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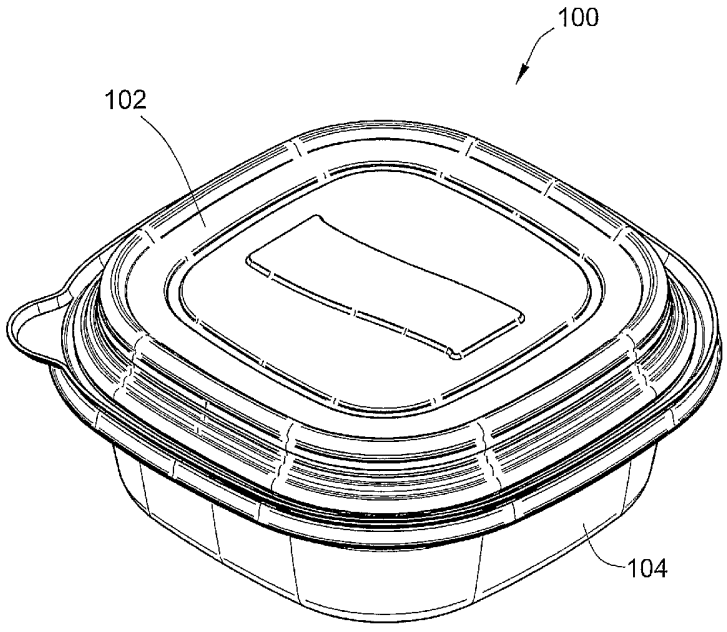
(54) **Title:** SEALING CONTAINER WITH STACKABLE TOPS AND BOTTOMS



(57) **Abstract:** The sealing container includes a container bottom and a container top. The container top defines a first nesting portion and a second nesting portion. When the container top is inverted and inserted into the container bottom cavity, the first nesting portion and the second nesting portion make contact with the container bottom at two different portions of the container bottom.

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SEALING CONTAINER WITH STACKABLE TOPS AND BOTTOMS

FIELD OF THE INVENTION

[0001] This invention pertains to containers with stackable tops and bottoms.

BACKGROUND OF THE INVENTION

[0002] Sealing containers are well known in the art. They are used to organize and store items, such as perishable foods. The sealing capabilities of these containers help to protect the contents of the container from exposure to elements of the environment surrounding the container including dust, for example. Sealable containers may be made of various materials and formed at various thicknesses to meet a user's needs. For example, some sealable containers are durable and meant for repeated usage, but can be expensive. Other sealable containers are extremely thin and inexpensive such that they are both affordable and disposable, but not durable. Finally, some plastic sealable containers are designed such that they are a suitable thickness to provide durability and yet are inexpensive enough for a consumer to dispose after limited or extended use, if desired. Additionally, organized storage of empty sealable containers as they exist in the art can be problematic because the container tops do not securely stack within each other.

[0003] The invention provides a container with functionality that is lacking in the art. These and other advantages of the invention, as well as additional inventive features, will be apparent from the description of the invention provided herein.

BRIEF SUMMARY OF THE INVENTION

[0004] The invention provides a container comprising a container bottom and a container top. The container bottom defines a cavity and includes a container bottom closure portion. The container top defines a cavity and includes a container top closure portion, a first nesting portion disposed along the perimeter of the container top cavity, and a second nesting portion disposed along the perimeter of the container top cavity. When the container top is in an upright position, the container bottom closure portion may be connected to the container top closure portion to seal the

plastic container. When the container top is inverted and inserted into the container bottom cavity, the first nesting portion and the second nesting portion make contact with the container bottom at two different portions of the container bottom.

[0005] The invention also provides a container top defining a cavity. The container top comprises a locking portion disposed along the perimeter of the cavity for engaging an adjacent plastic container top and a receiving portion disposed along the perimeter of the cavity for receiving a locking portion of an adjacent plastic container top. If a first adjacent container top is inserted into the cavity, the locking portion engages a receiving portion of the adjacent container top to form a stack of container tops. If the container top is inserted into the cavity of a second adjacent container top, the receiving portion of the container top is engaged by a locking portion of the second adjacent container top to form a stack of container tops.

[0006] The invention further provides a container top defining a cavity, which comprises an inward curved portion disposed along the perimeter of the cavity, an outward curved portion disposed along the perimeter of the cavity, and a nesting portion disposed along the perimeter of the cavity. If a first adjacent container top is inserted into the cavity, the inward curved portion is in contact with an outward curved portion of the first adjacent container top and the nesting portion is in contact with a nesting portion of the first adjacent container top to form a stack of container tops. If the container top is inserted into the cavity of a second adjacent container top, the outward curved portion of the container top is in contact with an inward curved portion of the second adjacent container top and the nesting portion is in contact with a nesting portion of the second adjacent container top to form a stack of container tops.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. **1** is an isometric view of a container.

[0008] FIG. **2** is an isometric view of the container bottom in FIG. 1.

[0009] FIG. **3** is a plan view of the container bottom in FIG. 2.

[0010] FIG. **4** is an isometric view of the container top in FIG. 1.

[0011] FIG. **5** is a plan view of the container top in FIG. 1.

[0012] FIG. **6** is an isometric view of the container top in FIG. 1 shown in an inverted position.

[0013] FIG. **7** is a side cross-sectional view of the container in FIG. 1.

[0014] FIG. **8** is a fragmentary side cross-sectional view of the container in FIG. 1.

[0015] FIG. **9** is a side cross-sectional view of the container in FIG. 1 stacked on another container.

[0016] FIG. **10** is a side cross-sectional view of the container in FIG. 1 with the container top inverted as shown in FIG. 6.

[0017] FIG. **11** is a fragmentary side cross-sectional view of the container in FIG. 1 with the container top inverted as shown in FIG. 6.

[0018] FIG. **12** is a side cross-sectional view of the container in FIG. 1 stacked on another container with the container tops inverted as shown in FIG. 6.

[0019] FIG. **13** is a fragmentary side cross-sectional view of the container top in FIG. 1 inverted as shown in Figure 6.

[0020] FIG. **14** is a fragmentary side cross-sectional view of the container top in FIG. 1 inverted as shown in Figure 6 stacked with two other inverted container tops.

[0021] FIG. **15** is a side cross-sectional view of the container in FIG. 1 stacked with another container, wherein the container tops are inverted and stacked on each other and on a stack of container bottoms.

[0022] FIG. **16** is a fragmentary side cross-sectional view of the container in FIG. 1 stacked with another container, wherein the container tops are inverted and stacked on each other and on a stack of container bottoms.

[0023] FIG. **17** is an isometric view of another embodiment of a container.

[0024] FIG. **18** is an isometric view of the container bottom in FIG. 17.

[0025] FIG. **19** is a plan view of the container bottom in FIG. 17.

[0026] FIG. **20** is an isometric view of the container top in FIG. 17.

[0027] FIG. **21** is a plan view of the container top in FIG. 17.

[0028] FIG. **22** is an isometric view of the container top in FIG. 17 shown in an inverted position.

[0029] FIG. **23** is a side cross-sectional view of the container in FIG. 17.

[0030] FIG. **24** is a fragmentary side cross-sectional view of the container in FIG. 17.

[0031] FIG. **25** is a side cross-sectional view of the container in FIG. 17 stacked on another container.

[0032] FIG. **26** is a side cross-sectional view of the container in FIG. 17 with the container top inverted as shown in FIG. 22.

[0033] FIG. **27** is a fragmentary side cross-sectional view of the container in FIG. 1 with the container top inverted as shown in FIG. 22.

[0034] FIG. **28** is a side cross-sectional view of the container in FIG. 17 stacked on another container with the container tops inverted as shown in FIG. 22.

[0035] FIG. **29** is a fragmentary side cross-sectional view of the container top in FIG. 17 inverted as shown in Figure 22.

[0036] FIG. **30** is a fragmentary side cross-sectional view of the container top in FIG. 17 inverted as shown in Figure 22 stacked with two other inverted container tops.

[0037] FIG. **31** is a side cross-sectional view of the container in FIG. 17 stacked with another container, wherein the container tops are inverted and stacked on each other and on a stack of container bottoms.

[0038] FIG. **32** is a fragmentary side cross-sectional view of the container in FIG. 17 stacked with another container, wherein the container tops are inverted and stacked on each other and on a stack of container bottoms.

DETAILED DESCRIPTION OF THE INVENTION

[0039] Referring to FIG. **1**, the container **100** comprises a container top **102** and a container bottom **104**. The container top **102** and container bottom **104** may be connected to one another forming a seal. The container is preferably made of a plastic material, however, one of ordinary skill in the art would recognize that other materials may be used. Referring to FIG. **2**, the container bottom has a bottom surface **106**, a sidewall **108**, and a closure portion **110**. The sidewall **108** extends upward from the bottom surface **106** to define a cavity for storage. The closure portion **110** extends outward and above the sidewall **108**. The bottom surface **106** may have a recessed portion **112**. Referring to Figure 4, the container top 102 may include a decorative portion 114 on a top surface 116. The recessed portion **112** shown in Figure 2 may be used, by way of example and not limitation, for accommodating a decorative portion **114** on a top surface **116** of a container top **102** when stacked on another container 100. As shown in FIG. **3**, the container bottom **104** may be approximately quadrilateral in shape. One of ordinary skill in the art would recognize, however, that

the invention is applicable to other container shapes as well, including but not limited to circular, for example.

[0040] Referring to FIG. **4**, the container top **102** has a top surface **116**, a sidewall **118**, and a closure portion **120**. The sidewall **118** extends downward from the top surface **116** to define a cavity. The closure portion **120** extends outward and below the sidewall **118**. The container **100** may be sealed by disposing the container top **102** near the container bottom **104** and applying a force. To separate the container top **102** from the container bottom **104**, a release tab **122** may be provided such that a user has a surface to grasp when exerting force to separate the respective closure portions **120**, **110** of the container top **102** and container bottom **104**. The top surface **116** may have a recessed portion **124** surrounded by a stabilizing rim **126** for stabilizing a container **100** stacked above the container top **102**. The container top **102** may also have some form of decorative portion **114**. As shown in FIG. **5**, the container top **102** may be approximately quadrilateral in shape. One of ordinary skill in the art would recognize, however, that the invention is applicable to other container shapes as well, including but not limited to circular, for example. FIG. **6** shows the container top **102** in an inverted position. When inverted, the cavity defined by the top surface **116** and sidewall **118** now faces upward instead of downward. In the inverted position, the container top **102** may be used as a plate or bowl.

[0041] FIGS. **7** and **8** show a container top **102** attached to a container bottom **104**. The container top **102** has a container top closure portion **120**. The container top closure portion **120** comprises an outward extending portion **128**, an outward curved portion **130**, an inward curved portion **132**, and an upturned graspable portion **134**. The container bottom **104** has a container bottom closure portion **110**. The container bottom closure portion **110** comprises an outward extending portion **136**, an outward curved portion **138**, an inward curved portion **140**, and a downward turned graspable portion **142**. When the container top **102** is disposed adjacent to the container bottom **104**, the inward curved portion **132** of the container top closure portion **120** is in contact with the outward curved portion **138** of the container bottom closure portion **110**. As pressure is applied, the respective closure portions **120**, **110**

flex slightly enough for the inward curved portion **132** of the container top closure portion **120** to slide past the outward curved portion **138** of the container bottom closure portion **110** to seal the container **100**. When the container **100** is sealed, the outward extending portion **128**, the outward curved portion **130**, and the inward curved portion **132** of the container top closure portion **120** is disposed adjacent to the outward extending portion **136**, the outward curved portion **138**, and the inward curved portion **140** of the container bottom closure portion **110**, respectively. The cavity defined by the top surface **116** and sidewall **118** of the container top **102** accommodates overstuffing the container **100** by providing extra storing room for materials stacked above the sidewall **108** of the container bottom **104**. The respective graspable portions **134**, **142** may be used to grab or hold the container **100**, and may also be used to help pull the container top **102** away from the container bottom **104**.

[0042] As shown in FIG. **9**, a plurality of containers **100a**, **100b** may be stacked on top of one another to form a container stack **170**. When on top of another container **100**, the bottom surface **106a** of the container bottom **104a** of the superjacent container **100a** rests within the recessed portion **124b** of the top surface **116b** of the container top **102b** of the subjacent container **100b**. The stabilizing rim **126b** on the top surface **116b** of the subjacent container **100b** helps to limit lateral movement of the superjacent container **100a**, thereby helping to stabilize the stack. The stabilizing rim **126b** also helps to center the container stack **170** such that the center of gravity of the container stack **170** remains relatively centered to prevent tipping. As a container **100a** is placed superjacent another container **100b**, a user will know when the container stack is not centered properly because the bottom surface **106a** of the superjacent container **100a** will extend beyond the outside of the stabilizing rim **126b** of the subjacent container **100b**, or the stabilizing rim **106a** of the subjacent container **100b** will cause the superjacent container **100a** to rest at an angle.

[0043] Referring to FIG. **10**, in accordance with the invention, the container top **102** may be inverted and placed within the cavity of the container bottom **104** to accommodate under stuffing the container bottom **104**. The cavity defined by the top

surface **116** and the sidewall **118** of the container top **102** accommodates the storage of materials within this cavity. Thus, with the container top **102** in the inverted position, the container **100** has two areas for storage. For example, the container top **102** may be used to store potato chips and the container bottom **104** may be used to store dip. When not being used, the dip is protected by the container top **102**. When a user wants to access to the dip, she can simply remove the container top **102**.

[0044] The inverted container top **102** and container bottom **104** are in contact at a plurality of portions. Having a plurality of portions of contact enhances the stability and sealing capability of the container top **102** in the inverted position. As seen in FIG. **11**, by way of example and not limitation, when the container top **102** is in the inverted position, the container top **102** makes contact with the container bottom **104** at two portions **148**, **150** to help keep dust and other objects out and preserve the contents stored in the container bottom **104**. A first portion of contact **148** occurs between a first nesting portion **172** disposed along the perimeter of the container top **102** and the sidewall **108** of the container bottom **104**. A second portion of contact **150** occurs between a second nesting portion **174** disposed along the perimeter of the container top **102** and approximately near the intersection of the outward extending portion **136** of the closure portion **110** of the container bottom **104** and the sidewall **108** of the container bottom **104**. One of ordinary skill in the art, however, would recognize that the relative position of the portions of contact could occur at different portions of the container top **102** and container bottom **104** than those depicted in the figures, and the number of portions of contact need not be restricted to two.

[0045] The ability to invert the container top **102** also provides the additional functionality of being able to stack containers at two different heights. For example, as shown in FIG. **12**, a superjacent container **100c** rests within the cavity of the container top **102d** of the subjacent container **100d** reducing the effective stacking height. This stacking arrangement may be desirable if the user wants to reduce the stacking height, and the user does not need the extra storage space provided by the container top **102d** in the upright position.

[0046] As shown in FIG. **13**, the container top **102**, shown inverted, has a locking portion **158** disposed along the perimeter of the cavity and a receiving portion **160** disposed along the perimeter of the cavity. As shown in FIG. **14**, a plurality of container tops **102a**, **102b**, **102c**, shown inverted, may be stacked on top of one another to form a container top stack **156**. In accordance with the invention, if a first container top **102a** is inserted into the cavity of a second container top **102b**, the locking portion **158b** of the second container top **102b** engages a receiving portion **160a** of the first container top **102a** to form a container top stack **156**. As shown in FIG **13**, the locking portion **158** comprises a protruding rib and the receiving portion **160** comprises a recessed groove. In other embodiments, the locking portion **158** may include one or more of the following features to enable engagement; convex portions or ribs, concave portions or ribs, linear or curvilinear undercuts, linear or curvilinear cross-sections, discreet snap elements or buttons, interference fits, textured surfaces, or elements that modify surface friction or tackiness at or around the point of engagement. The engaging areas that create a locking condition may be continuous about the perimeter of the cavity or discreetly segmented about the perimeter of the cavity. It may be beneficial to design the locking portion **158** of the top **102** so as to have tactile and audible feedback upon engagement of the locking portion **158**. Additional container tops **102** may be added to the stack **156**. For example, if the second container top **102b** is inserted into the cavity of a third container top **102c**, the receiving portion **160b** of the second container top **102b** is engaged by a locking portion **158c** of the third container top **102c** to expand the number of container tops **102** in the container top stack **156**. By the locking portion **158** of a container top **102** engaging the receiving portion **160** of an adjacent container top **102**, the container tops **102** become securely attached to one another such that a user does not have to worry about the container tops **102** sliding off of each other while storing them. The stack of tops **156** will resist jarring and dropping and still remain locked together without vertical or horizontal displacement of an individual top **102** within the stack **156** such that stack integrity is not compromised. An inward curved portion **132** and outward curved portion **130** may be disposed along the perimeter of the container top

102 to provide a second portion of contact with an adjacently disposed container top **102** to further enhance stability of the container top stack **156**.

[0047] Turning to FIGS. **15** and **16**, for efficient storing and stacking, a plurality of container bottoms **104d**, **104e** may be stacked with a plurality of container tops **102d**, **102e** placed above. With the locking portion **158e** and receiving portion **160d** keeping the container tops **102d**, **102e** together and with the capability of the container tops **102**d, **102**e to fit within the cavity of the uppermost container bottom **104d** with at least two portions of contact **148**, **150**, a large number of container tops **102** and container bottoms **104** may be stored securely in a single container top and container bottom stack **162**. Several stacks of containers may also be disposed discretely adjacent to one another because the invention maintains the stacks vertically disposed in a relatively organized and centered position without leaning. This ability to discretely stack applies to the containers **100** regardless of whether the stack comprises a plurality of container bottoms **104** stacked within each other with container tops **102** disposed above, a plurality of containers **100** stacked with the container tops **102** in the upright position, or a plurality of containers **100** stacked with the container tops **102** in the inverted position.

[0048] Referring to FIG. **17**, the container **200** comprises a container top **202** and a container bottom **204**. The container **200** is similar to the container **100** in FIG. 1, however, the container top **202** does not lock together with an adjacent container top when stacked together. The container top **202** and container bottom **204** may be connected to one another forming a seal. The container is preferably made of a plastic material, however, one of ordinary skill in the art would recognize that other materials may be used. Referring to FIG. **18**, the container bottom **204** has a bottom surface **206**, a sidewall **208**, and a closure portion **210**. The sidewall **208** extends upward from the bottom surface **206** to define a cavity for storage. The closure portion **210** extends outward and above the sidewall **208**. The bottom surface **206** may have a recessed portion **212**. The recessed portion **212** may be used, by way of example and not limitation, for accommodating a decorative portion **214** on a top surface of a container top **202** as shown in Figure 20 when stacked on top of another container

200. As shown in FIG. 19, the container bottom 204 may be approximately quadrilateral in shape. One of ordinary skill in the art would recognize, however, that the invention is applicable to other container shapes as well, including but not limited to circular, for example.

[0049] Referring to FIG. 20, the container top 202 has a top surface 216, a sidewall 218, and a closure portion 220. The sidewall 218 extends downward from the top surface 216 to define a cavity. The closure portion 220 extends outward and below the sidewall 218. The container 200 may be sealed by disposing the container top 202 on the container bottom 204 and applying a force. To separate the container top 202 from the container bottom 204, the user may grasp the respective closure portions 220, 210 of the container top 202 and container bottom 204. In another embodiment, a release tab, such as 122 shown in FIG. 4, may be provided such that a user has a surface to grasp when exerting force to separate the respective closure portions 220, 210 of the container top 202 and container bottom 204. The top surface 216 may have a recessed portion 224 surrounded by a stabilizing rim 226 for stabilizing a container 200 stacked above the container top 202. The container top 202 may also have some form of decorative portion 214. As shown in FIG. 21, the container top 202 may be approximately quadrilateral in shape. One of ordinary skill in the art would recognize, however, that the invention is applicable to other container shapes as well, including but not limited to circular, for example. FIG. 22 shows the container top 202 in an inverted position. When inverted, the cavity defined by the top surface 216 and sidewall 218 now faces upward instead of downward. In the inverted position, the container top 202 may be used as a plate or bowl.

[0050] FIGs. 23 and 24 show a container top 202 attached to a container bottom 204. The container top 202 has a container top closure portion 220. The container top closure portion 220 comprises an outward extending portion 228, an outward curved portion 230, an inward curved portion 232, and an upturned graspable portion 234. The container bottom 204 has a container bottom closure portion 210. The container bottom closure portion 210 comprises an outward extending portion 236, an outward curved portion 238, an inward curved portion 240, and a downward turned

graspable portion **242**. When the container top **202** is disposed adjacent to the container bottom **204**, the inward curved portion **232** of the container top closure portion **220** is in contact with the outward curved portion **238** of the container bottom closure portion **210**. As pressure is applied, the respective closure portions **220**, **210** flex slightly enough for the inward curved portion **232** of the container top closure portion **210** to slide past the outward curved portion **238** of the container bottom closure portion **210** to seal the container **200**. When the container **200** is sealed, the outward extending portion **228**, the outward curved portion **230**, and the inward curved portion **232** of the container top closure portion **220** are disposed adjacent to the outward extending portion **236**, the outward curved portion **238**, and the inward curved portion **240** of the container bottom closure portion **210**, respectively. The cavity defined by the top surface **216** and sidewall **218** of the container top **202** accommodates overstuffing the container **200** by providing extra storage room for materials stacked above the sidewall **208** of the container bottom **204**. The respective graspable portions **234**, **242** may be used to grab or hold the container **200**, and may also be used to help pull the container top **202** away from the container bottom **204**.

[0051] As shown in FIG. **25**, a plurality of containers **200a**, **200b** may be stacked on top of one another to form a container stack **270**. When on top of another container **200**, the bottom surface **206a** of the container bottom **204a** of the superjacent container **200a** rests within the recessed portion **224b** of the top surface **216b** of the container top **202b** of the subjacent container **200b**. The stabilizing rim **226b** on the top surface **216b** of the subjacent container **200b** helps to limit lateral movement of the superjacent container **200a**, thereby helping to stabilize the stack. The stabilizing rim **226b** also helps to center container stack **270** such that the center of gravity of the container stack **270** remains relatively centered to prevent tipping. As a container **200a** is placed superjacent another container **200b**, a user will know when the container stack **270** is not centered properly because the bottom surface **206a** of the superjacent container **200a** will extend beyond the outside of the stabilizing rim **226b** of the subjacent container **200b**, or the stabilizing rim **226b** of

the subjacent container **200b** will cause the superjacent container **200a** to rest at an angle.

[0052] Referring to FIG. **26**, in accordance with the invention, the container top **202** may be inverted and placed within the cavity of the container bottom **204** to accommodate under stuffing the container bottom **204**. The cavity defined by the top surface **216** and the sidewall **218** of the container top **202** accommodates the storage of materials within this cavity. Thus, with the container top **202** in the inverted position, the container **200** has two areas for storage. For example, the container top **202** may be used to store potato chips and the container bottom **204** may be used to store dip. When not being used, the dip is protected by the container top **202**. When a user wants access to the dip, she can simply remove the container top **202**.

[0053] The inverted container top **202** and container bottom **204** are in contact at a plurality of portions. Having a plurality of portions of contact enhances the stability and sealing capability of the container top **202** in the inverted position. As seen in FIG. **27**, by way of example and not limitation, when the container top **202** is in the inverted position, the container top **202** makes contact with the container bottom **204** at two portions **248, 250** to help keep dust and other objects out and preserve the contents stored in the container bottom **204**. A first portion of contact **248** occurs between a first nesting portion **272** disposed along the perimeter of the container top **202** and the sidewall **208** of the container bottom **204**. A second portion of contact **250** occurs between a second nesting portion **274** disposed along the perimeter of the container top **202** and approximately near the intersection of the outward extending portion **236** of the closure portion **210** of the container bottom **204** and the sidewall **208** of the container bottom **204**. One of ordinary skill in the art, however, would recognize that the relative position of the two portions of contact could occur at different portions of the container top **202** and container bottom **204** than those depicted in the figures, and the number of portions of contact need not be restricted to two.

[0054] The ability to invert the container top **202** also provides the additional functionality of being able to stack containers at two different heights. For example, as shown in FIG. **28**, the superjacent container **200c** rests within the cavity of the container top **202d** of the subjacent container **200d** reducing the effective stacking height. This stacking arrangement may be desirable if the user wants to reduce the stacking height, and the user does not need the extra storage space provided by the container top **202d** in the upright position.

[0055] As shown in FIG. **29**, the container top **202**, shown inverted, has an inward curved portion **232**, an outward curved portion **230**, and a nesting portion **264** disposed along the perimeter of the cavity. As shown in FIG. **30**, a plurality of tops, shown inverted, may be stacked on top of one another to form a container top stack **256**. In accordance with the invention, if a first container top **202a** is inserted into the cavity of a second container top **202b**, the outward curved portion **230a** of the first container top **202a** is in contact with the inward curved portion **232b** of the second container top **202b** and the nesting portions **264a, 264b** of the first and second container tops **202a, 202b** are in contact with one another. In other embodiments, the contacting portions may include one or more of the following features to enable engagement; interference fits, linear cross-sections, curvilinear cross-sections, textured surfaces, or elements that modify surface friction or tackiness at or around the point of engagement. The engaging areas that create a contacting condition may be continuous about the nesting portion or discreetly segmented about the nesting portion. Additional container tops **202** may be added to the stack **256**. For example, if the second container top **202b** is inserted into the cavity of a third container top **202c**, the outward curved portion **230b** of the second container top **202b** is in contact with the inward curved portion **232c** of the third container top **202c** and the respective nesting portions **264b, 264c** of the second and third container tops **202b, 202c** are in contact with one another. These two portions of contact **266, 268** between adjacent container tops **202a, 202b, 202c** allow the container tops **202a, 202b, 202c** to be securely disposed within one another such that a user does not have to worry about the container tops **202a, 202b, 202c** sliding off of each other while storing them.

[0056] Turning to FIGS. **31** and **32**, for efficient storing and stacking, a plurality of container bottoms **204e, 204d** may be stacked with a plurality of container tops **202d, 202e** placed above. With the container tops **202d, 202e** together and with the capability of the container tops **202d, 202e** to fit within the cavity of the uppermost container bottom **204**d with at least two portions of contact **248, 250**, a large number of container tops **202** and container bottoms **204** may be stored securely in a single container top and container bottom stack **262**. Several stacks of containers may also be disposed discretely adjacent to one another because the invention maintains the stacks vertically disposed in a relatively organized and centered position without leaning. This ability to discretely stack applies to the containers **200** regardless of whether the stack comprises a plurality of container bottoms **204** stacked within each other with container tops **202** disposed above, a plurality of containers **200** stacked with the container tops **202** in the upright position, or a plurality of containers **200** stacked with the container tops **202** in the inverted position.

[0057] One of ordinary skill in the art would recognize that the invention may be applicable to thin disposable containers, inexpensive durable disposable containers, and non-disposable reusable containers. One of ordinary skill in the art would also recognize that the invention could be utilized with a variety of other container types. By way of example and not limitation, the invention could be utilized with such containers as storage crates, pots and pans, and beverage containers.

[0058] Any letters used following a number to describe an element in the drawings is merely to reference the same element on different containers. Therefore, any statements made regarding an element in a drawing referred to by a number or a number followed by a letter may apply to any or all of the other containers, regardless of whether or not that numbered element is shown or described with a letter.

[0059] All references, including publications, patent applications, and patents, cited herein are hereby incorporated by reference to the same extent as if each reference were individually and specifically indicated to be incorporated by reference and were set forth in its entirety herein.

[0060] The use of the terms "a" and "an" and "the" and similar referents in the context of describing the invention (especially in the context of the following claims) are to be construed to cover both the singular and the plural, unless otherwise indicated herein or clearly contradicted by context. The terms "comprising," "having," "including," and "containing" are to be construed as open-ended terms (i.e., meaning "including, but not limited to,") unless otherwise noted. Recitation of ranges of values herein are merely intended to serve as a shorthand method of referring individually to each separate value falling within the range, unless otherwise indicated herein, and each separate value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g., "such as") provided herein, is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed element as essential to the practice of the invention.

[0061] Preferred embodiments of this invention are described herein, including the best mode known to the inventors for carrying out the invention. Variations of those preferred embodiments may become apparent to those of ordinary skill in the art upon reading the foregoing description. The inventors expect skilled artisans to employ such variations as appropriate, and the inventors intend for the invention to be practiced otherwise than as specifically described herein. Accordingly, this invention includes all modifications and equivalents of the subject matter recited in the claims appended hereto as permitted by applicable law. Moreover, any combination of the above-described elements in all possible variations thereof is encompassed by the invention unless otherwise indicated herein or otherwise clearly contradicted by context.

WHAT IS CLAIMED IS:

1. A container comprising a container bottom and a container top,

the container bottom defining a cavity and including a container bottom closure portion,

the container top defining a cavity and including a container top closure portion, a first nesting portion disposed along the perimeter of the container top cavity, and a second nesting portion disposed along the perimeter of the container top cavity,

wherein when the container top is in an upright position, the container bottom closure portion may be connected to the container top closure portion to seal the plastic container, and wherein when the container top is inverted and inserted into the container bottom cavity, the first nesting portion and the second nesting portion make contact with the container bottom at two different portions of the container bottom.

2. The container of claim 1 wherein the container top further comprises a release tab for a user to pull to release the container top from the container bottom.

3. The container of claim 1 wherein the container top further comprises a top surface with a recessed portion to accommodate a superjacent container.

4. The container of claim 1 wherein the container top further comprises a decorative portion.

5. The container of claim 1 wherein the container top further comprises a locking portion and a receiving portion to accommodate stacking of a plurality of container tops.

6. The container of claim 1 wherein the container top further comprises an inward curved portion, an outward curved portion, and a third nesting portion to accommodate stacking of a plurality of container tops.

7. The container of claim 1 wherein the container top closure portion comprises an outward extending portion, an outward curved portion, an inward curved portion, and an upturned graspable portion.

8. The container of claim 1 wherein the container bottom closure portion comprises an outward extending portion, an outward curved portion, an inward curved portion, and a downward turned graspable portion.

9. The container of claim 1 wherein the container bottom further comprises a bottom surface with a recessed portion.

10. The container of claim 1 wherein the container top and container bottom are approximately quadrilateral shaped.

11. The container of claim 1 wherein the container top is plastic.

12. The container of claim 1 wherein the container bottom is plastic.

13. A container top defining a cavity comprising:

a locking portion disposed along the perimeter of the cavity for engaging an adjacent container top, and

a receiving portion disposed along the perimeter of the cavity for receiving a locking portion of an adjacent container top,

wherein if a first adjacent container top is inserted into the cavity, the locking portion engages a receiving portion of the adjacent container top to form a stack of container tops, and if the container top is inserted into the cavity of a second adjacent container top, the receiving portion of the container top is engaged by a locking portion of the second adjacent container top to form a stack of container tops.

14. The container top of claim 13 further comprising an inward curved portion and an outward curved portion disposed along the perimeter of the cavity to provide a second portion of contact when adjacent to another container top.

15. The container top of claim 13 further comprising a release tab for a user to pull to release the container top from a container bottom.

16. The container top of claim 13 further comprising a closure portion for sealing the container top to a container bottom.

17. The container top of claim 13 further comprising a top surface with a recessed portion to accommodate a superjacent container.

18. The container top of claim 13 further comprising a decorative portion.

19. The container top of claim 13 wherein the container top is plastic.

20. A container top defining a cavity comprising:

an inward curved portion disposed along the perimeter of the cavity

an outward curved portion disposed along the perimeter of the cavity, and

a nesting portion disposed along the perimeter of the cavity,

wherein if a first adjacent container top is inserted into the cavity, the inward curved portion is in contact with an outward curved portion of the first adjacent container top and the nesting portion is in contact with a nesting portion of the first adjacent container top to form a stack of container tops, and if the container top is inserted into the cavity of a second adjacent container top, the outward curved portion of the container top is in contact with an inward curved portion of the second adjacent container top and the nesting portion is in contact with a nesting portion of the second adjacent container top to form a stack of container tops.

21. The container top of claim 20 further comprising a release tab for a user to pull to release the container top from a container bottom.

22. The container top of claim 20 further comprising a closure portion for sealing the container top to a container bottom.

23. The container top of claim 20 further comprising a top surface with a recessed portion to accommodate a superjacent container.

24. The container top of claim 20 further comprising a decorative portion.

25. The container top of claim 20 wherein the container top is plastic.

FIG. 1

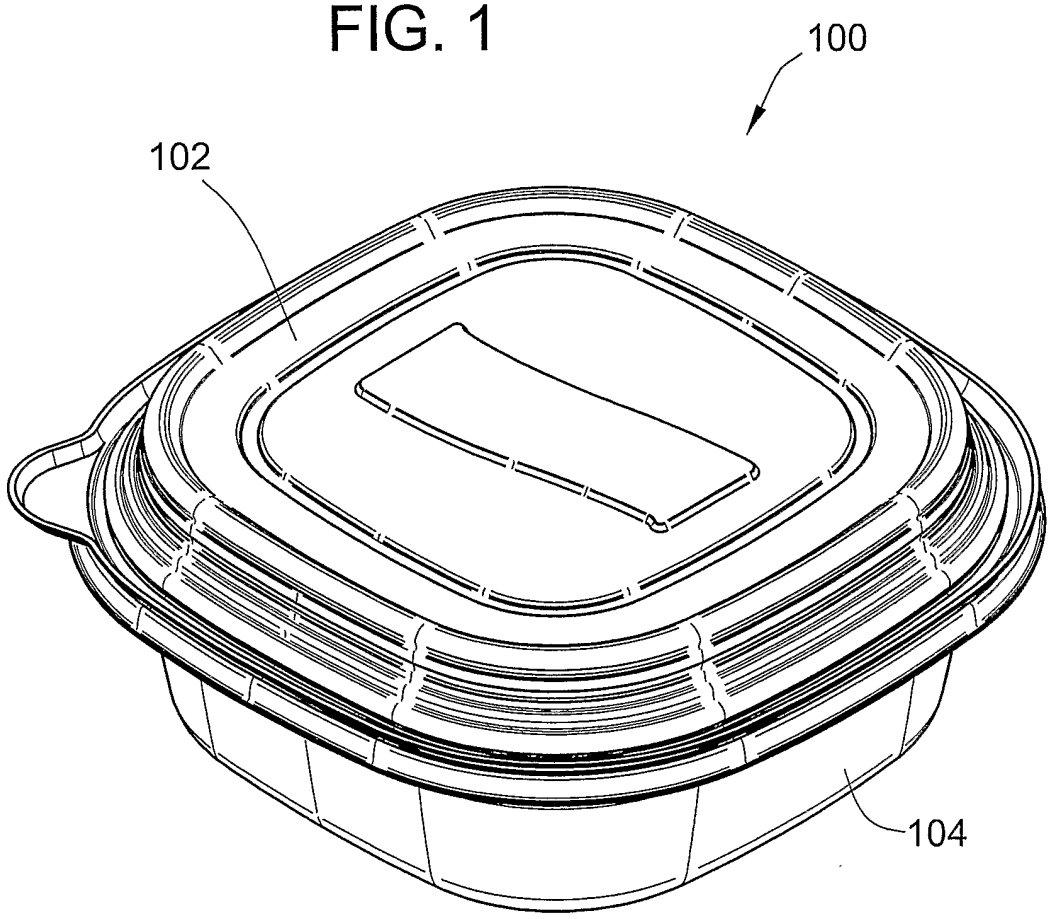

FIG. 2

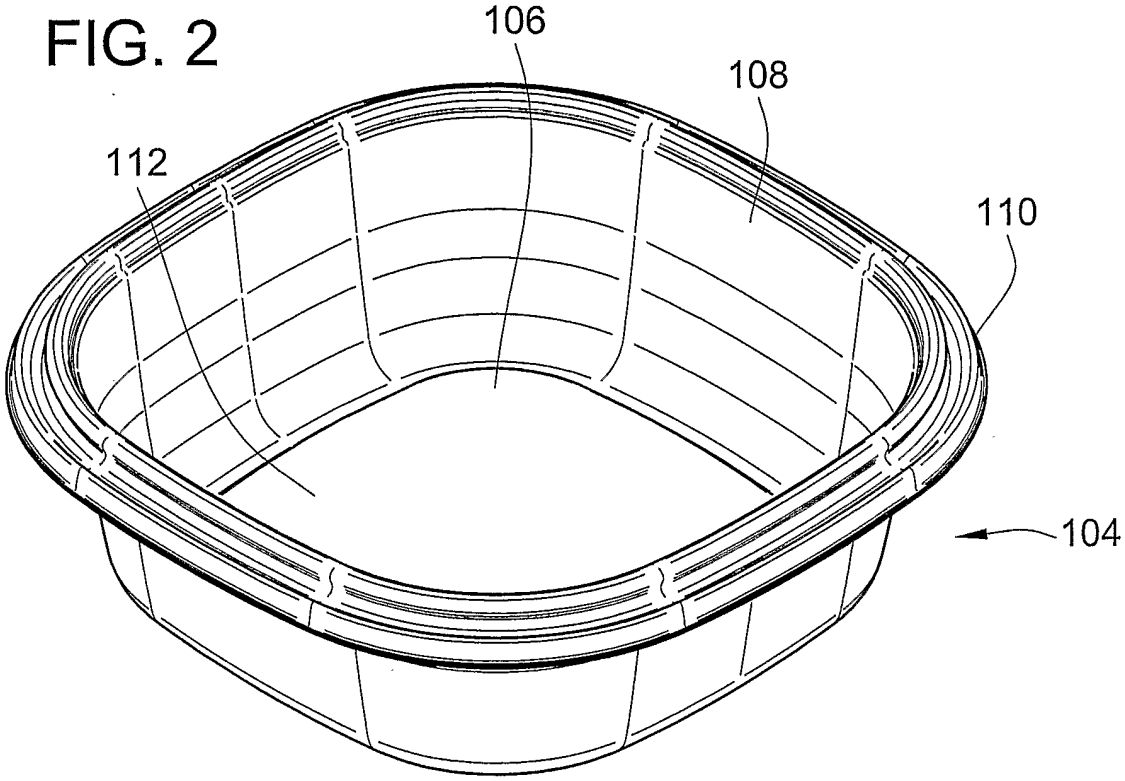

FIG. 3

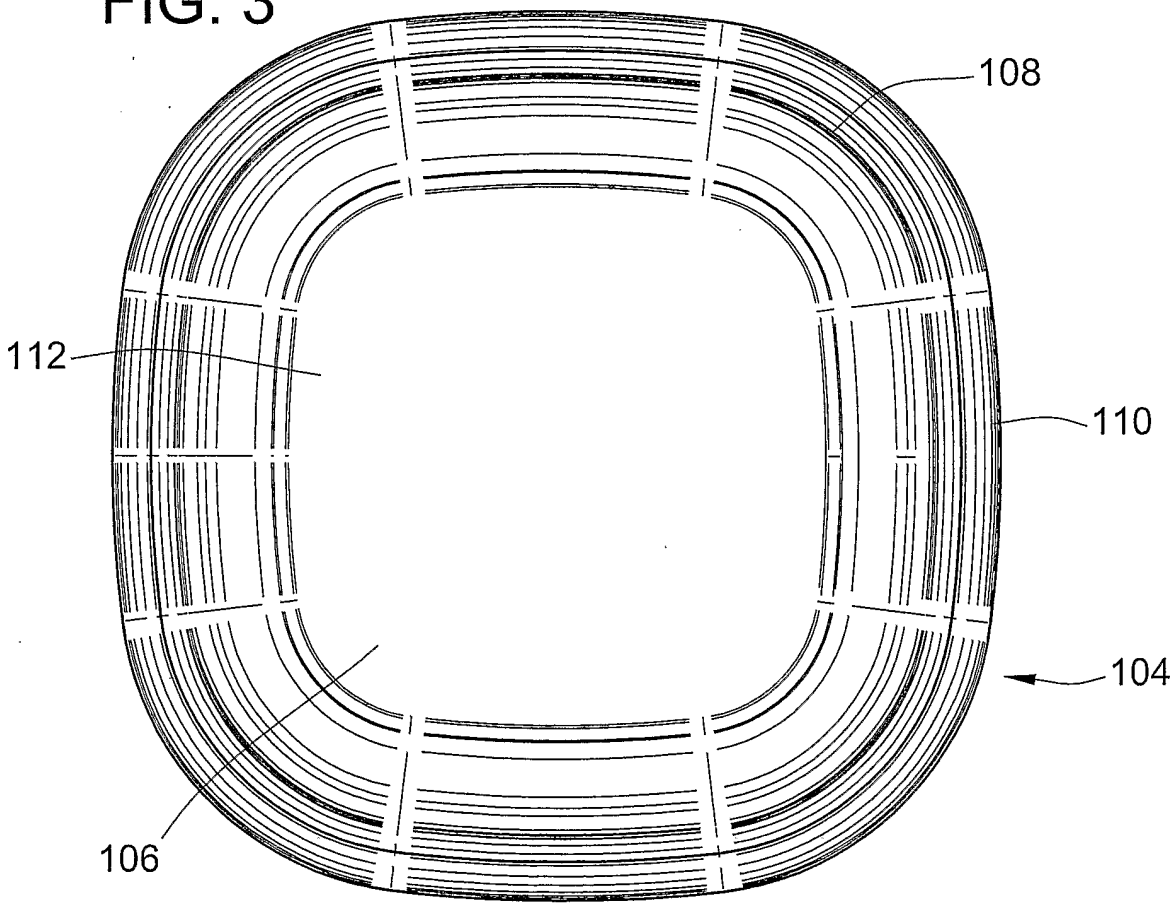

FIG. 4

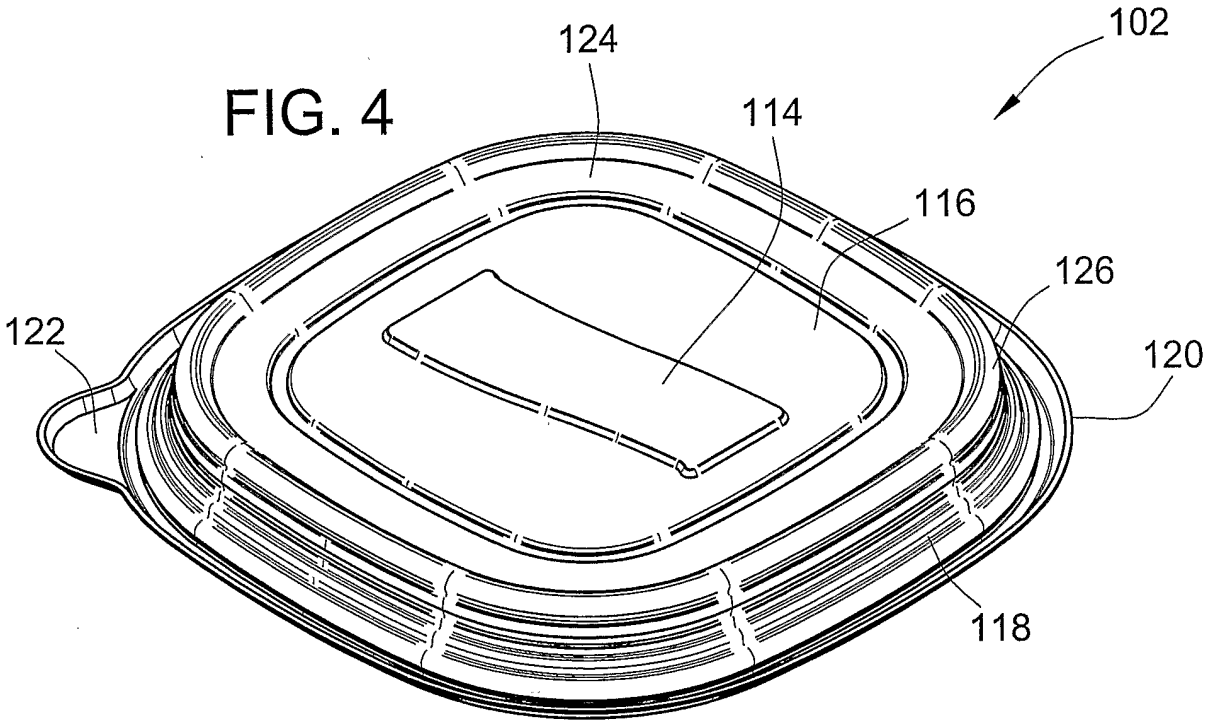

FIG. 5

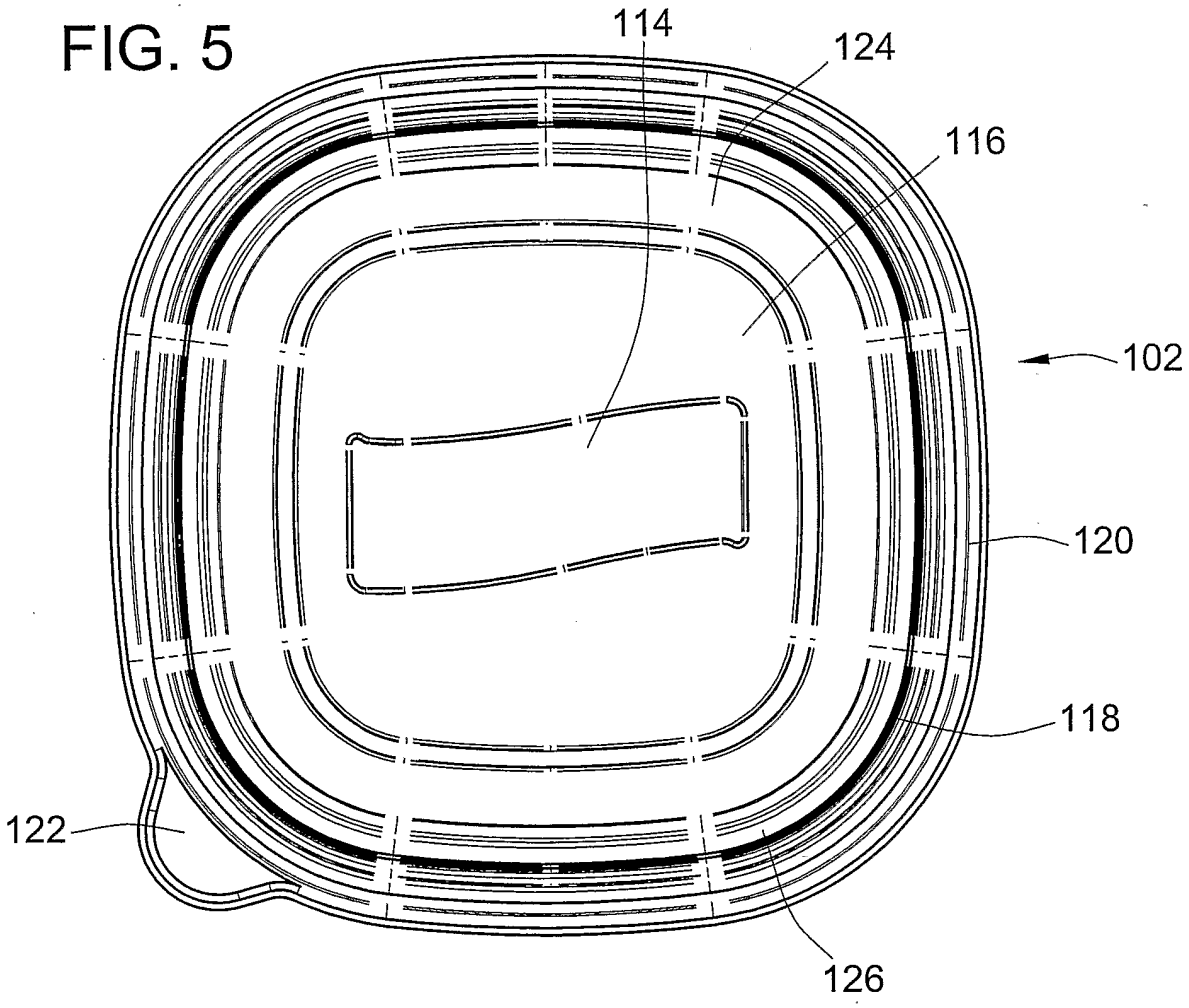

FIG. 6

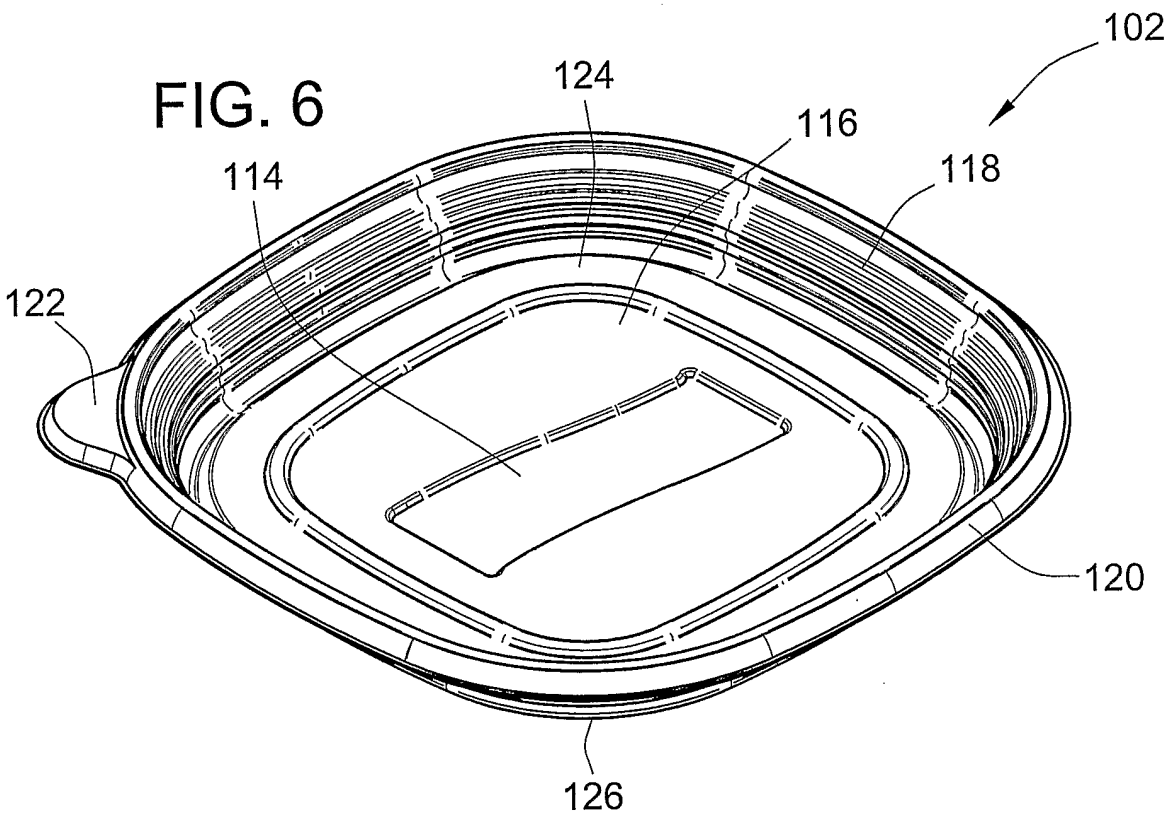
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FIG. 7

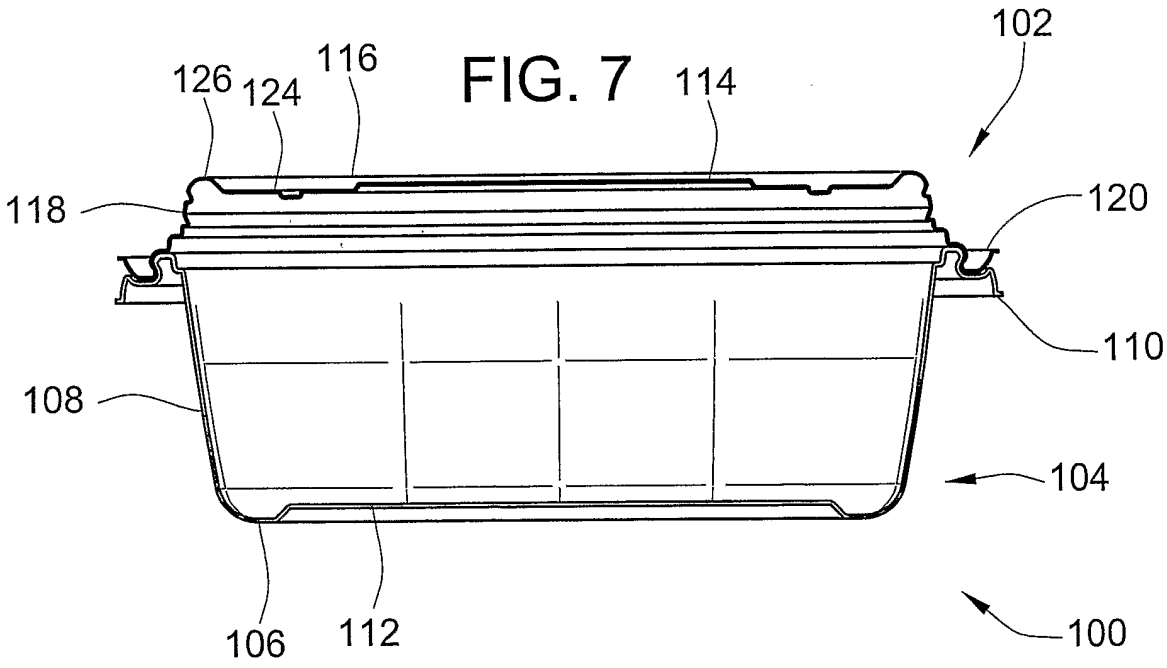
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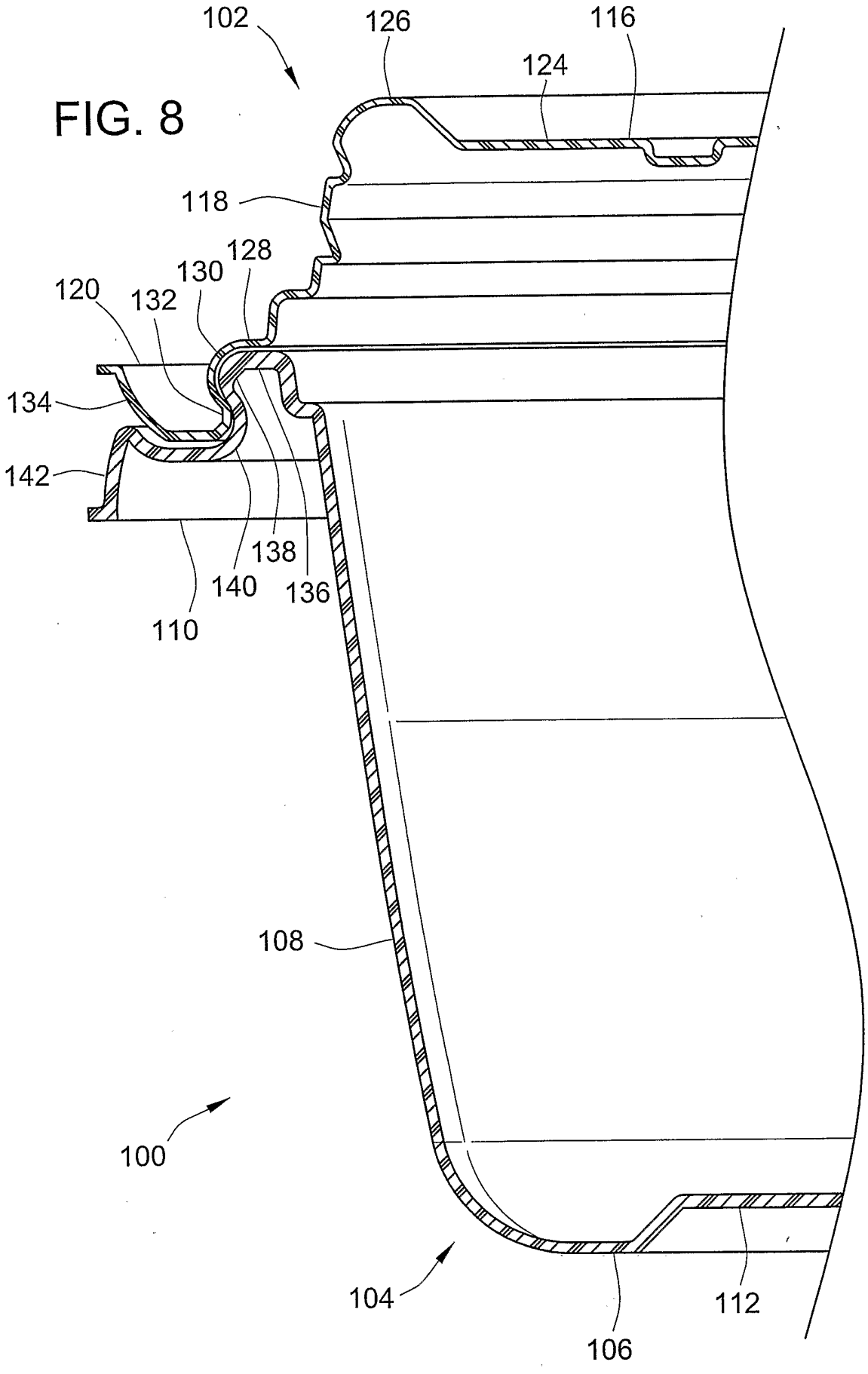
FIG. 8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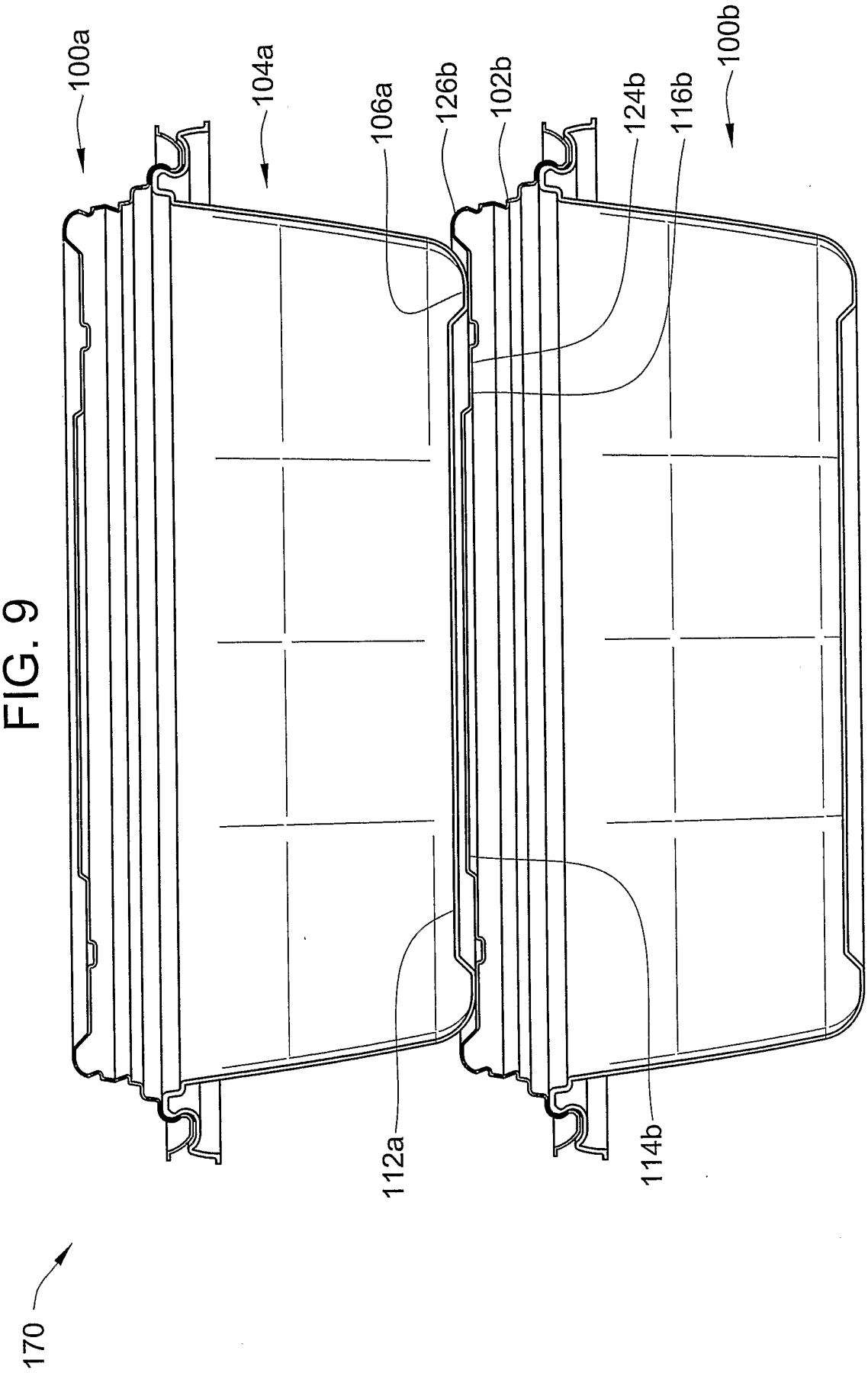

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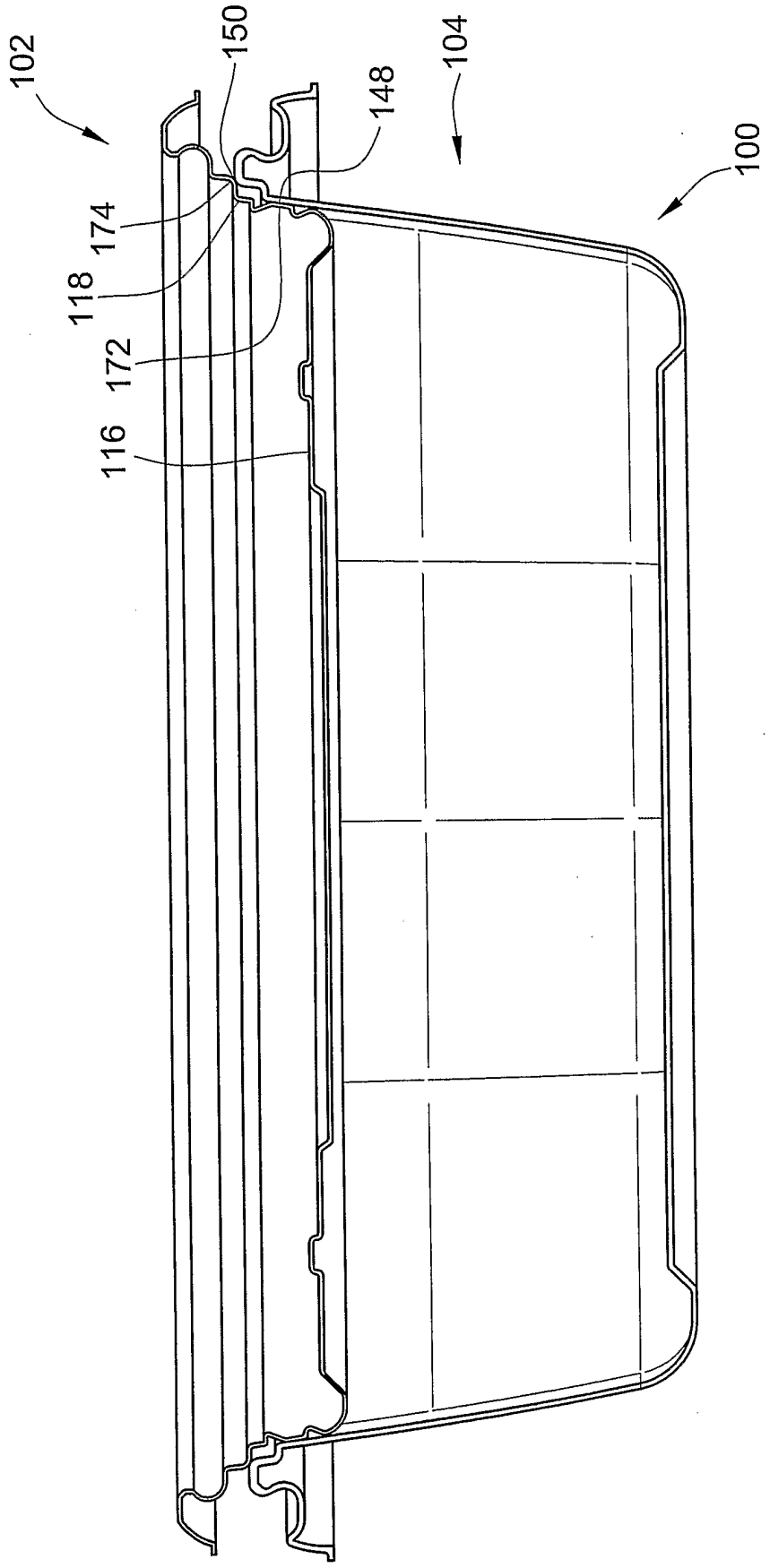
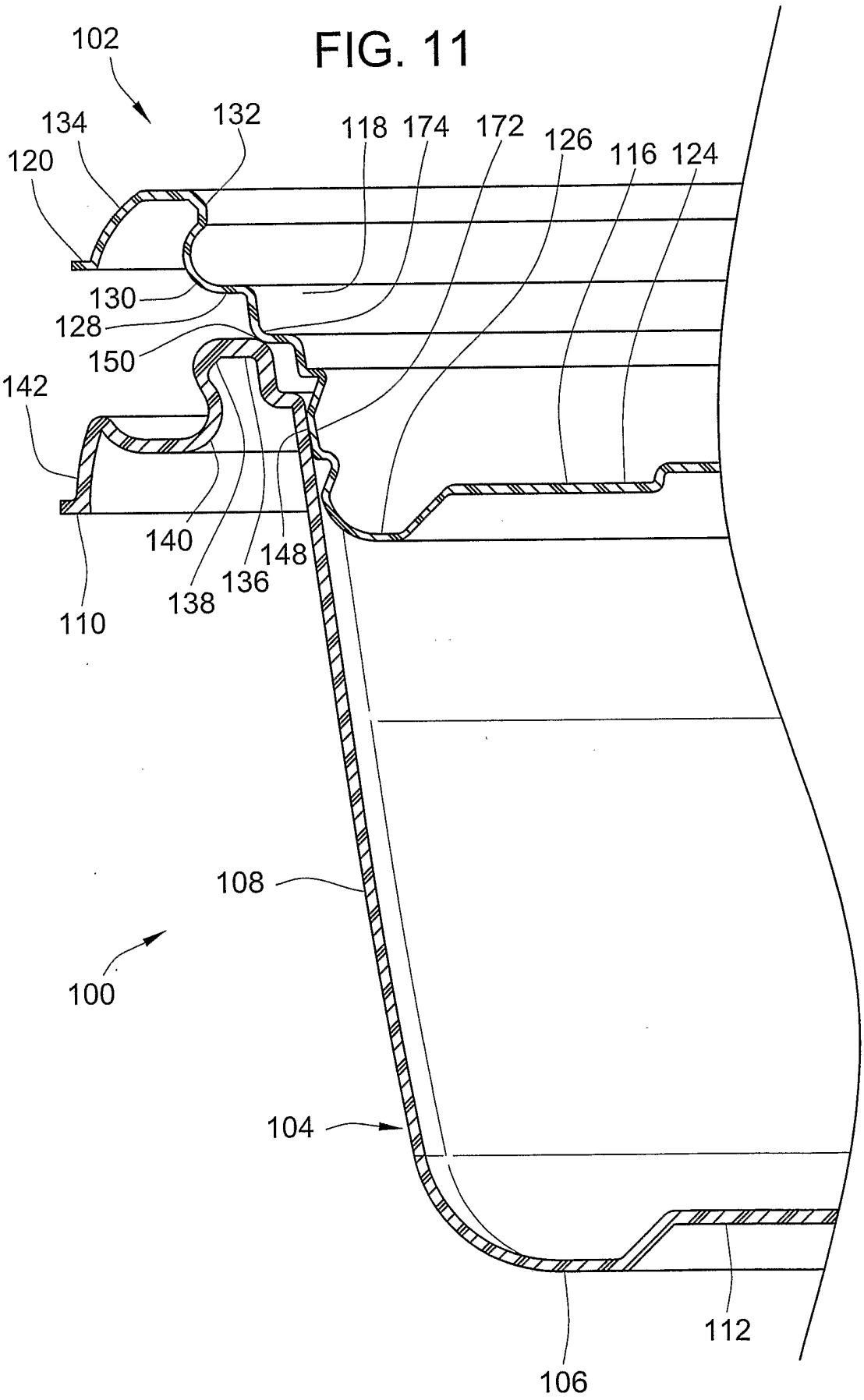


FIG. 10

FIG. 11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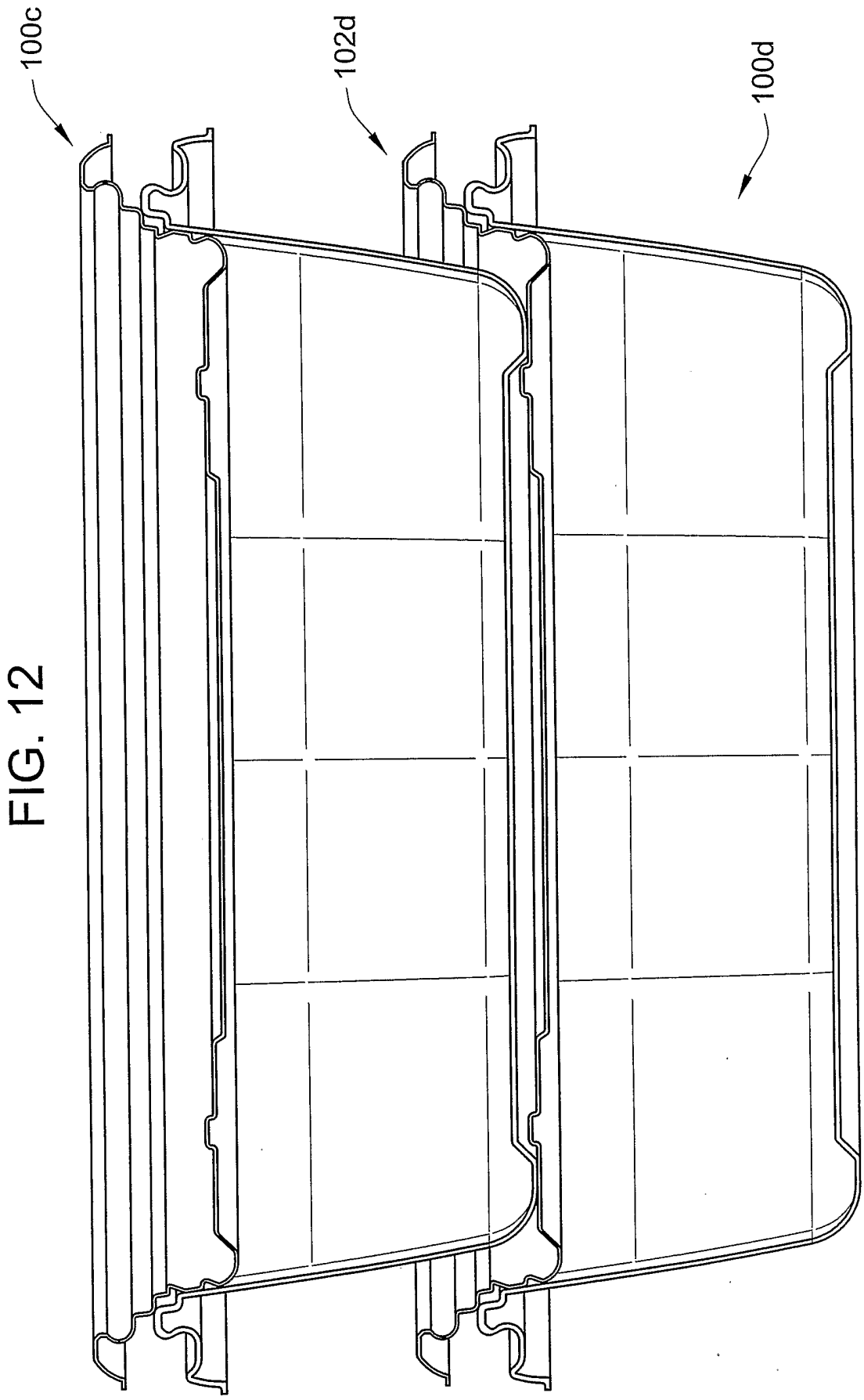


FIG. 12

FIG. 13

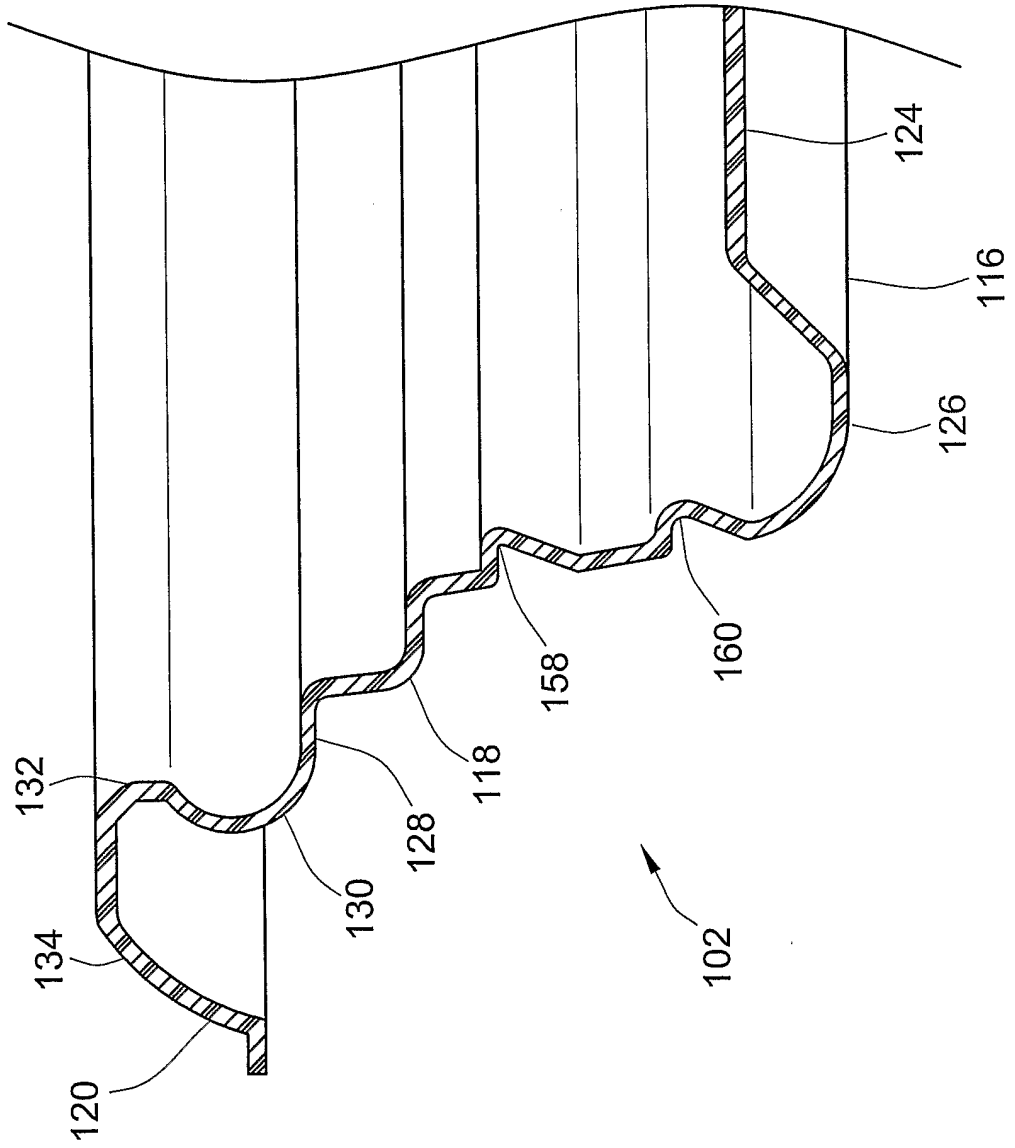
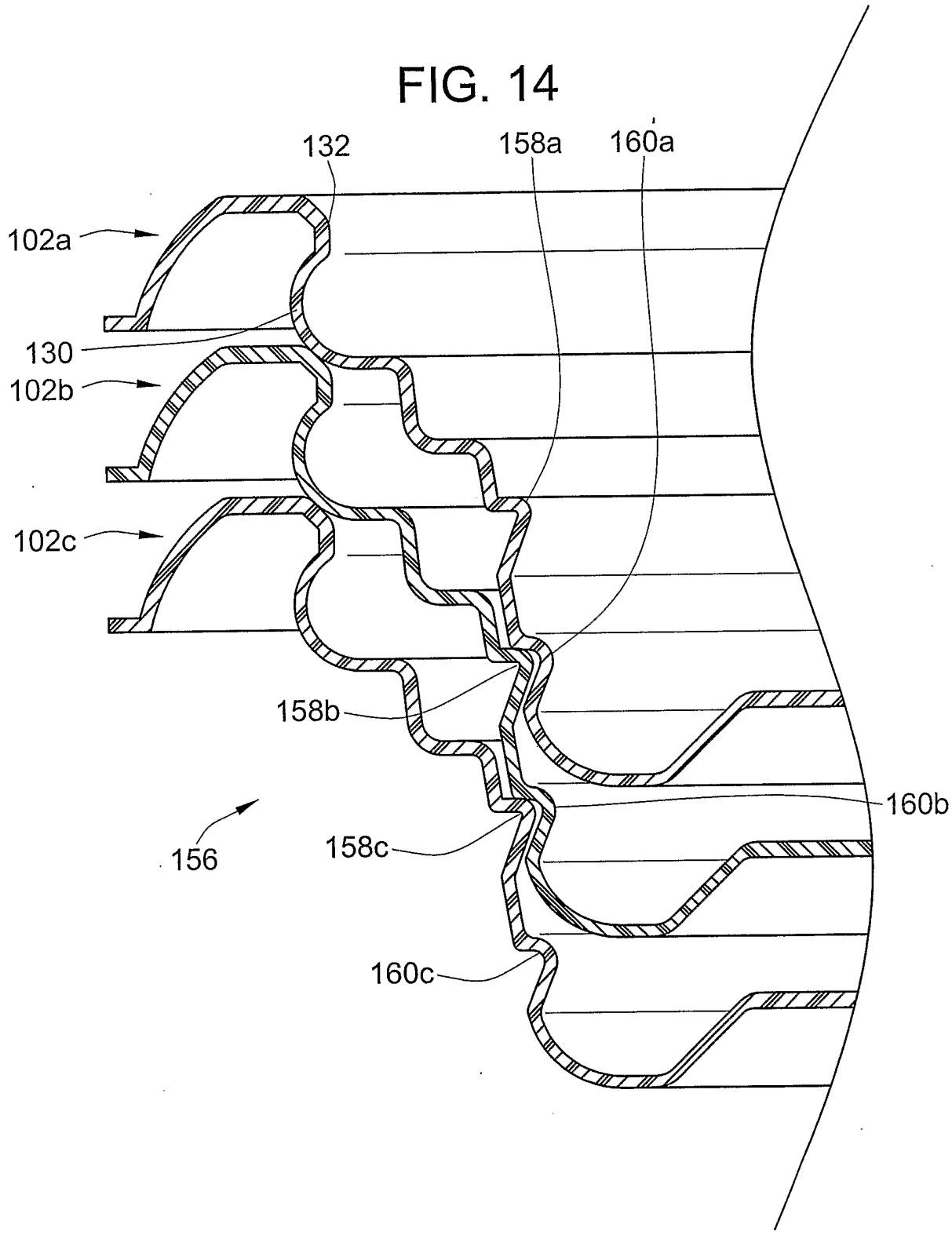


FIG. 14



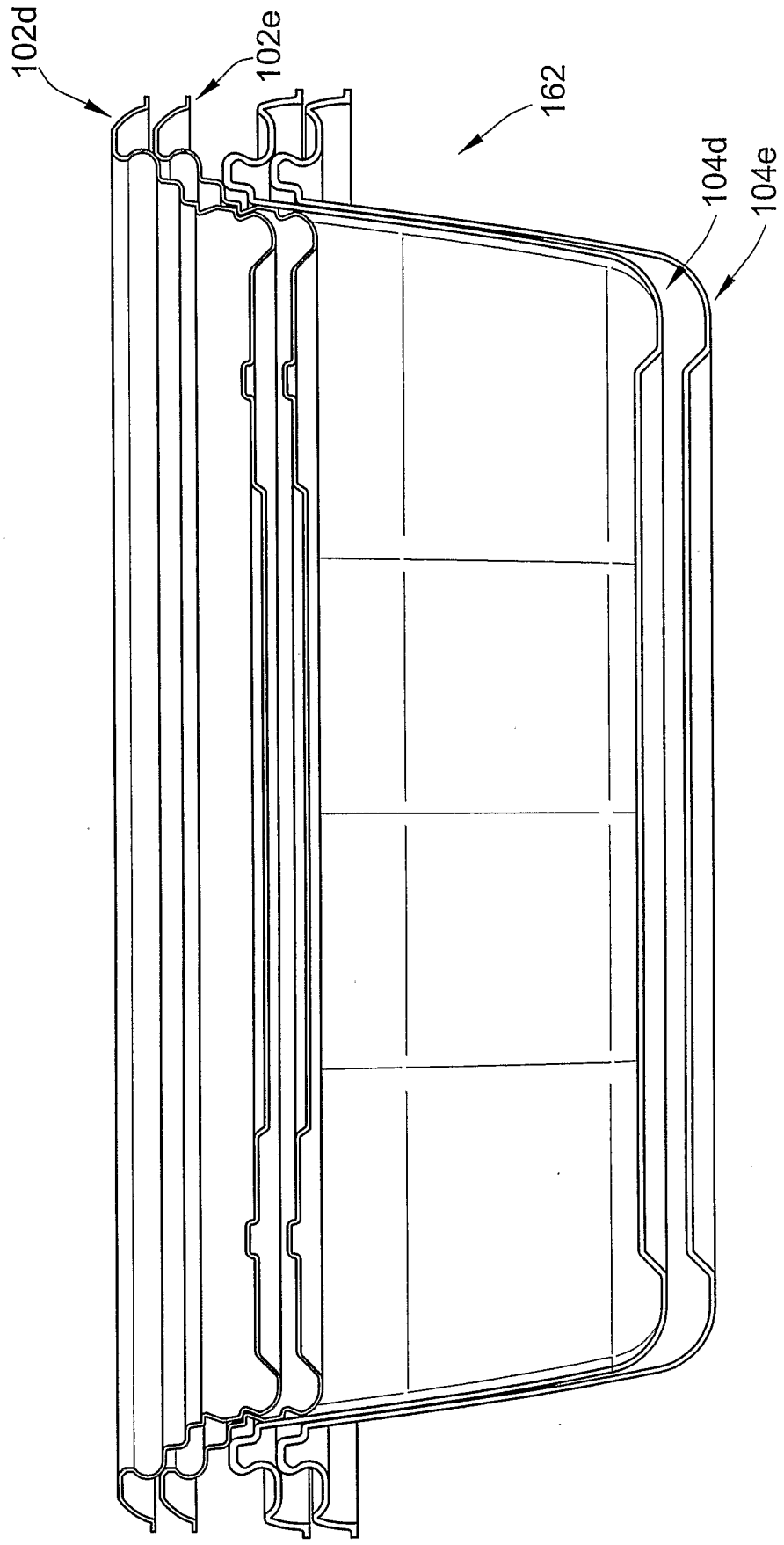


FIG. 15

FIG. 16

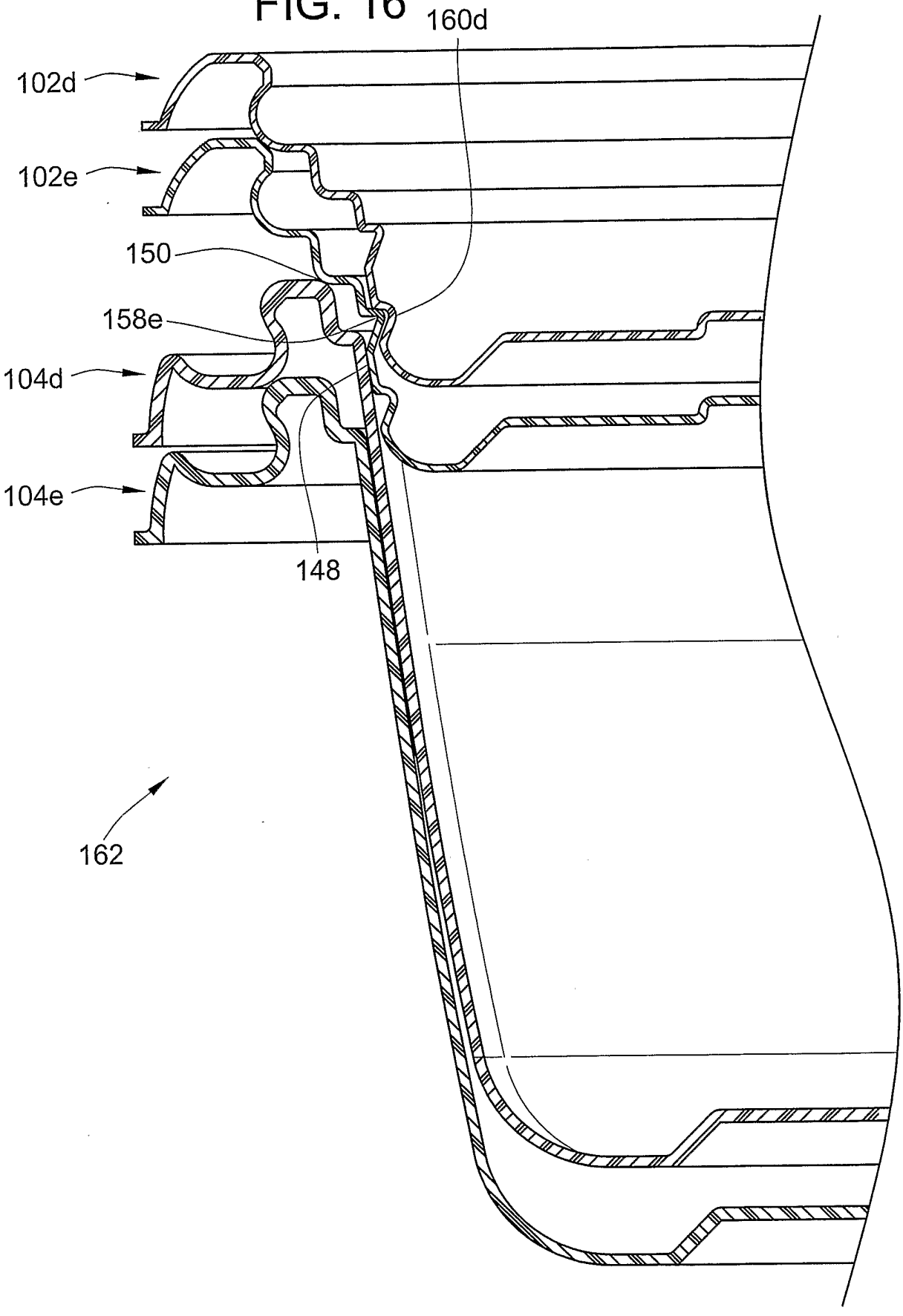


FIG. 17

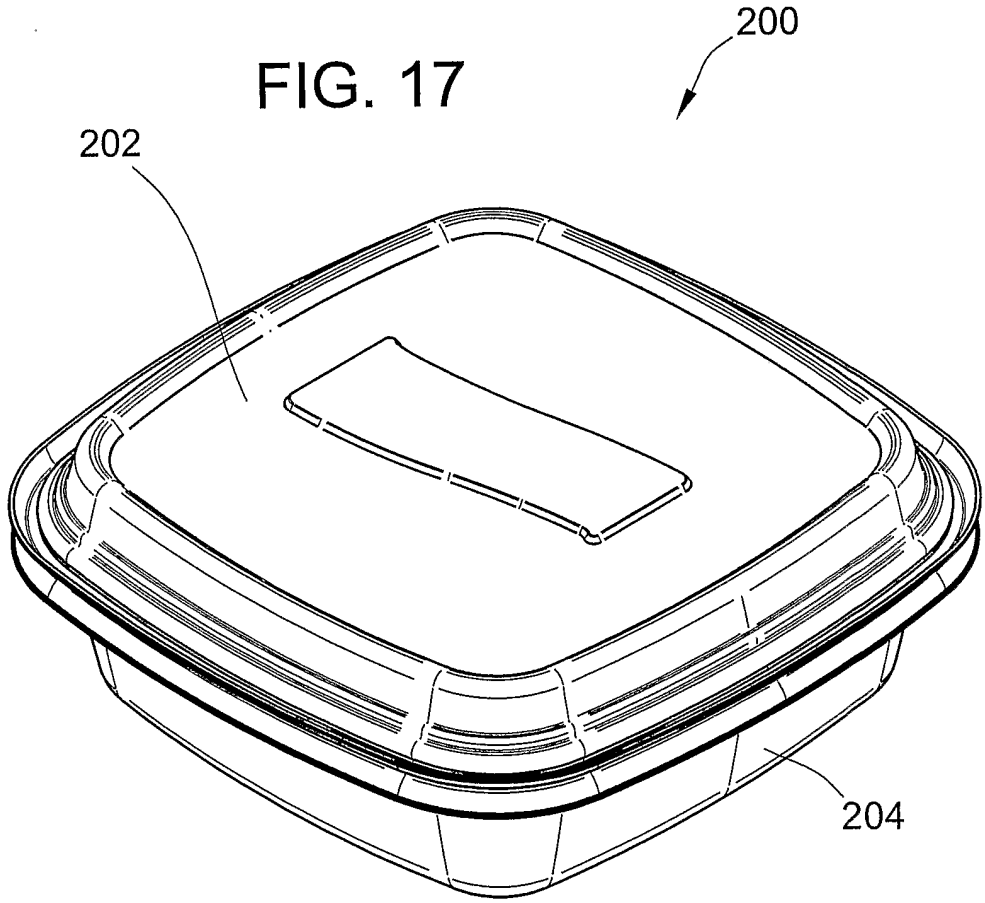


FIG. 18

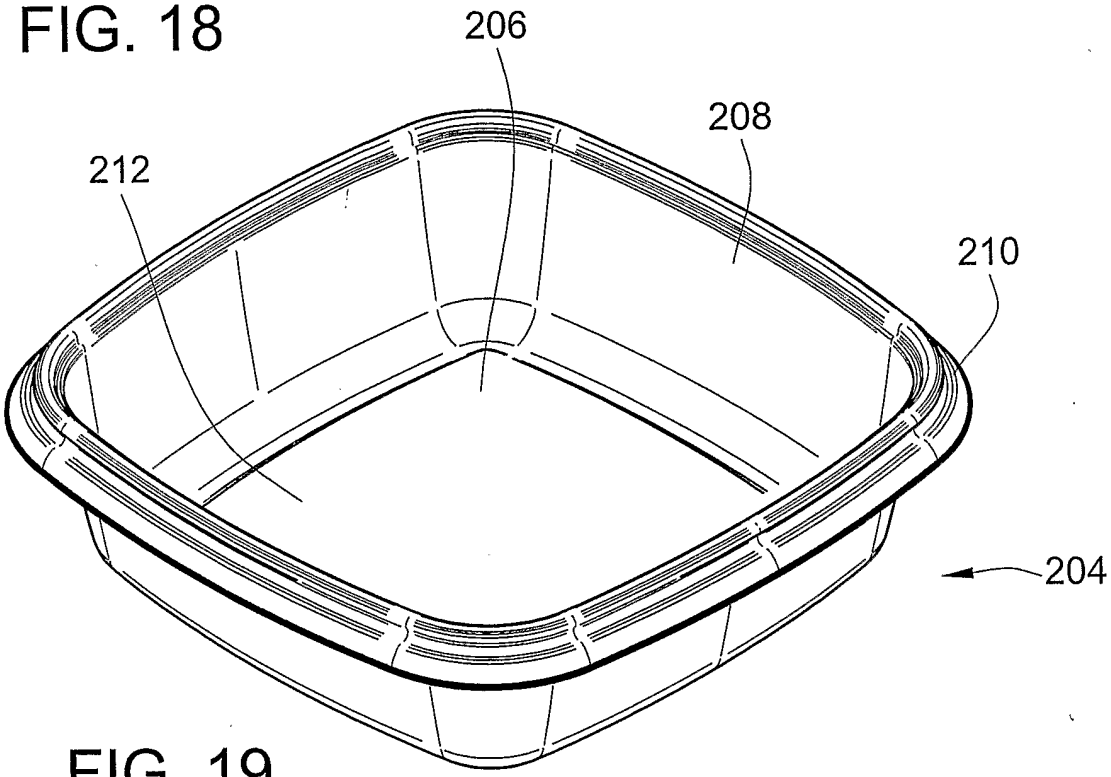


FIG. 19

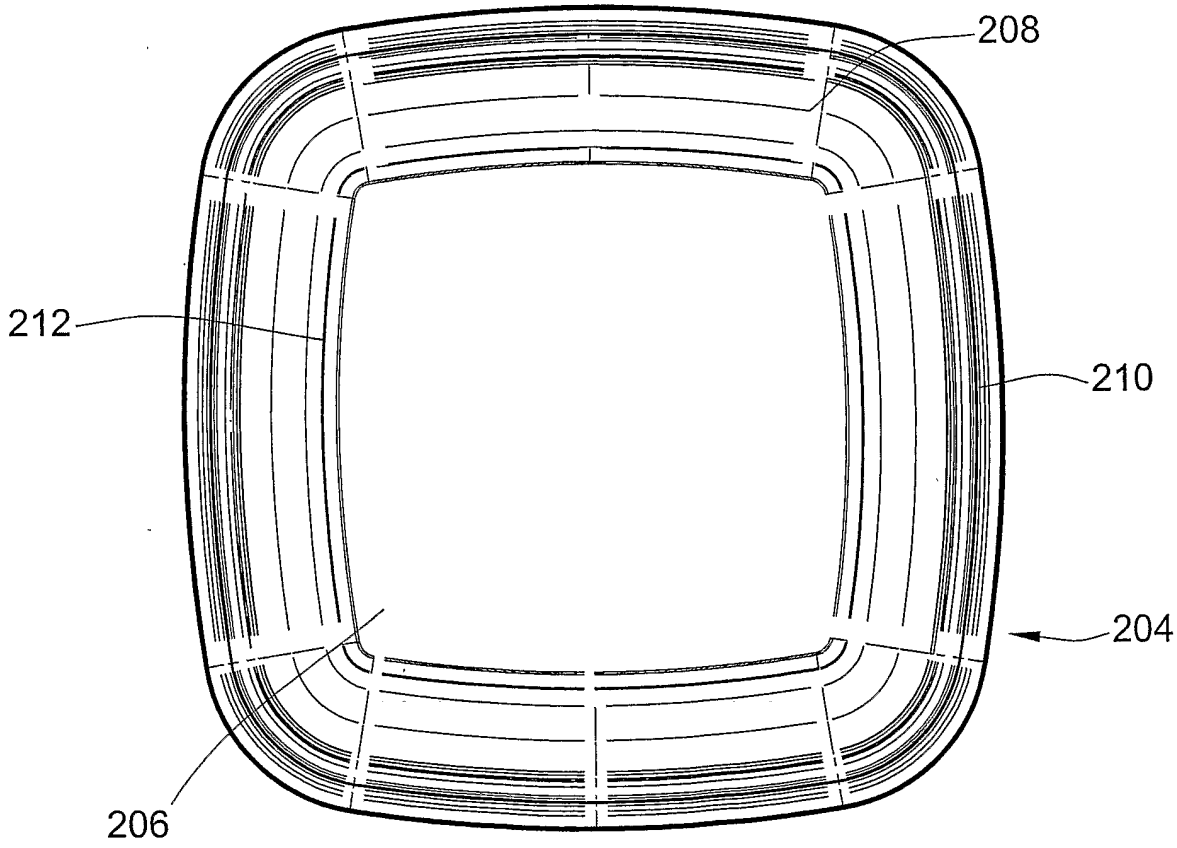


FIG. 20

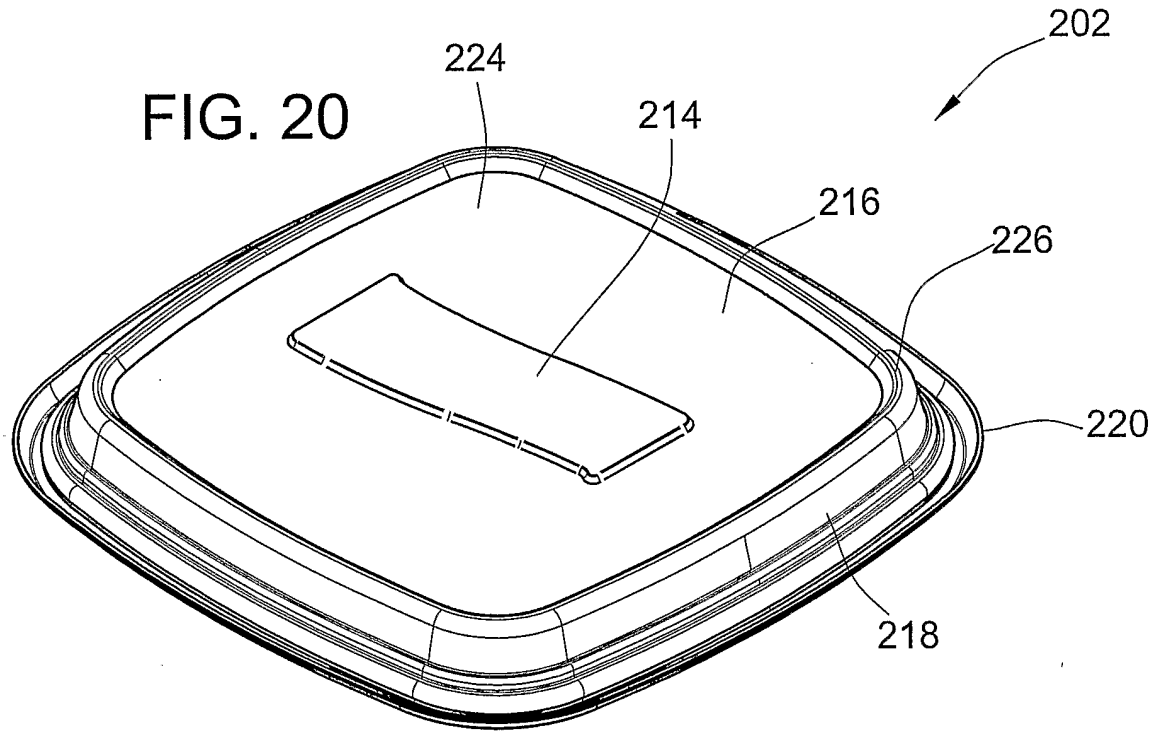


FIG. 21

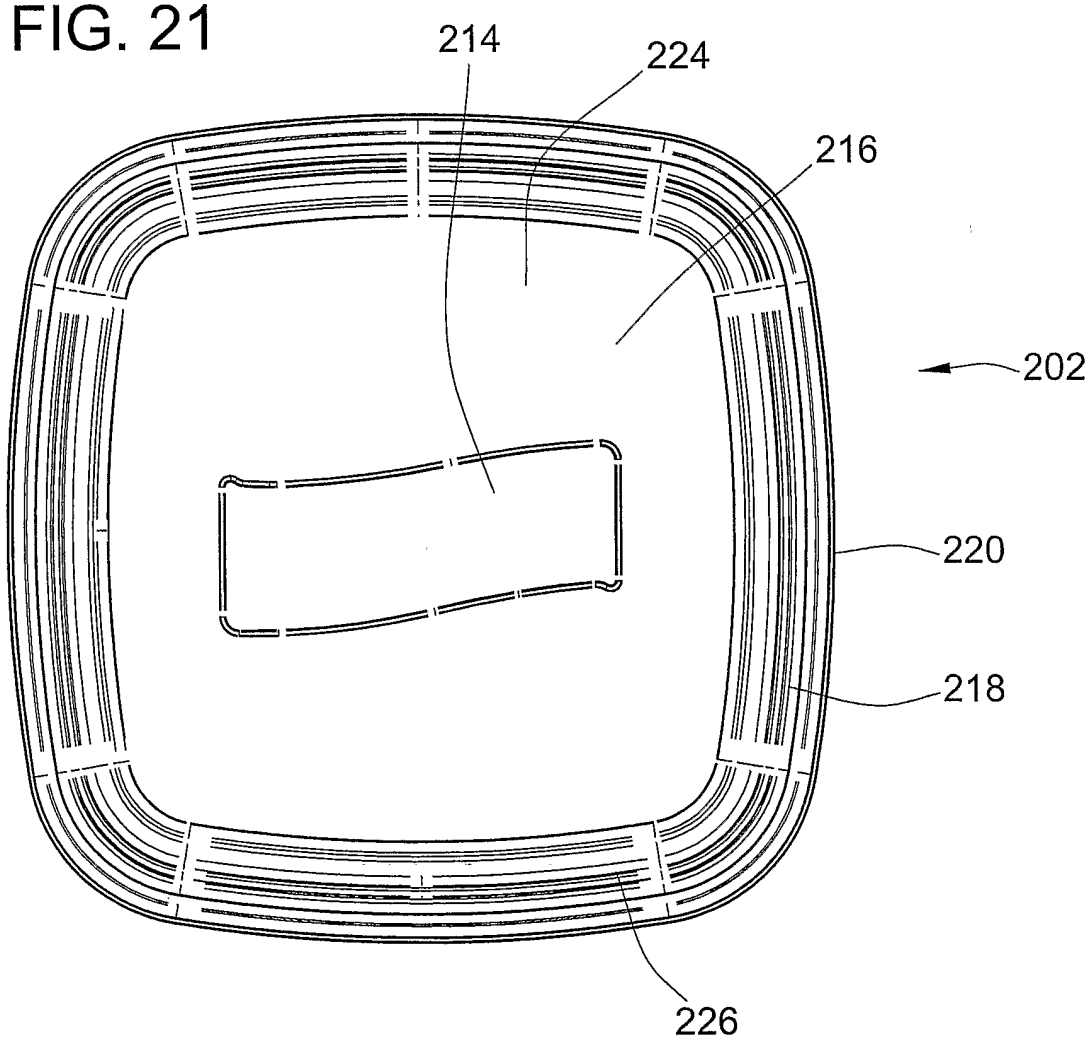


FIG. 22

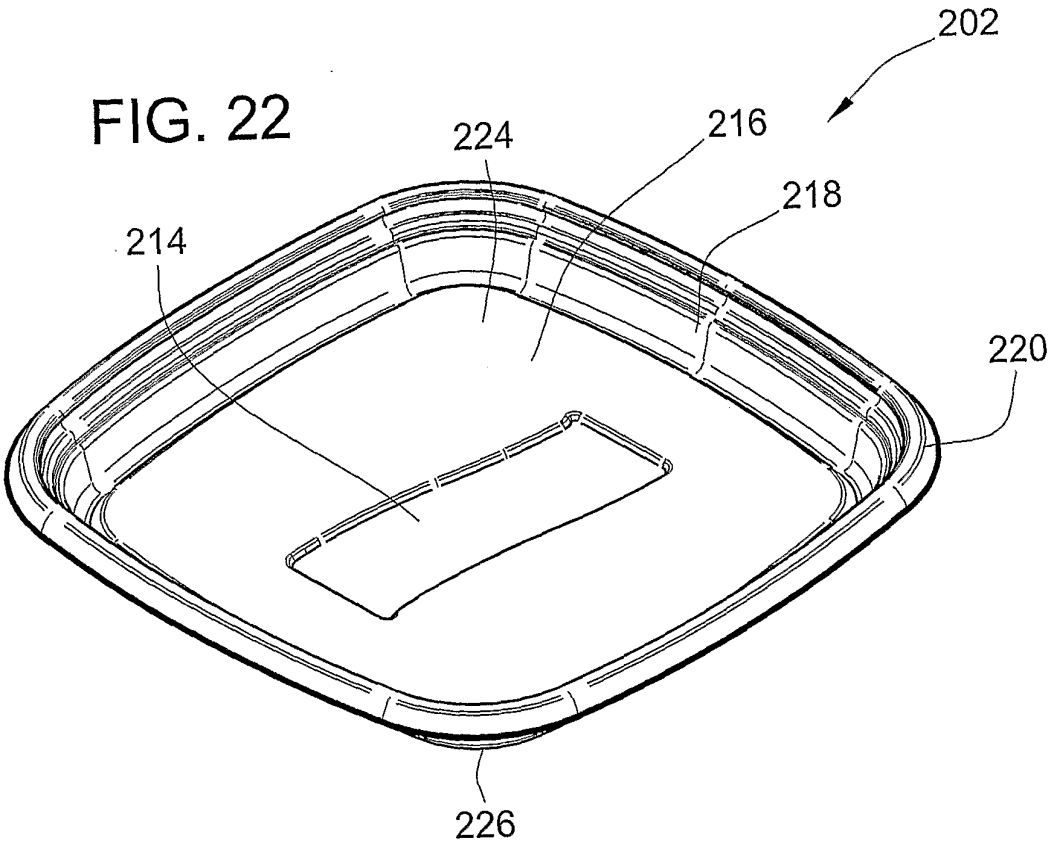

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FIG. 23

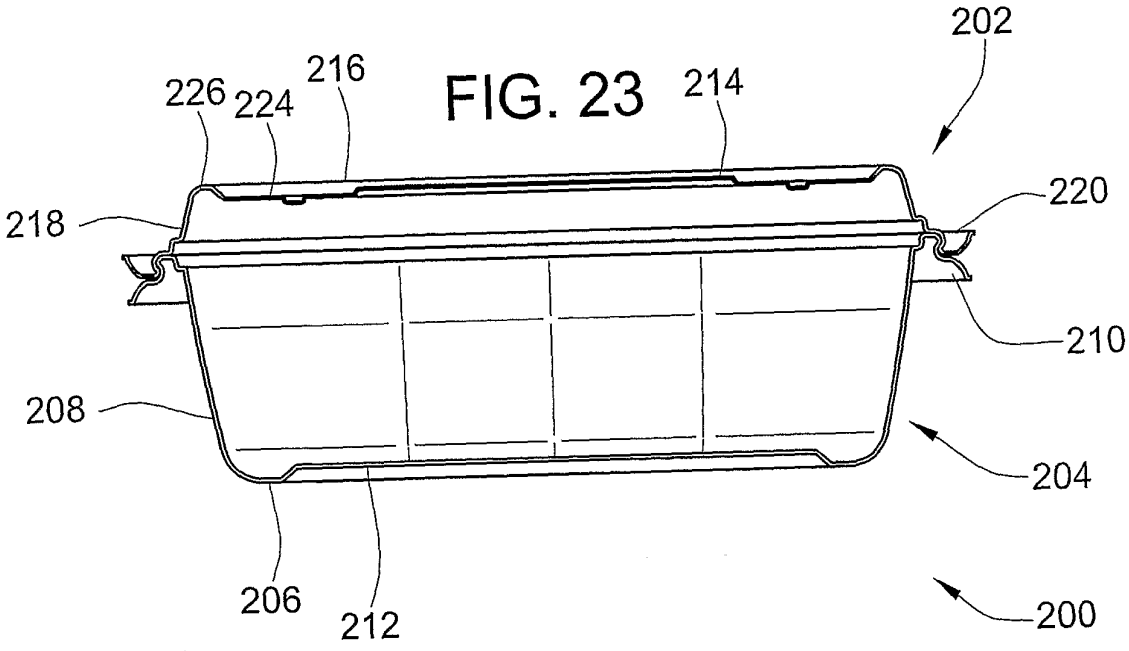
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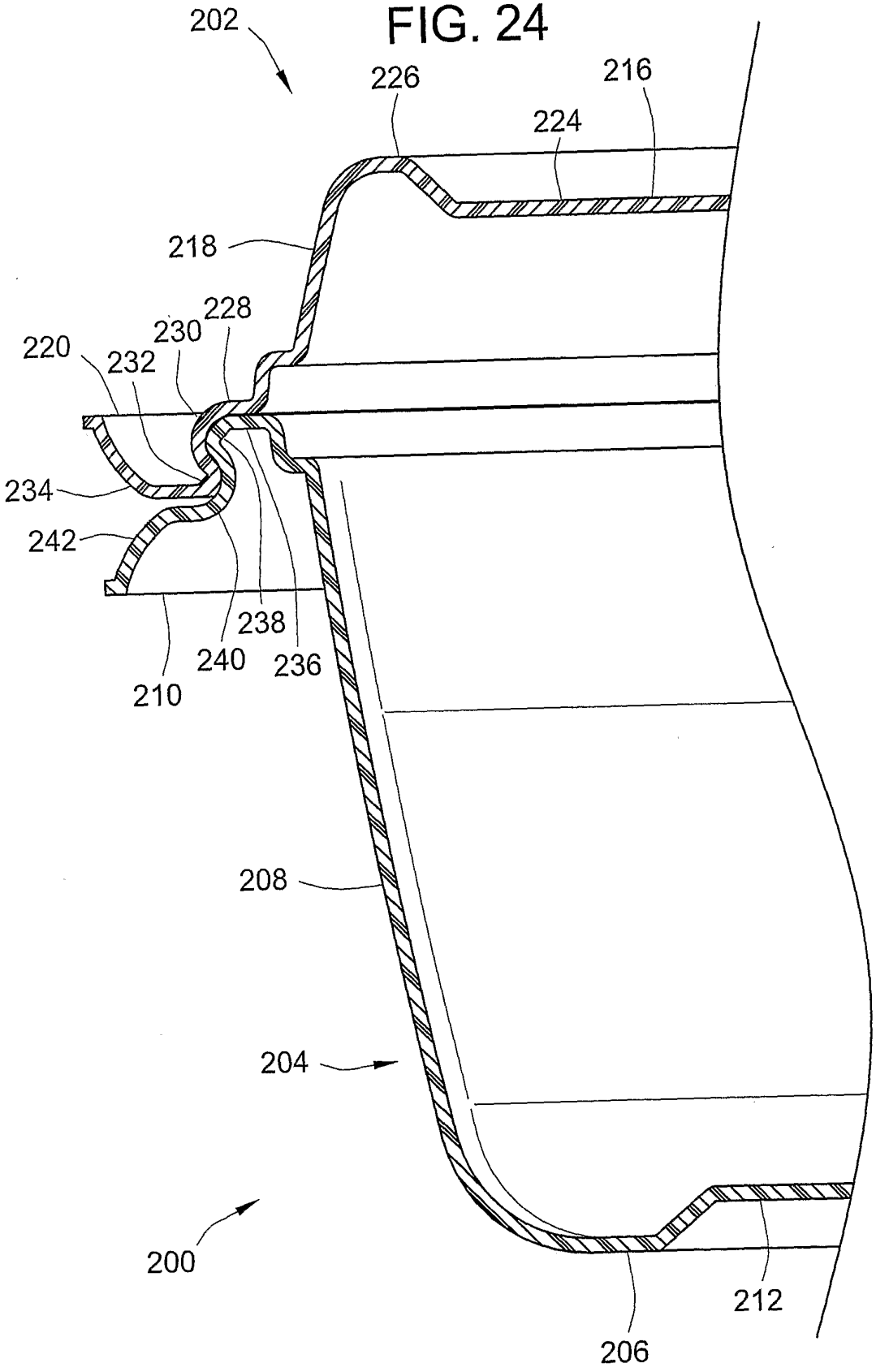
FIG. 24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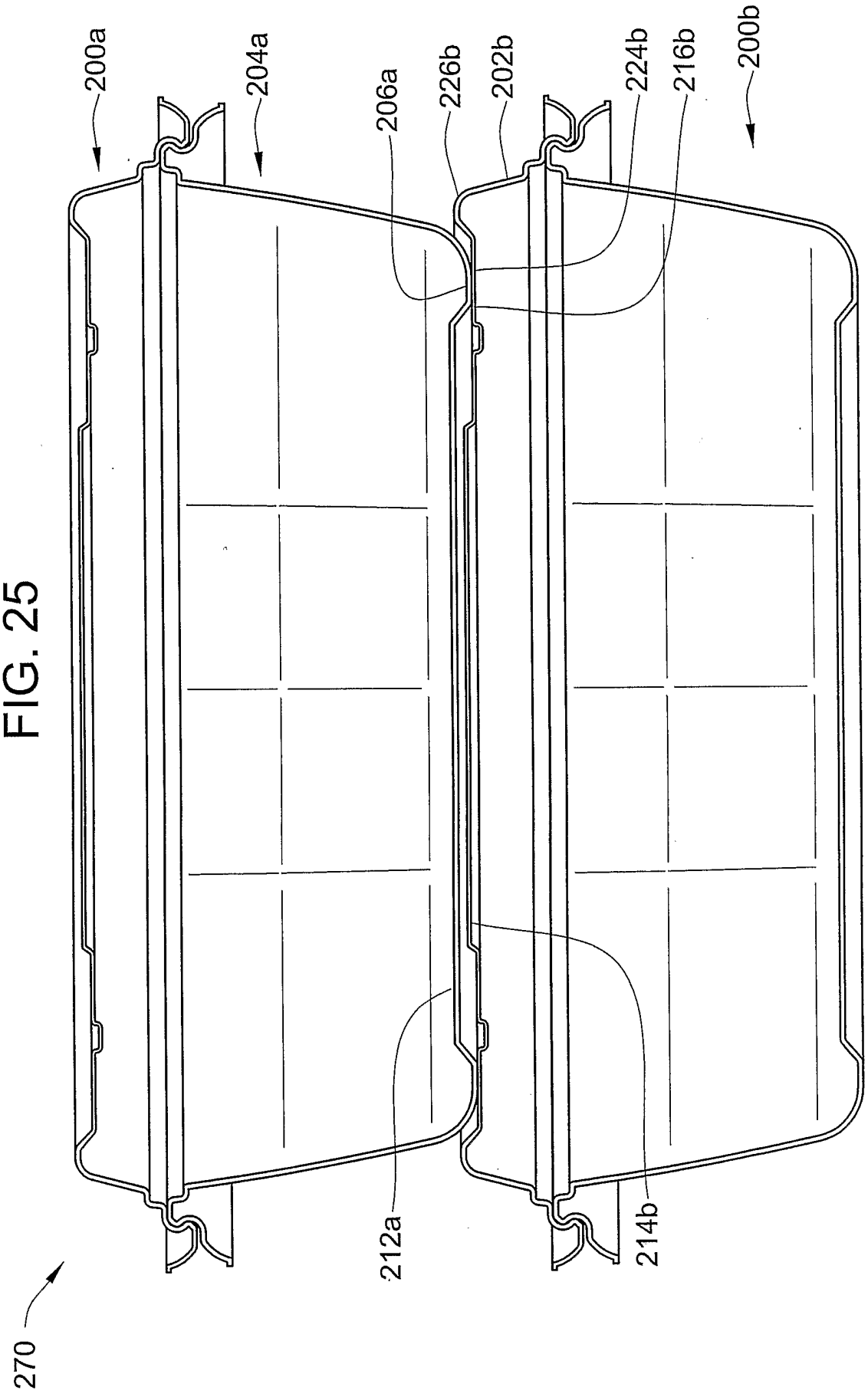


FIG. 25

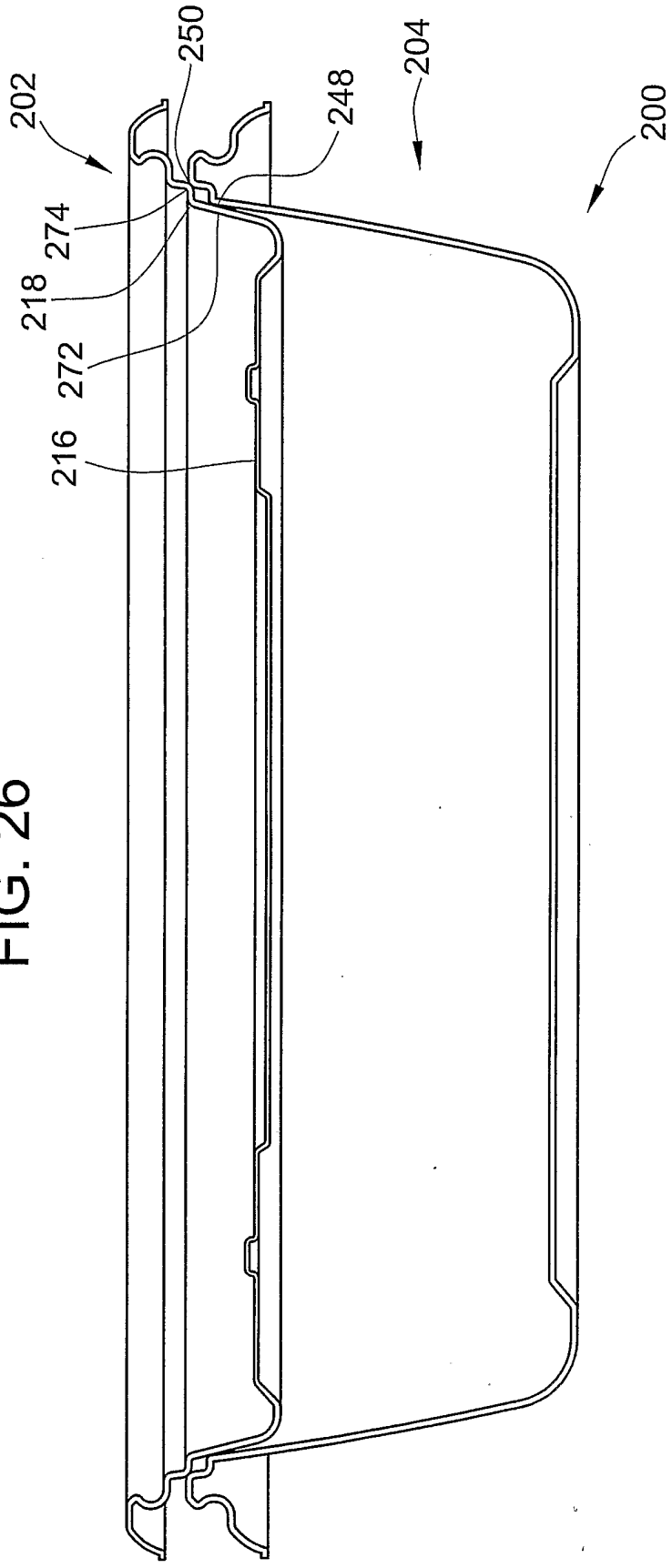
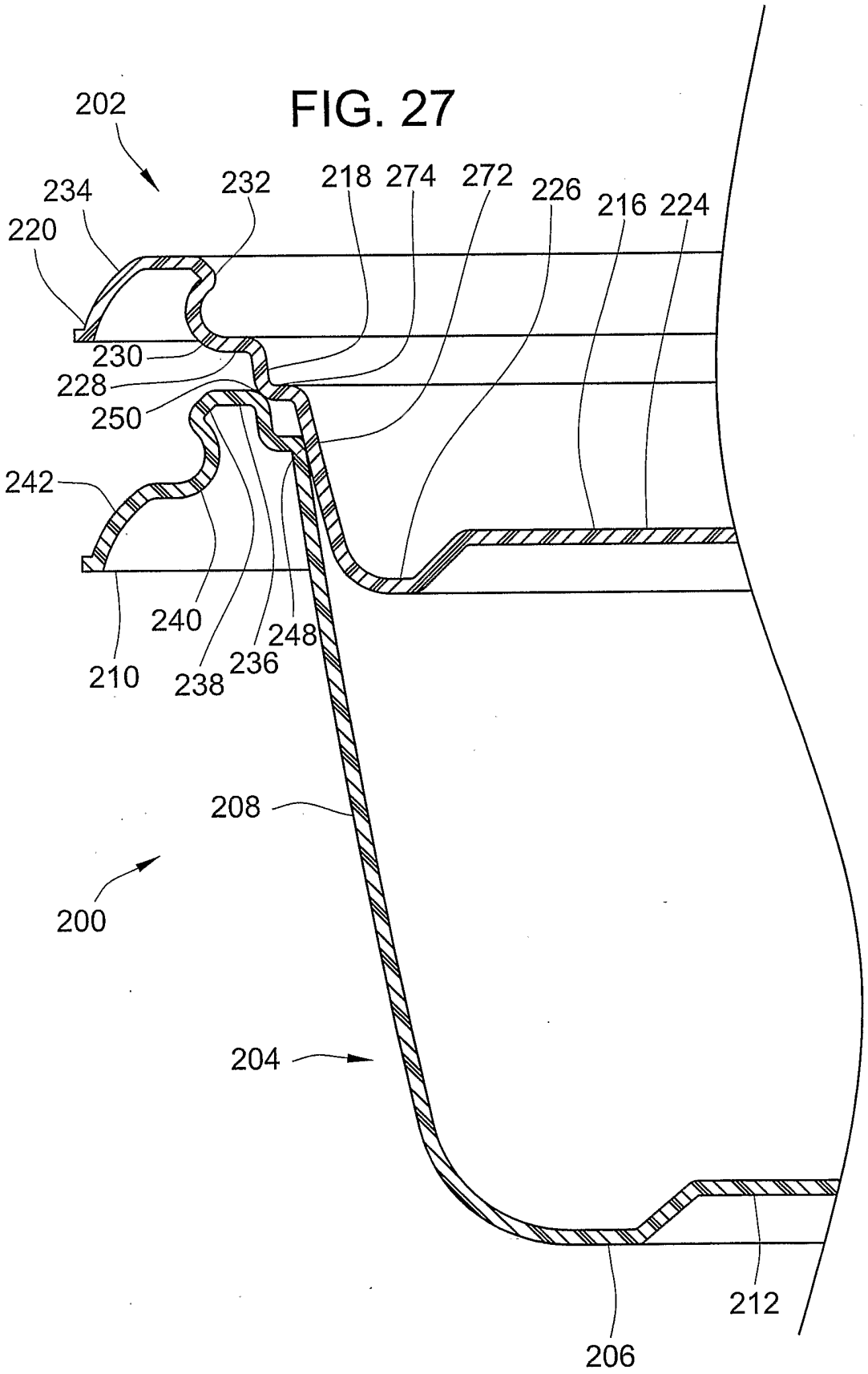


FIG. 26

FIG. 27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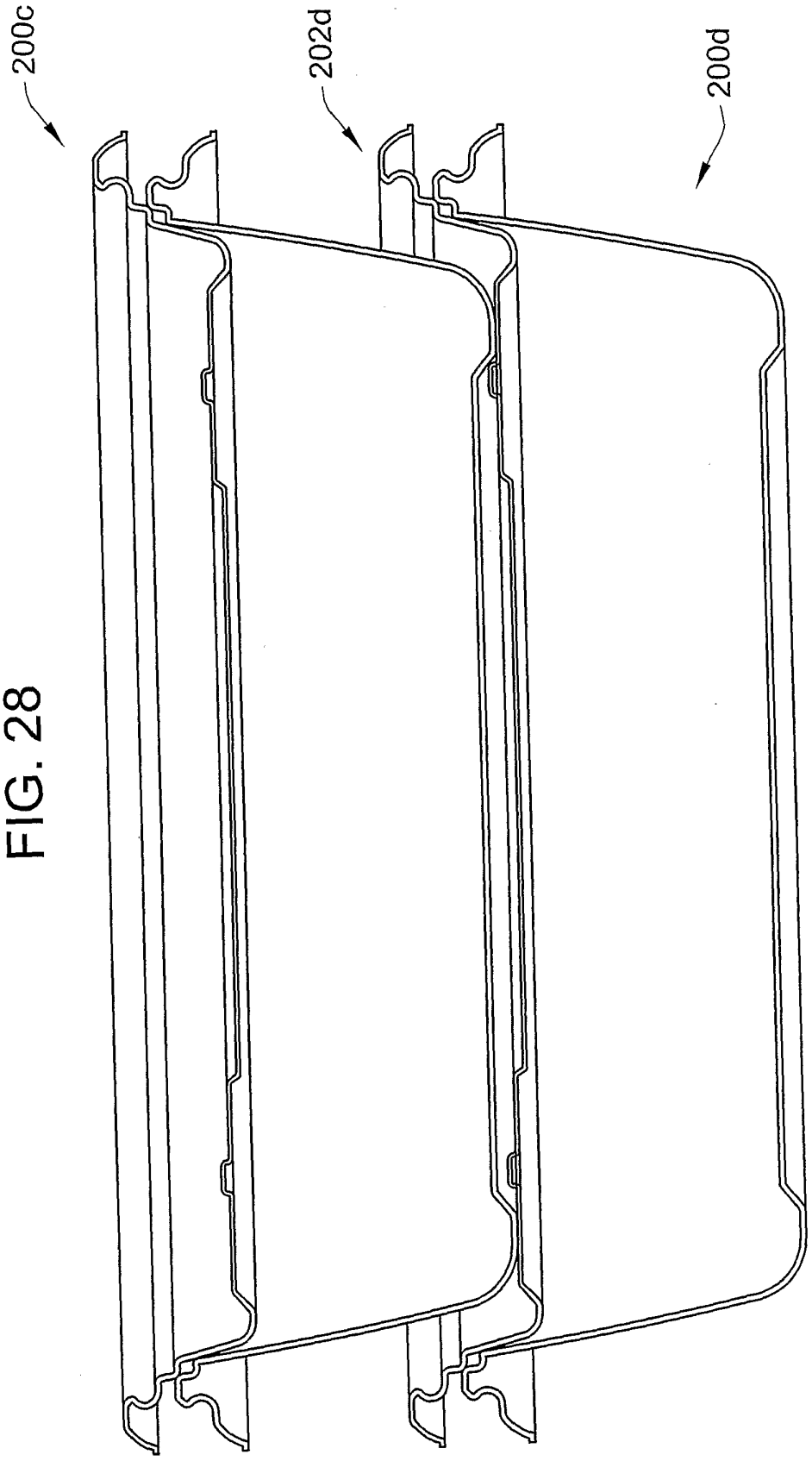


FIG. 28

FIG. 29

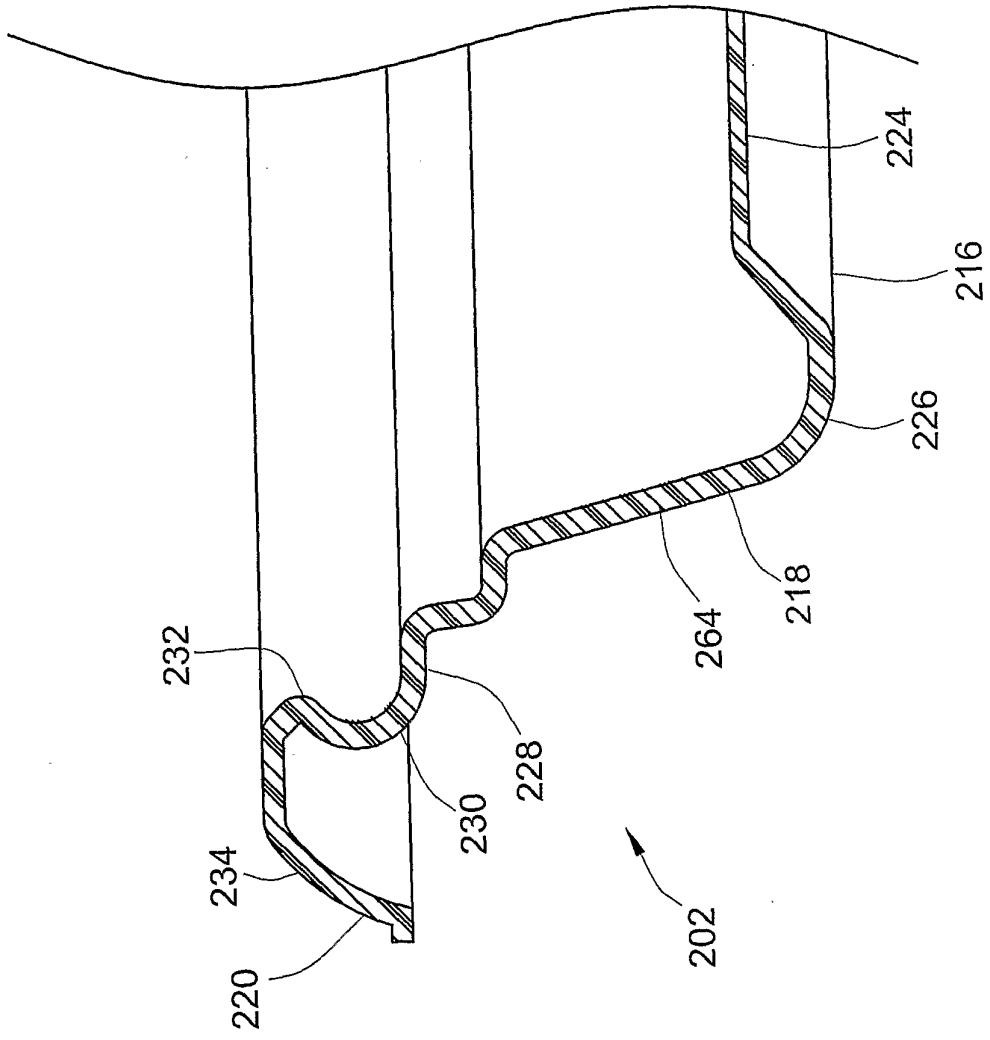
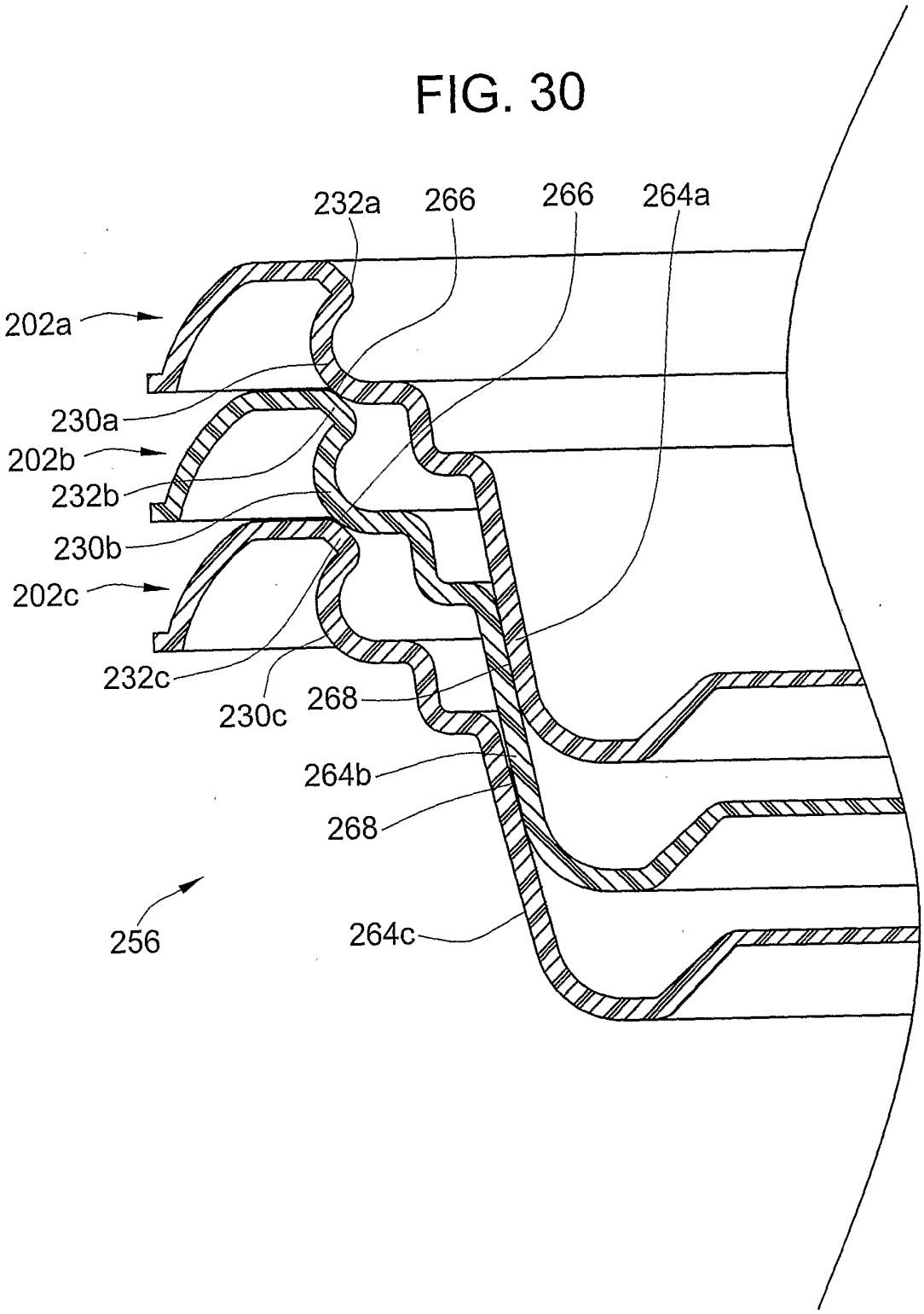


FIG. 30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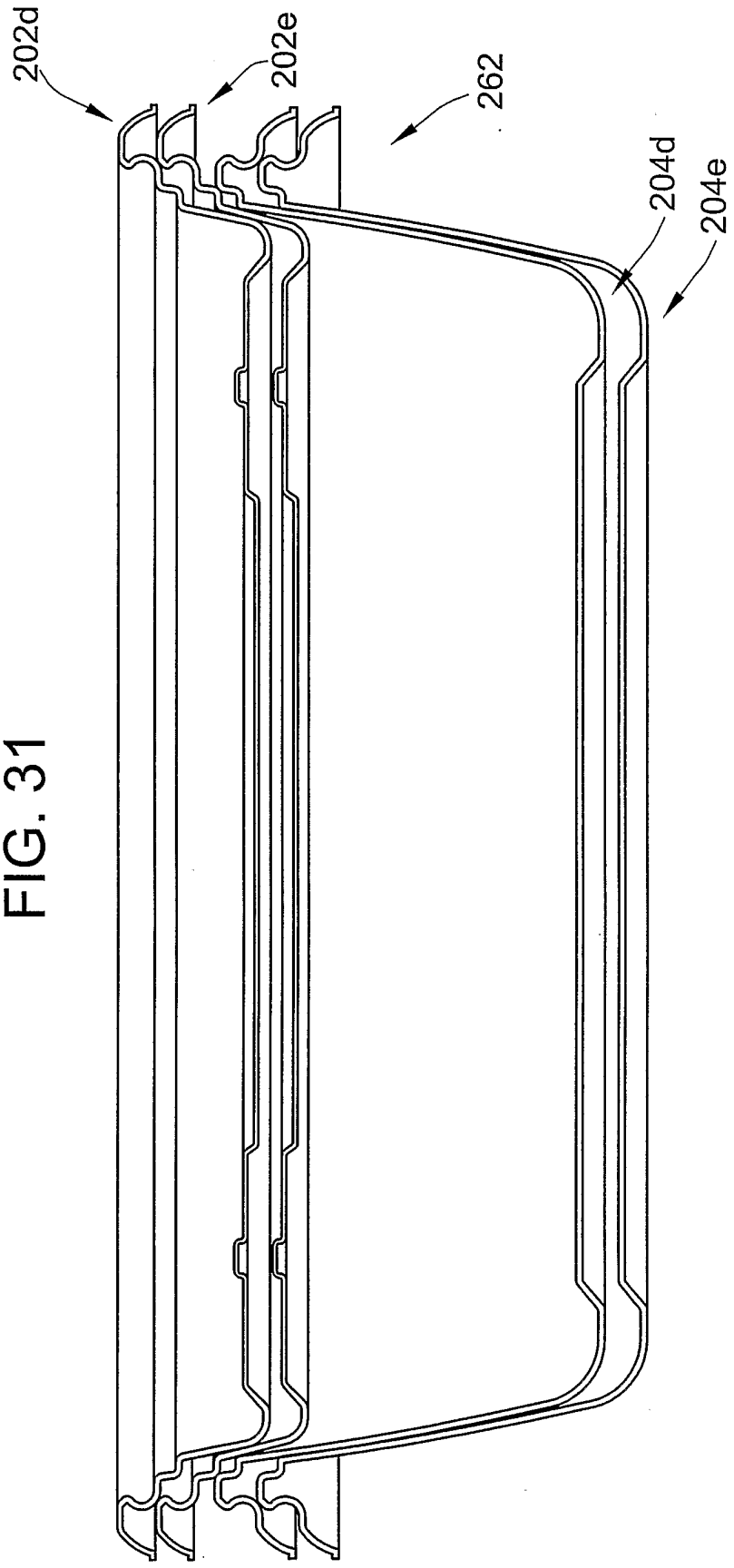
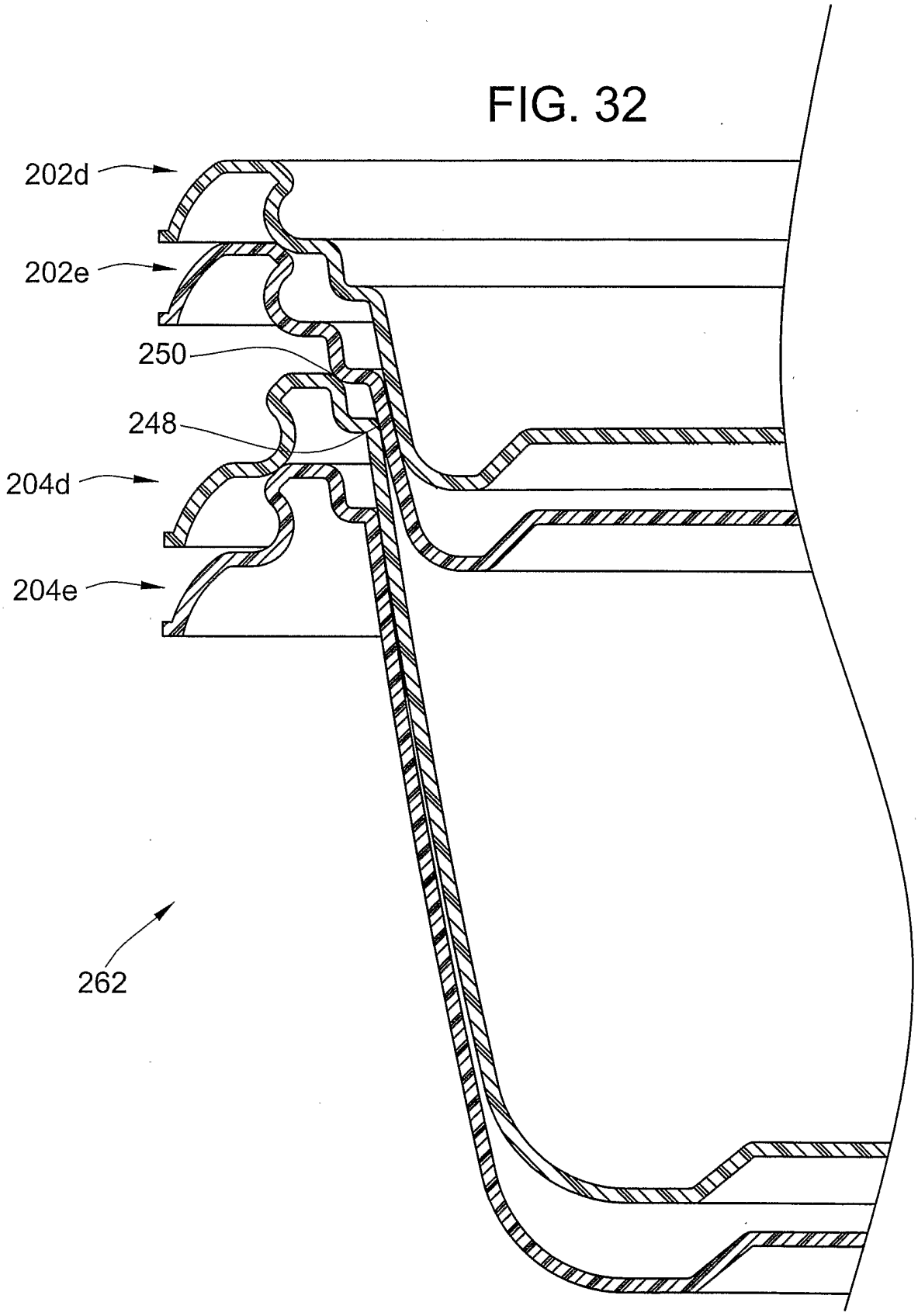


FIG. 31

FIG. 32



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/06248

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **B65D 21/036**(2006.01)

USPC: 206/508
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 206/508, 514; 220/380

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,091,953 A (DAENEN) 30 May 1978 (30.05.1978), whole document.	1, 3-9, 11, 12
X	US 5,499,715 A (NEMETH) 19 March 1996 (19.03.1996), whole document.	1, 10, 12

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
19 May 2006 (19.05.2006)

Date of mailing of the international search report
20 JUN 2006

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Stephen J. Castellano

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Form PCT/ISA/210 (second sheet) (April 2005)