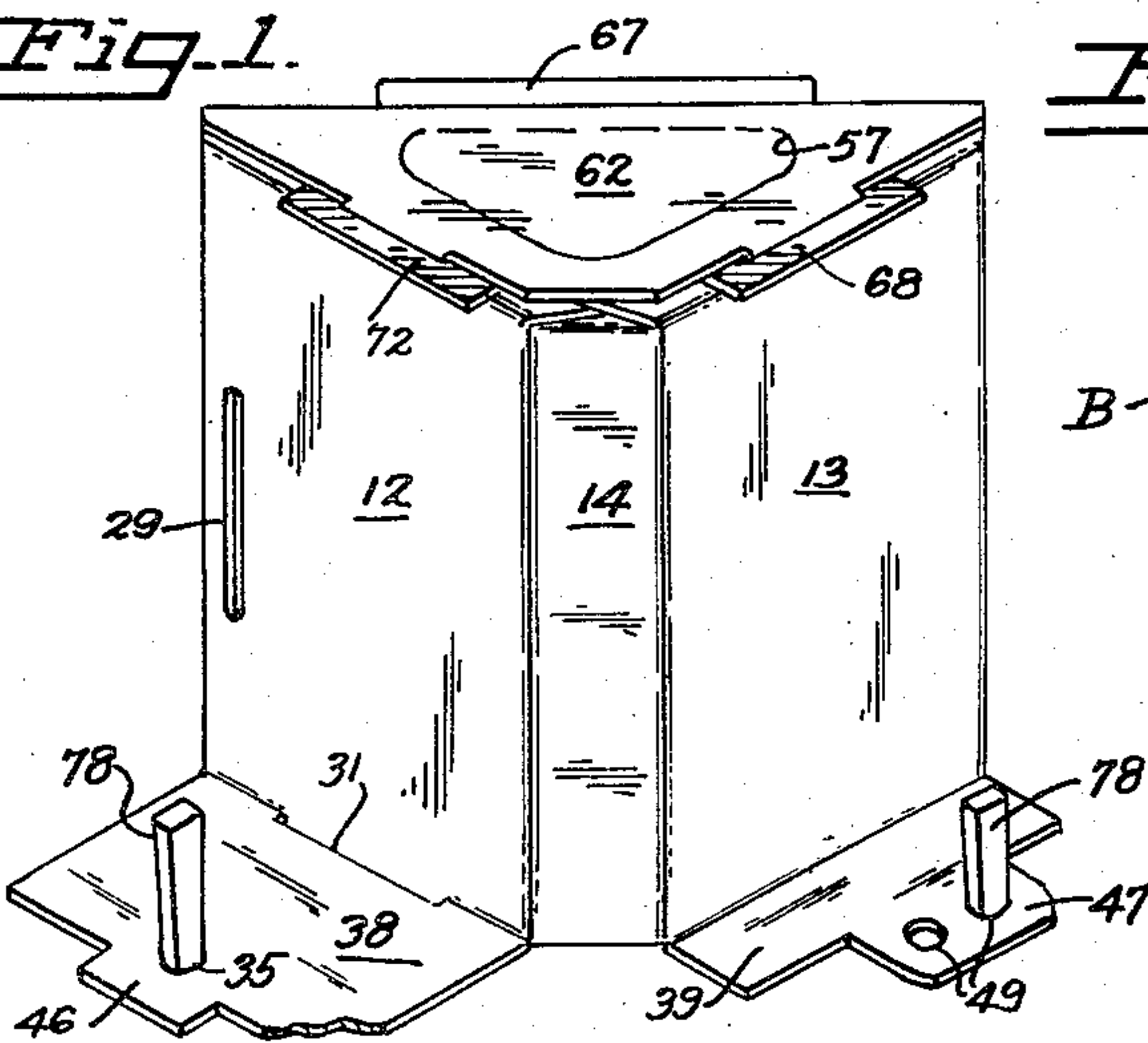
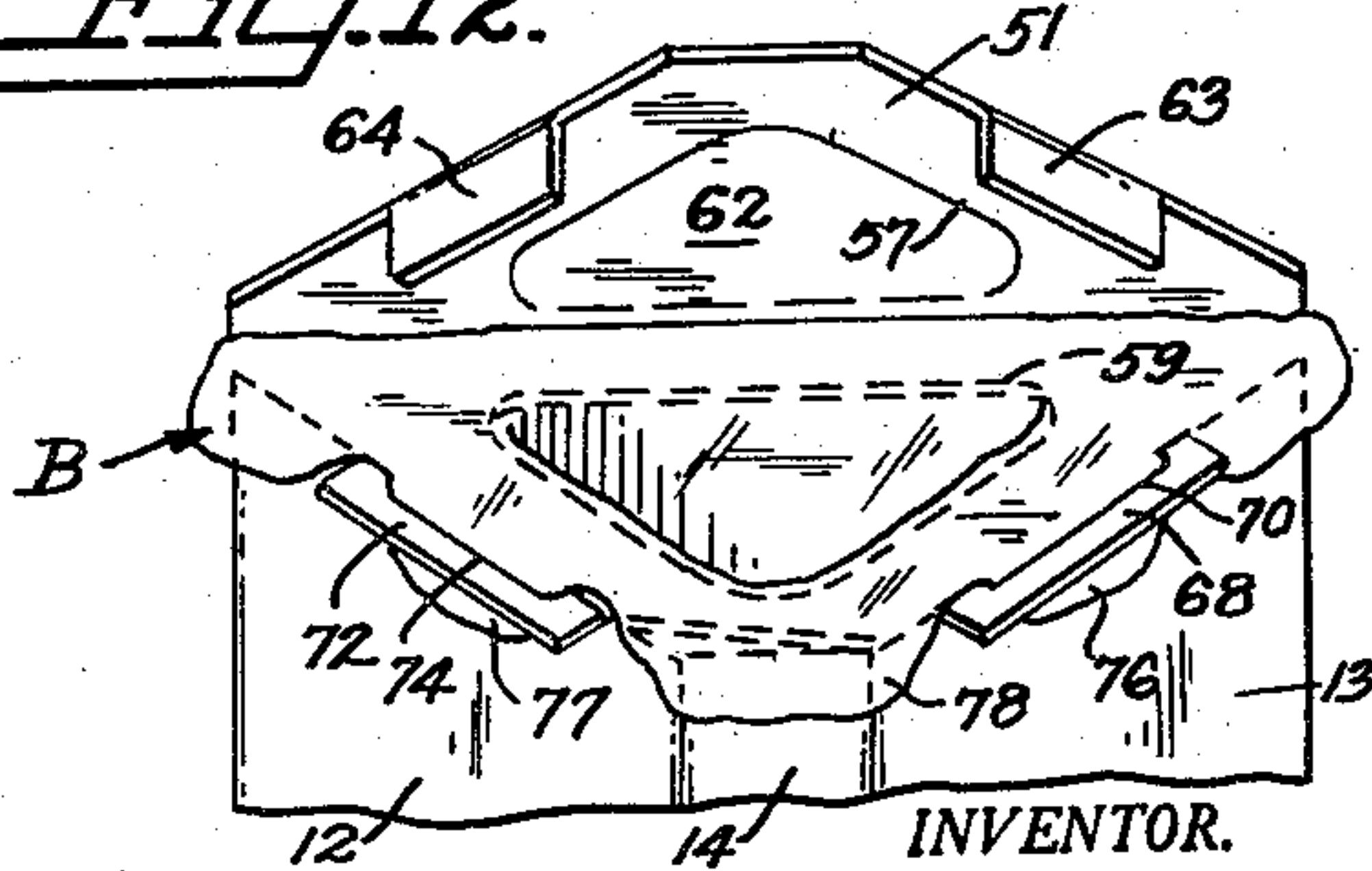


Fig. 12.



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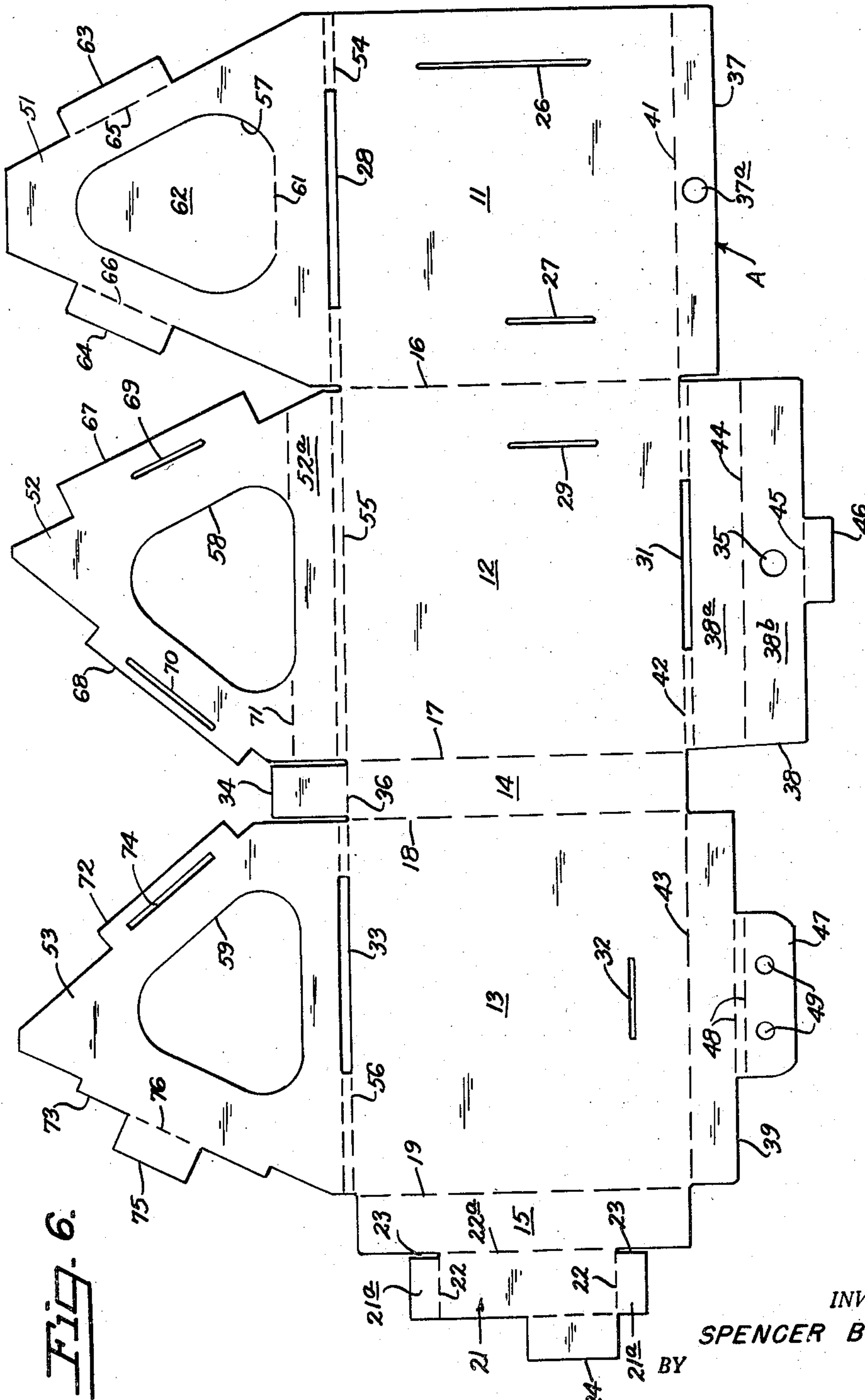
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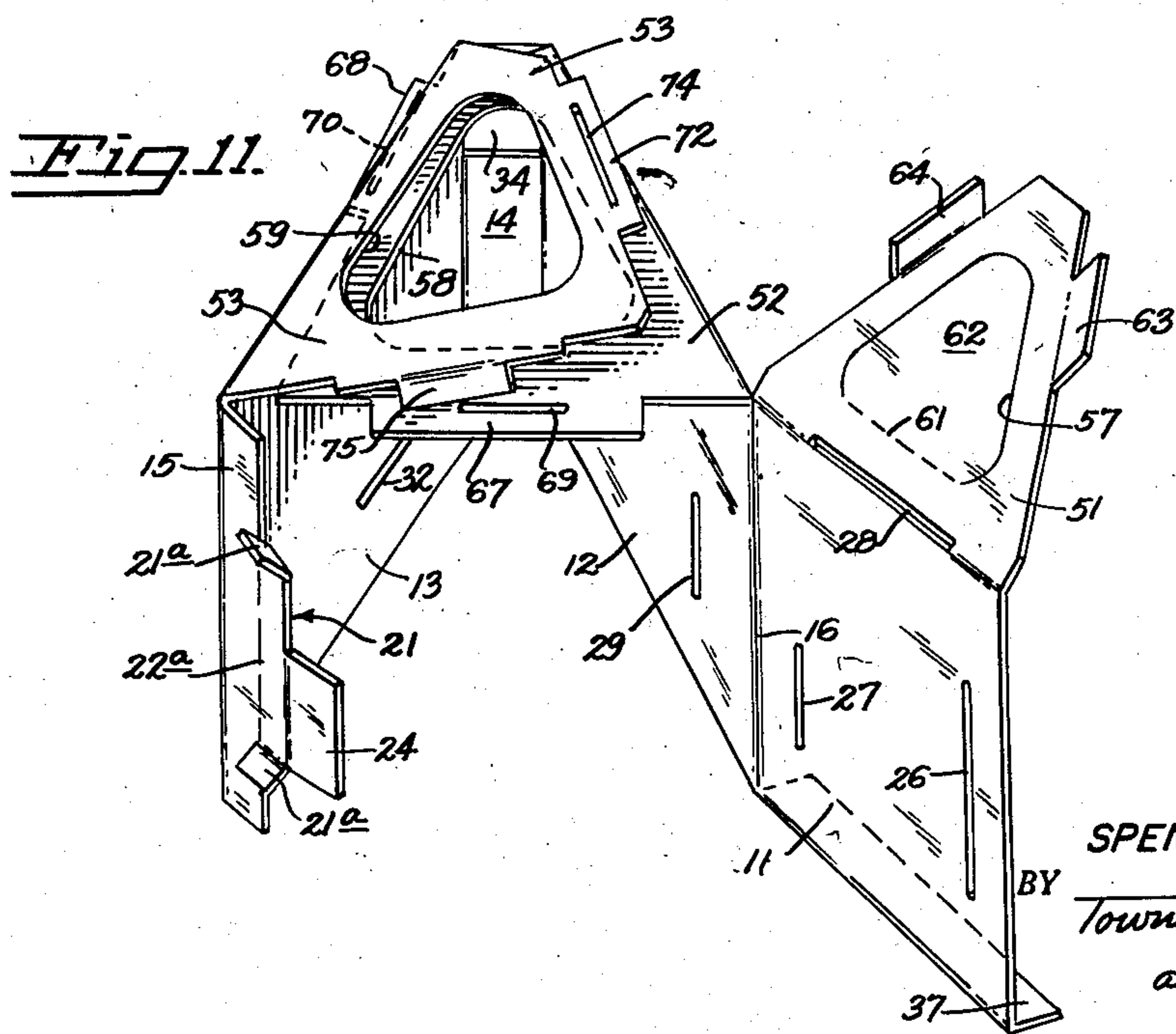
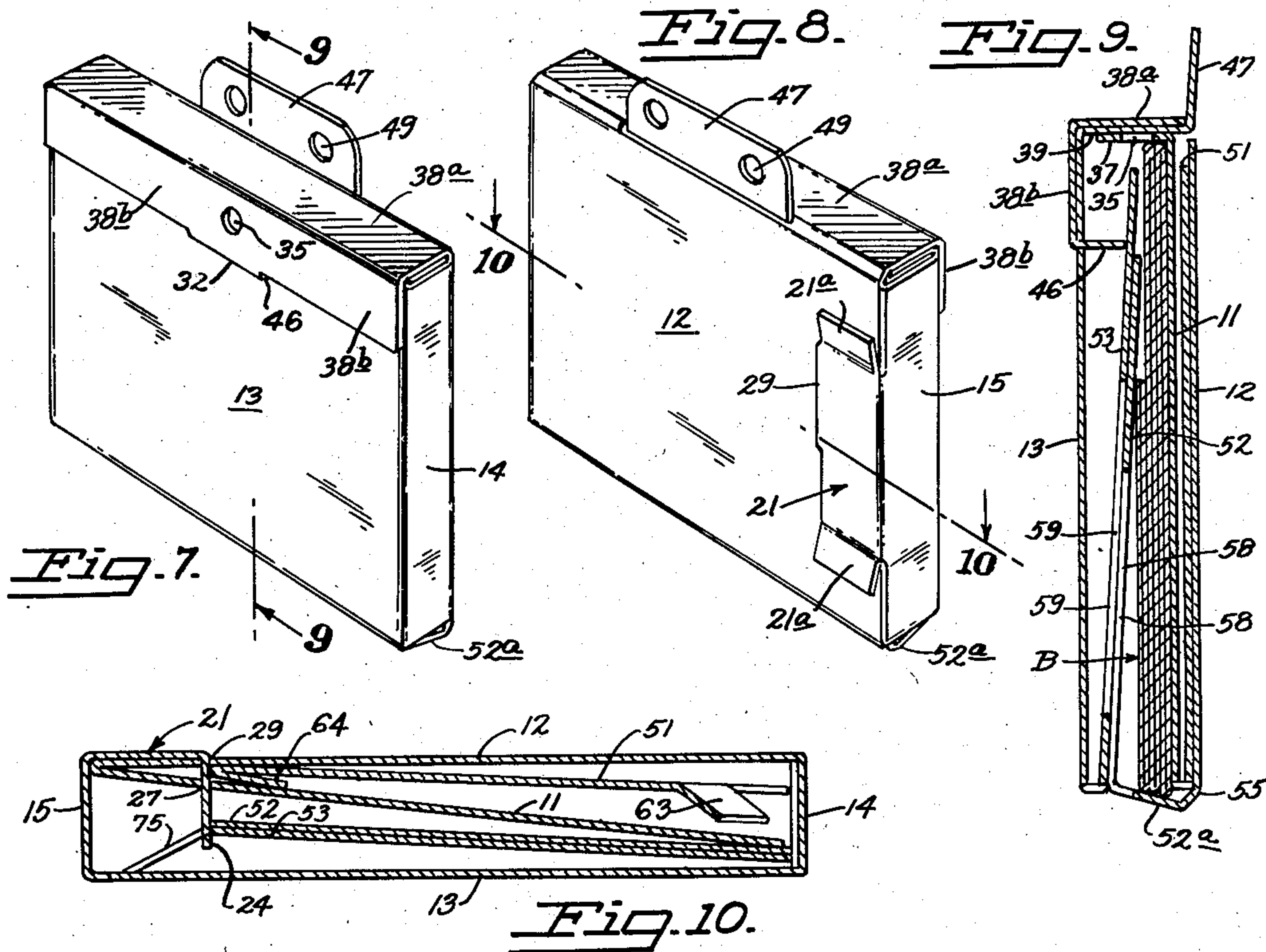
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PORTABLE COMMODE

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Application June 28, 1955, Serial No. 518,594

9 Claims. (Cl. 4—134)

This invention relates to a new and improved portable commode.

In general, the object of the invention is to provide a portable commode of unique construction which may be formed from an integral section of foldable sheet material, such as corrugated paper or fiberboard material, and which may be particularly useful where permanent sanitation facilities are not available. In this connection it is contemplated that the invention may be advantageously used by hunters and fishermen in areas where it is desired to provide temporary sewage disposal facilities. It is also contemplated that the invention may have important utility in providing a means for sanitary control in military or civil defense evacuation areas or in other emergency situations where more permanent sewage facilities are unavailable or have been destroyed or interrupted.

The particular embodiment of the invention which is illustrated in the drawings and which will be described in more detail hereinafter is made from an integral section of laminated corrugated fiberboard material which is cut and folded to define three primary column-forming panels and three top flaps foldably hingedly joined to the top edges of the panel-forming sections. The section of material is foldably positionable in such manner that the column-forming panels define a hollow vertical open-ended column substantially triangular in plan. The three top flaps are adapted to be folded across the top open end of the column in superposed relationship. The top flaps are formed with registering cut-outs defining a seat opening. A sewage disposal bag formed of plastic or similar material is vertically positioned in the interior of the column in communication with the seat opening. By utilizing commercially available chemical disinfectants and deodorants the commode facility thus established provides a sanitary and unobjectionable means of sewage disposal over a substantial period of time.

A more specific object of the invention is to provide a portable commode of the character briefly above mentioned and which is manufactured from a single section of sheet material utilizing fold lines and die-cuts exclusively and without the necessity of employing stitching, taping, or adhesive to secure any of the joints or parts together.

Another principal object of the invention is to provide a portable commode of the character briefly above mentioned which may be readily folded from its position of use to a relatively flat compact package form for convenience in carrying and shipping, and for convenient repackaging and storing for subsequent use.

Other numerous objects and advantages of the invention will become apparent upon reading the following specification and referring to the accompanying drawings in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

Fig. 1 is a perspective view of the unit viewed from in

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front and above and showing the parts in assembled position of use.

Fig. 2 is a top plan view of the unit shown in Fig. 1 with portions broken away shown in section.

Fig. 3 is a sectional view taken substantially on line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken substantially on line 4—4 of Fig. 3.

Fig. 5 is a vertical sectional view taken substantially on line 5—5 of Fig. 4.

Fig. 6 is a plan view of the die-cut blank or pattern from which the unit is fabricated.

Fig. 7 is a perspective view viewed from the front and above of the unit folded in its flat compacted package form.

Fig. 8 is a perspective view viewed from the rear and above of the unit in its folded, flat compacted form.

Fig. 9 is an enlarged sectional view taken substantially on line 9—9 of Fig. 7.

Fig. 10 is an enlarged sectional view taken substantially on line 10—10 of Fig. 8.

Fig. 11 is a perspective view viewed from the rear and above of the unit in partially assembled condition.

Fig. 12 is a fragmentary perspective view of the unit viewed from in front and above shown in the manner in which the disposal bag is fitted to the unit.

Referring now more specifically to the drawings, the integral section of sheet material from which the unit is constructed, such as conventional corrugated paper or fibreboard material, is indicated generally at A, and the reference character B indicates generally the disposal bag receptacle.

Referring particularly to Fig. 6, the pattern or blank from which the unit is fabricated comprises three primary column-forming panels 11, 12 and 13, and two secondary panels 14 and 15 respectively. The said primary and secondary panels 11—15 inclusive are hingedly foldably joined along adjacent side edges by fold lines indicated at 16, 17, 18 and 19 respectively. A substantially T-shaped locking tab, indicated generally at 21, and defined by fold lines 22 and 22a and die-cuts 23 is formed as an integral extension of secondary panel 15. A rectangular locking tab 24 is also formed as a further integral extension of tab 21.

Panel 11 is formed with 2 axial slots 26 and 27 and one transverse slot 28 adjacent its upper edge. Panel 12 is formed with one axial slot 29 and one transverse slot 31 adjacent its bottom edge.

Panel 13 is formed with two transverse slots 32 and 33 adjacent its lower and upper extremities respectively. In the embodiment shown, neither of the secondary panels 14 or 15 is slotted, although panel 14 is formed with an upper flap 34 hingedly joined to panel 14 along fold-line 36.

Three base flap members indicated at 37, 38 and 39 are hingedly foldably joined along fold-lines 41, 42 and 43 to panels 11, 12 and 13, respectively. Base flap 38 is divided by transverse fold-lines 44 and 45 into two flap sections 38a and 38b and is also provided with a rectangular locking tab 46.

Base flap 39 is provided with an integral extension 47 hingedly joined thereto along double fold-lines 48 and formed with finger-grip apertures 49. As will more fully hereinafter appear, when the unit is folded in its flat compacted package form, apertured extension 48 functions as a convenient carrying handle for the unit.

Three generally triangular-shaped top flaps 51, 52 and 53 are foldably joined along fold-lines 54, 55 and 56 to panels 11, 12 and 13, respectively. Each of the flaps 51—53 is formed with a die-cut opening, such as indicated at 57, 58 and 59, which said openings when the

unit is assembled in a condition for use are in vertical registry with one another to define a seat opening. Preferably the die-cut 57 is made in the form of an interrupted incisure defining a fold-line 61 which integrally hingedly joins the seat cover flap 62 to the material defining the body of flap 51.

Opposite sides of flap 51 are formed with integral rectangular extensions or locking tabs 63 and 64 hinged to flap 51 along fold-lines 65 and 66, respectively.

Opposite sides of top flap 52 are formed with integral tab-lock extensions 67 and 68, respectively, which are not hingedly joined to the body of flap 52 by fold-lines, but are formed as integral rigid extensions thereof. Said tabs 67 and 68 are formed with tab-receiving slots 69 and 70. Flap 52 is also formed with a fold-line 71 extending parallel to fold-lines 55 and defining an area or section indicated at 52a.

Top flap 53 is formed with integral rigid extension tabs 72 and 73. Tab 72 is formed with a die-cut slot 74 and tab 73 is provided with a foldable extension tab 75 joined along fold-line 76 to said tab 73.

Fig. 1 discloses how the integral blank of material above-described can be folded and assembled to a position of use as a commode. Figs. 2 and 5 show further the relative positions of the parts when the unit is assembled for use. In general, it is observed that the column-forming panels 11-13 are folded and assembled relative to one another to define a hollow vertical column generally triangular in plan and with secondary panel 14 defining a truncated apex.

The seat of the unit is defined by the top flaps 51-53 which are folded along their respective fold-lines 54-56 across the top opening of the column.

The column-forming panels may be securely releasably locked in column formation by T-shaped tab 21 which, as shown particularly in Figs. 4 and 5, is projected through slot 26 formed in panel 11 adjacent and parallel to the outer edge of said panel. It is noted that the length of slot 26 is made just slightly greater than the distance between fold-lines 22 of T-shaped tab 21. By folding ears 21a of the tab along fold-lines 22 to flat overlying position relative to the body portion of tab 21, the entire tab structure can be forced through the slot 26. After insertion of the tab through the slot, the ears 21a may be unfolded to extend outwardly so as to engage and interlock against the interior wall surface of panel 11. It is appreciated that the panel 21 may be readily disengaged from slot 26 simply by again folding the ears 21a into flat overlying relationship against the body of the tab 21 and slidably forcing it outwardly through the slot 26.

As above noted, the structure A above described is adapted to be utilized in conjunction with a suitable sewage bag receptacle indicated generally at B in the drawings. The bag may be made of any suitable liquid-proof sewage resistant material such as plastic, rubber or treated fabric material. The bag B is adapted to be supported vertically within the column opening below and in communication with the seat opening. The particular manner by which the bag may be properly supported will shortly be explained.

The manner by which the folded-over top flaps 51-53 and the bag B are supported and interlocked in proper position is also indicated in Figs. 1-5 and in Fig. 11 of the drawings. More specifically, in assembling the unit to its position of use shown in Fig. 1, the middle top flap 52 is first folded downwardly to extend across the top open end of the column. Primary seat support is obtained through engagement of locking tabs 67 and 68 projected through die-cut slots 28 and 33 formed respectively in panels 11 and 13. With the locking tabs 67 and 68 of top flap 52 engaged in slots 28 and 33, as above noted, the top flap 53 is folded over said flap 52 and is interlocked in overlying relationship therewith by

means of depending locking tab 75 projected through slot 69 of flap 52. Preferably, the upper regions of the bag B defining its mouth opening are flared laterally outwardly to overlie flap 53.

More specifically, the upper mouth regions of the bag may be flared outwardly to overlie flap 53 and with the rear edge portions of the bag material projected outwardly through die-cut 28 into hooked engagement with tab 67, and with the opposite side regions of the bag mouth material projected or tucked in folds 76 and 77 through slots or die-cuts 70 and 74, respectively. The front portion of the flared bag mouth may be folded downwardly over the top front edge of the unit as indicated at 78. With the bag thus positioned, the top flap 51 is folded over across the top open end of the column and in adjacent overlying relationship to the bag material covering flap 53. Interlocking tabs 63 and 64 are folded to depend into respective interlocking engagement with slot 70 formed in tab 68 of flap 52 and in slot 74 formed in tab 72 of flap 53 and into which said slots the side regions of the bag mouth material are also tucked as previously noted. The abovementioned interlocking tab and slot assemblies function to releasably but securely maintain the top flap closures interlocked together and in such manner that said top flaps which define the seat portion of the unit are able to withstand and support a very substantial vertical compressive load.

It is also observed that the seat closure flap 62 defined by the interrupted die-cut 57 defines the top surface of the commode unit. Fig. 5 illustrates how the said flap 62 can be hingedly foldably swung upwardly and downwardly to open and close the seat opening defined by the registering cut-outs 57-59.

When positioned for use as shown in Fig. 1 the base flaps 37, 38 and 39 are extended laterally outwardly from the panels to which they are respectively joined. These outwardly extending base flaps provide the unit with a more solid and durable foundation or base support minimizing likelihood of the paper or fibreboard material tearing or rupturing should it be placed on sharp rocks or gravel or the like in use. Furthermore, the finger-carrying holes 49 plus additional apertures 37a and 35 which may be formed in flaps 37 and 38, respectively, provide pre-formed cut-outs through which stakes 78 may be driven into the ground in order to secure the unit more securely in position and prevent its accidental displacement or movement.

When it is desired to store, ship, or transport the commode unit A, the same may be folded into a relatively flat, compacted package form such as indicated in Figs. 7 and 8, for example. Said Figs. 7 and 8, together with Figs. 9 and 10, disclose substantially the relationship of the component parts in their packaged or compacted form.

More specifically, it is observed that the packaged unit defines a substantially rectangular parallelepiped structure in which the front and back sections are defined by panels 13 and 12, respectively. The end sections of the unit are defined by secondary panel sections 14 and 15; the top section is defined by section 38a of base flap 38, and the bottom surface of the package unit is principally defined by portion 52a disposed between fold-lines 55 and 71 of top flap 52. The drawings also show how base flap 39 of panel 13 may be folded under top section 38a whereby the handle section 47 is brought into alignment with and is projected outwardly through slot 31 of panel 12 for convenient carrying use.

The unit may be releasably locked in its compacted package form by means of tab 46 engaged within slot 32 of panel 13 and by means of tab 24 engaged through both slot 29 of panel 12 and slot 27 of panel 11.

In packaging the unit it is convenient to fold the plastic bag B into relatively flat form and to package the same

within the available space interiorly of the compacted unit A, such as shown in Fig. 9.

Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be practiced within the spirit of the invention and scope of the appended claims.

What is claimed is:

1. A portable commode made of foldable sheet material such as corrugated paper material, comprising: first, second and third column-forming panels foldably hingedly joined together at their adjacent side edges; said column-forming panels positionable relative to one another to form a hollow vertical open-ended column generally triangular in plan; first, second and third top-forming flaps each hingedly foldably joined along one of its major sides to the top edges of said first, second and third column-forming panels, respectively; each said top flap patterned generally similar in shape and proportions to the triangular configuration defined by said column, all of said flaps foldable across the top open end of said column in vertically superposed relationship; first releasable interlocking means for securing said panels in column formation; a portion of the two unhinged major sides of the bottom flap in folded position each directly overlying an adjacent portion of the top edge of an adjacent panel and extending laterally exteriorly beyond the vertical plane of each respective panel, whereby vertical load forces acting on said bottom flap are transmitted directly to said first, second and third panels via the hinged connection between the flap and one panel and via the unhinged portions of the flap which overlie adjacent other panels; said top flaps in folded-over position formed with registering cut-outs defining a seat opening communicating with the interior of said column.

2. A combination of claim 1 and wherein said column-forming panels and said top flaps are foldable into a relatively flat package form with all of said panels and said top flaps mutually overlying one another in stacked superposed relationship; and mutually engageable tab and slot means associated with at least one said panel and one said flap for interlocking said panels and flaps in flat package form.

3. A portable commode made of foldable sheet material such as corrugated paper material, comprising: first, second and third column-forming panels foldably hingedly joined together along adjacent side edges; first, second and third top flaps hingedly foldably joined to the top edges of said first, second and third panels respectively; said column-forming panels positionable relative to one another to form a hollow vertical open-ended column generally triangular in plan and with said first and second panels defining the sides and with the said third panel defining the base of said triangular configuration; each said top flap patterned generally similar in shape and proportions to the triangular configuration defined by said column; said second top flap foldably joined to the top edge of said second column-forming panel and foldable across the top open end of said column; first and second locking tabs projecting outwardly from different sides of said second top flap engageable with first and second tab-receiving slots formed in said first and third column-forming panels respectively when said flap occupies its folded-over position across the top open end of said column; said first and

second locking tabs, each having sufficient length to respectively project exteriorly beyond the vertical planes of the first and second column-forming panels when said second top flap occupies its said folded-over position; said first top-flap hingedly joined to the top edge of said first column-forming panel and foldable across the top open end of said column in adjacent overlying position relative to said folded-over second top flap; said third top flap hingedly foldably joined to the top edge of said third column-forming panel and foldable across the open top end of said column in adjacent overlying relationship to said folded-over first top flap; means for securing said panels in column formation; all of said top flaps when in folded-over position across the top open end of the column formed with registering cut-outs defining a commode seat opening communicating to the interior of said column.

4. The combination of claim 3 and wherein said column-forming panels and top flaps are foldable into a relatively flat package form with all of said panels and flaps mutually overlying one another in stacked superposed relationship; and mutually engageable tab and slot means associated with at least one said panel and one said flap for interlocking said panels and flaps in flat package form.

5. The combination of claim 3 and wherein said first top flap is formed with a depending marginal locking tab engageable within a registering slot formed in said second locking tab of said second top flap.

6. The combination of claim 3 and wherein said first top flap is formed with a depending marginal locking tab engageable within a registering slot formed in said second locking tab of said top flap; and wherein said third top flap is formed with two marginal depending locking tabs engageable in slots formed through the material defining the first and second top flaps respectively.

7. The combination of claim 3 and wherein a disposal bag is vertically positioned with the triangular column in communication with the seat opening; the bag material defining the mouth regions of the bag flared laterally outwardly and disposed between said first and third mutually overlying top flaps.

8. The combination of claim 3 and wherein the seat opening cut-out formed in said third panel is defined by an interrupted incisure; said interrupted incisure defining a foldable seat flap closure for the commode seat opening.

9. The combination of claim 3 and wherein the said last named means for securing said panels in column formation comprises mutually interlocking tab and slot components associated with said first and third column-forming panels, and wherein said tab component includes at least one bendable extension ear bendable out of registered alignment with said slot component and into locked engagement with the side of the slot opposite from which said tab component is inserted.

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