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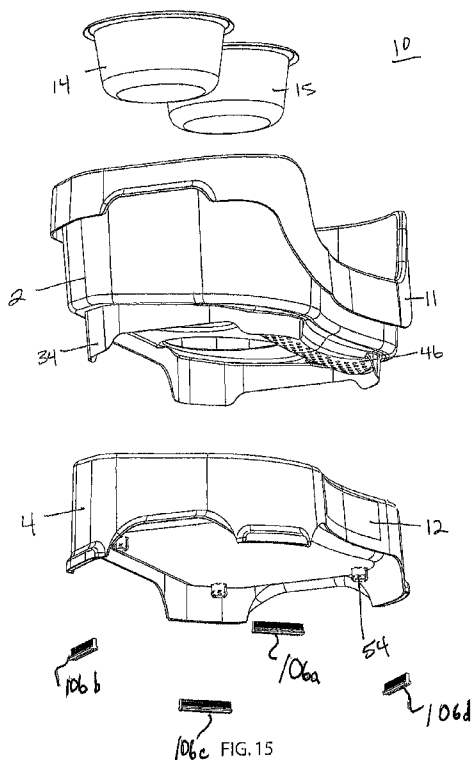
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(54) Title: PET FEEDING SYSTEM AND METHOD FOR COLLECTING SPILLED FOOD AND WATER



(57) Abstract: A pet feeding system for separating spilled food from spilled water comprises a housing which defines a contained feeding area adapted to hold a food bowl, a water bowl, or both. The system is capable of filtering spilled food from spilled water. A sloped surface extends downward from a bowl region toward a perforated collection region. A low portion of at least one wall has a segment which is contoured inwardly toward feeding bowls, thus allowing a pet to be closer to the bowls while feeding. A method for collecting spilled food and spilled water from a pet feeding system comprises separating the pet feeding system into a first reservoir and a second reservoir, which are detachably coupled to each other; collecting the spilled food from the first reservoir; and collecting the spilled water from the second reservoir.



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PET FEEDING SYSTEM AND METHOD FOR COLLECTING SPILLED FOOD AND WATER

CROSS REFERENCE TO RELATED APPLICATIONS

This PCT application claims priority of U.S. non-provisional application Serial No. 12/348,176, filed January 2, 2009, as well as U.S. applications, Nos. 12/060,641, filed
5 April 1, 2008, and 61/102,550, filed October 3, 2008. The contents of each of these applications are incorporated by reference herein, in their entirety, and for all purposes.

FIELD OF THE INVENTION

The present invention pertains to pet feeding systems and particularly to the containment of pet food and water within such systems.

10 BACKGROUND OF THE INVENTION

Pet owners, particularly dog and cat owners, have the difficult task of maintaining a suitable place in their home where pets can access food and water. Owners must frequently fill, empty, and re-fill food and water bowls, as well as maintain a clean feeding area. For many reasons, these responsibilities can be time-
15 consuming and inconvenient.

One common problem is that food and water spills often create messes in the area surrounding feeding bowls. It is not uncommon for pets to knock food and water out of their bowls onto the surrounding floor and walls, or to spill and splash food and water onto the floor and surrounding area while feeding. Pet owners also create spills
20 around pet feeding areas by accidentally bumping the food or water bowls or by spilling food and water while setting bowls on the floor. These spills, particularly water spills, can damage floors, walls, and furniture. In addition, spilled matter can adhere to a pet's paws or feet and be tracked around the house, thereby widening the area that a pet owner needs to clean.

25 Another common problem for pet owners is that spilled water often saturates spilled food, thus creating a soggy, unsanitary mess. Upon drying, saturated pet food often hardens and adheres to surfaces, making it more difficult to clean. The saturation of pet food also prevents the owner from being able to collect the spilled food for re-use, which creates an added financial cost.

30 Accordingly, it is desirable to provide pet feeding systems which keep spills contained, reduce property damage, prevent spilled water from saturating spilled food, and allow pet owners to clean the feeding system in a few convenient steps. Among other benefits, such feeding systems would save pet owners a substantial amount of the time and cost that is normally required for routine cleaning and maintenance.

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SUMMARY OF THE INVENTION

The present invention provides a pet feeding system for filtering spilled food from spilled water. The pet feeding system comprises a housing which defines a contained feeding area adapted to hold a food bowl and/or a water bowl. The housing
5 comprises means for filtering spilled food from spilled water. For example, in an embodiment, the pet feeding system has a sloped surface extending downward from a bowl region toward a perforated collection region.

The present invention also provides a pet feeding system which includes a base,
10 at least one wall having a front section and a remaining section, and at least one bowl disposed on or above the base. The wall extends upwardly from the base to define a contained feeding area. The front section has a low portion and at least one high portion and the remaining section has a high portion. The top of the low portion is above the top edge of the bowl(s).

The present invention also provides a pet feeding system which includes a first
15 reservoir and a second reservoir. The first reservoir has a bowl region adapted to hold at least one bowl for containing food, water, or both food and water. The first reservoir is adapted to contain spilled food and the second reservoir is adapted to contain spilled water.

The present invention also provides a method for collecting and containing
20 spilled food and spilled water from a pet feeding system. The method includes separating the pet feeding system into a first reservoir and a second reservoir, which are detachably coupled to each other. The first reservoir comprises a bowl region adapted to hold at least one bowl for containing food and/or water. In a preferred embodiment, the first reservoir is adapted to contain spilled food and the second
25 reservoir is adapted to contain spilled water. Spilled food is removed from the first reservoir and spilled water is removed from the second reservoir.

According to an embodiment of the present invention, the second reservoir is disposed underneath the first reservoir. The first reservoir has a filtering trough located adjacent the bowl region. The filtering trough has holes which are sufficiently
30 small to permit spilled water to pass through the holes into the second reservoir, while retaining spilled food in the first reservoir. Thus, spilled food is separated from spilled water.

The present invention also provides a housing which defines a contained feeding area having a collection region and a bowl region. The bowl region is adapted to hold
35 at least one bowl for containing food, water, or both food and water. The housing has

a base with a sloped surface for directing water from the bowl region to the collection region. The collection region is adapted to contain a quantity of water.

It is to be understood that both the foregoing general description and the following detailed description are exemplary, but not restrictive, of the invention.

5

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is best understood from the following detailed description when read in connection with the accompanying drawings. It is emphasized that, according to common practice, the various features of the drawings are not to scale. Included in the drawings are the following figures:

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Fig. 1 illustrates a perspective view of an embodiment of the present invention;

Fig. 2 illustrates a top plan view of the embodiment of the present invention shown in Fig. 1;

Fig. 3 illustrates a front view of the embodiment of the present invention shown in Fig. 1;

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Fig. 4 illustrates a side view of the embodiment of the present invention shown in Fig. 1, viewed from the left side of Fig. 3;

Fig. 5 illustrates a back view of the embodiment of the present invention shown in Fig. 1;

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Fig. 6 illustrates a side view of the embodiment of the present invention shown in Fig. 1, viewed from the right side of Fig. 3;

Fig. 7 illustrates a bottom view of the embodiment of the present invention shown in Fig. 1;

Fig. 8 illustrates an exploded view of the embodiment of the present invention shown in Fig. 1;

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Fig. 9 illustrates a perspective view of an embodiment of the present invention without leg extensions;

Fig. 10 illustrates a front view of the embodiment of the present invention shown in Fig. 9;

30

Fig. 11 illustrates a back view of the embodiment of the present invention shown in Fig. 9;

Fig. 12 illustrates a side view of the embodiment of the present invention shown in Fig. 9, viewed from the left side of Fig. 10;

Fig. 13 illustrates a side view of the embodiment of the present invention shown in Fig. 9, viewed from the right side of Fig. 10;

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Fig. 14 illustrates a top exploded view of the embodiment of the present invention shown in Fig. 9;

Fig. 15 illustrates a bottom exploded view of the embodiment of the present invention shown in Fig. 9;

Fig. 16 illustrates a perspective view of an embodiment of the present invention in which the means for filtering extend throughout substantially the entire base of the
5 first reservoir;

Fig. 17 illustrates a perspective view of an embodiment of the present invention in which the base of the first reservoir comprises a plurality of sloped surfaces and the means for filtering comprise a perforated rib;

Fig. 18 illustrates a perspective view of an embodiment of the present invention
10 in which the means for filtering extend throughout substantially the entire base of the first reservoir and the second reservoir comprises a drawer that is slideably movable relative to the first reservoir;

Fig. 19 illustrates a perspective view of an embodiment of the present invention in which the means for filtering comprise a removable trough;

Fig. 20 illustrates a perspective view of an embodiment of the present invention
15 in which the second reservoir comprises a drawer that is slideably movable relative to the first reservoir and is disposed underneath the means for filtering;

Fig. 21 illustrates a perspective view of an embodiment of a post leg used to enhance the pest deterrent characteristics of the present invention;

20 Figs. 22a, 22b, and 22c illustrate three front views of three embodiments of the present invention, each having post legs as shown in Fig. 21;

Fig. 23 illustrates a top plan view of an embodiment of the present invention having a liner;

Fig. 24 illustrates a perspective view of another embodiment of the housing of
25 the present invention;

Fig. 25 illustrates a top plan view of the embodiment of the housing of the present invention shown in Fig. 24;

Fig. 26 illustrates a cross-sectional view, along the line 26-26, of the embodiment of the housing of the present invention shown in Fig. 24;

30 Fig. 27 illustrates a perspective view of an embodiment of the housing of the present invention having the shape of a modified oval;

Fig. 28 illustrates a top plan view of the embodiment of the housing of the present invention shown in Fig. 27 having the shape of a modified oval;

Fig. 29 illustrates a perspective view of an embodiment of the present invention
35 having a filtering tray;

Fig. 30 illustrates a rotated perspective view of the present invention shown in Fig. 29 having a filtering tray;

Fig. 31 illustrates a top plan view of the embodiment of the present invention shown in Fig. 29 having a filtering tray;

Fig. 32 illustrates a cross-sectional view, along the line 32-32, of the embodiment of the present invention shown in Fig. 29 having a filtering tray;

5 Fig. 33 illustrates an exploded view of an embodiment of the present invention having a filtering tray and a liner;

Fig. 34 illustrates a cross-sectional view of an embodiment of the present invention having a filtering tray and a liner;

Fig. 35 illustrates a perspective view of an embodiment of the filtering tray;

10 Fig. 36 illustrates a bottom perspective view of the embodiment of the filtering tray shown in Fig. 35;

Fig. 37 illustrates a perspective view of an embodiment of the present invention having a double wall;

15 Fig. 38 illustrates a cross-sectional view, along the line 38-38, of the embodiment of the present invention shown in Fig. 37 having a double wall;

Fig. 39 illustrates a cross-sectional view of a monolithic embodiment of the housing of the present invention having a double wall and a base defining at least one mold;

20 Fig. 40 illustrates a perspective view of an embodiment of the filtering tray having openings to fit around molds, such as the mold shown in Fig. 39;

Fig. 41 illustrates a cross-sectional view of a monolithic embodiment of the present invention having a base defining at least one mold and a filtering tray;

Fig. 42 illustrates an exploded view of an embodiment of the housing of the present invention having a lid;

25 Fig. 43 illustrates a perspective view of an embodiment of the present invention having a gravity-fed food container and a gravity-fed water container;

Fig. 44 illustrates a perspective view of several embodiments of the housing of the present invention having a rolled edge stacked on top of each other;

30 Fig. 45 illustrates a perspective view of several embodiments of the housing of the present invention having a double wall stacked on top of each other;

Fig. 46 illustrates a cross-sectional view of an embodiment of the present invention having protruding mounts as means to elevate feeding bowls;

35 Fig. 47 illustrates a perspective view of an embodiment of the present invention having a modified oval shape, a double wall, and a raised interior base surface as means to elevate feeding bowls;

Fig. 48 illustrates a cross-sectional view, along the line 48-48, of the embodiment of the present invention shown in Fig. 47;

Fig. 49 illustrates a top plan view of an embodiment of the present invention in which the means for filtering comprise a single hole; and

Fig. 50 illustrates a top plan view of an embodiment of the invention with a collection region.

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DETAILED DESCRIPTION OF THE INVENTION

The present invention is directed to a pet feeding system which contains and safely holds spilled food and spilled water for later re-use or disposal. Embodiments of the pet feeding system filter spilled food from spilled water. While the pet feeding system has principally been illustrated in the figures as having one bowl for containing food and one bowl for containing water, the invention contemplates a pet feeding system having no bowl, as well as a system that has one bowl, or two or more bowls. As used throughout, the term "bowl" includes any container which is adapted to contain either food or water, or both food and water, in the latter case preferably having a divider to separate the food and water, and the bowl may be removable from the housing or integral with the housing. The pet feeding system is intended to be used by one or multiple pets (i.e., either sequentially or concurrently). Any suitable material(s) may be used for the features of the present invention. Preferably, the features of the pet feeding system are made of material that is impervious to liquids, most preferably plastic material, or alternatively wood, ceramic, or metal (e.g., stainless steel). The system is intended for use by dogs and cats, and could be configured in a variety of sizes, as needed.

In reference to the drawings, Figure 1 is a perspective view of an embodiment of the invention. A pet feeding system 10 according to Figure 1 comprises a housing 8 which defines a contained feeding area 21 adapted to hold at least one bowl. In a preferred embodiment, the housing 8 has a base 60 which includes a surface 26, and the contained feeding area 21 has a bowl region 22. The bowl region 22 is adapted to hold one bowl or a plurality of bowls for containing food, water, or both. As used herein, a "contained feeding area" refers to any area defined by the housing that is adapted to hold at least one bowl. As described in more detail below with regard to the housing, a contained feeding area according to the present invention is not necessarily defined by any walls. However, in alternative embodiments, the contained feeding area may be defined by multiple walls, only one wall, a "ridge" of negligible height, or any number of multiple walls and/or ridges of varying heights. The contained feeding area is not intended for a pet to stand or walk around in.

The housing 8 of the pet feeding system 10 comprises means for filtering 18 spilled food from spilled water, as shown in Figure 2. The means for filtering 18 may

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comprise any one of the means for filtering described herein, or any combination thereof. The means for filtering comprise a single hole or multiple holes which are of any size that is sufficiently small to prevent a significant amount of spilled food from passing through the hole(s), while allowing a significant amount of water to pass
5 through the hole(s). Other exemplary means for filtering include other systems for separating spilled food from spilled water, such as the use of an aspirator to draw spilled water from an area of the first reservoir 2 where only spilled water is directed. It should be noted that, according to the present invention, pieces of food that are smaller than a filtering hole may pass through the hole(s), and small amounts of water
10 may not pass through the hole(s). For example, due to surface tension, drops of water may cling to the base or to the edge of a filtering hole.

The means for filtering can include a wide variety of different devices for doing so. As shown in Figure 2, such means may include, for example, a plurality of oval-shaped holes 38 defined by a portion of the base 60 that is adjacent to the feeding
15 bowls 14, 15. As used herein, a "hole" refers to any type of opening having any size or shape, including, for example, a slot, perforation, interstitial space, or slit. Means for filtering can alternatively include a single hole or a plurality of holes; can be any shape, including, for example, a circle, oval, square, or rectangle; can be defined by a portion of a surface 26 (as shown, for example, in Figure 2), or can be defined by an entire
20 surface (as shown, for example, in Figure 16); can be parallel, perpendicular, or angled toward a surface; and can be removable (as shown, for example, in Figure 19) from the feeding system or non-removable. Examples of alternative embodiments of means for filtering spilled food from spilled water include a trough, grid, mesh, tray, or rib having a single hole (as in a drain) or multiple holes. Preferably, the holes are oval and
25 are disposed to have their longer axis extending parallel along the longer length of a collection region, as shown in Fig. 2, as holes having this configuration may be cleaned more easily.

Embodiments of the present invention may comprise means for filtering which are integral with the housing (as shown in Figure 2), means for filtering which are
30 removable from the housing (as shown in Figure 19), or both. Means for filtering which are removable from the housing are contemplated as being detachably coupled to the housing. As shown in Figure 2, the means for filtering 18 are preferably defined by a portion of the base 60 that is adjacent to the bowl region 22 within the contained feeding area 21. In an alternative embodiment, as shown, for example, in Figure 16,
35 the means for filtering 18 may extend throughout substantially the entire base 60 of the housing 8. As illustrated in Figure 17, embodiments of the present invention may also comprise means for filtering 18 which are perpendicular or angled toward the

surface 26 of the bowl region 22 or toward a portion of the surface 26 adjacent to the bowl region 22. For example, the means for filtering 18 may comprise a perforated rib 90, as shown in Fig. 17. As illustrated in Figure 19, other embodiments may include a perforated rib 90 and/or a perforated collection region 24 that is removable from the housing.

In the embodiment shown in Figures 1 and 2, the means for filtering 18 comprise a perforated collection region 24. As used herein, the "perforated collection region" refers to any region of the feeding system 10 that comprises a single hole or a plurality of holes for filtering spilled food from spilled water. The housing 8 of the feeding system 10 defines the contained feeding area 21 having the bowl region 22 and the perforated collection region 24. In the embodiment shown in Figure 1, the housing 8 has a sloped surface 26 which extends downward from the bowl region 22 toward the perforated collection region 24. A primary objective of the sloped surface 26 is to direct the flow of spilled water to the perforated collection region 24. In the embodiments shown, spilled water passes through the perforated collection region 24 into a second reservoir 4. Thus, it is contemplated that spilled food and spilled water are separated so that the spilled food stays dry and suitable for re-use and the spilled water stays clean, and so that a user can more easily collect the spilled food and water from the pet feeding system 10.

As used herein, a housing according to the present invention can be any structure which is adapted to hold at least one bowl. As described in more detail below, a housing may be one monolithic unit (i.e., formed as a single unit), or may alternatively include a plurality of units, such as a first reservoir 2 and a second reservoir 4, as illustrated in the embodiment shown in Figure 1. Although the housing 8 is predominantly illustrated in the figures as comprising at least one wall 28 and a substantially rectangular shape with angled corners, a housing 8 according to the invention is also contemplated as having no walls, only one wall, a "ridge" of negligible height, or any number of multiple walls or ridges of varying heights. In alternative embodiments, walls or ridges are further contemplated as having a variety of alternative shapes, including, for example, curved, rounded, or straight. It is also contemplated that alternative wall or ridge shapes bring about alternative shapes of the pet feeding system, including, for example, an oval, circle, pentagon, square, rectangle, or modified oval with flattened sides, among others. It should be further appreciated that various features of the system described below are contemplated as having a variety of alternative shapes, preferably shapes that correspond to the overall shape of the system.

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The housing may comprise one monolithic unit (for example, a single container or reservoir), or a plurality of units (for example, at least two containers or reservoirs). The plurality of units may comprise a combination of different types of units, such as a reservoir disposed over a mat. As shown in Figure 1, the plurality of units may be easily coupled to each other. Alternatively, the housing may comprise a plurality of units which are not coupled to each other, such as a table-like reservoir disposed over a mat or tray.

As illustrated in Figure 1, the housing 8 comprises a first reservoir 2 and a second reservoir 4. The first reservoir 2 and second reservoir 4 are detachably coupled to each other, with the first reservoir 2 disposed above the second reservoir 4. As can be appreciated, the weight of the first reservoir 2 and a proper frictional fit are generally adequate to keep the first and second reservoirs affixed to each other in use. In alternative embodiments, the affixation of the two reservoirs may be made more secure by latches, magnets, buckles, hooks, snaps, or other similar means. In the embodiment shown in Figures 1 and 2, the first reservoir 2 comprises the contained feeding area 21 having a bowl region 22, a sloped surface 26, and means for filtering 18 spilled food from spilled water. The means for filtering 18 comprise a trough 46 which has oval-shaped holes 38 that are small enough to catch a substantial amount of spilled food (i.e. to prevent a substantial amount of spilled food from passing through the holes 38), while allowing spilled water to pass through the holes 38. While the shape of the holes in the preferred embodiment shown is oval, other shapes can be used. Thus, the holes are sufficiently small such that spilled food remains on the first reservoir 2 but the spilled water passes through the holes to the second reservoir 4, thereby allowing for separation of spilled food from spilled water. The surface 26 slopes downward from the bowl region 22 toward the perforated collection region 24. The trough 46, which is disposed in the perforated collection region 24, comprises a concave depression in the sloped surface 26, and has filter holes 38 which are defined in the depression. As shown in Figure 49, the means for filtering 18 could alternatively comprise a single hole 238 or slit which separates spilled food from spilled water. In a preferred embodiment, the trough 46 is integral with the housing 8. In alternative embodiments, as shown in Figure 19, the trough 46 is removable from the housing 8. Thus, in embodiments where the trough 46 is removable, a user may detach the trough 46 from the housing 8 so that the trough 46 is no longer coupled to the housing 8, but is entirely separated from it. Alternatively, there is no concave depression, and one or more holes are located in any area where spilled water may be directed.

The downward inclination of the sloped surface 26 can be any angle suitable for causing any spilled water to flow to the perforated collection region. The surface of the

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base could alternatively have regions of varying slopes and slopes in different directions. Preferably, the first and second reservoir fit into one another in a way that provides an indication line 19 showing the angle of inclination, as shown in Figs. 4 and 6. More preferably, the angle of the indication line 19 has a similar or even identical angle of the sloped surface 26. As illustrated in Figure 17, the feeding system 10 may alternatively comprise a plurality of sloped surfaces.

In a preferred embodiment, the trough 46 is concave and curves downward from its front to back such that its lowest point would be along a center line which extends from left to right, which would be across the perforated collection 24 shown in Figure 2. In an alternative embodiment not shown in the figures, the trough also curves downward from its left to right side; thus, there is essentially a single low point, centered both from left to right and front to back, to which spilled water would flow along the trough (if the holes were not present), and that centered location could be a suitable location for a single hole or drain. Such a drain could also be located elsewhere.

As used herein, and as illustrated in Figure 8, the first reservoir 2 comprises a first reservoir base 60 and the second reservoir 4 comprises a second reservoir base 44. In a preferred embodiment, the first reservoir 2 comprises a first reservoir base 60 and at least one wall 28 extending upwardly from the first reservoir base 60 to define the contained feeding area 21. The at least one wall 28 preferably has a front section 5 and a remaining section 7. The front section 5 comprises a low portion 30 and at least one high portion 3a and 3b, and the remaining section 7 comprises a high portion 25. At least one bowl for containing food and water is optionally disposed on, disposed above, or extends through openings 40, 42 in the base 60. In the embodiment of the feeding system 10 shown in Figure 1, the first reservoir base 60 has a sloped surface 26, and the at least one wall 28 extends upwardly from the sloped surface 26. The surface 26 and at least one wall 28 of the first reservoir 2 substantially contain spills that occur when in use by the pet or when the system 10 or bowls 14, 15 are knocked into or bumped by a pet or person. In addition, a segment 12 of the low portion 30 is contoured inwardly toward the bowl region 22. The contoured segment 12 permits a pet to stand in closer proximity to the bowl region 22 than if the segment were flat. Also, in comparison to a flat segment, the contoured segment 12 permits a user to hold the feeding system 10 more comfortably, as a contoured segment 12 can rest more easily against the user's body.

Figures 22a, 22b, and 22c illustrate pet feeding systems 10 with varying dimensions. The dimensions of the various features of the pet feeding system 10 can vary over wide ranges and are primarily based on the type and breed of the pets for

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which the system is intended for use. It can be imagined that a system for a large breed of dog would have significantly different proportions from a system for a cat or small dog. For example, the feeding system 10 shown in Figure 22a would preferably be used by a relatively small pet, the feeding system 10 shown in Figure 22b would preferably be used by a relatively medium-sized pet, and the feeding system 10 shown in Figure 22c would preferably be used by a relatively large pet. As can be seen from comparing Figures 22a-22c with each other, the ratio of heights of the first reservoir 2 and second reservoir 4 need not be the same for the different sizes.

In a preferred embodiment, the high portions 3a, 3b, 25 of the pet feeding system 10 have a height above the floor of about 50% to about 80% of the shoulder height or withers of the pets for which the system is adapted for use. This relative height provides a close proximity between the high portions 3a, 3b, 25 of the pet feeding system 10 and the head and shoulders of the pet while the pet is feeding. Preferably, when the pet reaches into the contained feeding area 21 to access food and water bowls 14, 15, the high portions 3a, 3b, 25 of the system 10 surround the pet's head and shoulders to create a containment area and a sense of protection. The high walls minimize or prevent food and water dropped or spilled from the pet's mouth from falling to the floor or splashing or splattering onto surrounding walls or objects. The at least one wall 28 of the feeding system 10 provides a physical barrier that deters a pet from moving its head around while feeding. Because the high portions 3a, 3b, 25 restrict the range of movement of the pet's head, it is believed that a pet will be more likely to keep its head, and therefore spilled food, over the feeding system 10. Therefore, the high portions 3a, 3b, 25, and their proximity to the low portion 30 are likely to reduce the chance of the pet bringing its head outside of the feeding system 10 and dropping food or water on the floor.

The high portions 3a, 3b, 25 of the feeding system 10 also block the pet's vision, thus obstructing the pet's view of the surrounding area and reducing visual distractions that may cause the pet to move its head or leave the feeding area. The wall(s) also create a physical barrier that inhibits pests, animals, and people, including children, from approaching the feeding bowls. Thus, the wall(s) may hinder pests, such as ants, from accessing the food and water bowls, and also may provide a safety benefit in the case of a small child or other person approaching a feeding dog. Moreover, the system can be easily designed to contain a spill of the entire contents of either or both of the food and water bowl(s).

To identify how much of the at least one wall 28 should be the low portion 30 versus the high portion 3a, 3b, 25, it is helpful to envision a "best fit" circle to the pet feeding system 10. With regard to the "best fit" circle, the low portion does not include

the portions of wall between the low portion and the high portions that rise up from the low portion. Preferably, in relation to the "best fit" circle, the low portion of the pet feeding system 10 circumferentially occupies from about 85 degrees of the wall(s) to about 40 degrees of the wall(s). More preferably, the low portion of the pet feeding system 10 circumferentially occupies from about 80 degrees of the wall(s) to about 50 degrees of the wall(s). For example, if the shape of the pet feeding system 10 is a square, the low portion can be the majority of the front wall. As another example, in a circular embodiment of the invention, the low portion can be the majority of the front quadrant of the circle. In any embodiment, at least a portion of the front section comprises a high portion. In different embodiments, the portions of wall between the low portion and the high portions can be a 90 degree step or can be inclined (and such portions are also part of the "high portions" as used herein). Preferably, the portions of wall between the low portion and the high portions begin to rise from the low portion at no more than 85 degrees of the circumference of the "best fit" circle.

In a preferred embodiment, the high portions 3a, 3b, 25 are sufficiently high to contain substantially all of the spills and splashes when the feeding system 10 is in use. For example, when the pet is eating or drinking or in the event that the feeding system 10 is bumped or kicked, and food and/or water splashes out of the bowl(s), the food and/or water splashes up against the walls but is substantially prevented from splashing over the high portions 3a, 3b, 25 and out of the feeding system 10. As discussed above, the high portions 3a, 3b, 25 preferably have a height above the floor of about 50% to about 80% of the shoulder height or withers of the pets for which the system is adapted for use, thus providing a close proximity between the high portions 3a, 3b, 25 of the pet feeding system 10 and the head and shoulders of the pet while the pet is feeding. Because the high portions 3a, 3b, 25 are relatively close to a pet's shoulders, the high portions 3a, 3b, 25 are sufficiently high to contain food and/or water that is dropped from a pet's mouth while the pet is standing over the feeding system 10.

In a preferred embodiment, the top of the low portion 30 is above the top edge(s) of the bowl(s), most preferably at least about one-quarter inch above the top edge(s) of the bowl(s). The low portion 30 is preferably high enough above the bowl(s) so that when the feeding system 10 is bumped or kicked, spilled food and/or water is substantially prevented from splashing over the low portion 30 and out of the feeding system 10. A number of factors aid in allowing the low portion 30 to prevent or minimize food and/or water from escaping the containment area, even though the low portion 30 is lower than the high portions 3a, 3b, 25. These factors include: (1) the fact that the bowl(s) may be disposed much closer to the rear and side walls than to

the low portion 30 of the front wall such that food or water spilled or splashed from the bowl(s) would have to travel further to escape over the low portion 30 of the front wall than over the high side or rear walls; (2) when a pet is drinking while positioned over the low portion 30 of the front wall, the majority of the splashes tend to occur in the rearward direction; (3) if the system 10 is positioned with its rear wall against a wall or cabinet, kicks or bumps will not come from the direction of the rear wall which would cause a higher splash over the front wall; and (4) as shown in the embodiment of Figures 1-8, for example, the trough 46 is configured to provide a greater height difference between the surface 26 and the low portion 30 of the front wall than the difference in height between the low portion 30 and the top edge(s) of the bowl(s). Furthermore, it is contemplated that when a pet stands in front of the low portion 30, other animals may be blocked or discouraged from accessing the contained feeding area 21, thus providing the pet with a sense of protection and control over its food and water. In a preferred embodiment, a perforated collection region 24 is also lower than the top edge of the bowl, with a sloped surface 26 extending downward from the bowl region 22 toward the collection region 24. The height of the low portion 30 relative to the collection region 24 further prevents food and/or water that falls into the collection region 24 from splashing over the low portion 30 and out of the feeding system 10.

In the embodiment of the feeding system 10 shown in Figure 8, the second reservoir 4 comprises at least one wall 46 and a second reservoir base 44. Spilled water that passes through the filter holes 38 of the first reservoir 2 lands in the second reservoir 4, and is substantially contained by the second reservoir base 44 and at least one wall 46. In an alternative embodiment, the second reservoir comprises a base without any walls, such as a tray or mat. In another alternative embodiment, as shown in Figure 18, the second reservoir comprises a drawer that is slideably movable relative to the first reservoir. Thus, a user can access spilled water that has fallen into the second reservoir by sliding the drawer out from underneath the first reservoir.

In the embodiment shown in Figure 8, the tops of the wall(s) of the second reservoir 4 are sloped at an angle from back to front substantially the same as that of the sloped surface 26 of the first reservoir 2. As illustrated in Figure 20, in an alternative embodiment, the second reservoir 4 is disposed substantially entirely underneath the portion of the first reservoir 2 having means for filtering spilled food from spilled water (e.g. underneath the filter holes 38 of the perforated collection region 24), without being disposed underneath the remaining portion of the first reservoir 2 (e.g. underneath the bowl region 22). In this embodiment, the second reservoir 4 may include a base that rests on the floor, or a base that is suspended above the floor, as shown, for example, in Figure 20.

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In the embodiment shown in Figure 8, the sloped surface 26 of the bowl region 22 defines openings 40, 42 adapted to receive a food bowl 14 and a water bowl 15. The openings 40, 42 have peripheral walls 32, 33 extending upwardly from the sloped surface 26 for keeping the bowls 14, 15 level. The height of each of the peripheral walls 32, 33 from the sloped surface 26 increases inversely proportional to the downward slope of the sloped surface 26 so that the tops of the bowls 14, 15 remain substantially parallel to the surface on which pet feeding system 10 rests. In other words, each bowl 14, 15 has a radially outwardly extending rim at its top, which rests on the top edge of the peripheral walls 32, 33, and the height of the peripheral walls as measured from the surface 26 varies around its circumference to allow for the bowls to rest substantially parallel to the surface on which pet feeding system 10 rests. This keeps the bowls level and permits a user to more easily place bowls in and remove bowls from the openings. Preferably, each of the peripheral walls 32, 33 defines a space 35, 37 for a user's finger(s) or thumb so that each bowl 14, 15 can be grasped more easily. Preferably, the height of the walls 32, 33 are sized to permit the bottom of the bowls 14, 15 to be below the plane of the sloped surface 26. The peripheral walls 32, 33 also prevent food which has spilled onto the surface 26 from also falling into the openings 40, 42 when the bowls are removed.

As illustrated in Figure 8, the first reservoir 2 has a support portion 34. The support portion 34 preferably extends downward from the bowl region 22 substantially enough and in a configuration that allows the first reservoir 2 to rest substantially level when placed on a flat surface and to ensure that the tops of the bowls 14, 15 remain substantially level if a user sets the first reservoir 2 down on a floor or surface with the bowls still resting in the openings 40, 42, so that their contents are prevented from spilling out.

In alternative embodiments of the present invention, elevating means increase the height(s) of the contained feeding area, bowl region, and/or feeding bowls 14, 15 relative to the floor. For example, in the embodiment shown in Figure 8, the feeding system 10 has leg extensions 6 coupled to the bottom of the second reservoir 4, which increase the heights of the first reservoir 2 and second reservoir 4 relative to the floor. The leg extensions 6 may be removable from the housing 8 or permanently attached to the housing 8.

Figs. 10-15 illustrate various views of the embodiment shown in Fig. 9, which is substantially similar to the embodiment shown in Fig. 1, except that it does not include leg extensions 6. As shown in Figs. 14 and 15, non-skid feet 106a-106d are adapted to fit into the bottom of second reservoir 4. Although a frictional fit for placing non-skid feet 106a-106d into second reservoir 4 is shown, other ways to affix the non-skid feet

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to the second reservoir can be easily accomplished. Non-skid feet 106a-106d can be any known and suitable material, such as a rubber.

Fig. 21 illustrates a front view of an embodiment of a post leg 51 of the present invention. The post legs 51 are coupled to the bottom of the base 60 and raise the feeding system 10 off the ground (preferably by about 1/2 inch to 3/4 inch). This deters ants or other insects from climbing the walls of the feeding system 10, because the walls do not come into contact with the ground when the post legs 51 are attached. A post leg 51 preferably comprises a non-skid foot 52 to help prevent the feeding system 10 from sliding and creating scuff marks or abrasions on the owner's floor, and an opening 53 which attach to posts 54 located on the underside of the feeding system 10 (e.g., underneath the second reservoir 4, as shown in Figure 15). Figure 22 illustrates three front views of three embodiments of the present invention, each having post legs 51.

Alternative embodiments of the housing 8 of the present invention may additionally include handles 9 and/or a collar 11, as shown, for example, in Figs. 1 and 4. In a preferred embodiment, handles 9 are located on both the first reservoir 2 and the second reservoir 4. The collar 11 deters pests from entering the contained feeding area 21 of the feeding system 10, and provides an additional handle for the owner, and its exaggerated size adds to the overall aesthetic appearance of the pet feeding system 10. As shown in Figure 24, a rolled edge 128 may also be used to deter pests from entering the contained feeding area 103, and also provides a handle for the owner. Also, alternative embodiments include non-skid protective pads 48, as shown in Figure 8, which may prevent the feeding system 10 from sliding or creating scuff marks or abrasions on the owner's floor. The protective pads 48 can be shaped to fit either the bottom of the second reservoir 4 or the bottoms of the leg extensions 6.

Fig. 23 illustrates a top plan view of an embodiment of the present invention having a liner 55 on the surface 26. The liner 55 is preferably solid and water-permeable, thus allowing spilled water to seep through to the perforated collection region 24 and ultimately to the second reservoir 4 for collection while capturing spilled food and preventing the spilled food from touching the surface 26 of the feeding system 10. The liner 55 is preferably removable and conforms to the surface 26 of the feeding system 10. For example, as shown in Figure 23, the liner 55 fits around the peripheral walls 32, 33 of the bowl openings 40, 42. The liner 55 enables an owner to clean messes off the feeding system 10 by simply removing the liner 55 and disposing of it, or by removing the liner 55 and cleaning it prior to placing it back into the feeding system 10. This permits a user to avoid the more cumbersome task of cleaning the

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surface 26 of the system 10. The liner 55 may or may not have adhesive for helping to adhere it to the feeding system 10.

Other embodiments of the pet feeding system 10 may include a divider (not shown) between the food and water bowls. The divider is a separating wall that helps to prevent water and food from spilling or splashing into the other bowl. Additional
5 embodiments may also include a strainer (not shown) disposed within the water bowl. The strainer permits a user to remove any spilled food that has fallen into the water bowl by lifting the strainer out of the water bowl and removing the spilled food from the strainer, rather than emptying and replacing all of the water in the water bowl. A deep
10 water bowl (not shown) that is deeper than the food bowl is also contemplated in alternative embodiments. This feature helps to decrease the number of times that a user must re-fill the water bowl, especially if a pet tends to consume a great deal more water than food.

As illustrated in Figures 24-48, alternative embodiments of the pet feeding
15 system 110 have a housing which comprises a base 102 and at least one wall 108 having a front section 112 and a remaining section and extending upwardly from the base. The front section 112 comprises a low portion 118 and at least one high portion 116 and the remaining section comprises a high portion. In Figures 24-48, the means for filtering comprise a filtering tray 130 disposed above the base 102 and abutting the
20 at least one wall. The filtering tray 130 defines interstitial spaces 132 and is adapted to have at least one bowl resting on or abutting it or extending through the openings in the tray as shown in Figure 40. The interstitial spaces 132 are sufficiently small such that the spilled food remains on top of the filtering tray 130 but the spilled water passes through the interstitial spaces 132 onto the base 102, thereby allowing for
25 separation of spilled food from spilled water. The filtering tray 130 is preferably removable.

Figures 27 and 28 show an alternative shape of an embodiment of the invention, in which the corners of the pet feeding system 210 are substantially curved, forming, in effect, a flattened oval. The at least one wall comprises a rear section 204,
30 two side sections comprising a first side section 206 and a second side section 208, and a front region 212, all of which are substantially flat. The curved corners may permit the pet feeding system 210 to take up less floor space, and to require less material to fabricate, than a substantially rectangular embodiment. The flat sections allow the pet feeding system 210 to be more flush with any surrounding walls, as opposed to a true
35 oval or circle. It is also contemplated that a system 210 in the shape of a modified oval is less cumbersome to clean than a substantially rectangular embodiment, and may be considered more aesthetically pleasing.

In alternative embodiments of the present invention, elevating means increase the height of the bowls relative to the floor. It has been reported that an elevated feeding position provides some health and comfort benefits for certain pets. Such elevating means can elevate the bowls themselves or elevate the surface upon which the bowls rest or are adapted to rest, whether that surface is the interior base surface 102a or a filtering tray 130. Elevating components are alternatively situated within the contained feeding area 103 or outside of the contained feeding area 103. For example, Figure 46 is a cross-sectional view of an embodiment of the invention in which means for elevating the surface adapted to hold bowls is shown. In Figure 46, a filtering tray 130 adapted to hold feeding bowls is elevated above the interior base surface 102a and rests upon protruding mounts 121 which extend from the walls. Figures 47 and 48 illustrate a perspective view and a cross-sectional view, respectively, of an embodiment of the invention in which the interior base surface 102a is raised above the floor. This is achieved by providing an outer wall 154 which has a greater height as measured from the floor than the height of the inner wall 152 as measured from the interior base surface 102a. Alternative embodiments having elevating components outside of the contained feeding area 103 are contemplated as having legs or support stands, among others. An additional way to provide elevating means is illustrated in Figure 41, in which the height of the bottom of the mold 168 is raised so that the removable bowl 170 is elevated. For example, this can be achieved by configuring the relative lengths of the outer and inner walls of the mold 168 appropriately.

Figure 35 is a top perspective view of an embodiment of a filtering tray 130. It is contemplated that the filtering tray 130 comprises mesh, wire, or any material having a sufficient number of perforations to keep spilled food separate from spilled water. Most preferably, the filtering tray 130 comprises a screen or plurality of cross bars 134 attached together at their junctures. As can be appreciated, the interstitial spaces 132 are of any size that is sufficiently small to prevent a significant amount of spilled food from passing through the hole(s), while allowing a significant amount of water to pass through the hole(s). Figure 36 is a bottom perspective view of the filtering tray 130. The filtering tray 130 is configured to allow for its top surface to be sufficiently high above the interior base surface 102a to keep spilled food separate from spilled water. Various designs, such as legs or supports, or more preferably raised cross bars 136 that intersect to create a grid, would allow for the top surface of the filtering tray 130 to be sufficiently high above the interior base surface 102a to keep spilled food separate from spilled water. The filtering tray 130 is preferably removable and comprises handles 138. It is contemplated that the handles 138 enable an owner to remove the filtering tray 130 to more easily retrieve spilled food from the top of the

filtering tray 130 and clean spilled water off of the interior base surface 102a or liner 140 (as shown in Figs. 33 and 34).

As illustrated in the embodiment shown in Figure 35, the filtering tray 130 preferably comprises a peripheral wall 142. The peripheral wall 142 extends upwardly from the periphery of the filtering tray 130 to a height of at least $\frac{1}{4}$ inch above the filtering tray 130, more preferably to a height of about $\frac{1}{2}$ inch to about $1\frac{1}{2}$ inches above the filtering tray 130. The peripheral wall 142 inhibits spilled food from falling off an edge of the filtering tray 130 onto the interior base surface 102a or liner 140. In a preferred embodiment, the filtering tray 30 further comprises a raised divider 146. The raised divider 146 is substantially parallel to the front section 112 of the system 110 when the filtering tray 130 is abutting the walls of the system. The raised divider 146 extends upwardly from the filtering tray 130 to a height of at least $\frac{1}{4}$ inch above the filtering tray 130, more preferably to a height of about $\frac{1}{2}$ inch to about $1\frac{1}{2}$ inches above the filtering tray 130.

As illustrated in the top plan view of Figure 31, when set inside the system 110, the raised divider 146 is a sufficient distance from the front section 112 to inhibit the food bowl 120 and water bowl 122 from touching the front section 112, most preferably in a range of about 1 inches to about 6 inches from the front section 112. The raised divider 146 inhibits the bowls 120, 122 from sliding forward, and from being pulled forward, on the filtering tray 130 and coming into contact with the front section 112. This further inhibits spills or splashes from soiling the front section 112 of the system 110 and the surrounding floor. Thus, spills coming out of the bowls 120, 122 are contained behind the divider 146 on a back portion 148 of the filtering tray 130. Some spilled food and water dropped by the pet may also fall onto a front portion 149 of the filtering tray 130 between the raised divider 146 and the front section 112.

In addition, the peripheral wall 142 alternatively defines at least one gap, more preferably a first gap 144 and a second gap 145. For example, as illustrated in Figure 35, the first gap 144 is behind the divider 146 on the back portion 148 of the filtering tray 130, and the second gap 145 is in front of the divider 146 on the front portion 149 of the filtering tray 130. In an exemplary embodiment, the filtering tray 130 is removed from the system 110, and spilled food is collected from the top of the filtering tray 130 by tipping the filtering tray 130 at an angle to direct the spilled food along the peripheral wall 142 and the raised divider 146 towards the gaps 144, 145 and pouring the spilled food off of the filtering tray 30 through the gaps 144, 145.

Figure 42 illustrates an embodiment of the housing of the present invention having a lid 160 coupled to the top of the housing. The lid 160 can be used for closing the feeding system 110 and for inhibiting access to the contained feeding area by, for

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example, pets and children. The lid 160 is contemplated as being either removable or non-removable. Figure 43 illustrates a perspective view of an embodiment of the present invention having a food container 164 and a water container 166 disposed above the food bowl 120 and water bowl 122, respectively. Food is gravity-fed from the food container 164 into a food bowl 120, and water is gravity-fed from the water container 166 into the water bowl 122. Any known food and water containers can be used in the present invention, such as timer-controlled systems.

Figure 37 illustrates an embodiment of the present invention having a double wall 150. In the double-walled embodiment, the at least one wall comprises an inner wall 152, an outer wall 154, and an upper portion 156, and the inner wall 152, the outer wall 154, and the upper portion 156 define a hollow space. Figure 39 illustrates a monolithic embodiment of the housing of the present invention having a double wall 150 and a base 102 defining at least one mold 168 for containing food or water, or for containing a bowl which contains food or water. Preferably, the at least one mold 168 is disposed at a location relative to the front section 112 such that an area of the base 102 is exposed between the at least one mold 168 and the front section 112. As with other suitable features described in connection with one embodiment herein, this relative placement of the mold or openings with respect to the front section can be utilized in connection with other embodiments, such as the embodiment shown in Figures 1-8. The exposed area of the base 102 is sufficiently large so that food and/or water dropped by the pet lands on the exposed area of the base 102 and is contained by the feeding system 110. Also, as shown in Figures 44 and 45, pet feeding systems of the present invention are stackable on top of each other.

The present invention provides a method for collecting spilled food and spilled water from a pet feeding system 10. The method comprises the steps of separating the pet feeding system 10 into a first reservoir 2 and a second reservoir 4; removing the spilled food from the first reservoir 2; and removing the spilled water from the second reservoir 4. In a preferred embodiment, the separating step comprises detaching the reservoirs by lifting the first reservoir 2 off of the second reservoir 4. Alternatively, the second reservoir is removed from underneath the first reservoir. For example, when using the embodiment shown in Figure 18, the drawer-like second reservoir 4 is slid out from under the first reservoir 2. In a preferred embodiment, the spilled food that is collected from the first reservoir 2 is substantially dry and can be saved for re-use, and the spilled water can be saved for safe disposal; the spilled water that is collected from the second reservoir 4 is substantially clean because it is substantially free of spilled food, which decreases the need for frequent removal and keeps spills more sanitary and less odorous and unsightly. A user preferably holds the

spilled food and spilled water for safe re-use and/or disposal, thereby conserving spilled food and preventing spilled food and water from causing damage to surrounding floors and walls.

Preferably, the method for collecting spilled food and spilled water includes a
5 step of setting the first reservoir 2 down on a floor or surface, after separating the first reservoir 2 and second reservoir 4. As shown in Figure 8, one embodiment of the first reservoir 2 comprises a support portion 34. The support portion 34 causes the first reservoir 2 to fit snugly into the second reservoir 4, as shown in its assembled position in Figure 1, for example. The support portion 34 also ensures that the first reservoir 2
10 remains level if a user sets the first reservoir 2 down on a floor or surface. As discussed above, in an exemplary embodiment, the support portion 34 extends downward substantially enough to ensure that the tops of the bowls 14, 15 remain substantially level if a user sets the first reservoir 2 down on a floor or surface with the bowls still resting in the openings 40, 42. In this way, if a user were to rest the first
15 reservoir on the floor or on a counter, with the bowls still in it, the bowls would more securely stay in place. In addition, it may also be possible to invert the second reservoir, then place it into the top of the first reservoir for stacking purposes. In addition, it is also preferable to size each reservoir to be capable of being stacked individually, for shipping. In a preferred embodiment, the high portions 3a and 3b of
20 the front wall that are adjacent to the low portion 30 form corners which provide a user with the option of tilting or substantially inverting the first reservoir 2 so that spilled food (or spilled food and/or water, such as may occur when using the embodiment shown in Figure 50, for example) is poured down one of the corners and out of the top of the reservoir 2. The high portions 3a, 3b, 25 that form the front corners cause the
25 spilled food and/or water to be concentrated into a relatively narrow stream that can be easily poured out.

Fig. 50 illustrates an embodiment with a housing 8 which does not include any filtering means. In this embodiment, the pet feeding system comprises housing 8 which defines a contained feeding area 21 having a bowl region 22 and a collection
30 region 224. Bowl region 22 is adapted to hold at least one bowl for containing food, water, or both food and water. As shown in Fig. 50, the bowl region is adapted to contain a first bowl 32 and a second bowl 33. As in the embodiments shown in Figs. 1-15, housing 8 has a base 60 with a sloped surface for directing water from bowl region 22 to collection region 224. Collection region 224 is adapted to contain a quantity of
35 water, such as by having a concave area, as discussed in the embodiments in connection with perforated collection region 24. Because there is no means for filtering, however, collection region 224 simply stores the water for being drained, or

saved for re-use. While the same shape of the collection region is shown as in the other embodiments, other shapes can readily be contemplated.

Although illustrated and described above with reference to certain specific embodiments, the present invention is nevertheless not intended to be limited to the details shown. Rather, various modifications may be made in the details within the scope and range of equivalents of the claims and without departing from the invention. Therefore, many of the features of the invention illustrated in the figures only in connection with one of the embodiments, such as, for example, the food container 164 and water container 166, may be adapted to be included in other embodiments of the invention.

What is Claimed:

1. A pet feeding system comprising:
a housing defining a contained feeding area adapted to hold at least one bowl for containing food, water, or both food and water, said housing comprising means for
5 filtering spilled food from spilled water.
2. The pet feeding system according to claim 1, wherein the housing has a base and the means for filtering comprise a plurality of holes in the base.
3. The pet feeding system according to claim 1, wherein the housing has a base and the means for filtering comprise a single hole in the base.
- 10 4. The pet feeding system according to claim 1, wherein the means for filtering are integral with the housing.
5. The pet feeding system according to claim 1, wherein the means for filtering are removable from the housing.
6. The pet feeding system according to claim 1, wherein the housing has a
15 base with a surface, the surface having a bowl region and a collection region; and the means for filtering comprise at least one hole located only in the collection region.
7. The pet feeding system according to claim 1, wherein the housing has a base with a surface and the means for filtering extend throughout substantially the entire base of the housing.
- 20 8. The pet feeding system according to claim 1, wherein the housing has a base with a surface and the means for filtering are perpendicular or angled toward the surface.
9. The pet feeding system according to claim 8, wherein the means for filtering comprise a perforated rib.
- 25 10. The pet feeding system according to claim 1, wherein the housing has a base with a sloped surface, the sloped surface having a bowl region and sloping downward from the bowl region to the means for filtering spilled food from spilled water.
11. The pet feeding system according to claim 1, wherein the housing
30 comprises a monolithic unit.
12. The pet feeding system according to claim 1, wherein the housing comprises a plurality of units.
13. The pet feeding system according to claim 1, wherein the housing comprises a first reservoir and a second reservoir.
- 35 14. The pet feeding system according to claim 13, wherein the first reservoir and the second reservoir are detachably coupled to each other.

15. The pet feeding system according to claim 13, wherein the first reservoir is disposed on or above the second reservoir.

16. The pet feeding system according to claim 15, wherein the first reservoir defines the contained feeding area, the contained feeding area having a bowl region.

5 17. The pet feeding system according to claim 16, wherein the first reservoir comprises the means for filtering spilled food from spilled water.

18. The pet feeding system according to claim 17, wherein the first reservoir has a first reservoir base and the means for filtering spilled food from spilled water comprise a plurality of holes in the first reservoir base, wherein the holes are
10 sufficiently small such that the spilled food remains in the first reservoir but the spilled water passes through the plurality of holes to the second reservoir, thereby allowing for separation of spilled food from spilled water.

19. The pet feeding system according to claim 18, wherein the plurality of holes are oval-shaped.

15 20. The pet feeding system according to claim 17, wherein the means for filtering spilled food from spilled water further comprise a trough.

21. The pet feeding system according to claim 20, wherein the trough is removable from the housing.

22. The pet feeding system according to claim 17, wherein the first reservoir
20 comprises a first reservoir base and at least one wall extending upwardly from the first reservoir base to define the contained feeding area.

23. The pet feeding system according to claim 22, wherein the at least one wall has a front section and a remaining section, the front section comprising a low portion and at least one high portion, and the remaining section comprising a high portion.

25 24. The pet feeding system according to claim 23, wherein a segment of the low portion is contoured inwardly toward the bowl region.

25. The pet feeding system according to claim 17, wherein the second reservoir comprises a second reservoir base.

26. The pet feeding system according to claim 25, wherein the second reservoir
30 comprises at least one wall extending upwardly from the second reservoir base.

27. The pet feeding system according to claim 26, wherein the second reservoir comprises a drawer, wherein the drawer is slideably movable relative to the first reservoir.

28. The pet feeding system according to claim 17, wherein the second reservoir
35 is disposed substantially entirely underneath the means for filtering spilled food from spilled water.

29. The pet feeding system according to claim 17, wherein the bowl region defines at least one opening adapted to receive the at least one bowl for containing food, water, or both food and water.

5 30. The pet feeding system according to claim 29, wherein the at least one opening comprises a first opening and a second opening, wherein the first opening is adapted to receive a food bowl and the second opening is adapted to receive a water bowl.

10 31. The pet feeding system according to claim 30, wherein the first reservoir has a first reservoir base with a surface and each of the first and second openings has a periphery, wherein a peripheral wall extends upwardly from the surface.

32. The pet feeding system according to claim 31, wherein the height of each peripheral wall as measured from the surface varies around its circumference to allow for a bowl to rest substantially parallel to the surface on which the pet feeding system rests.

15 33. A pet feeding system comprising:
a housing defining a contained feeding area, said housing comprising means for filtering spilled food from spilled water, wherein the housing defines at least one opening in the contained feeding area, and
at least one bowl is disposed in the at least one opening.

20 34. The pet feeding system according to claim 33, wherein the housing comprises a first reservoir and a second reservoir; the first reservoir defines the contained feeding area and has a first reservoir base; and the first reservoir further comprises a support portion extending downward from the first reservoir base.

25 35. The pet feeding system according to claim 1, wherein the pet feeding system rests on a floor and has a height above the floor of about 50% to about 80% of the shoulder height or withers of the pets for which the system is adapted for use.

36. The pet feeding system according to claim 1, wherein the housing has a base with a surface and the system further comprises a removable liner on the surface.

30 37. The pet feeding system according to claim 1, wherein the pet feeding system rests on a floor, the housing has a base, and the system further comprises post legs coupled to the bottom of the base, wherein the post legs hold the system above the floor so that the base does not come into contact with the floor.

35 38. The pet feeding system according to claim 1 further comprising a lid coupled to the top of the housing for closing the system and for inhibiting access to the contained feeding area.

39. The pet feeding system according to claim 1, wherein the pet feeding system rests on a floor, the housing has a base, and the system further comprises

removable legs coupled to the bottom of the base for increasing the height of the contained feeding area as measured from the floor.

40. The pet feeding system according to claim 1, wherein the housing has a base and the system further comprises non-skid protective pads coupled to the bottom
5 of the base.

41. The pet feeding system according to claim 1, wherein the housing has a collar.

42. The pet feeding system according to claim 1, wherein the housing has handles.

10 43. The pet feeding system according to claim 33, wherein the at least one bowl comprises a first bowl for containing food and a second bowl for containing water.

44. The pet feeding system according to claim 43 further comprising a food container disposed on or above the first bowl and a water container disposed on or above the second bowl, wherein food is gravity-fed from the food container into the
15 first bowl and water is gravity-fed from the water container into the second bowl.

45. The pet feeding system according to claim 1, wherein the housing comprises:

a base; and

20 at least one wall having a front section and a remaining section and extending upwardly from the base;

wherein the front section comprises a low portion and at least one high portion and the remaining section comprises a high portion.

46. The pet feeding system according to claim 45, wherein the means for filtering comprise a filtering tray disposed above the base and abutting the at least one
25 wall, wherein:

(1) the filtering tray is adapted to have at least one bowl resting on or abutting the filtering tray;

(2) the filtering tray defines interstitial spaces; and

30 (3) the interstitial spaces are sufficiently small such that the spilled food remains on top of the filtering tray but the spilled water passes through the interstitial spaces onto the base, thereby allowing for separation of spilled food from spilled water.

47. The pet feeding system according to claim 46, wherein the filtering tray is removable.

48. The pet feeding system according to claim 45, wherein (1) the at least one
35 wall further comprises an inner wall, an outer wall, and an upper portion; and (2) the inner wall, the outer wall, and the upper portion define a hollow space.

49. The pet feeding system according to claim 45, wherein the base and the at least one wall comprise a single monolithic unit, wherein the base defines at least one mold adapted to receive at least one removable bowl for containing food or water.

50. The pet feeding system according to claim 49, wherein the at least one mold is disposed at a location relative to the front section such that an area of the base is exposed between the at least one mold and the front section, wherein said area of the base is sufficiently large to contain spilled food or water.

51. A pet feeding system comprising:
a housing defining a contained feeding area having a bowl region and a perforated collection region for filtering spilled food from spilled water, wherein the bowl region is adapted to hold at least one bowl for containing food, water, or both food and water.

52. The pet feeding system according to claim 51, wherein the perforated collection region comprises a trough.

53. The pet feeding system according to claim 52, wherein the trough is concave and curves downwardly.

54. The pet feeding system according to claim 53, wherein the perforated collection region comprises a single hole or a plurality of holes.

55. The pet feeding system according to claim 51, wherein the housing further comprises a sloped surface extending downward from the bowl region toward the perforated collection region.

56. The pet feeding system according to claim 55, wherein the housing comprises a first reservoir and a second reservoir, wherein the first reservoir is disposed on or above the second reservoir.

57. The pet feeding system according to claim 56, wherein the first reservoir comprises the contained feeding area having the bowl region and the perforated collection region and the sloped surface extending downward from the bowl region toward the perforated collection region.

58. A method for containing spilled food and spilled water from a pet feeding system comprising the steps of:

separating the pet feeding system into a first reservoir and a second reservoir, wherein the first reservoir comprises a bowl region adapted to hold at least one bowl for containing food, water, or both food and water;

removing the spilled food from the first reservoir; and
removing the spilled water from the second reservoir.

59. The method of claim 58, wherein the separating step comprises lifting the first reservoir off of the second reservoir.

60. The method of claim 58, wherein the separating step comprises detaching the first reservoir from the second reservoir.

5 61. The method of claim 58, wherein the separating step comprises removing the second reservoir from underneath the first reservoir.

62. The method of claim 58, wherein the separating step comprises sliding the second reservoir out from underneath the first reservoir.

10 63. The method of claim 58, wherein the first reservoir comprises at least one bowl for containing food, water, or both food and water, and the method further comprises the step of setting the first reservoir on a surface, wherein the at least one bowl remains substantially parallel to the surface.

64. The method of claim 58 further comprising the steps of holding the spilled food and spilled water for safe disposal, re-use, or both.

15 65. A pet feeding system comprising:

a base;

at least one wall having a front section and a remaining section and extending upwardly from the base to define a contained feeding area; and

20 at least one bowl for containing food and water disposed on, above, or extending through openings in the base,

wherein the front section comprises a low portion and at least one high portion and the remaining section comprises a high portion,

wherein the top of the low portion is above the top edge of the bowl.

25 66. The pet feeding system according to claim 65 further comprising leg extensions.

67. The pet feeding system according to claim 65, wherein a segment of the low portion is contoured inwardly toward the contained feeding area.

30 68. A pet feeding system according to claim 65, wherein the height of the high portion as measured from the base is sufficient to contain substantially all of the spills and splashes in use.

69. A pet feeding system according to claim 65, wherein the pet feeding system rests on a floor and the at least one high portion has a height above the floor of about 50% to about 80% of the shoulder height or withers of the pets for which the system is adapted for use.

35 70. A pet feeding system according to claim 65, wherein the top of the low portion is at least about one-quarter inch above the top edge of the bowl.

71. A pet feeding system according to claim 65, wherein the base defines a bowl region and a collection region, wherein said collection region is closer to the front section than the bowl region, and said base has a sloped surface extending downward from the bowl region toward the collection region such that the collection region is
5 lower than the top edge of the bowl.

72. A pet feeding system comprising:
a first reservoir and a second reservoir, wherein the first reservoir comprises a bowl region adapted to hold at least one bowl for containing food, water, or both food and water, wherein the first reservoir is adapted to contain spilled food and the second
10 reservoir is adapted to contain spilled water.

73. A pet feeding system comprising:
a housing defining a contained feeding area having a bowl region adapted to hold at least one bowl for containing food, water, or both food and water and a collection region, the housing having a base with a sloped surface for directing water
15 from the bowl region to the collection region, wherein the collection region is adapted to contain a quantity of water.

74. The pet feeding system according to claim 1, wherein the housing comprises a base and at least one wall extending upwardly from the base, and the means for filtering comprise a filtering tray disposed above the base and abutting the
20 at least one wall, wherein:

- (1) the filtering tray is adapted to have at least one bowl resting on or abutting the filtering tray;
- (2) the filtering tray defines interstitial spaces; and
- (3) the interstitial spaces are sufficiently small such that the spilled food
25 remains on top of the filtering tray but the spilled water passes through the interstitial spaces onto the base, thereby allowing for separation of spilled food from spilled water.

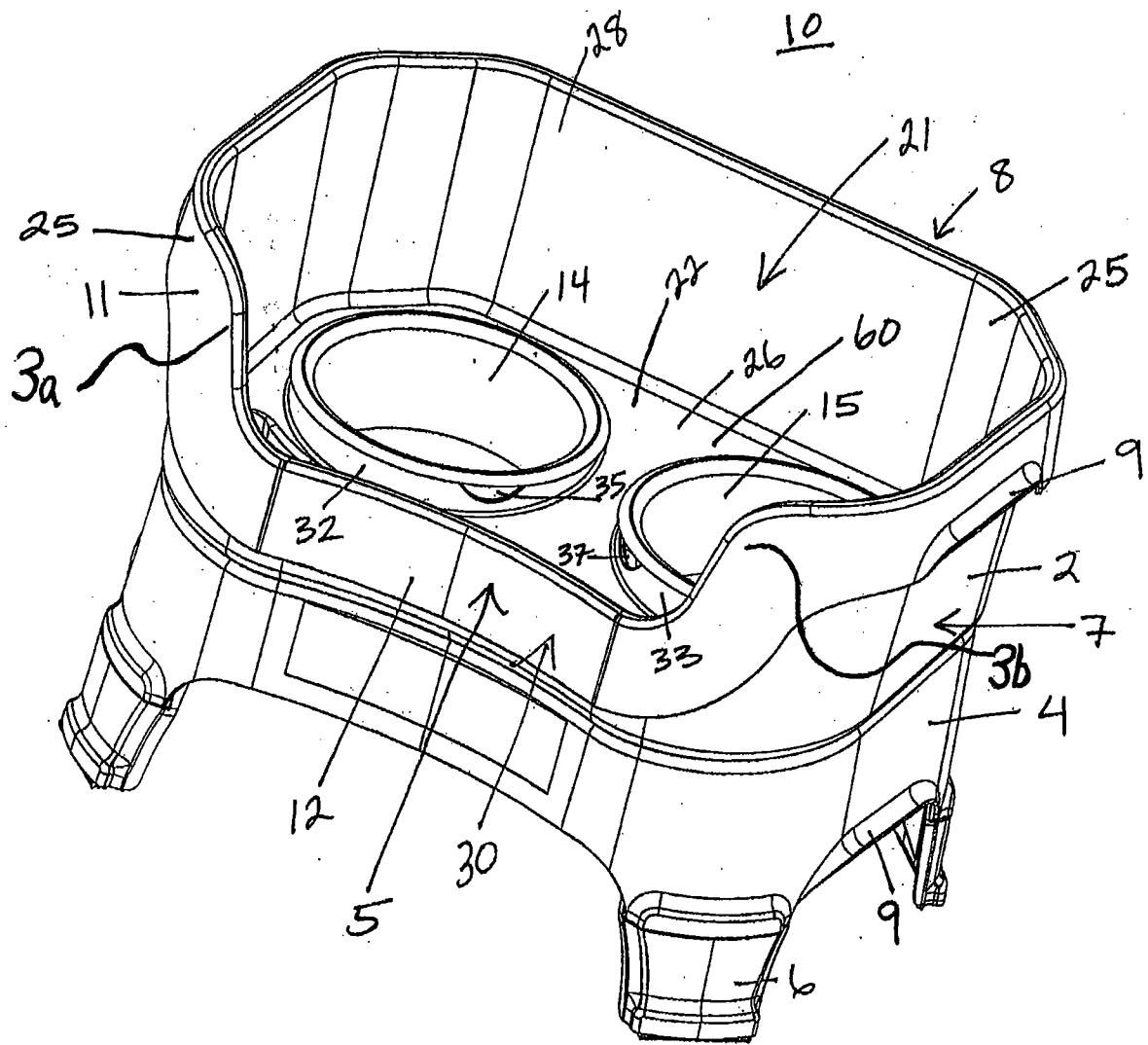


FIG. 1

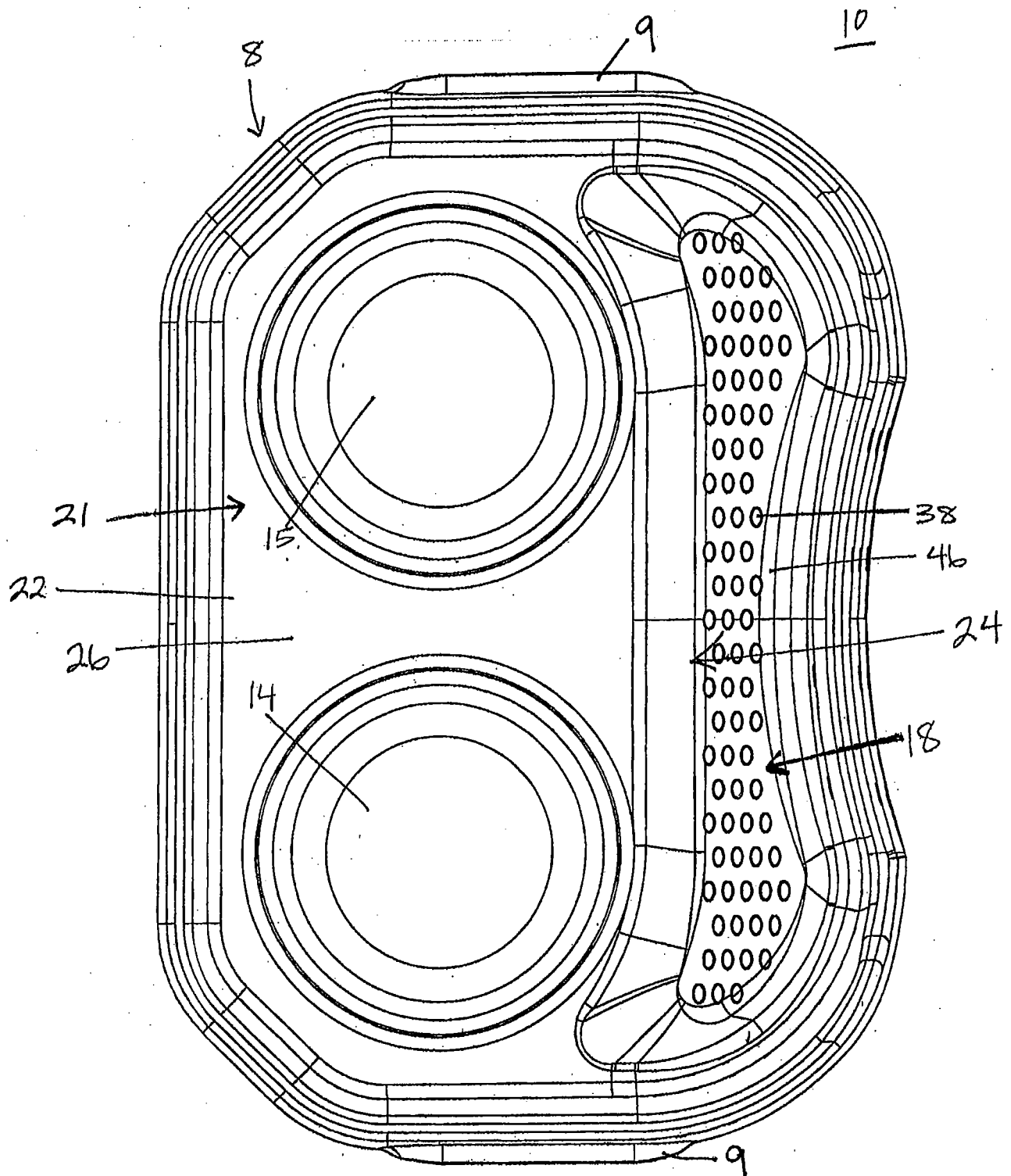
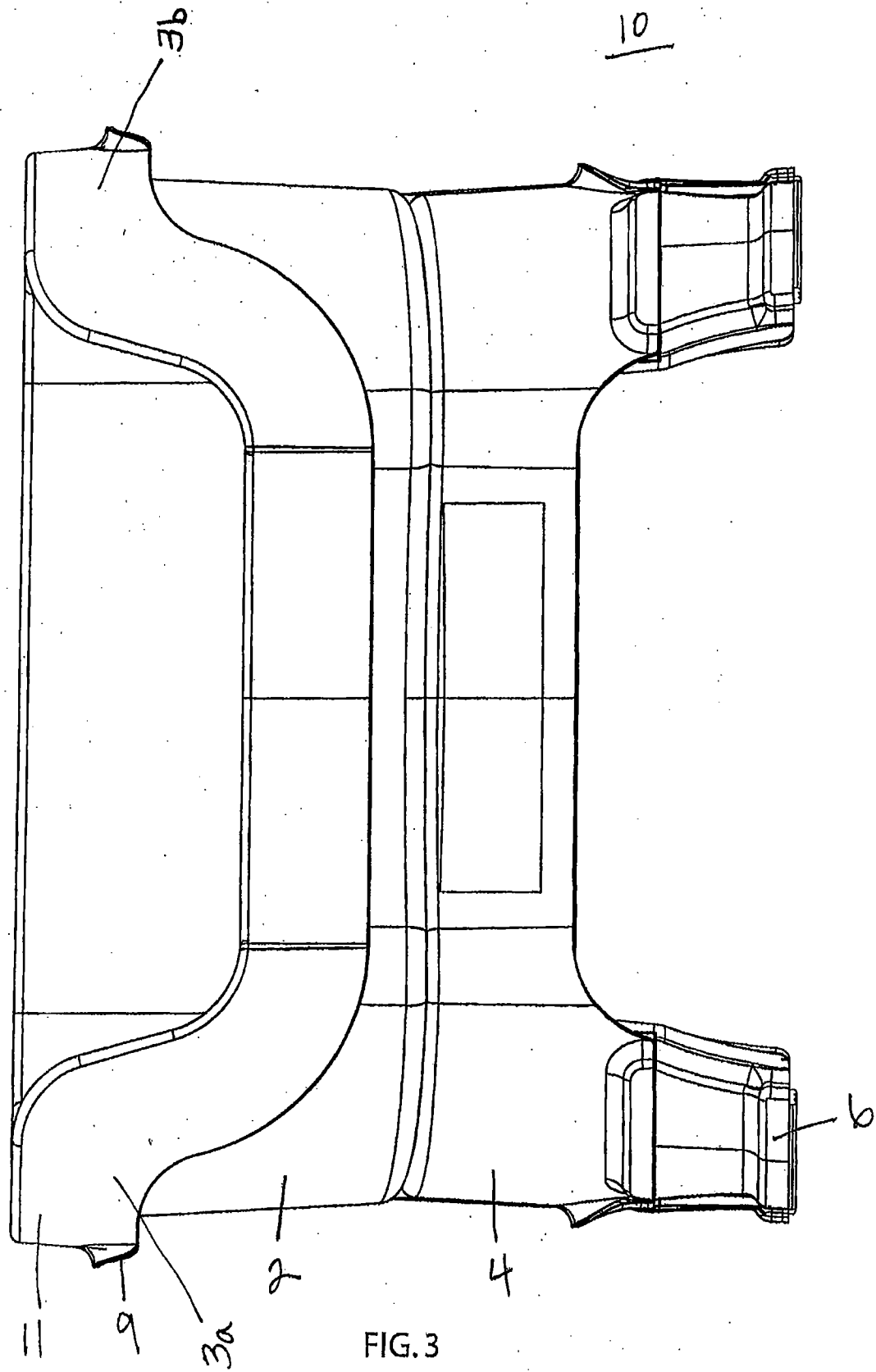


FIG. 2

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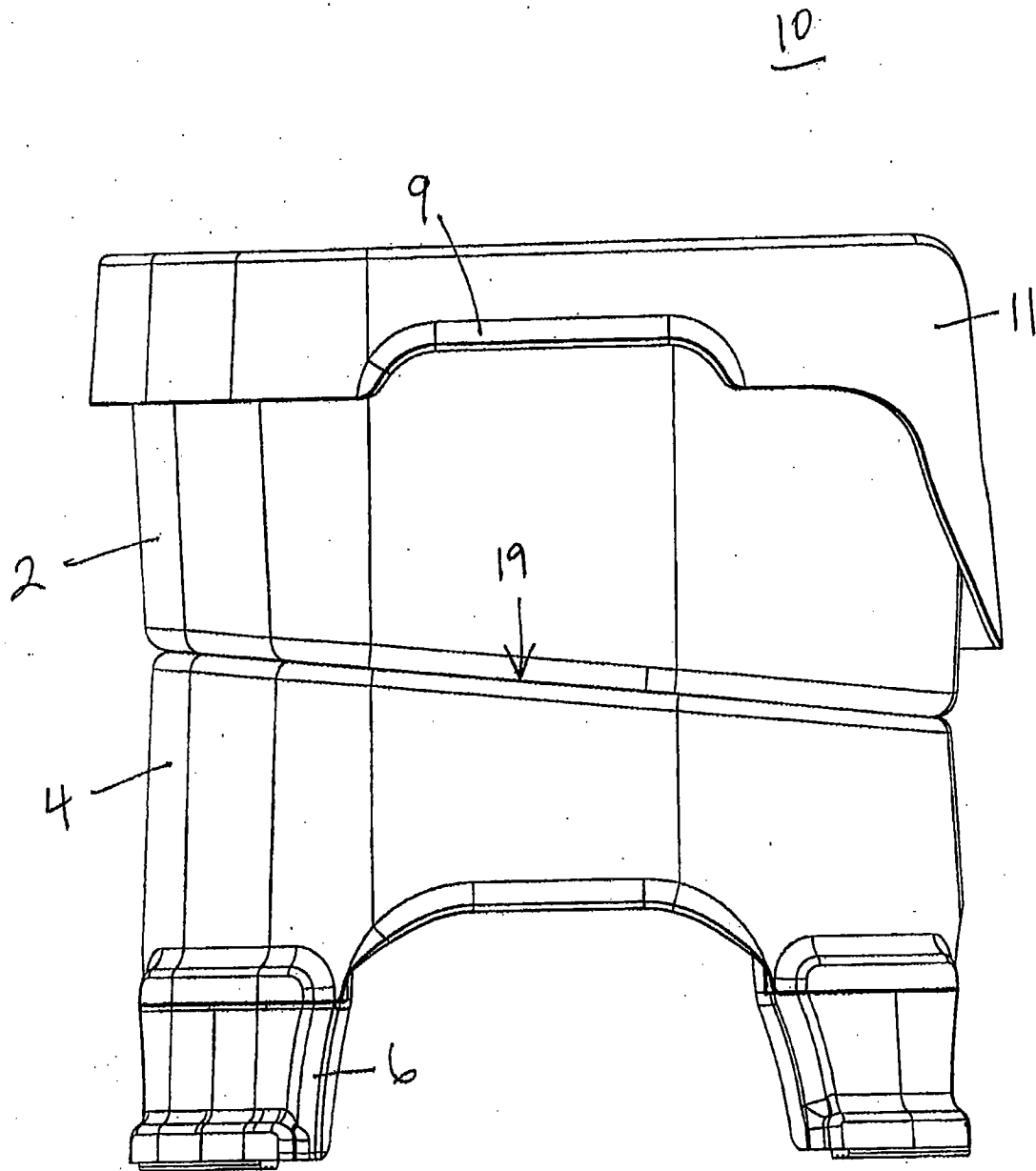


FIG. 4

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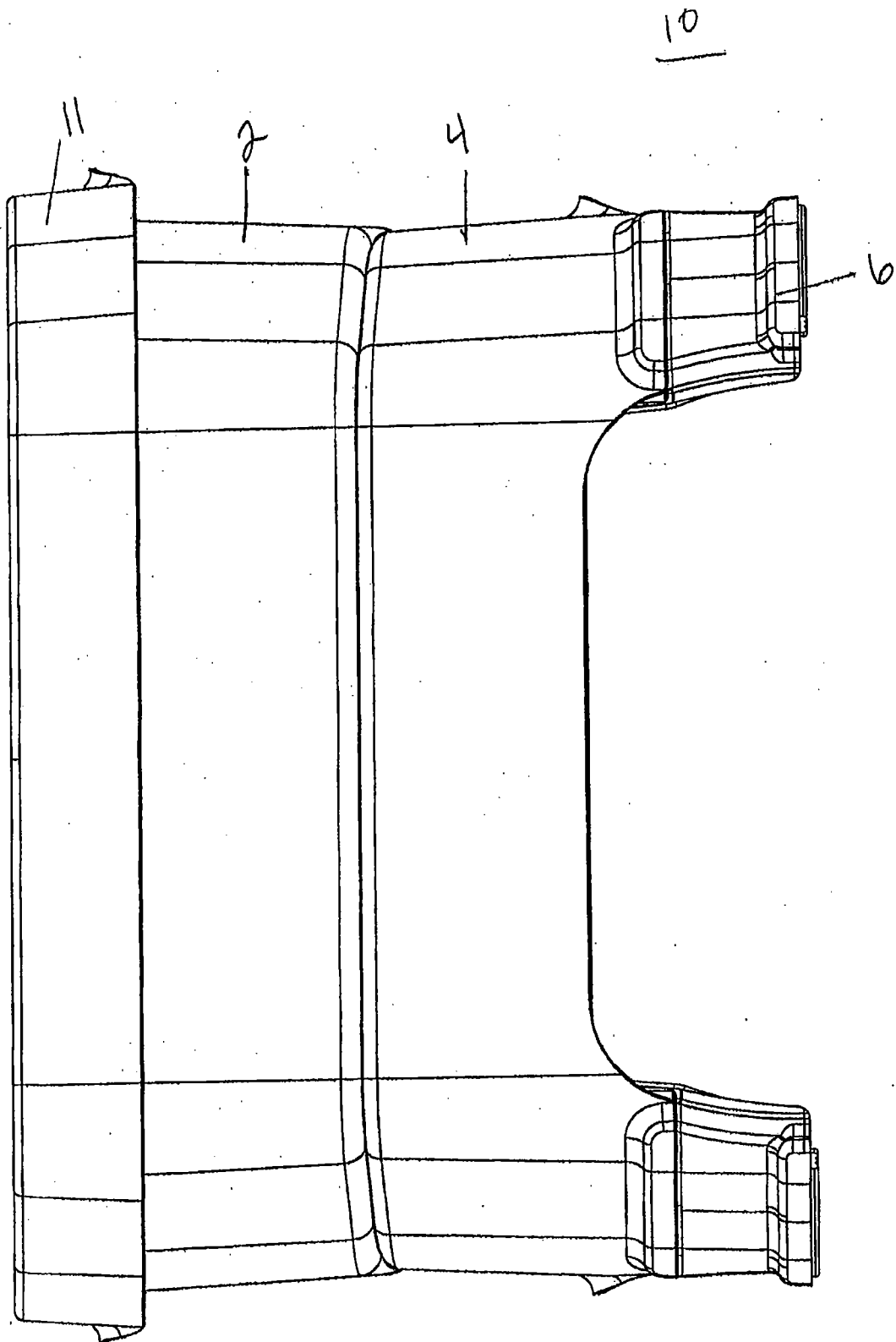


FIG.5

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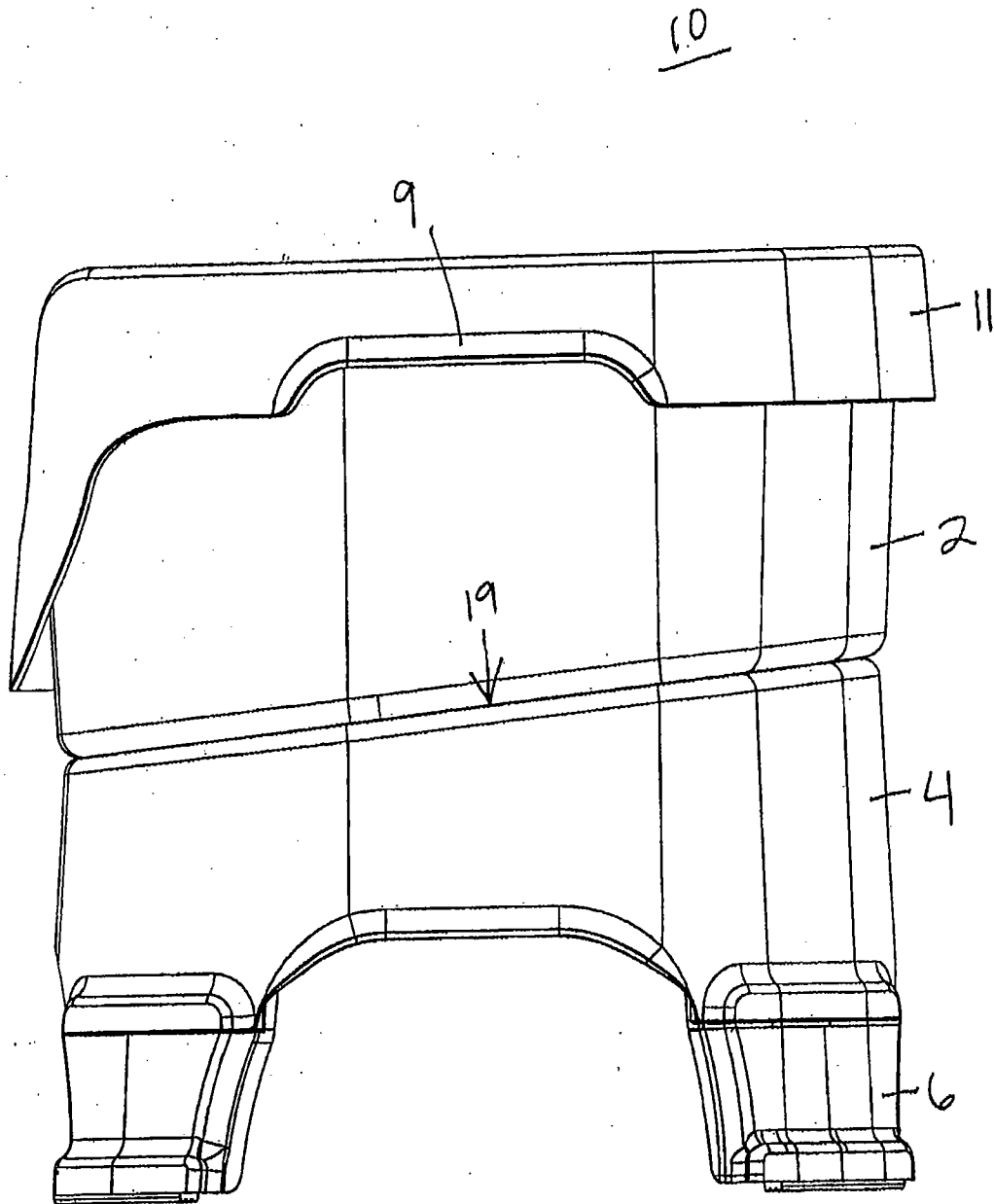


FIG. 6

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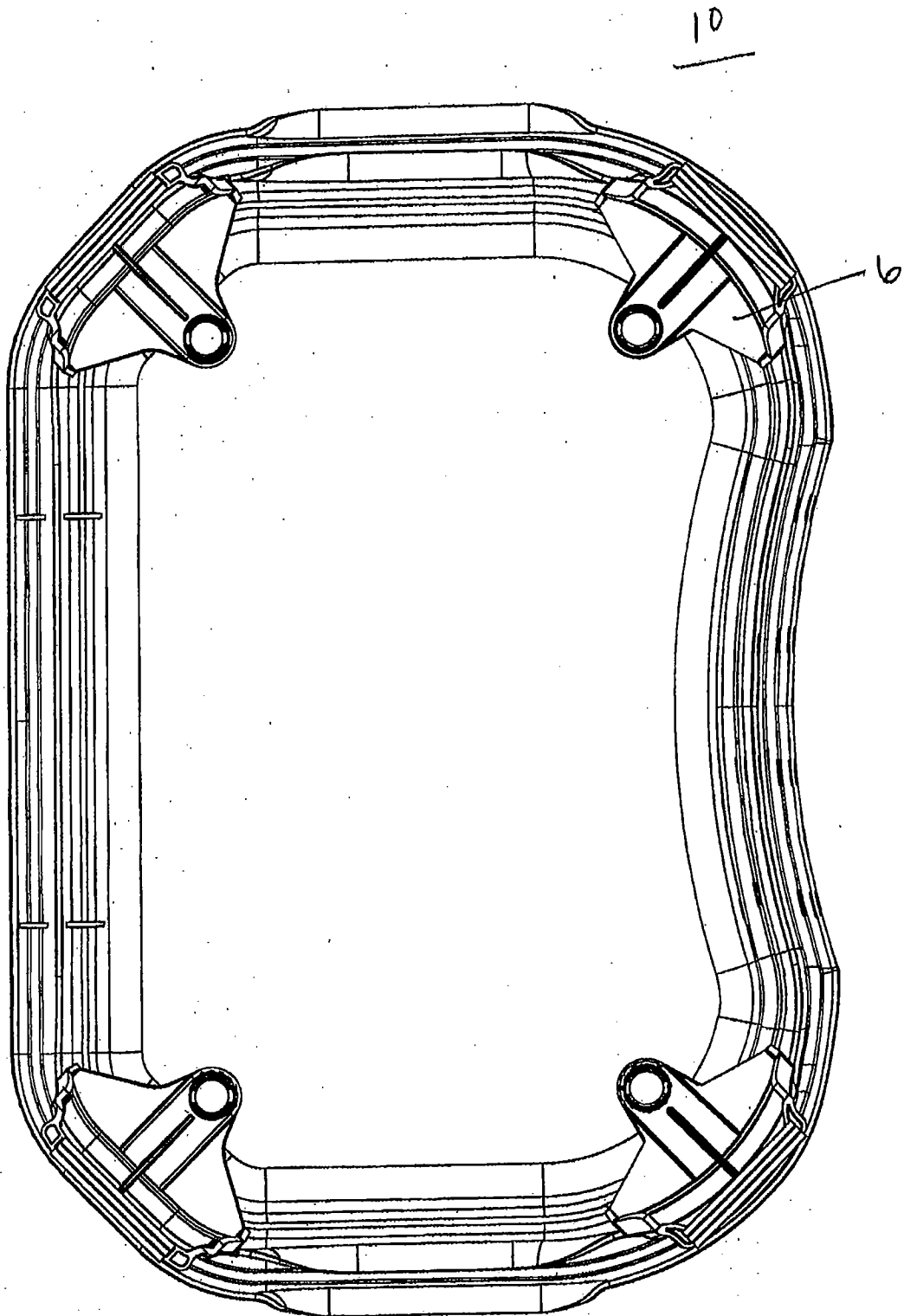


FIG. 7

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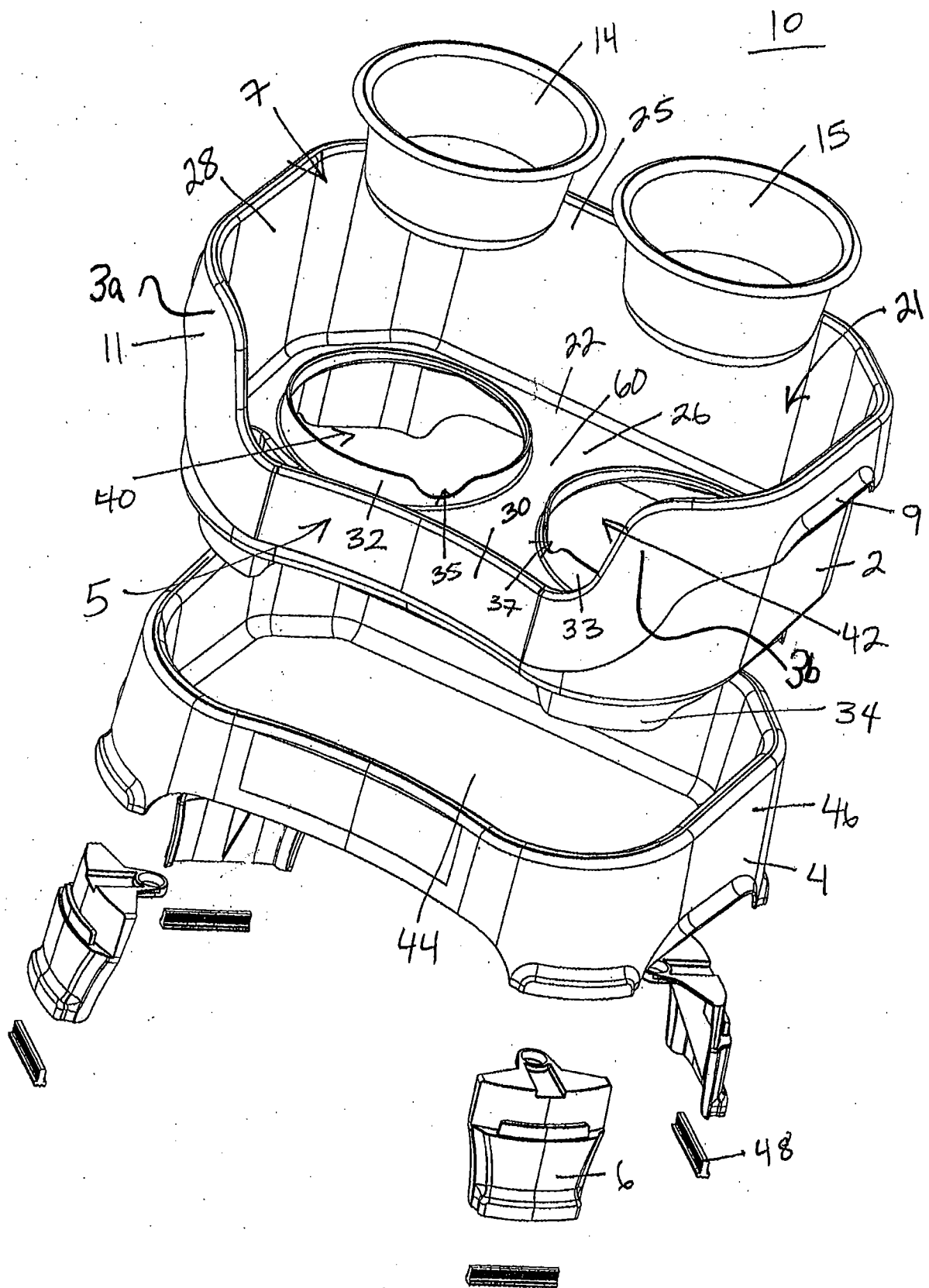


FIG. 8

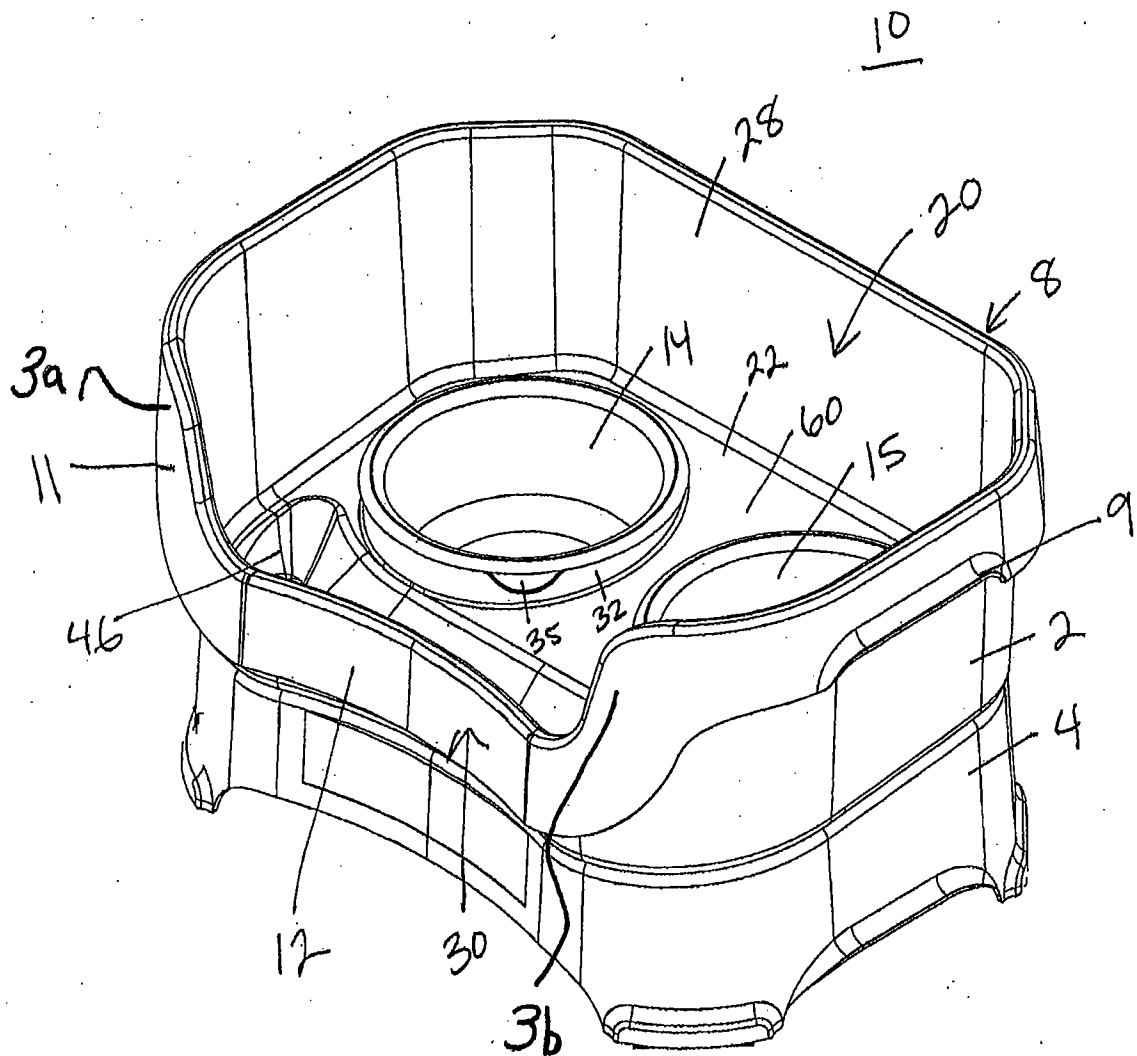


FIG. 9

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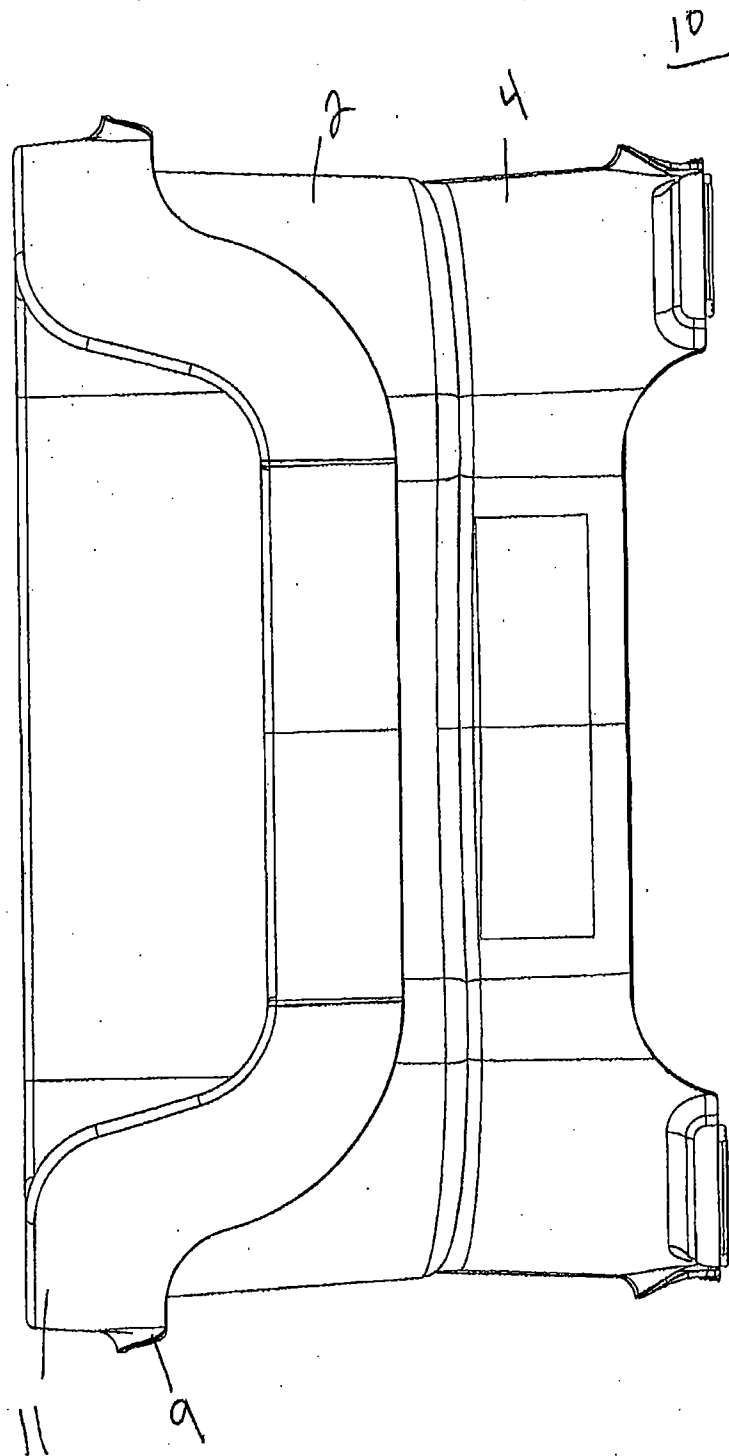


FIG. 10

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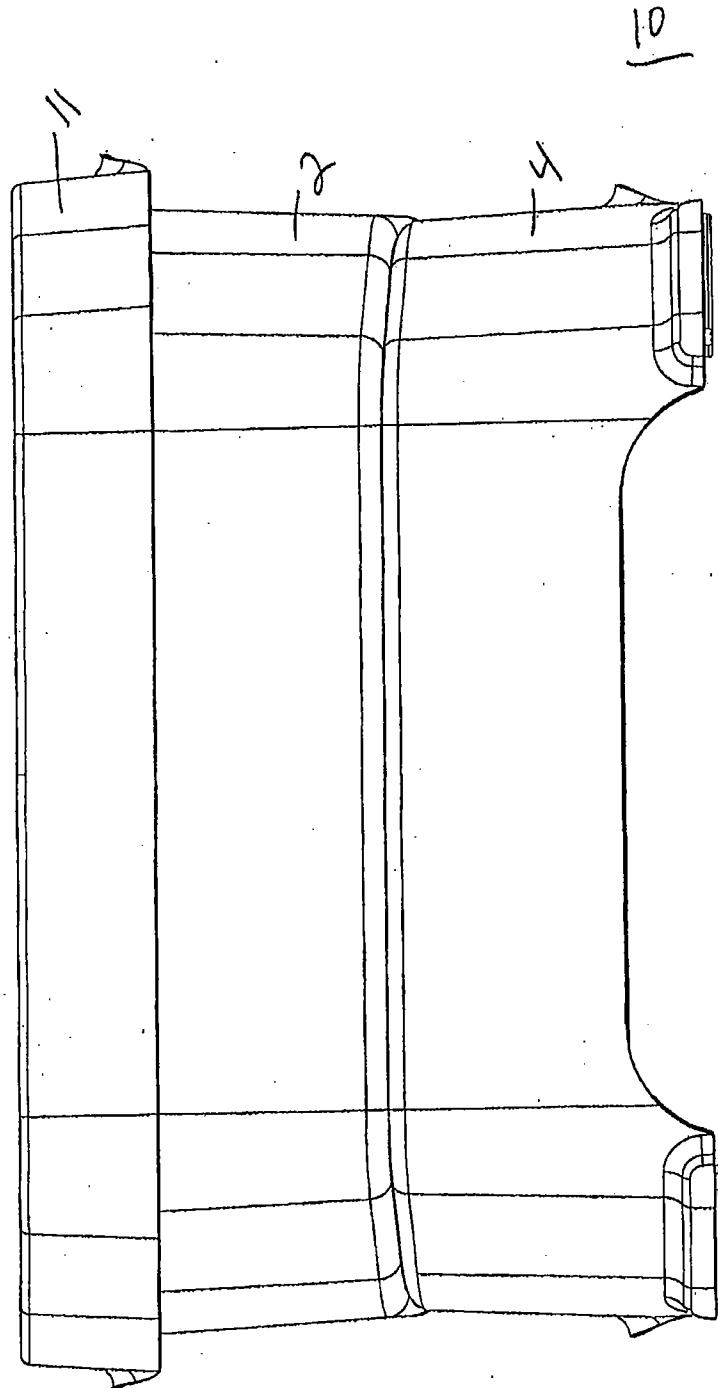


FIG. 11

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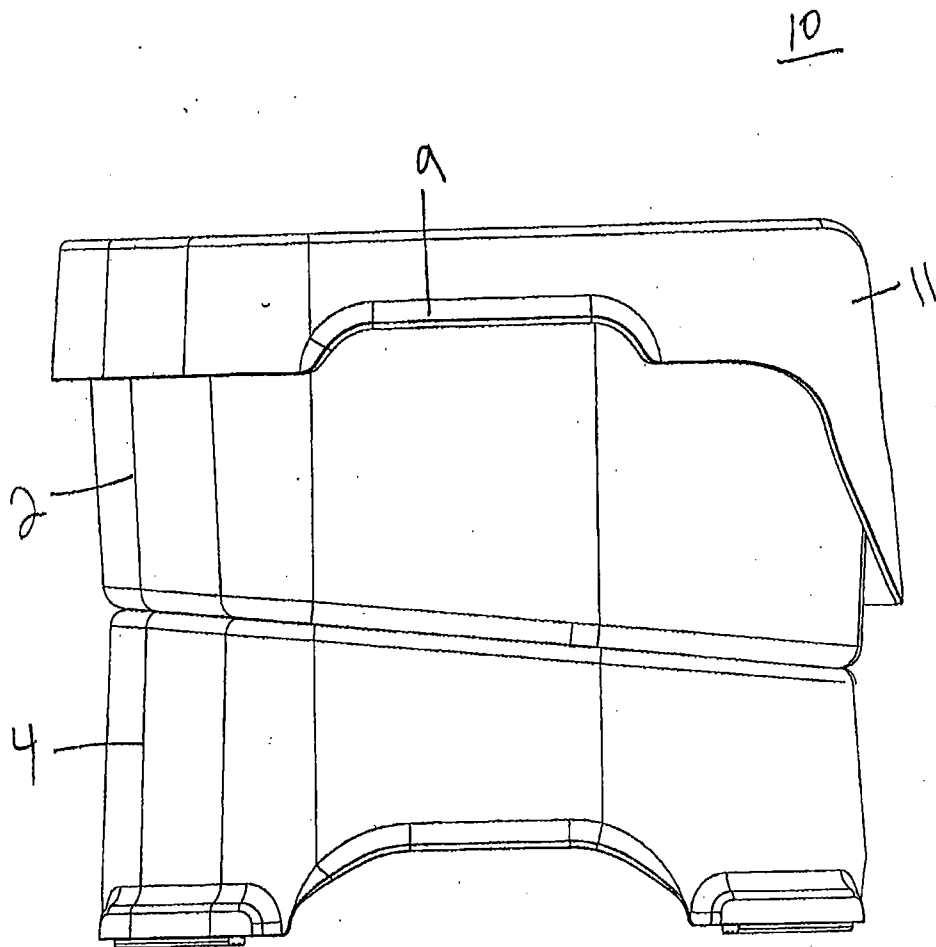


FIG. 12

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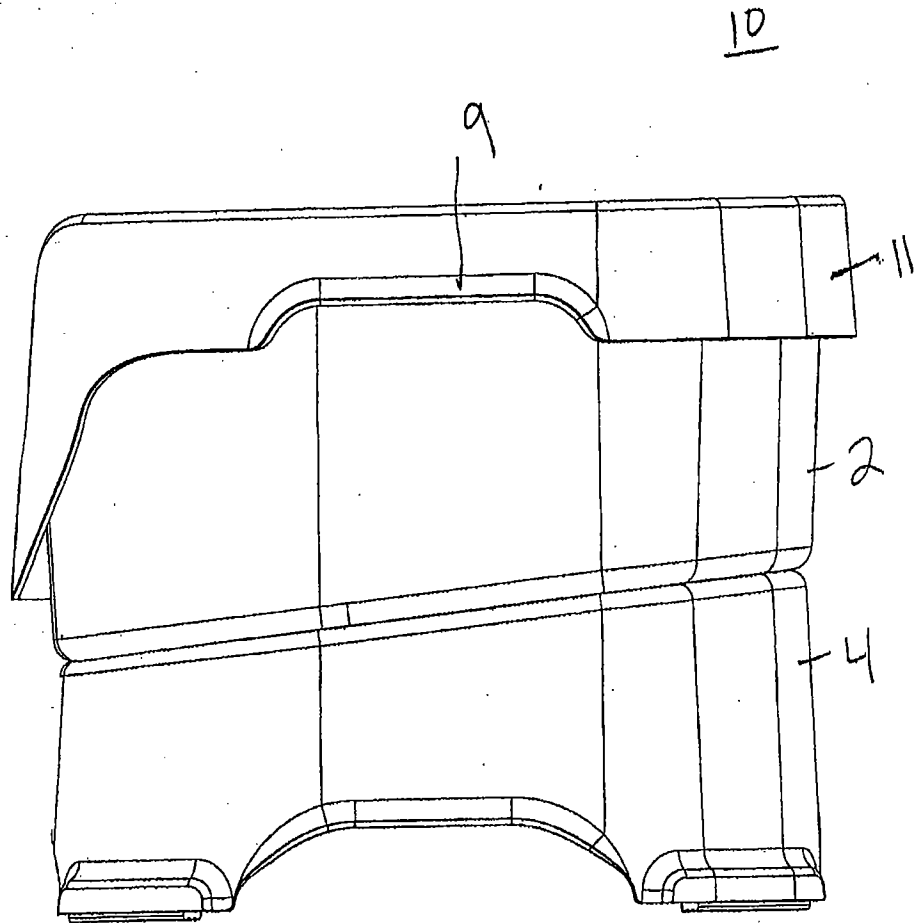


FIG. 13

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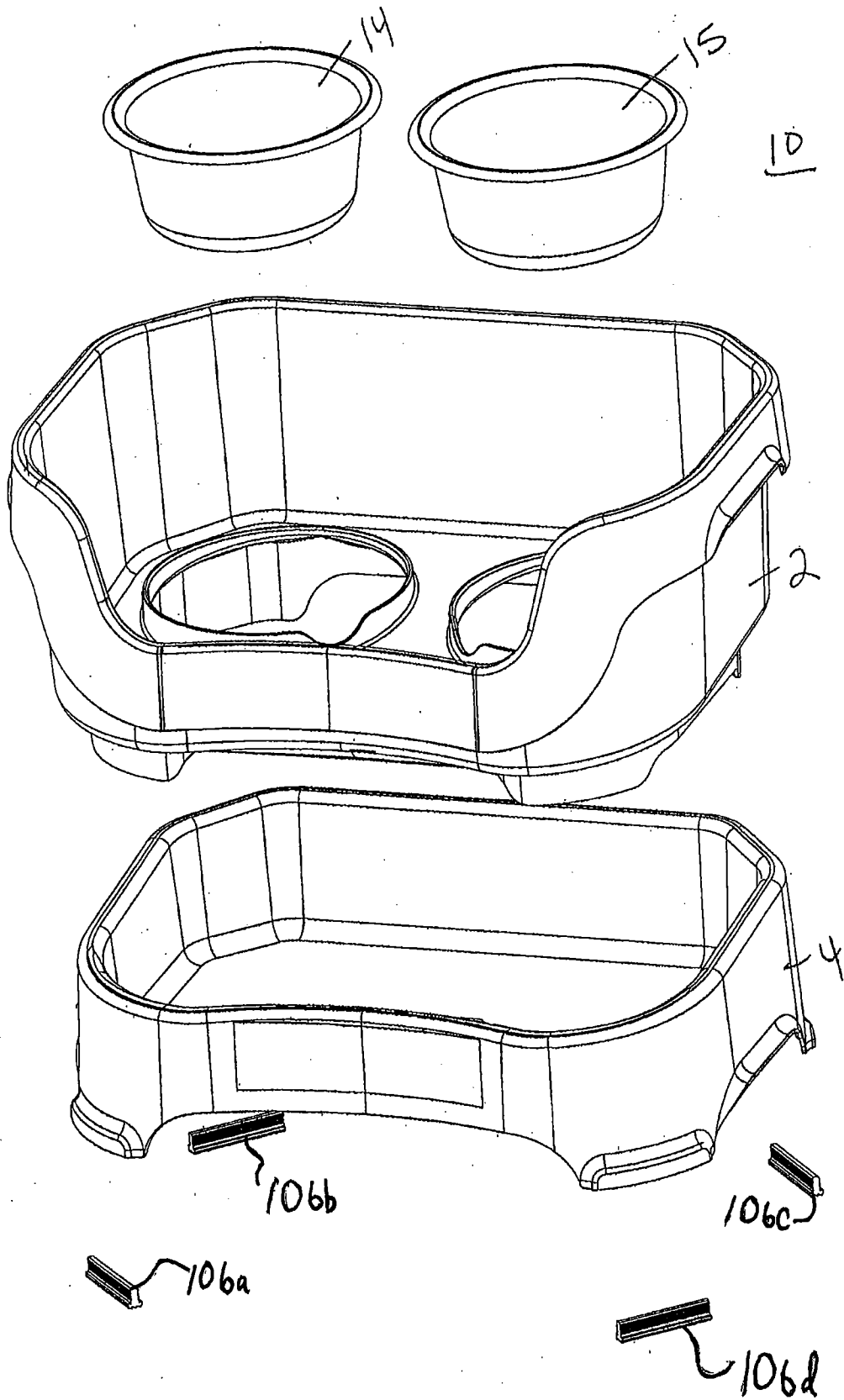
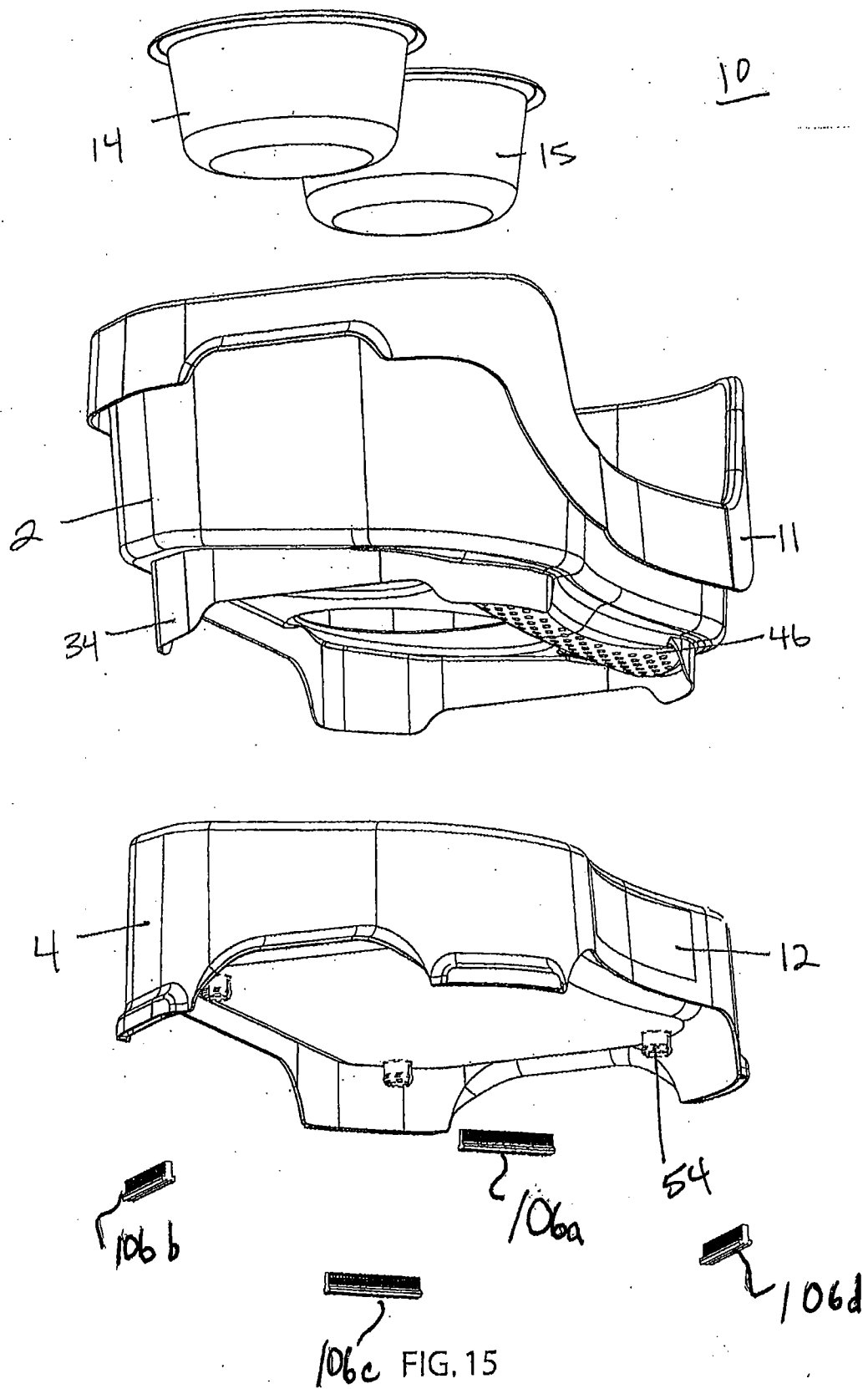


FIG. 14

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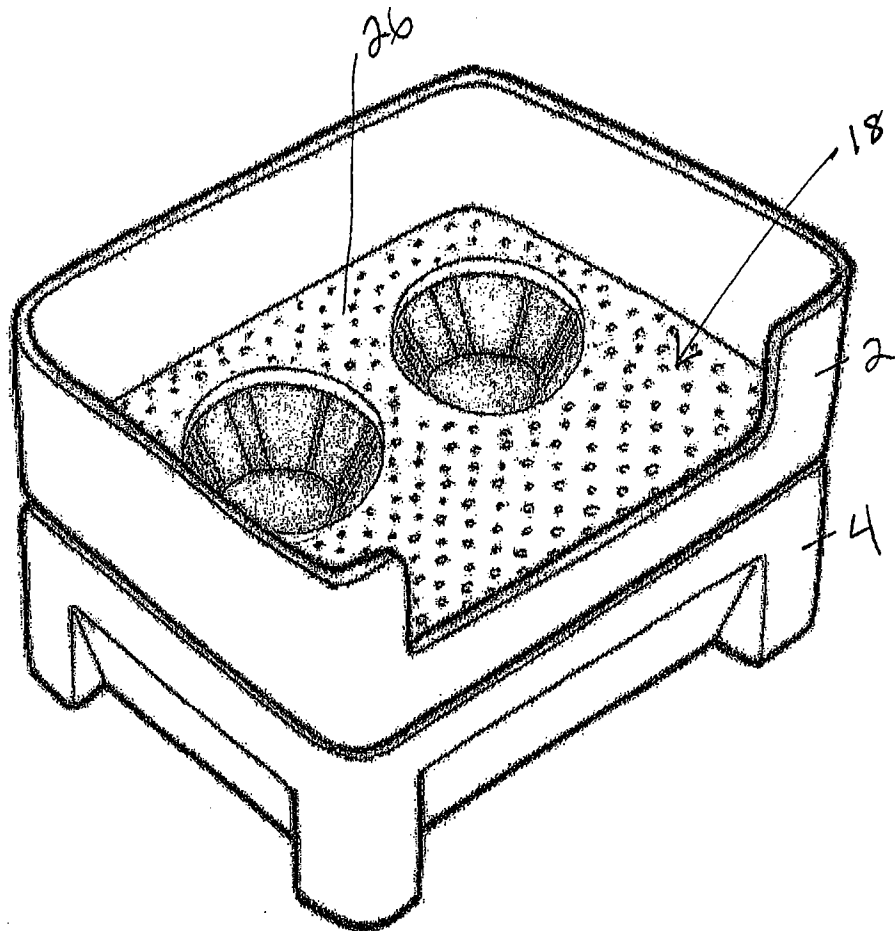


Fig. 1b

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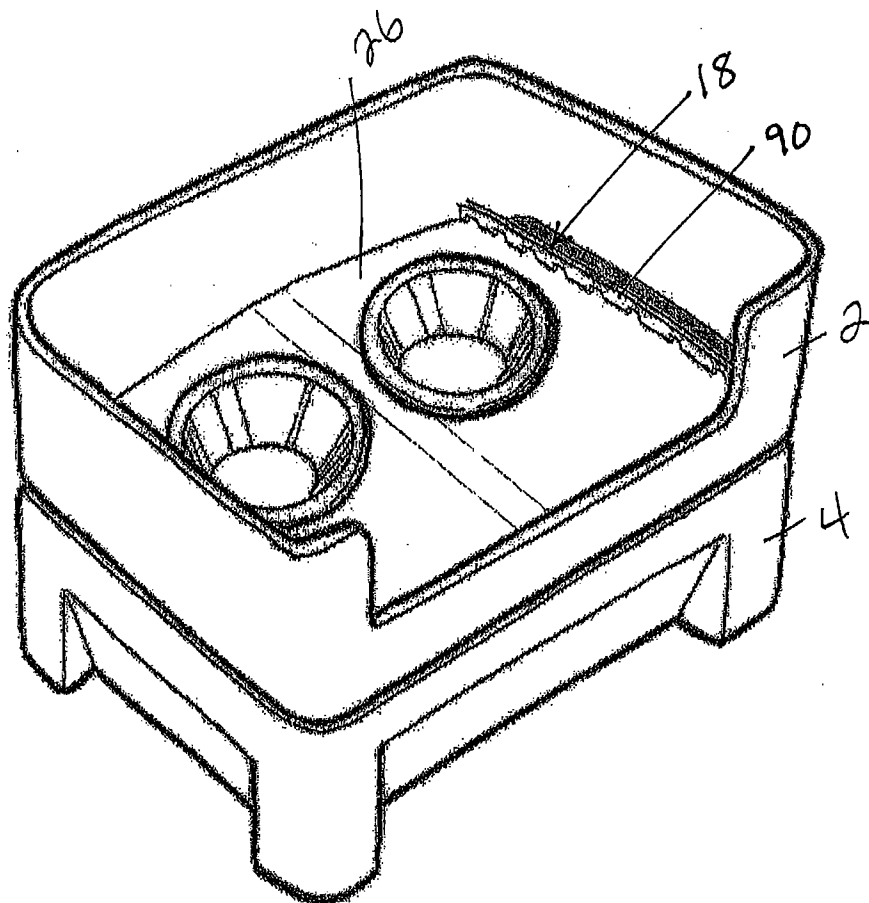


Fig. 17

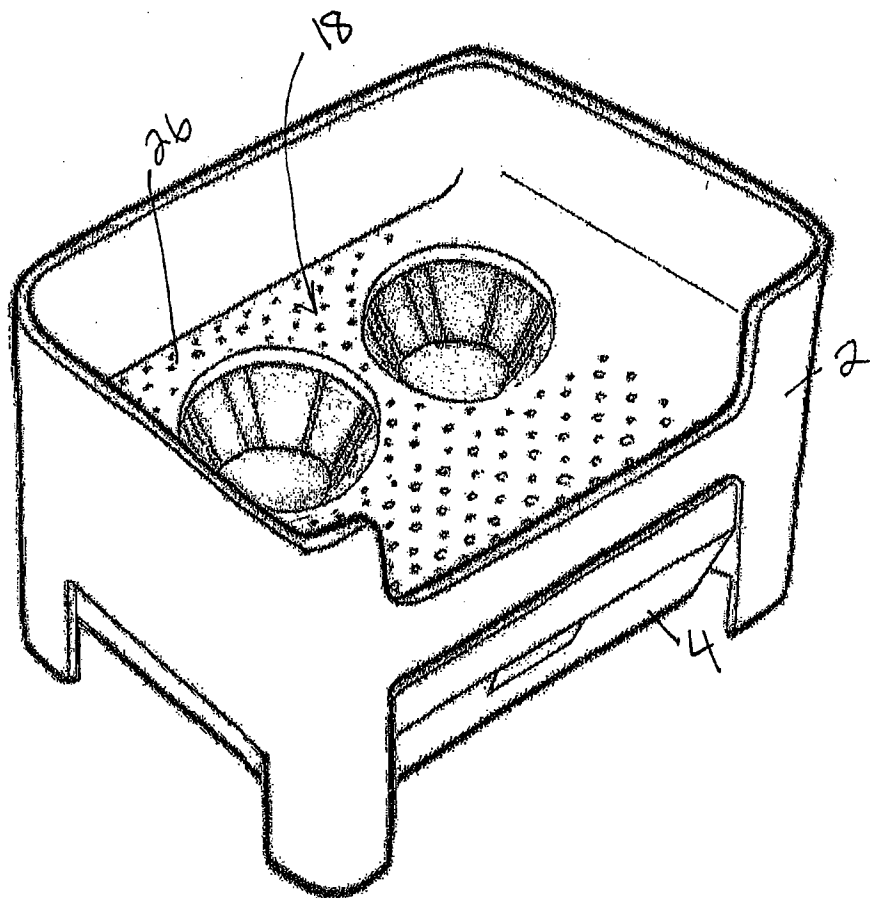
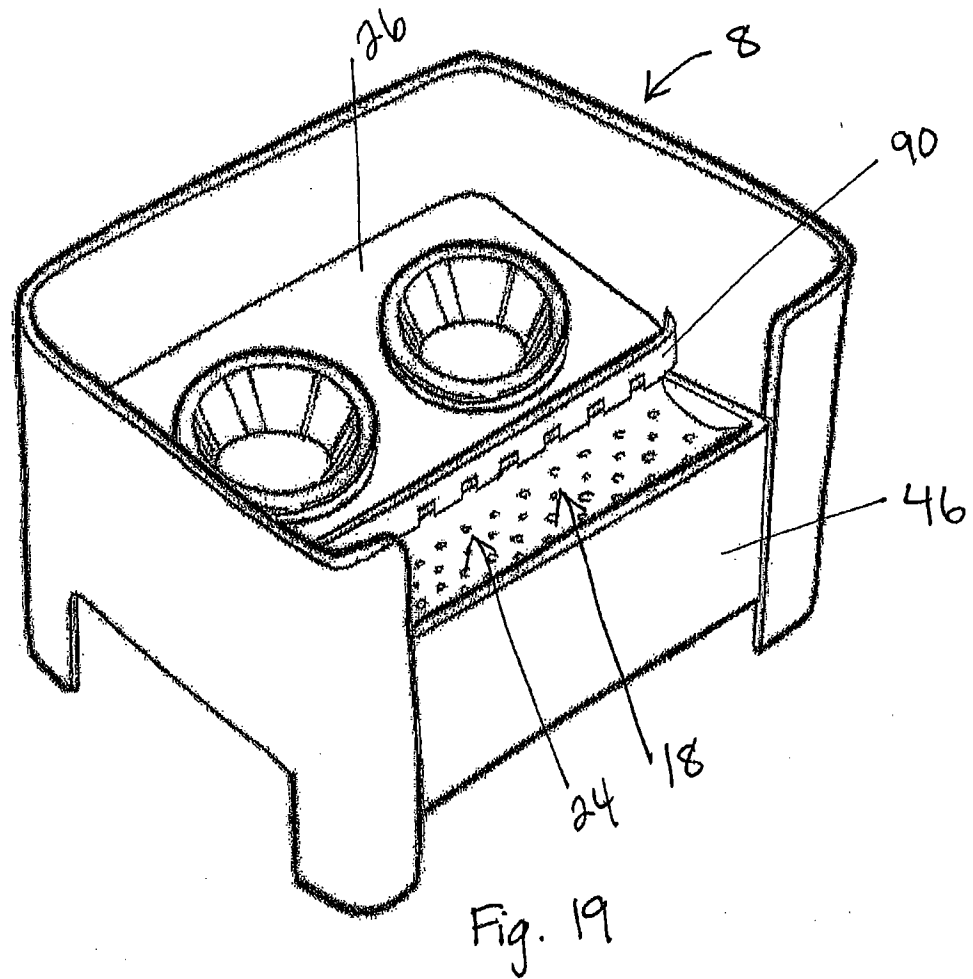


Fig. 18



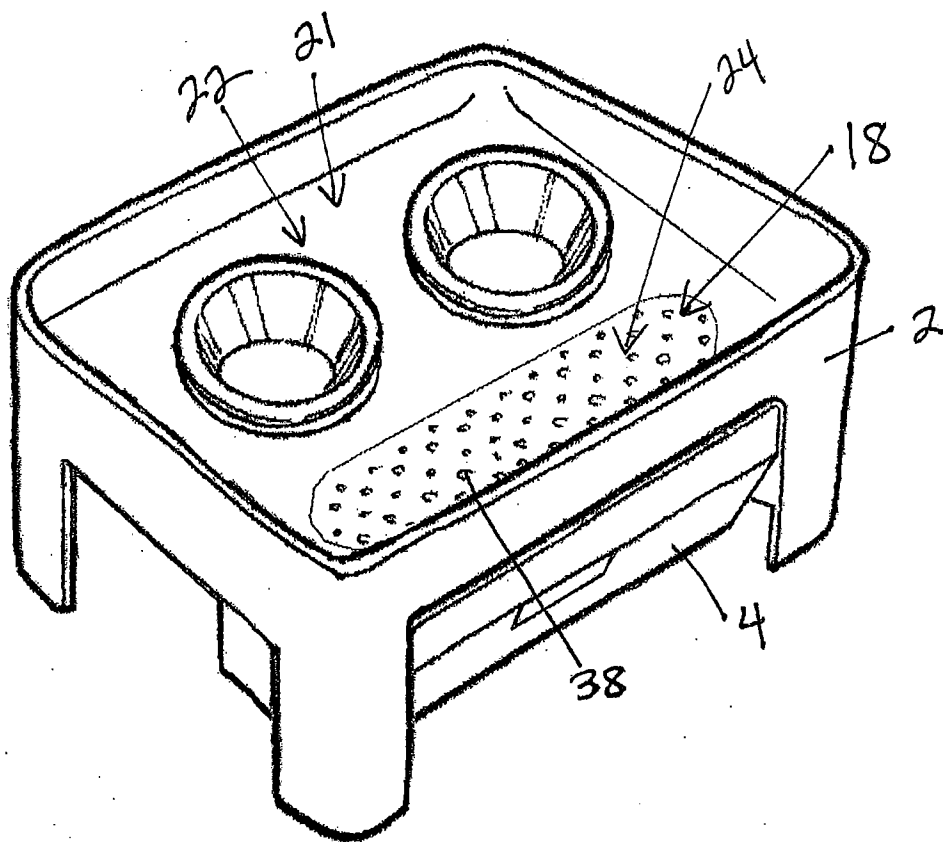


Fig. 20

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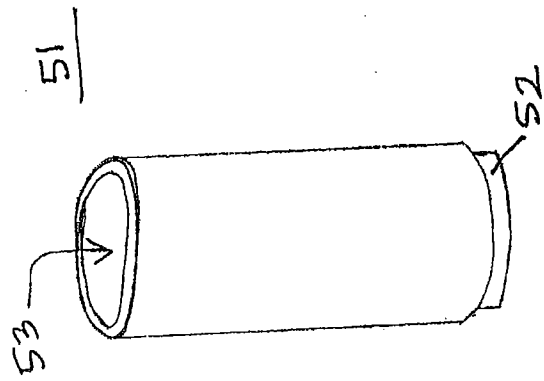


Fig. 21

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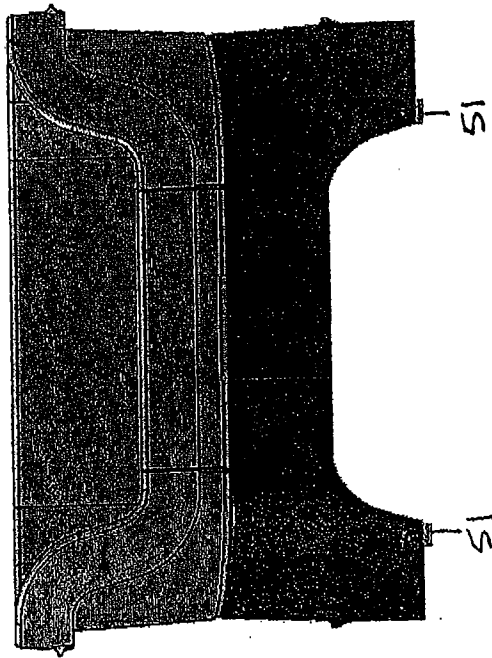


Fig. 22c

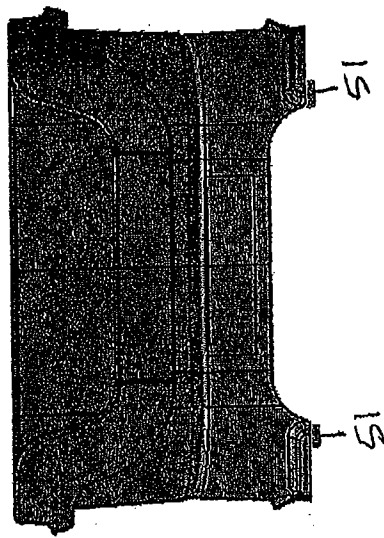


Fig. 22b

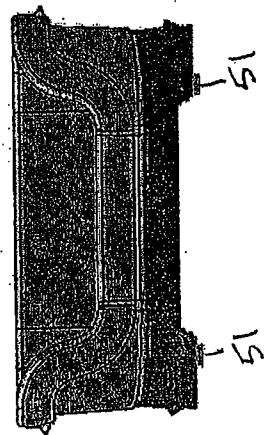


Fig. 22a

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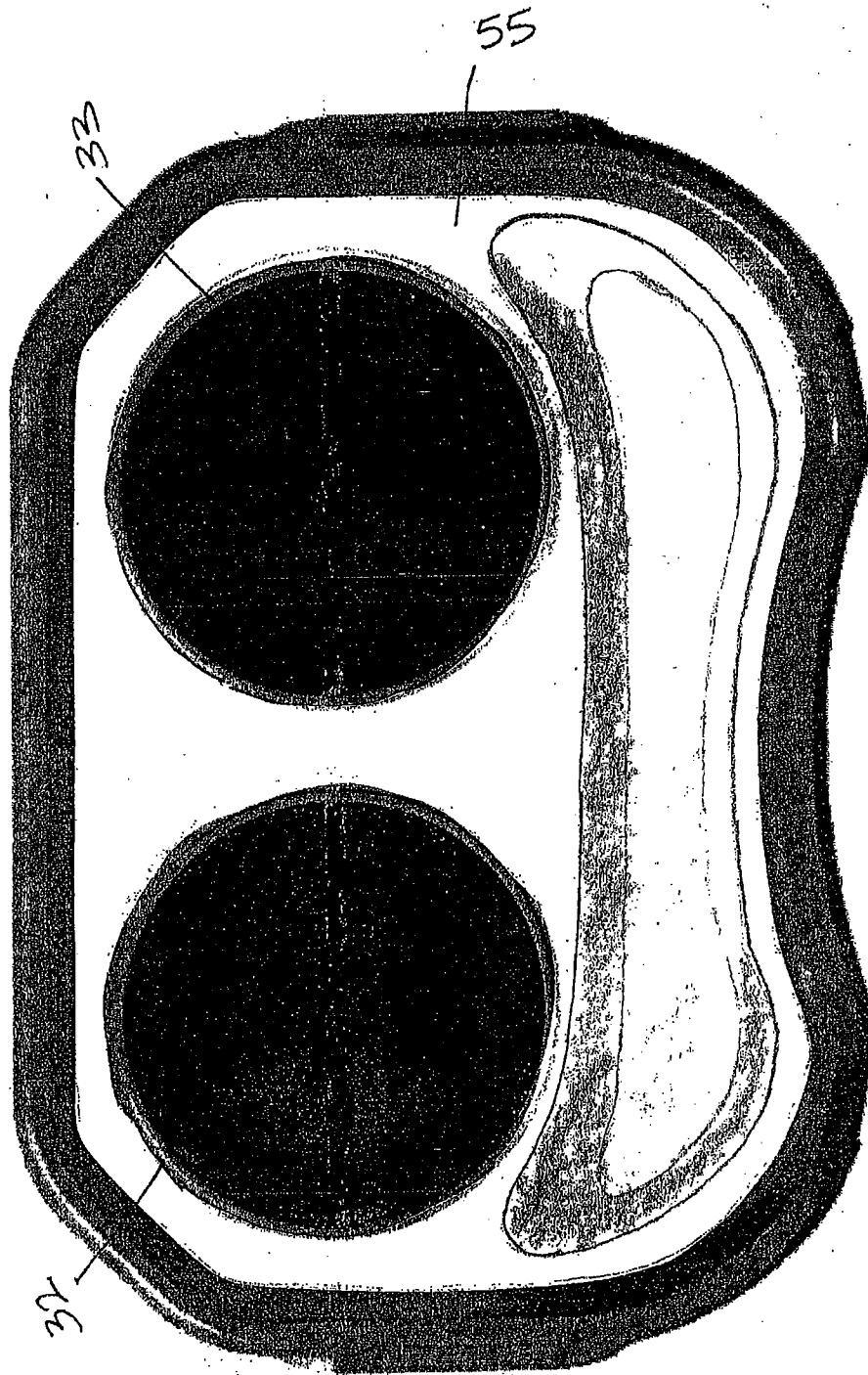


Fig. 23

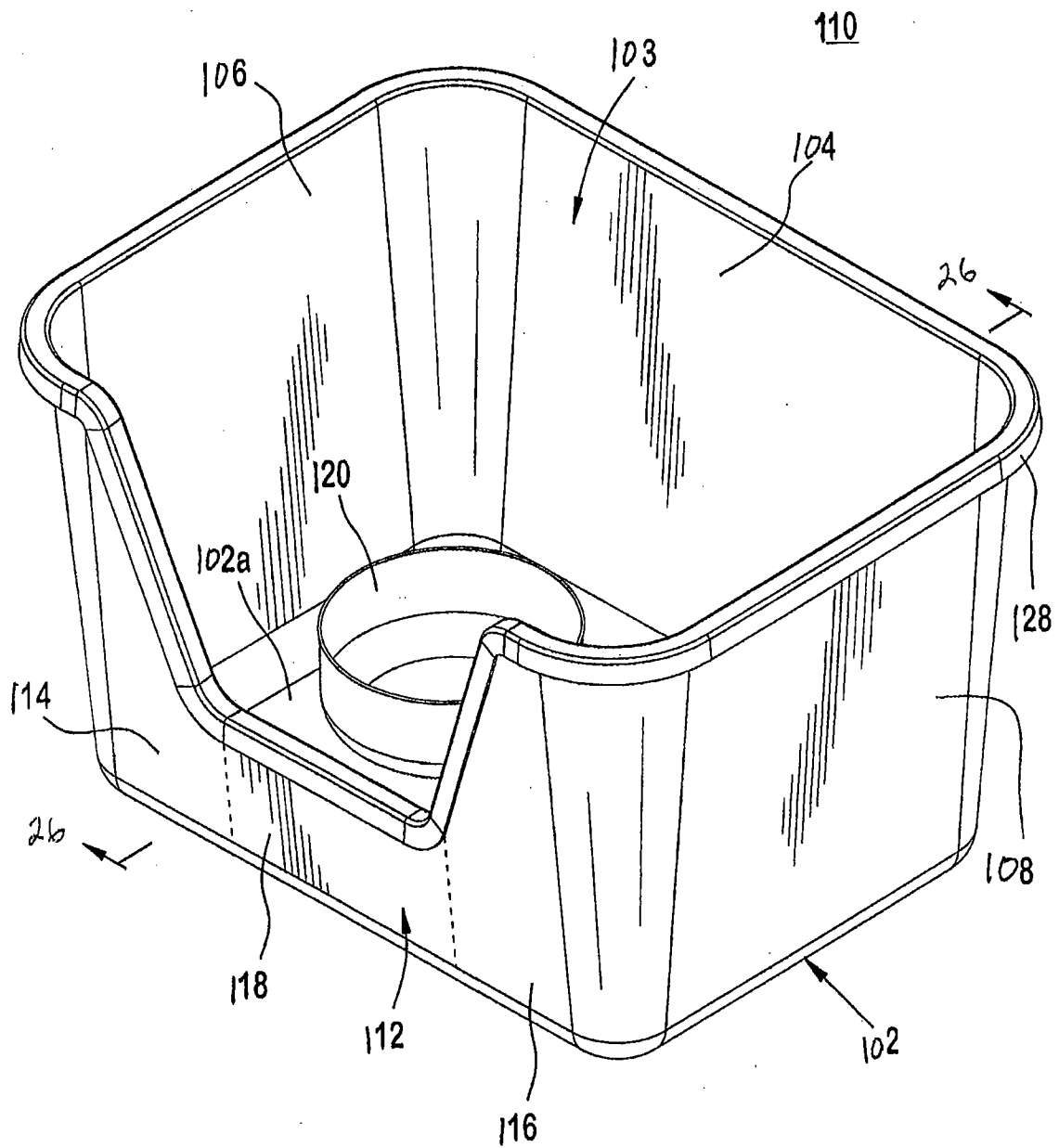
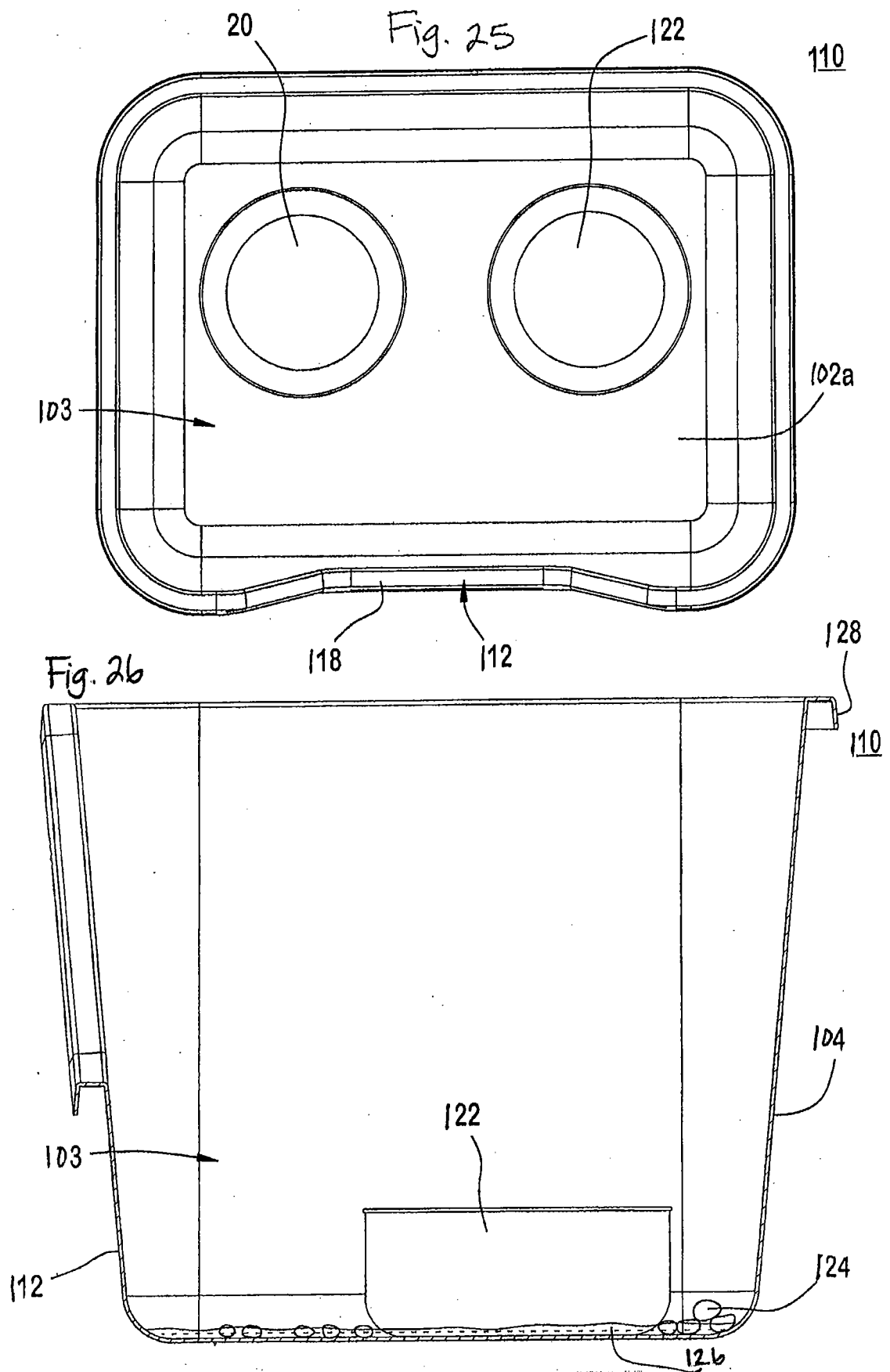


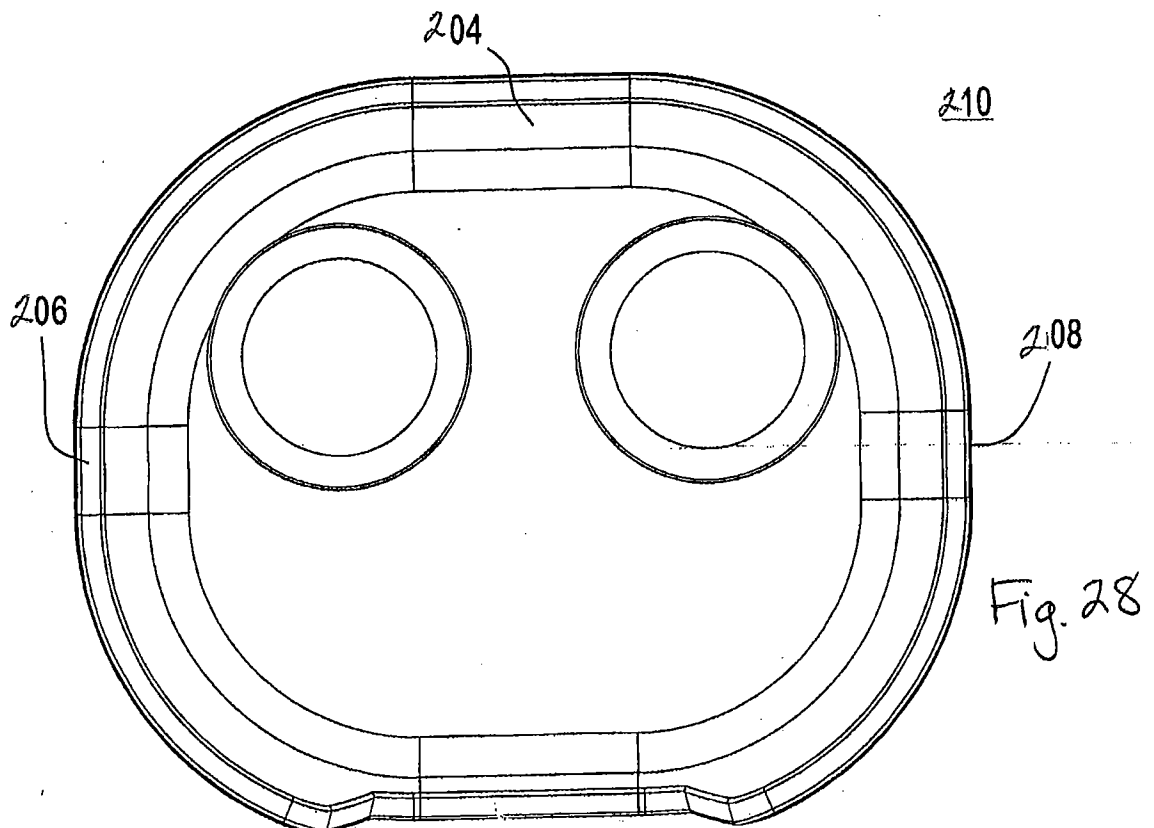
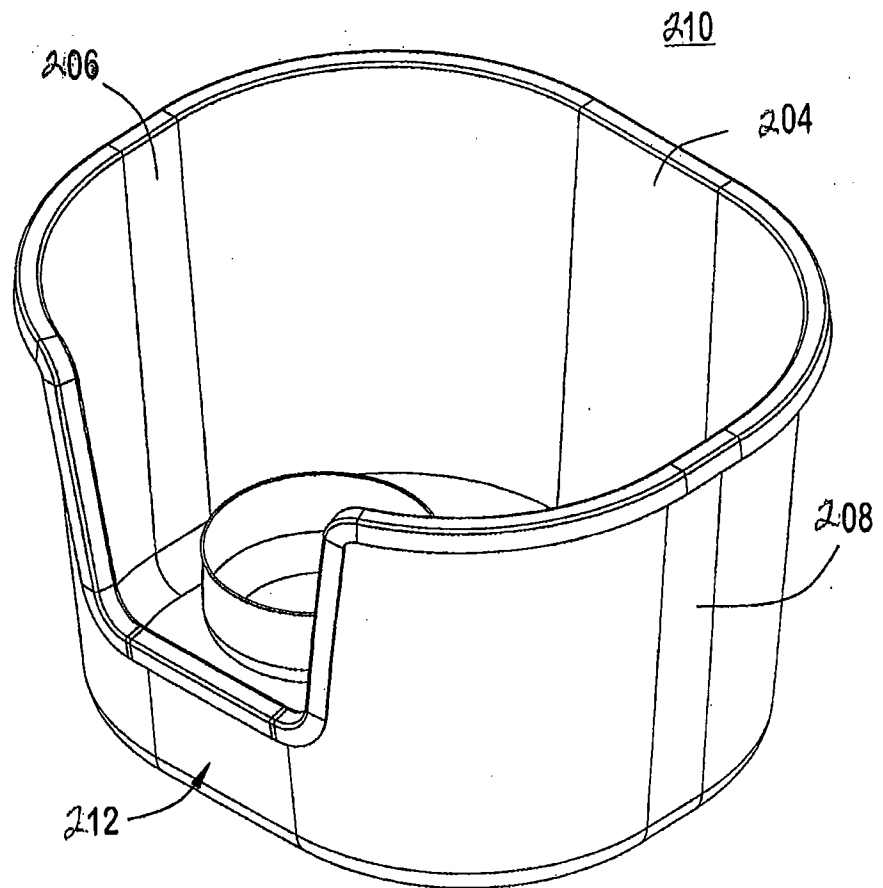
Fig. 24

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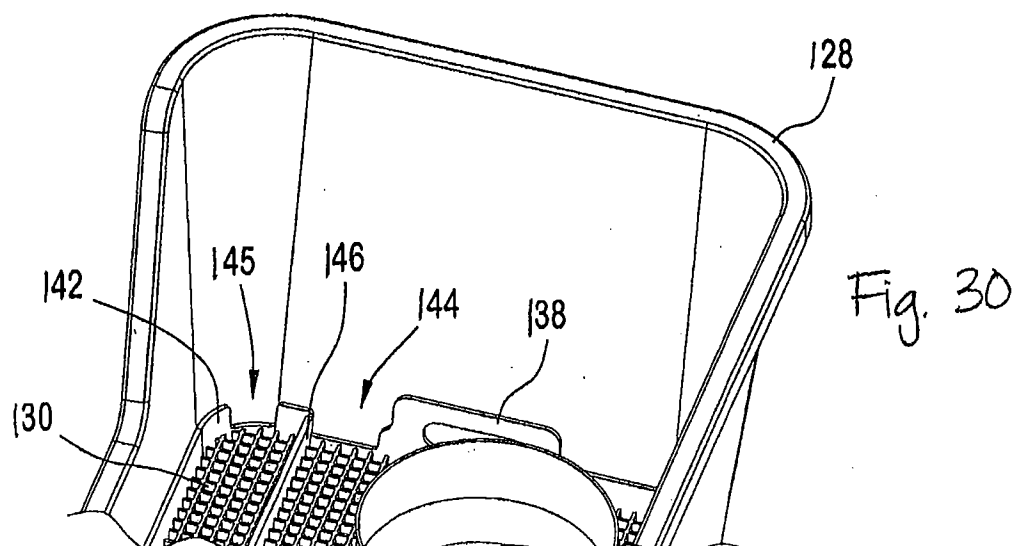
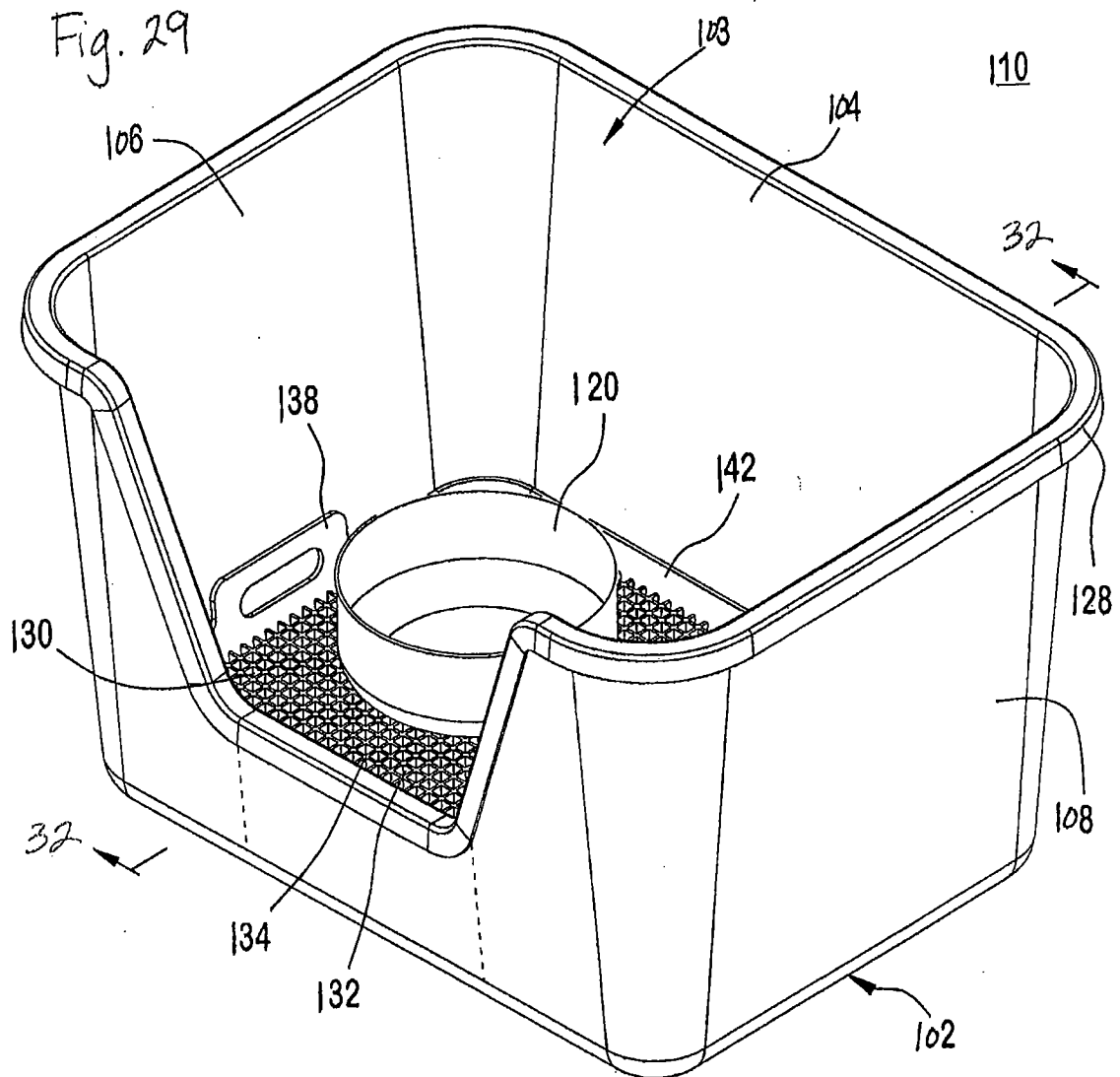


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Fig. 27



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Fig. 31

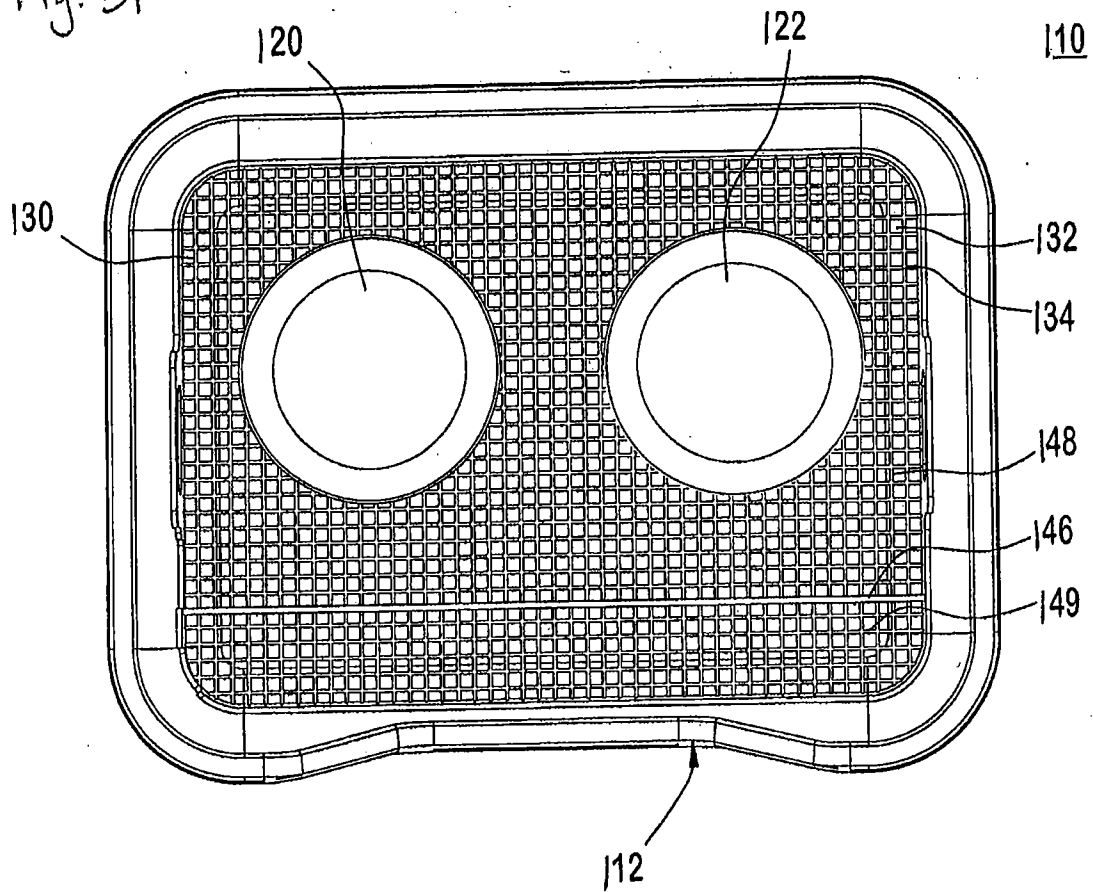
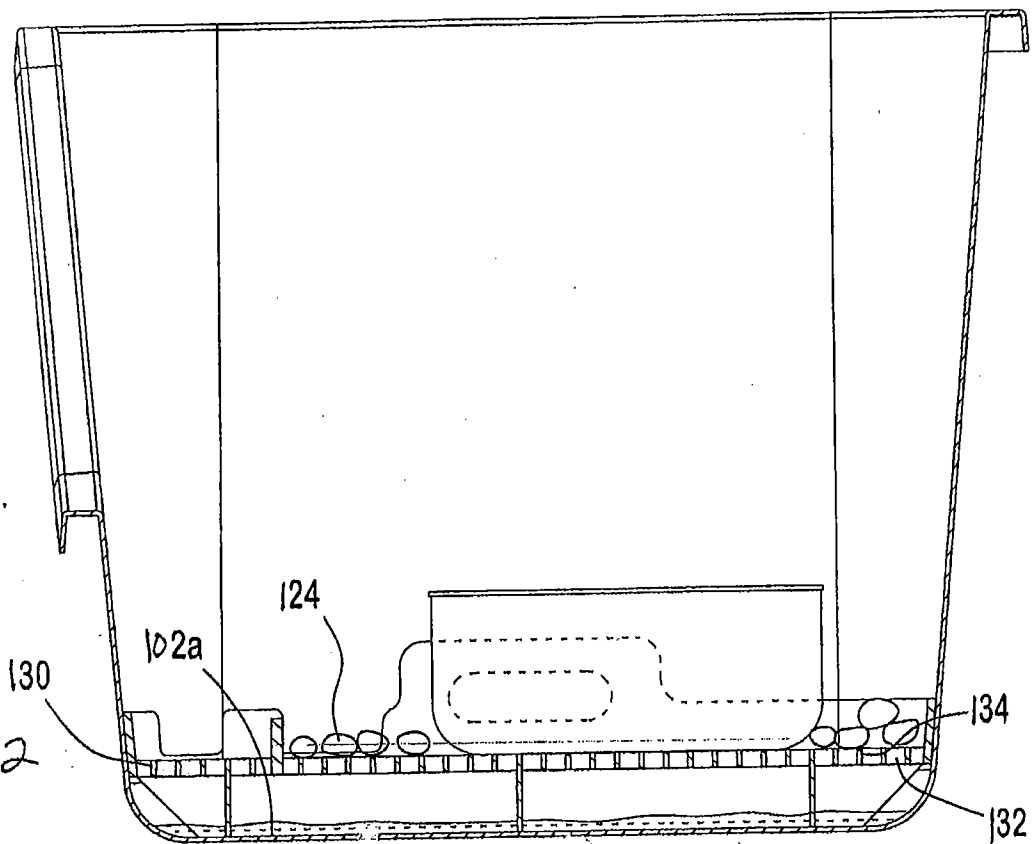
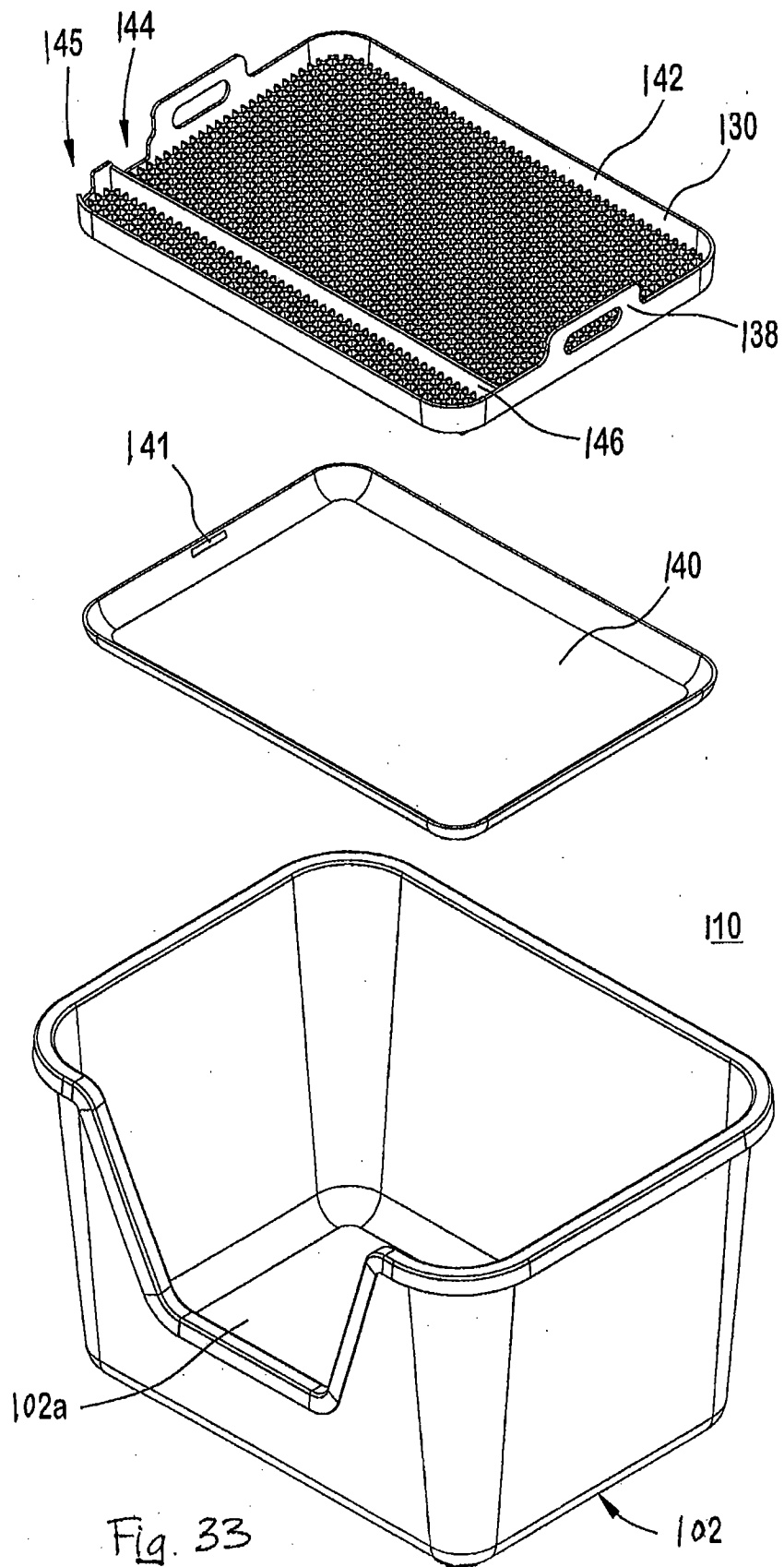


Fig. 32



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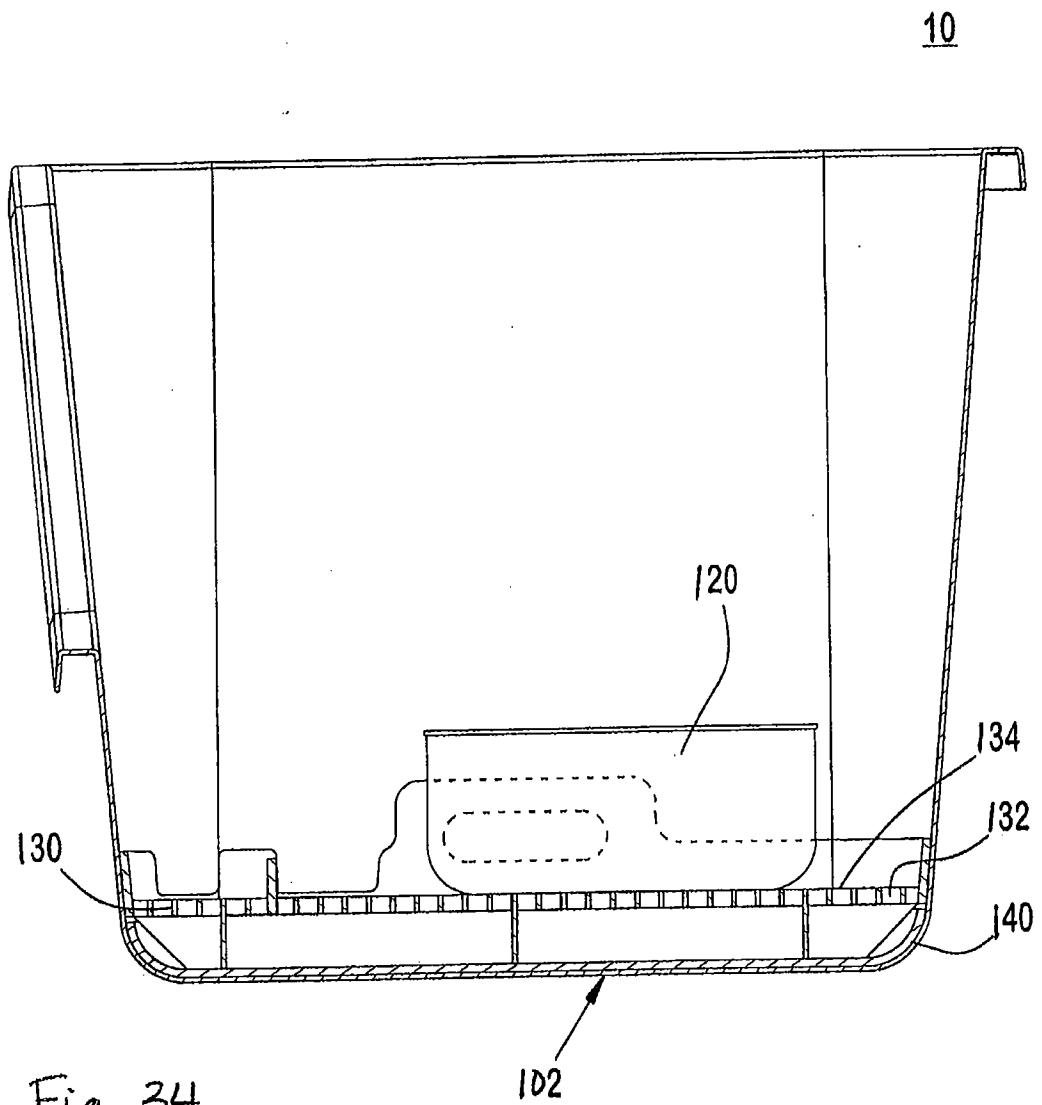


Fig. 34

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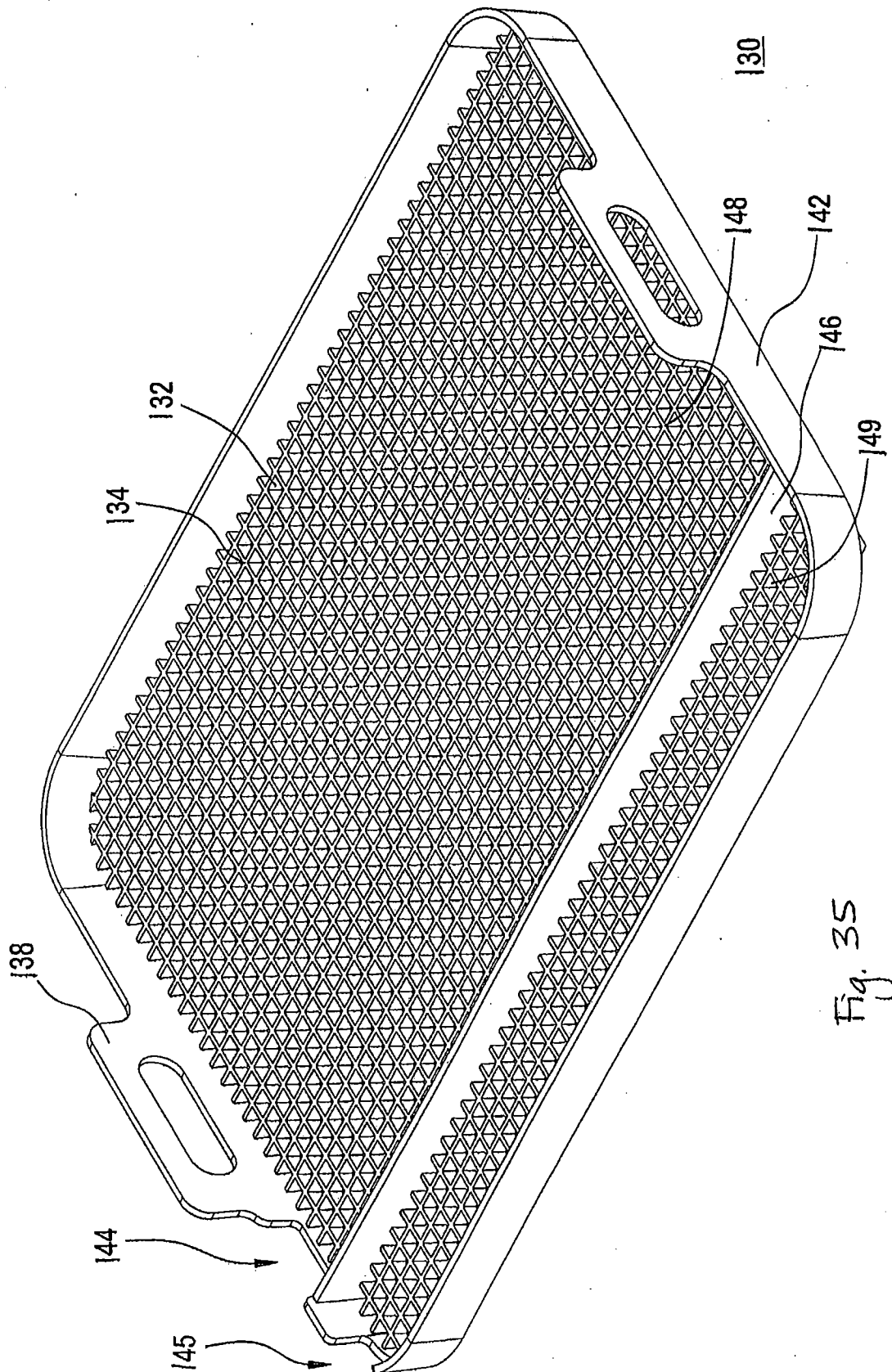


Fig. 35

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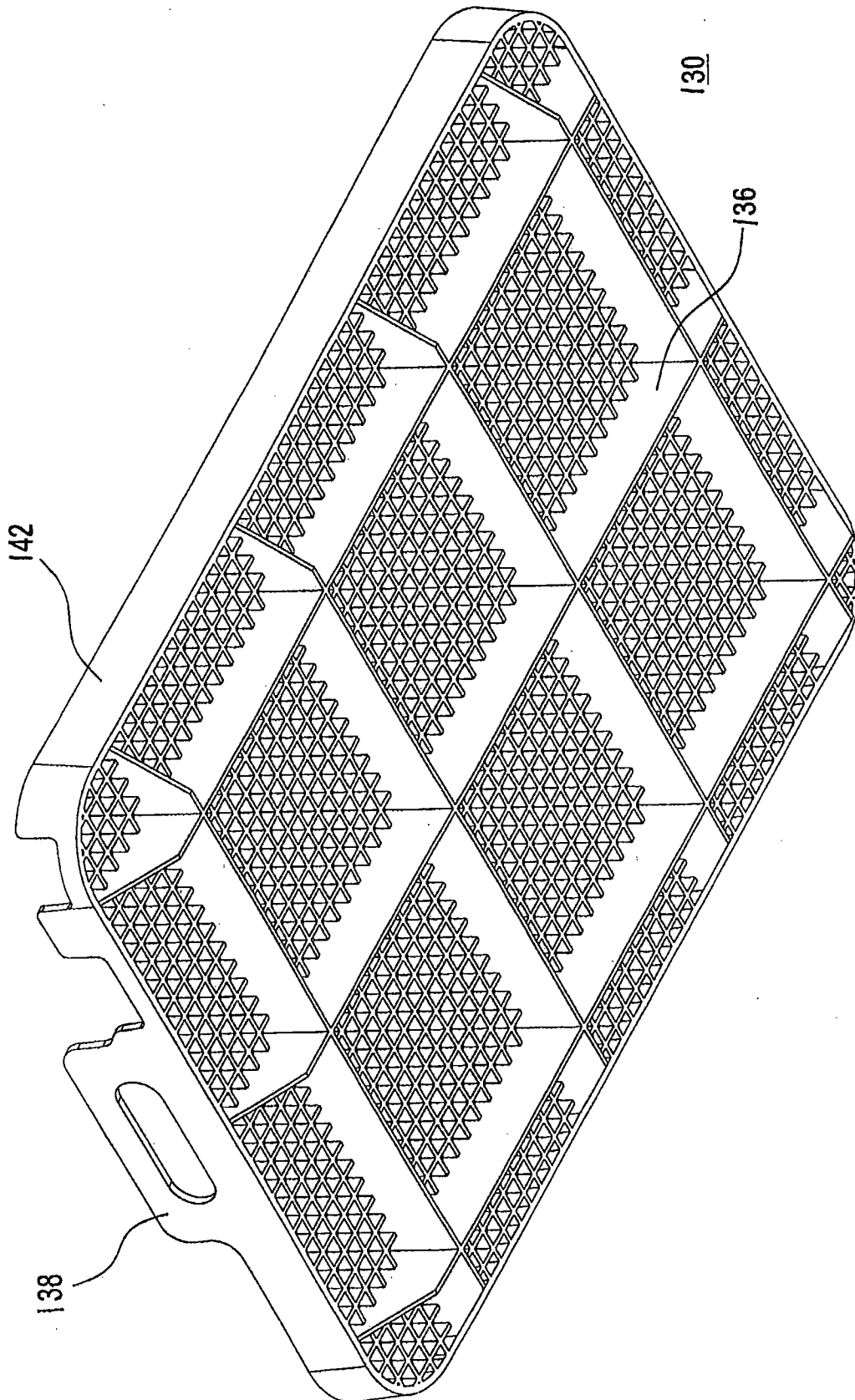


Fig. 3b

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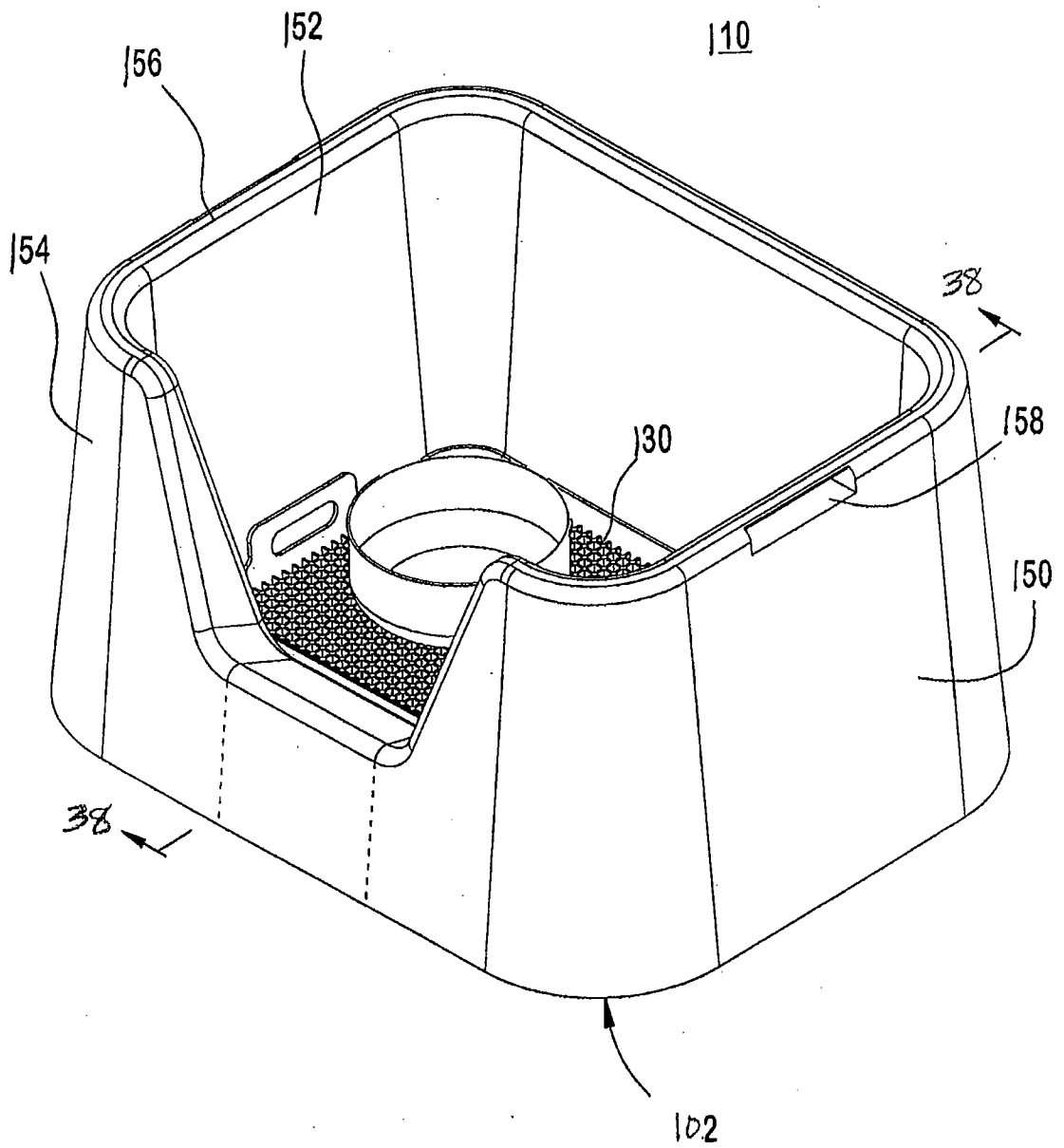


Fig. 37

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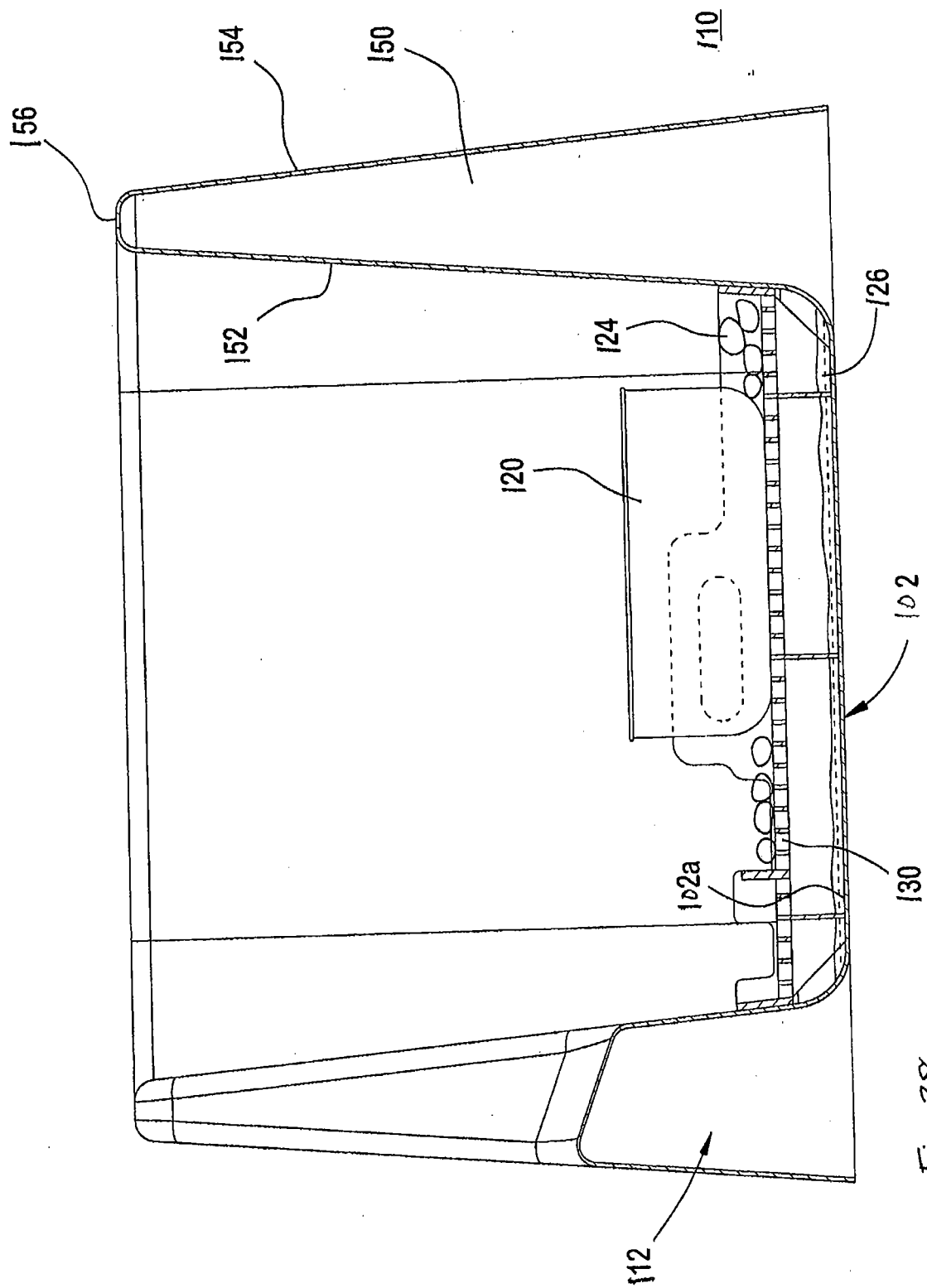


Fig. 38

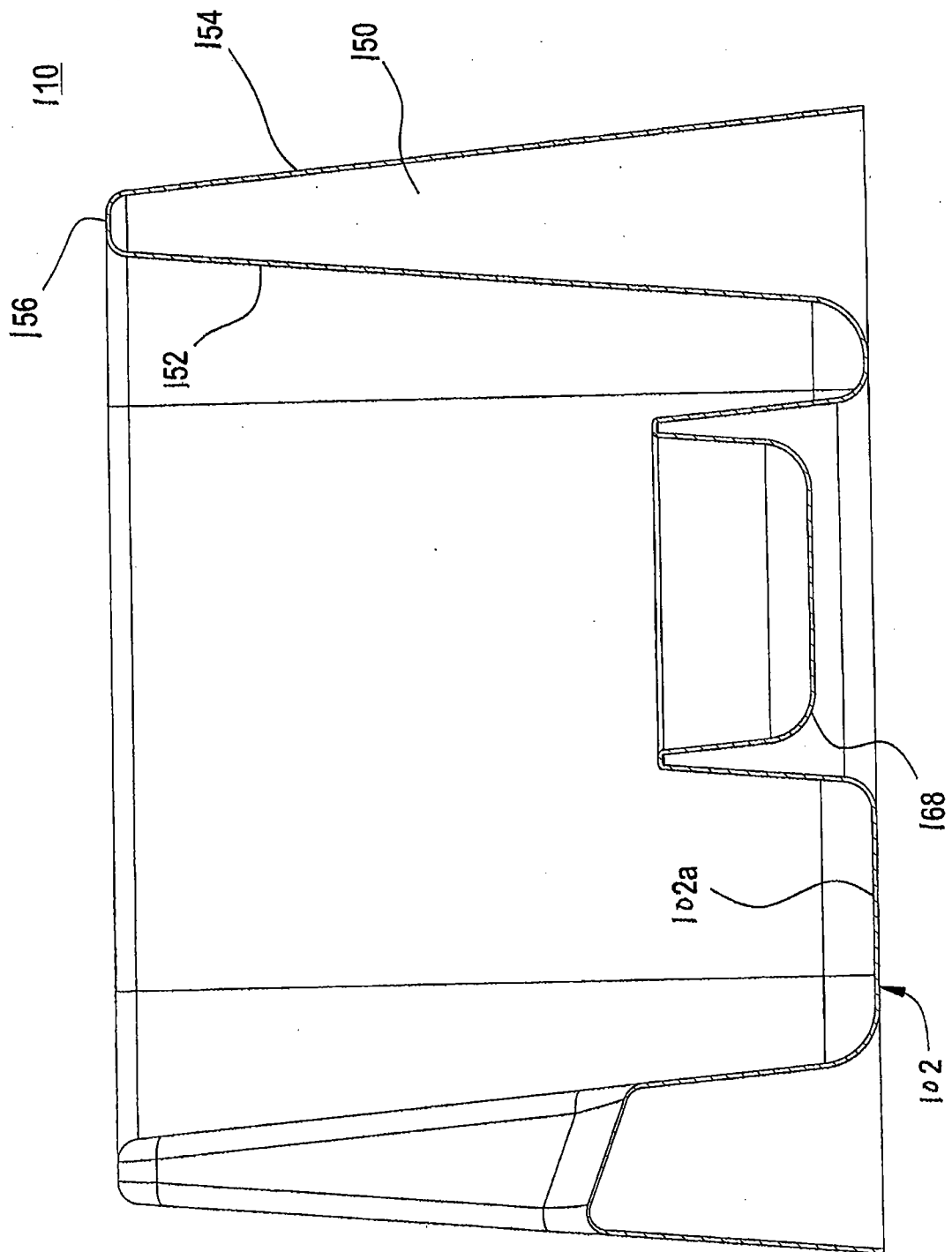


Fig. 39

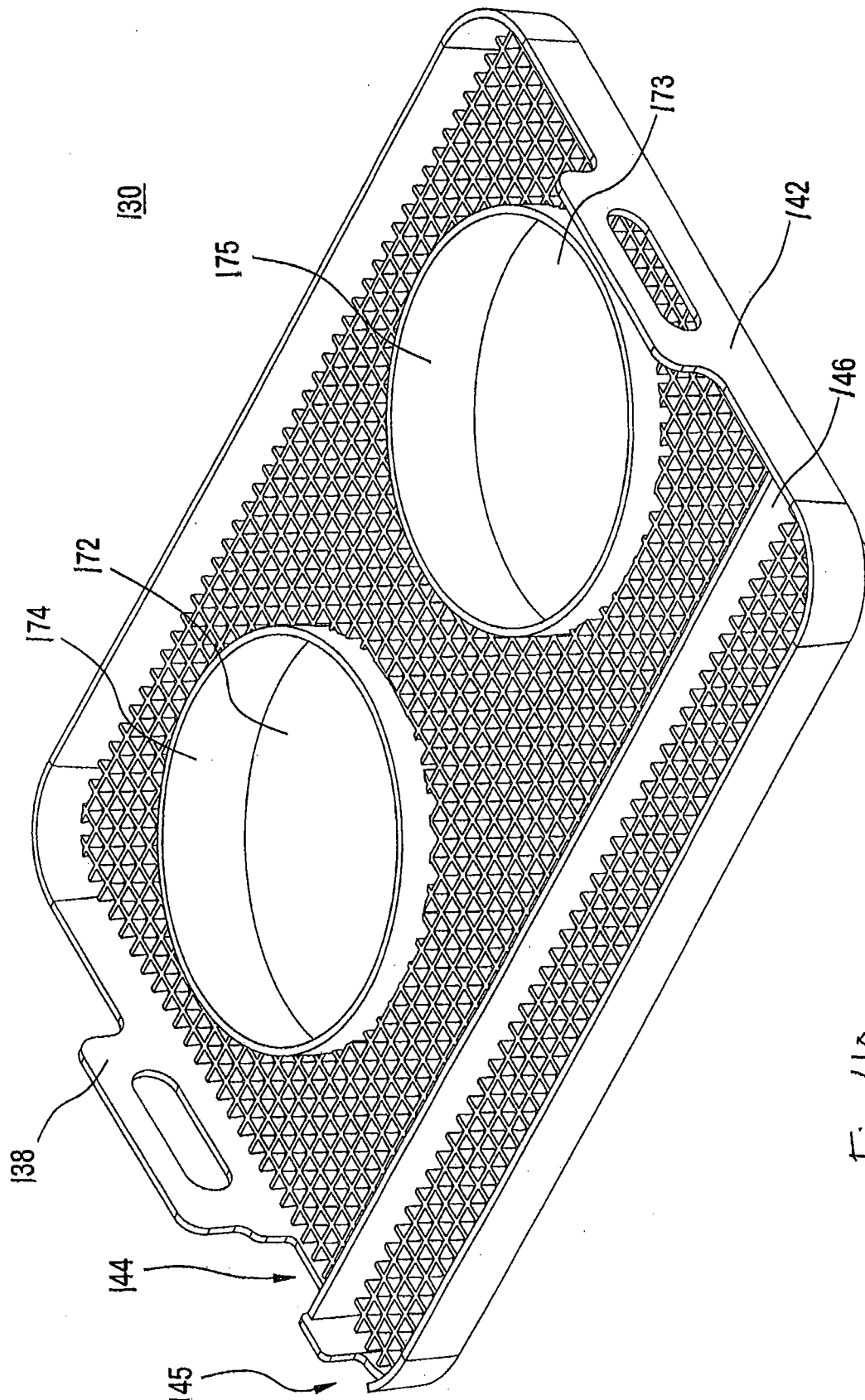


Fig. 40

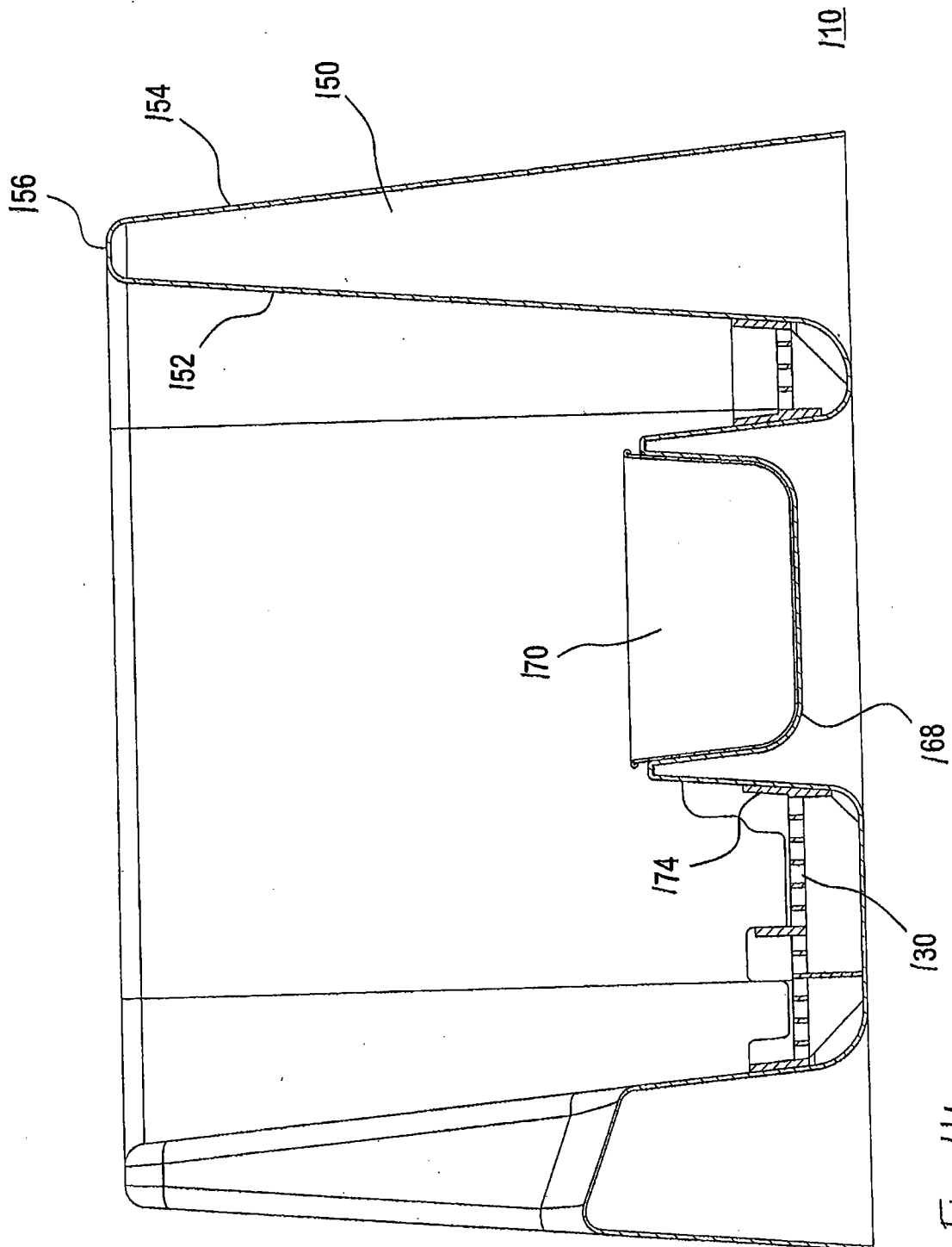


Fig. 41

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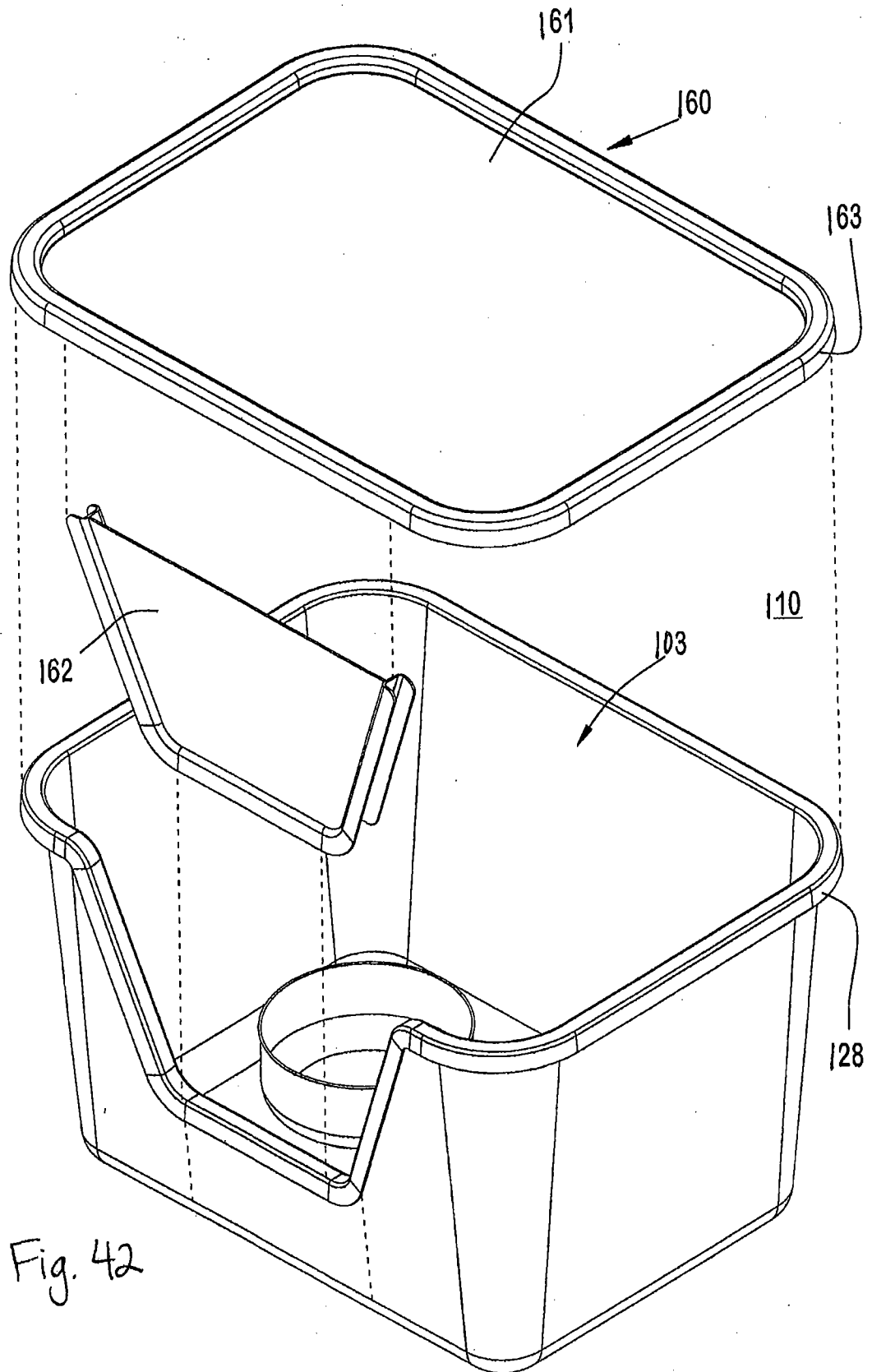


Fig. 42

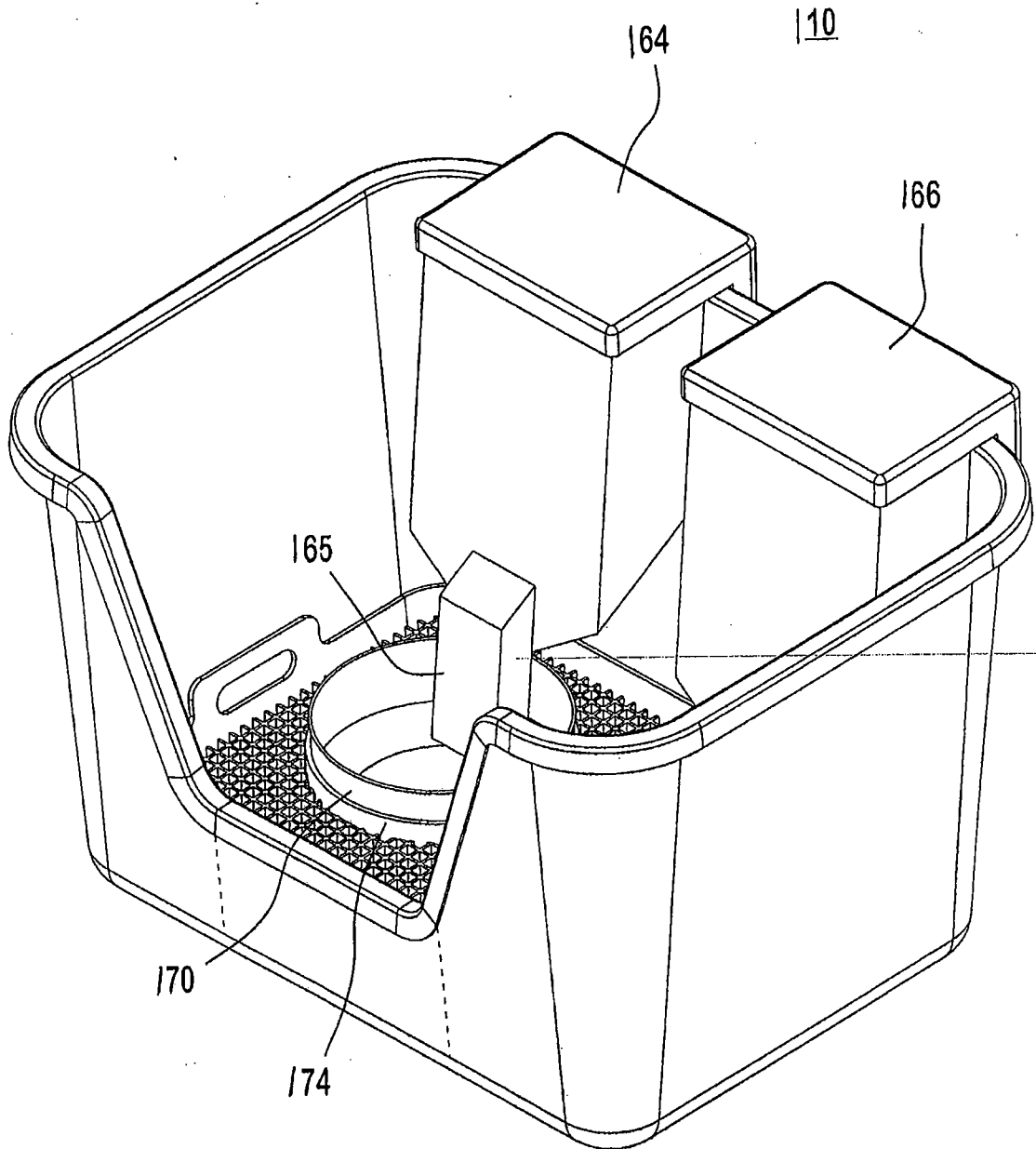


Fig. 43

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Fig. 44

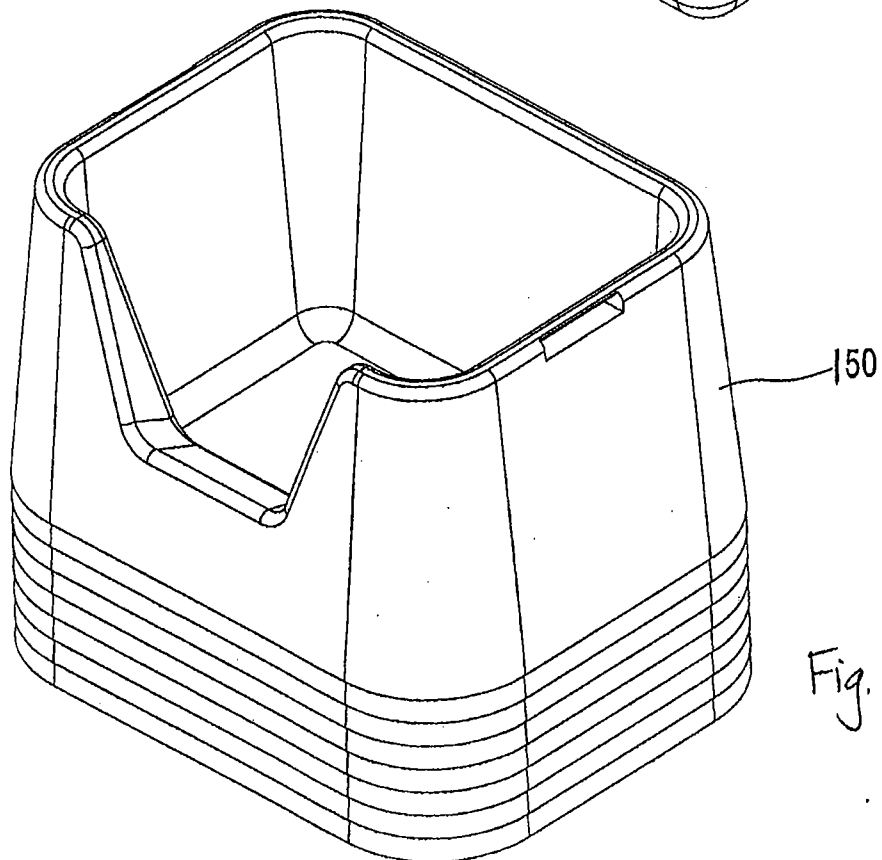
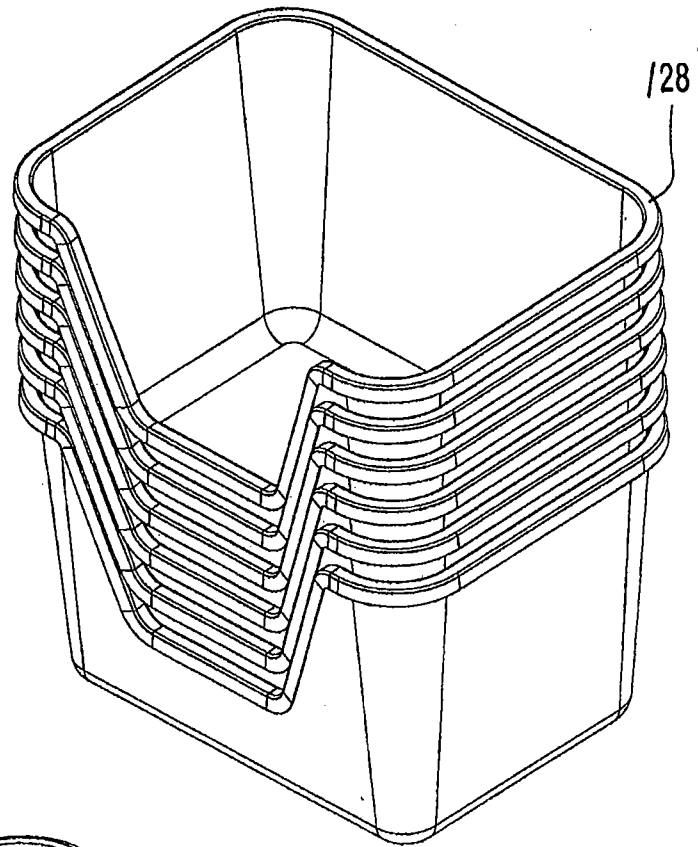


Fig. 45

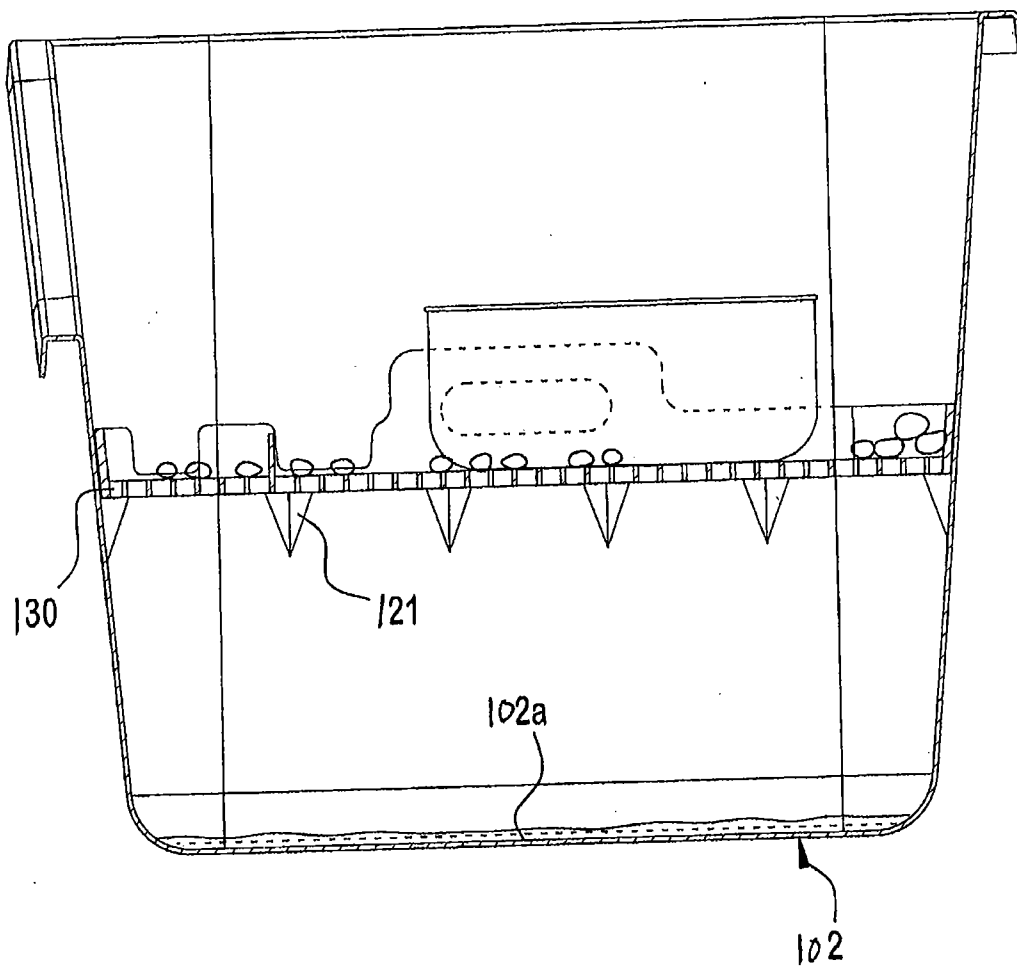


Fig. 46

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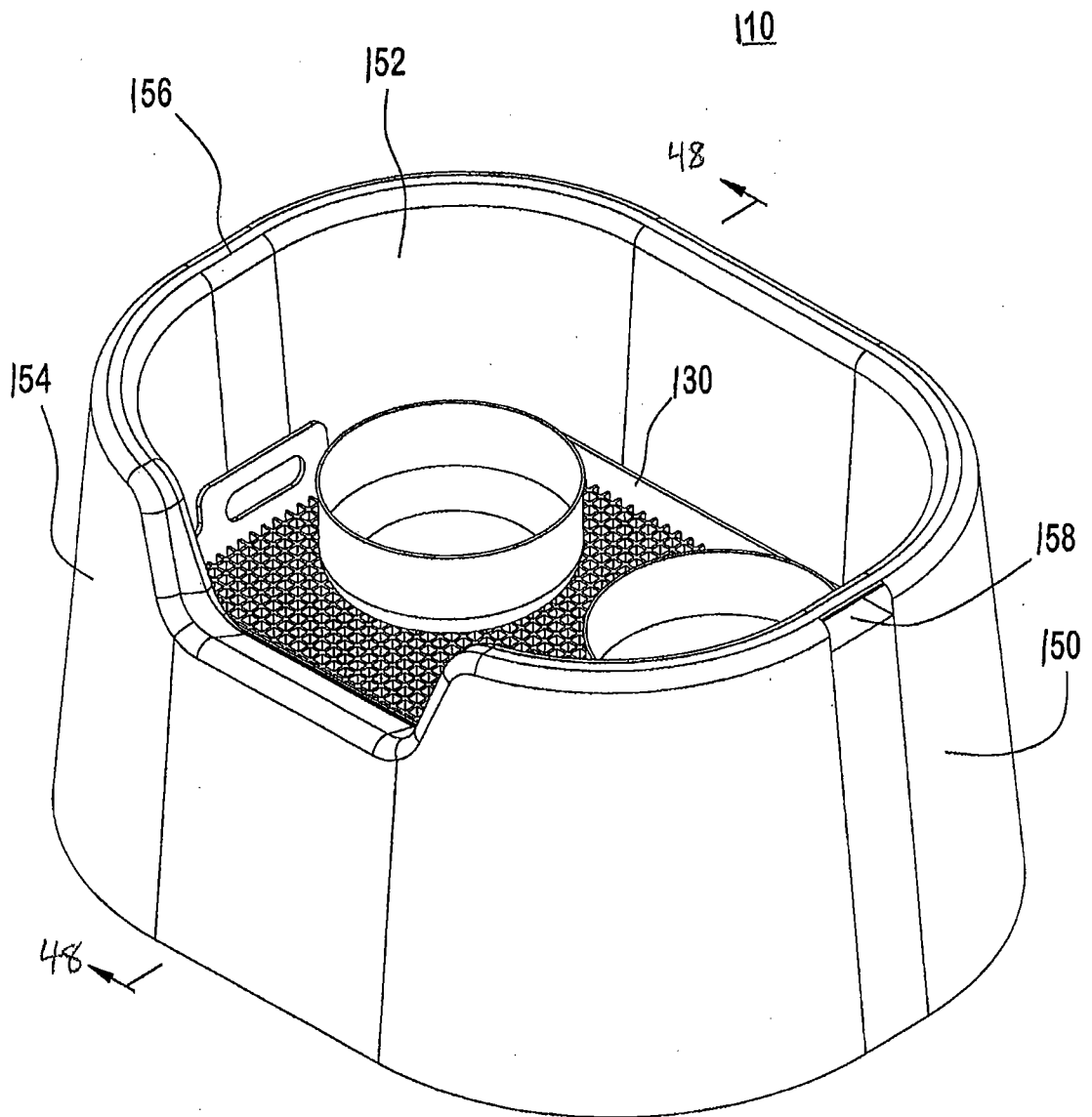
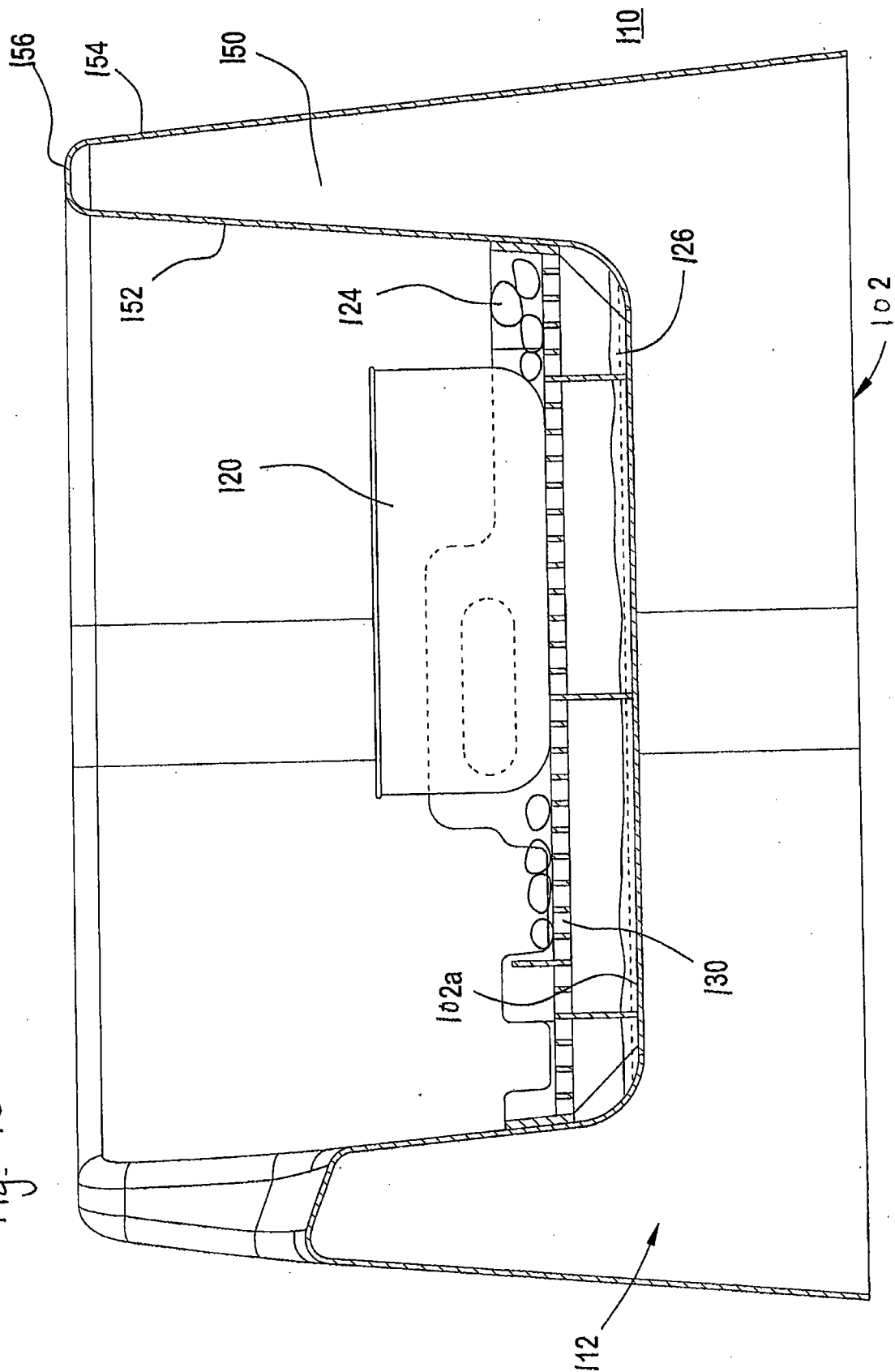


Fig. 47

Fig. 48



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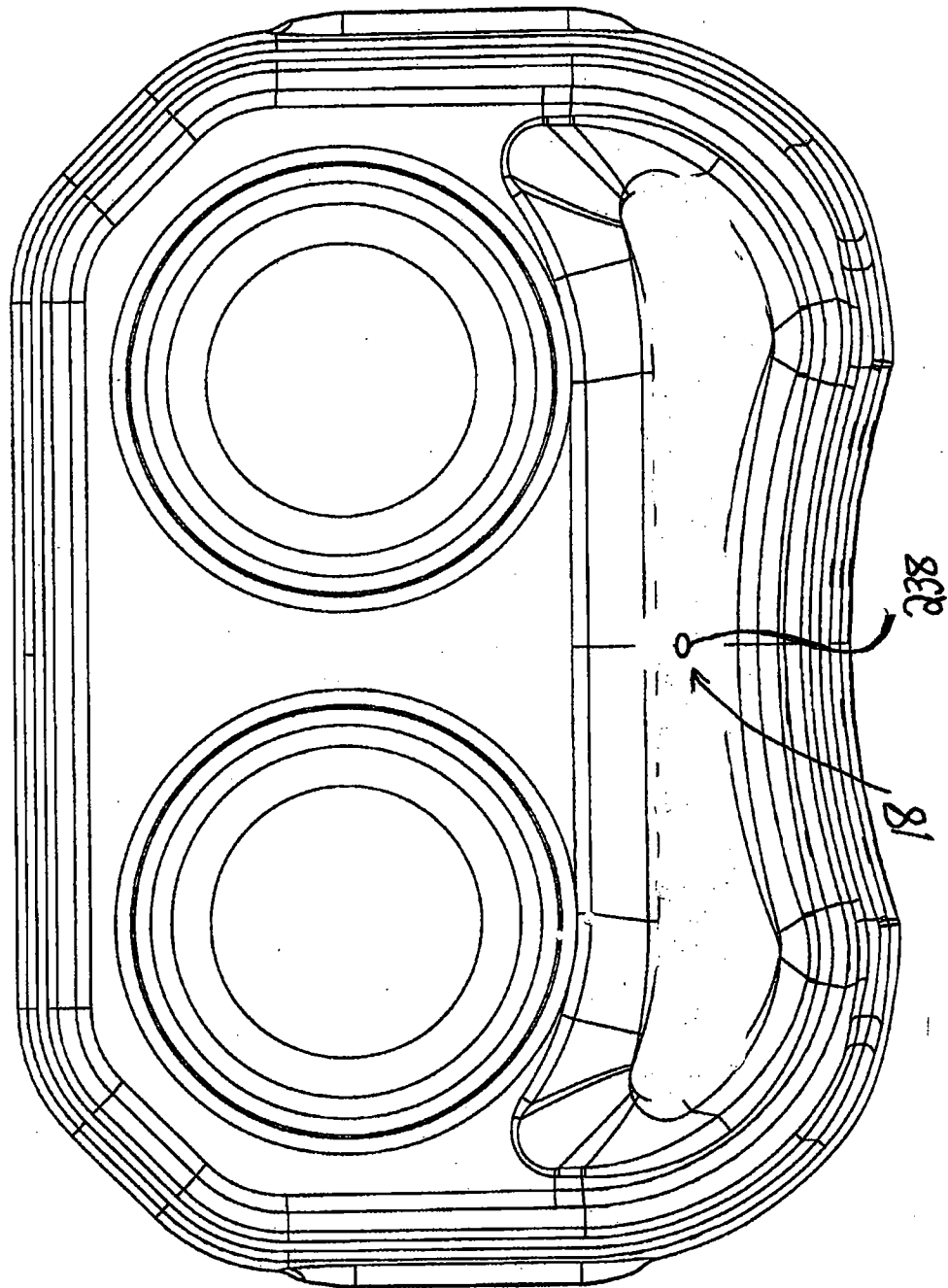


Fig. 49

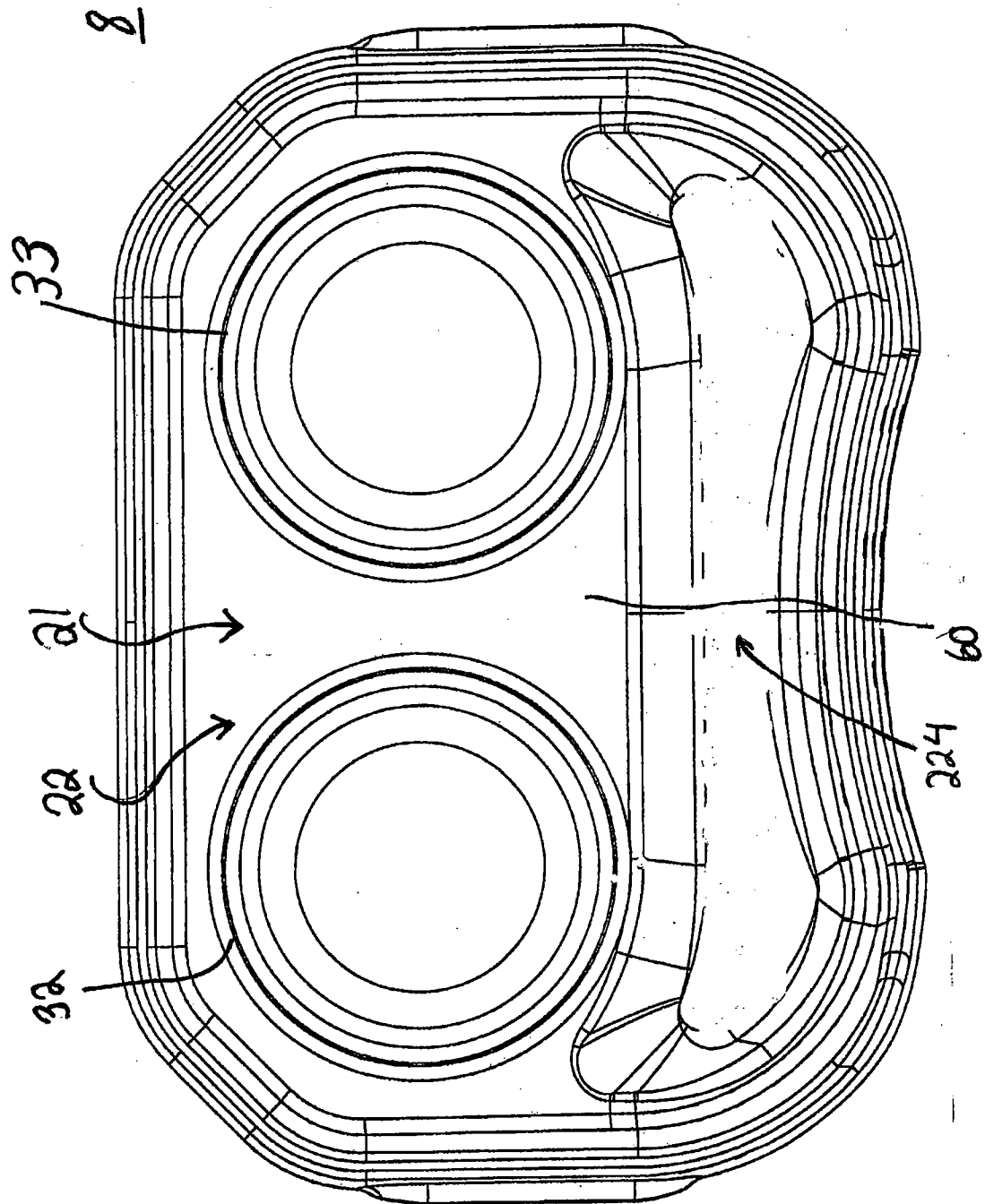


Fig. 50

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 09/31431

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A01K 1/10 (2009.01)

USPC - 119/61.54, 61.5

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)

IPC(8): A01K 1/10 (2009.01)

USPC: 119/61.54, 61.5

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

USPC: 119/51.01, 51.5, 60

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

PubWest (PGPB, USPT, EAPB, JPAB); google: food, feeding, water, bowl, filter, grate, liquid, second, drawer, slot, bin, basin, gravity, supply, pet, animal, housing, assembly, lattice, pan.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,532,891 A (Jones) 06 August 1985 (06.08.1985) (Entire document, especially Figs. 1-3)	1-2, 4-9, 11-18, 25-26, 28-30, 33-35, 41-43, 51, 58-64, 72 and 74
Y		3, 10, 19-24, 27, 31-32, 36-40, 44-50, 52-57, 65-71 and 73
Y	US 7,152,550 B2 (Walker) 26 December 2006 (26.12.2006) (Figs. 1/4)	3, 10, 19-24, 27, 31-32, 52-57, 71 and 73
Y	US 5,551,371 A (Markey, et al.) 03 September 1996 (03.09.1996) (Fig. 1)	23-24, 31-32, 38, 45-50, 65-71 and 73
Y	US 4,947,796 A (Robinette) 14 August 1990 (14.08.1990) (Fig. 3)	24, 37, 39-40, 44, 66-67 and 70
Y	US 4,428,325 A (Koch) 31 January 1984 (31.01.1984) (Figs. 3/4)	36
A	US 4,699,089 A (Teschke) 13 October 1987 (13.10.1987)	
A	US 3,730,141 A (Manning, et al.) 01 May 1973 (01.05.1973)	
A	US 6,055,934 A (Burns) 02 May 2000 (02.05.2000)	

☐ Further documents are listed in the continuation of Box C.

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"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

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Date of the actual completion of the international search

18 February 2009 (18.02.2009)

Date of mailing of the international search report

10 MAR 2009

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