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(54) **CORNER TRASHCAN**

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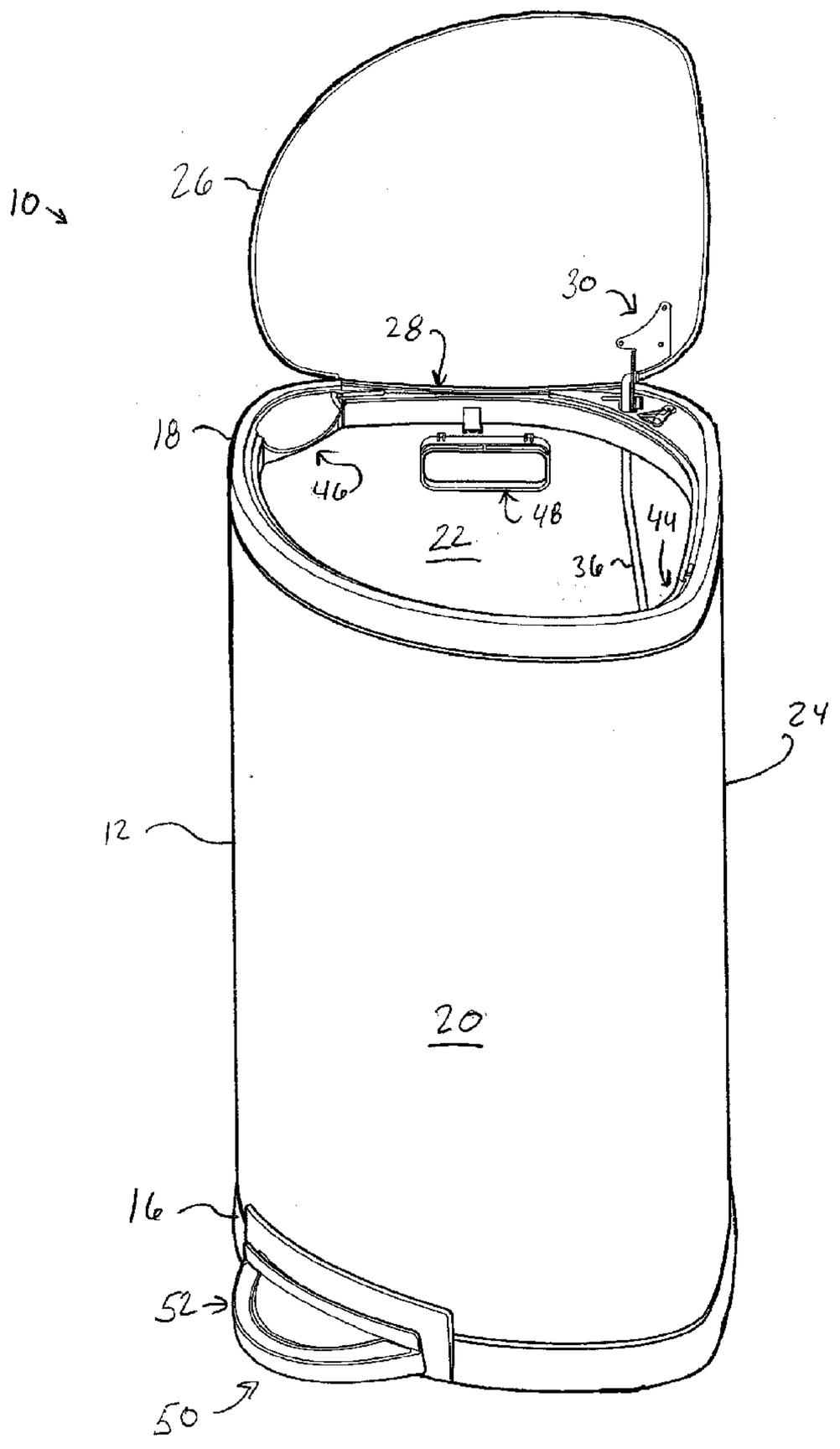
(52) **U.S. Cl.** **220/263**

(57) **ABSTRACT**

A trashcan can be configured to fit into the corner of a room. The trashcan can have a foot pedal that is connected to the lid of the trashcan such that a user can open and close the lid with the foot pedal. The trashcan can be configured such that the lid pivots about an axis that is generally parallel to one of the walls when the trashcan is positioned in the corner of a room. Additionally, the trashcan can include a dampening mechanism which includes two apertures having axes that are skewed relative to one another. This allows the pedal bar and associated lifting rod mechanisms to pivot about the appropriate axes to provide smooth and low friction operation.



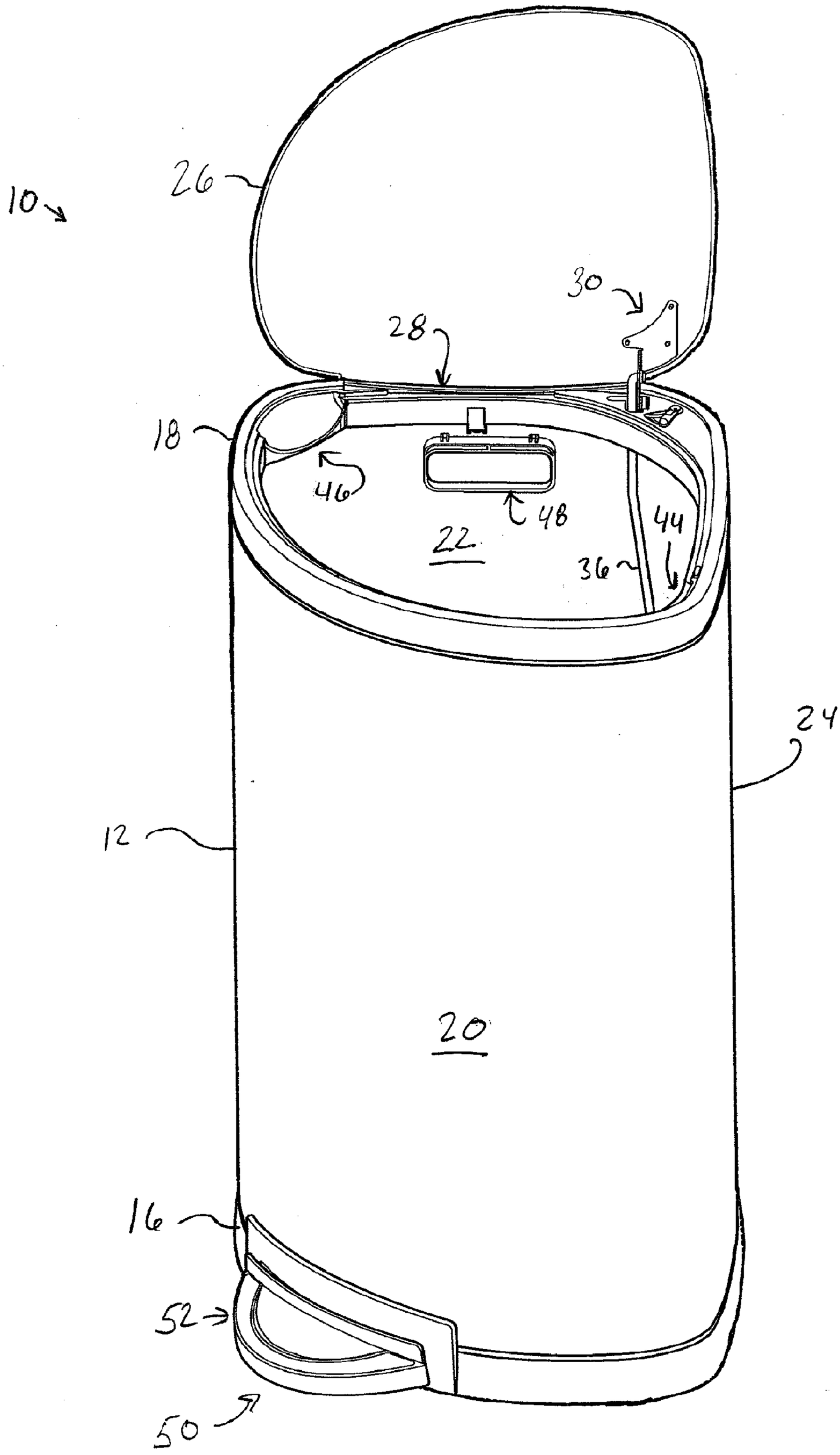


FIG. 1

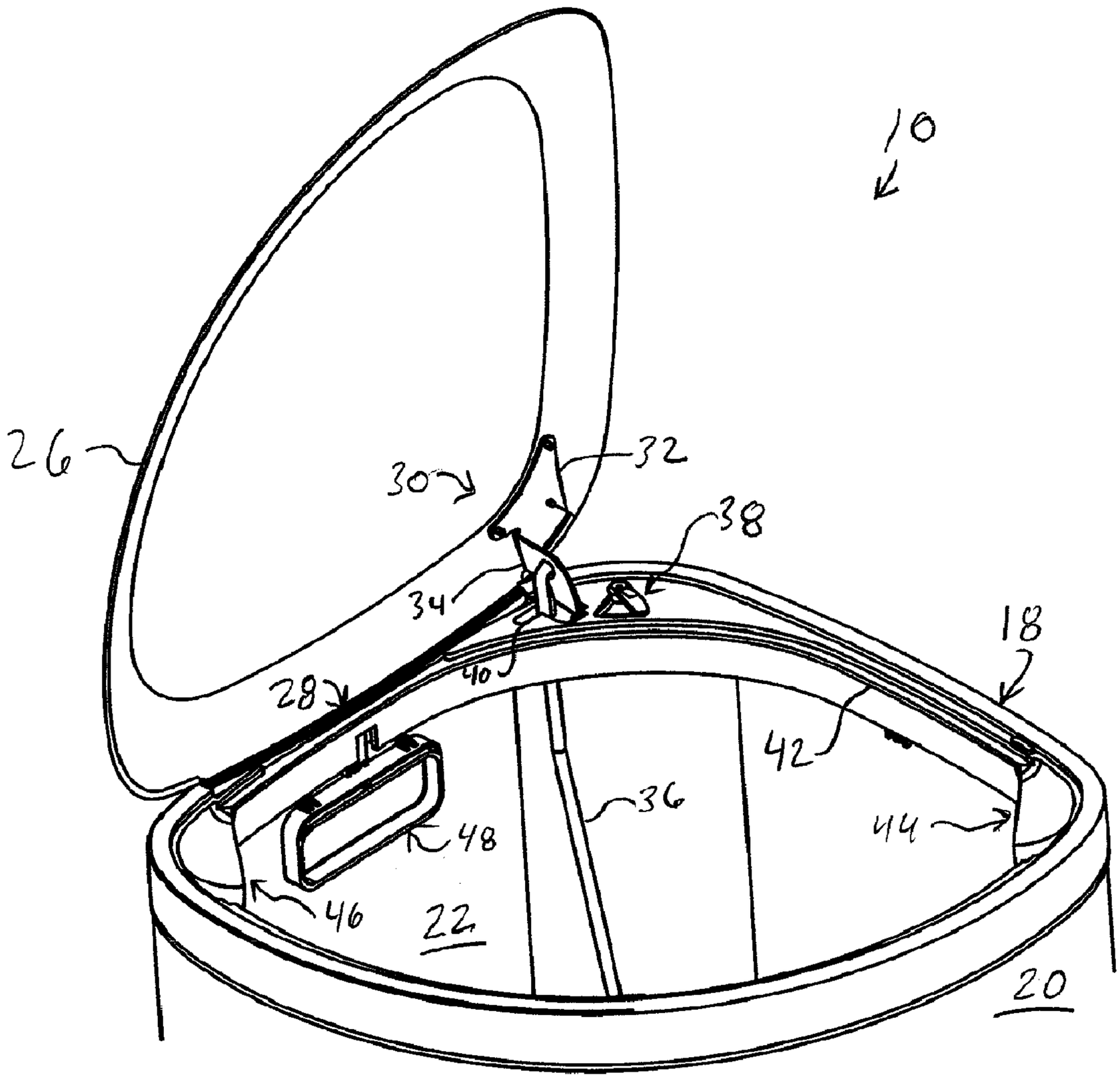


FIG. 2

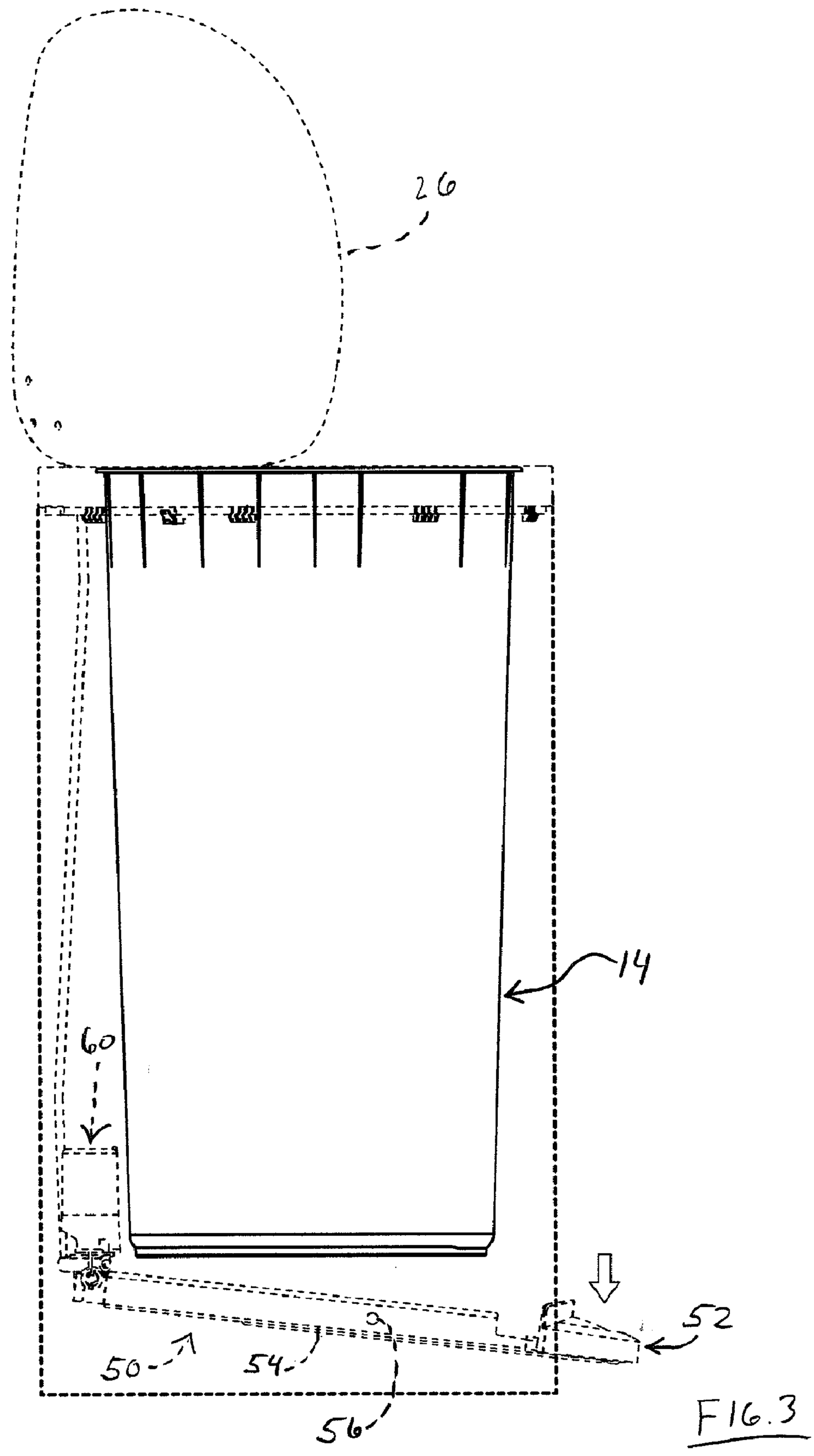


FIG. 3

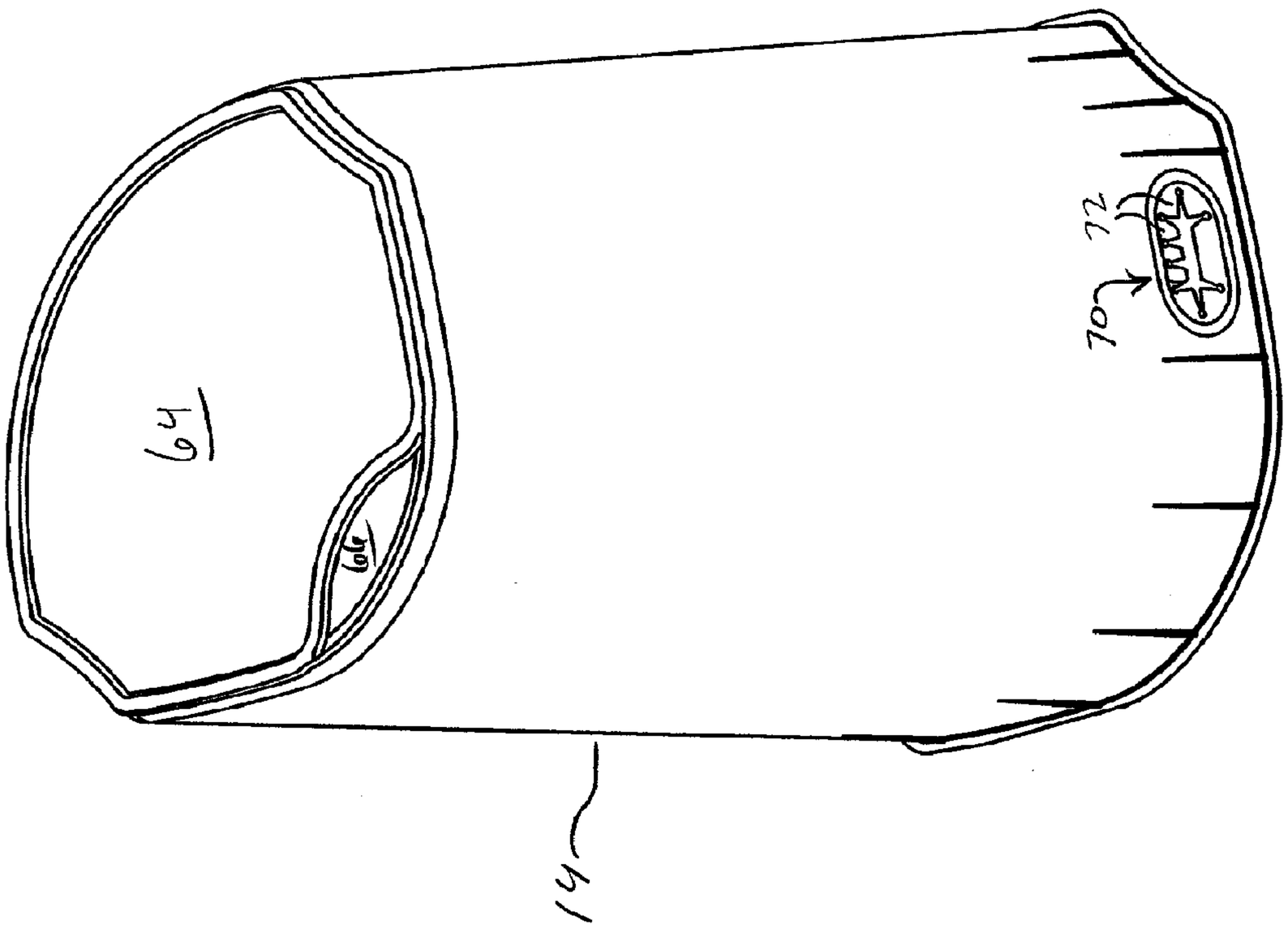


FIG. 3

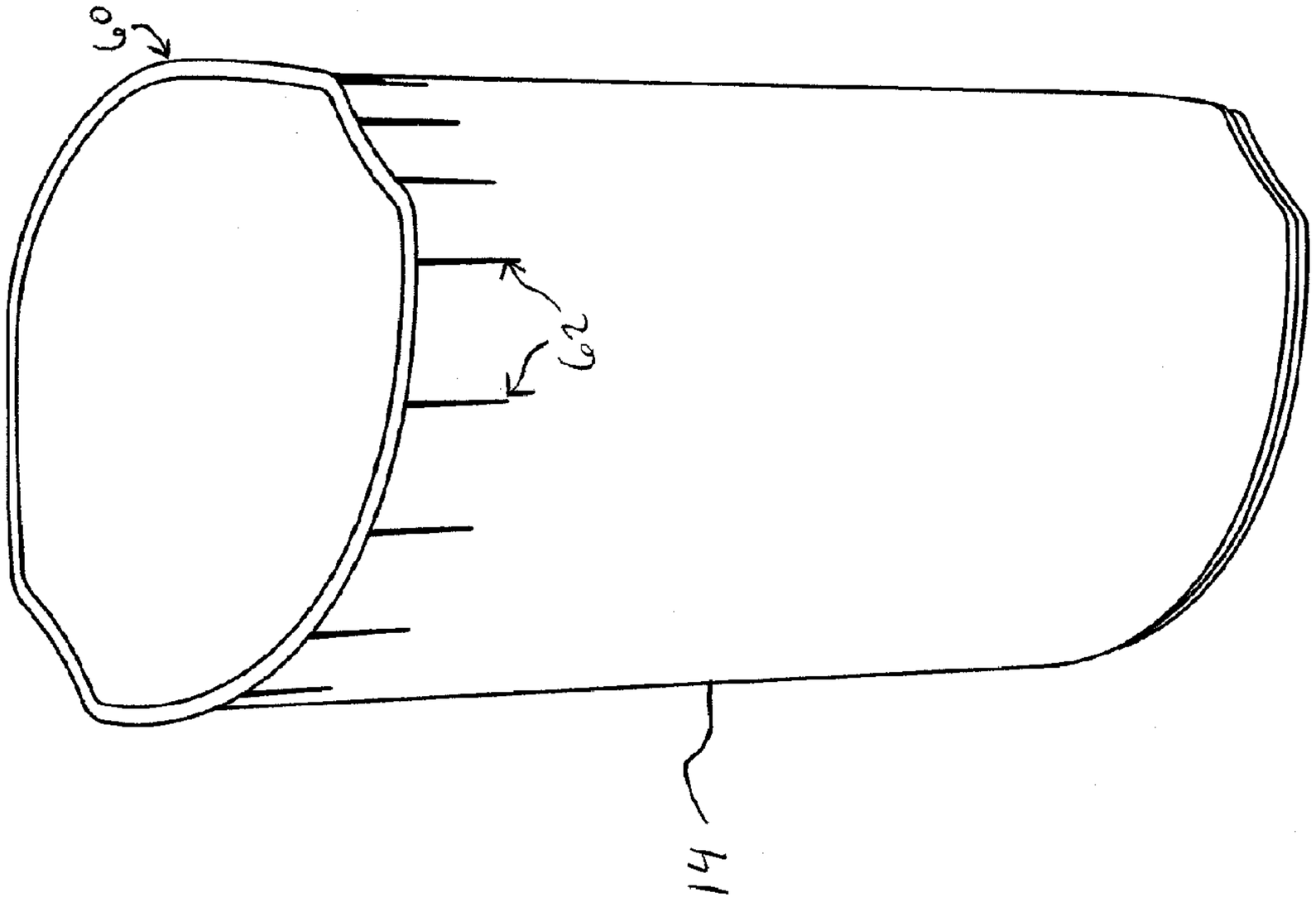


FIG. 4

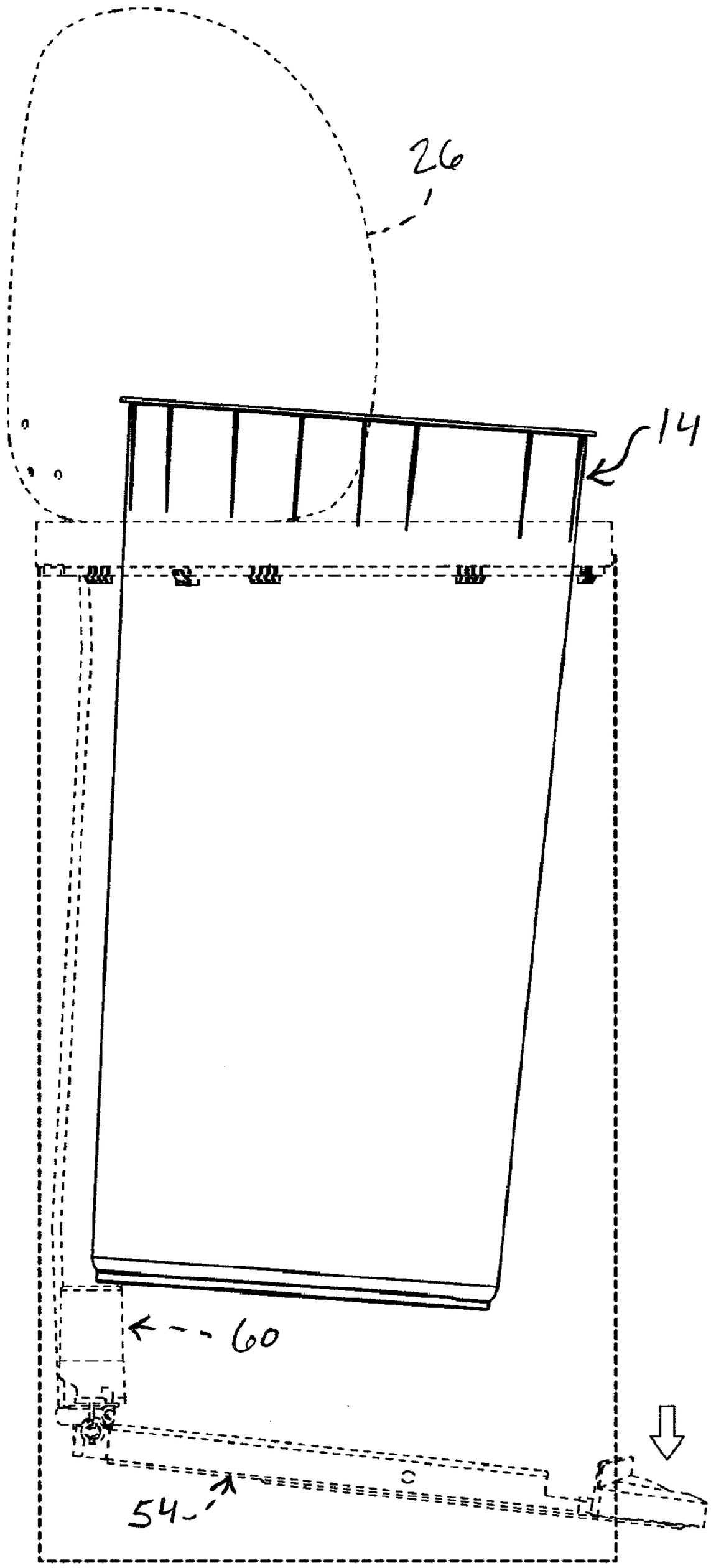


FIG. 6

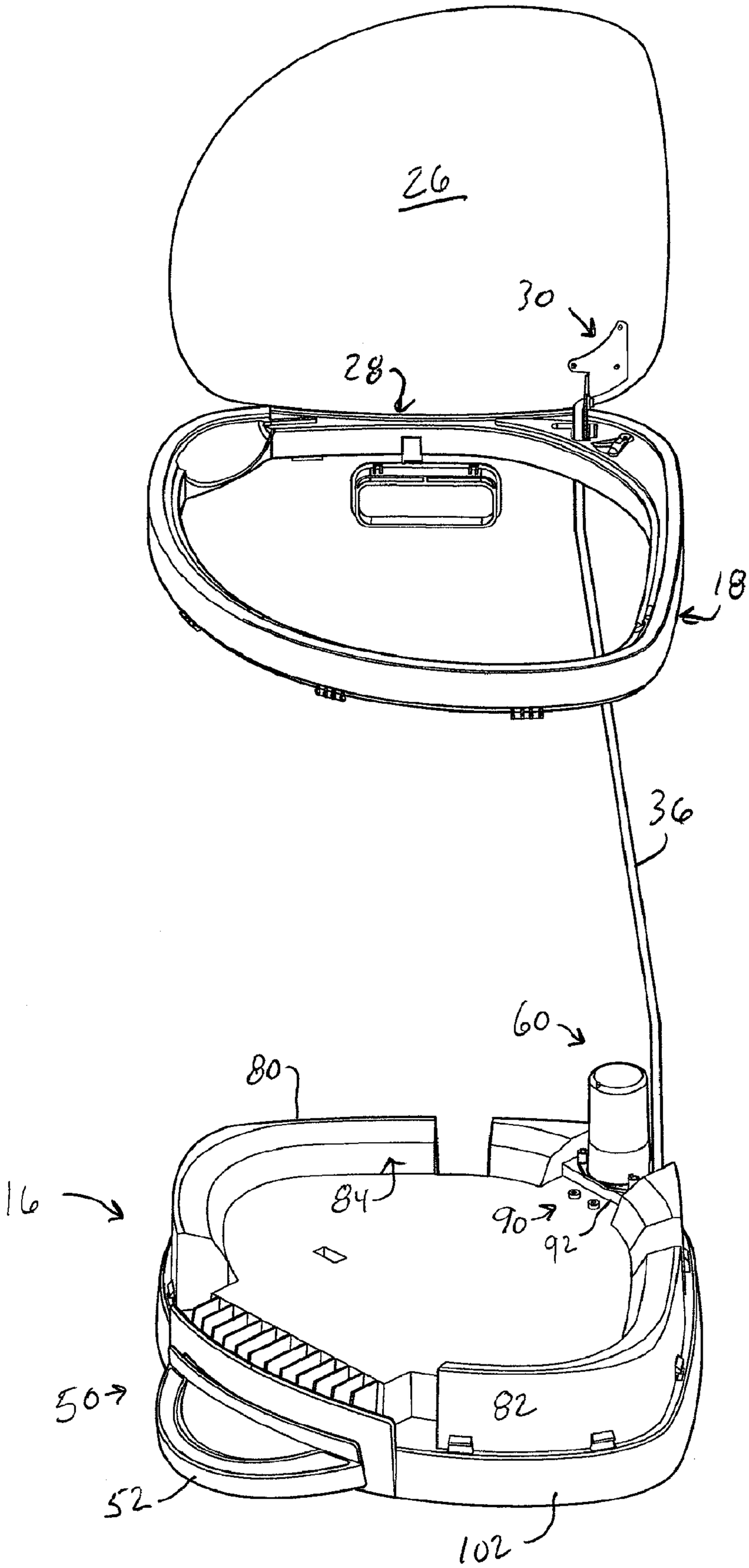


FIG. 7

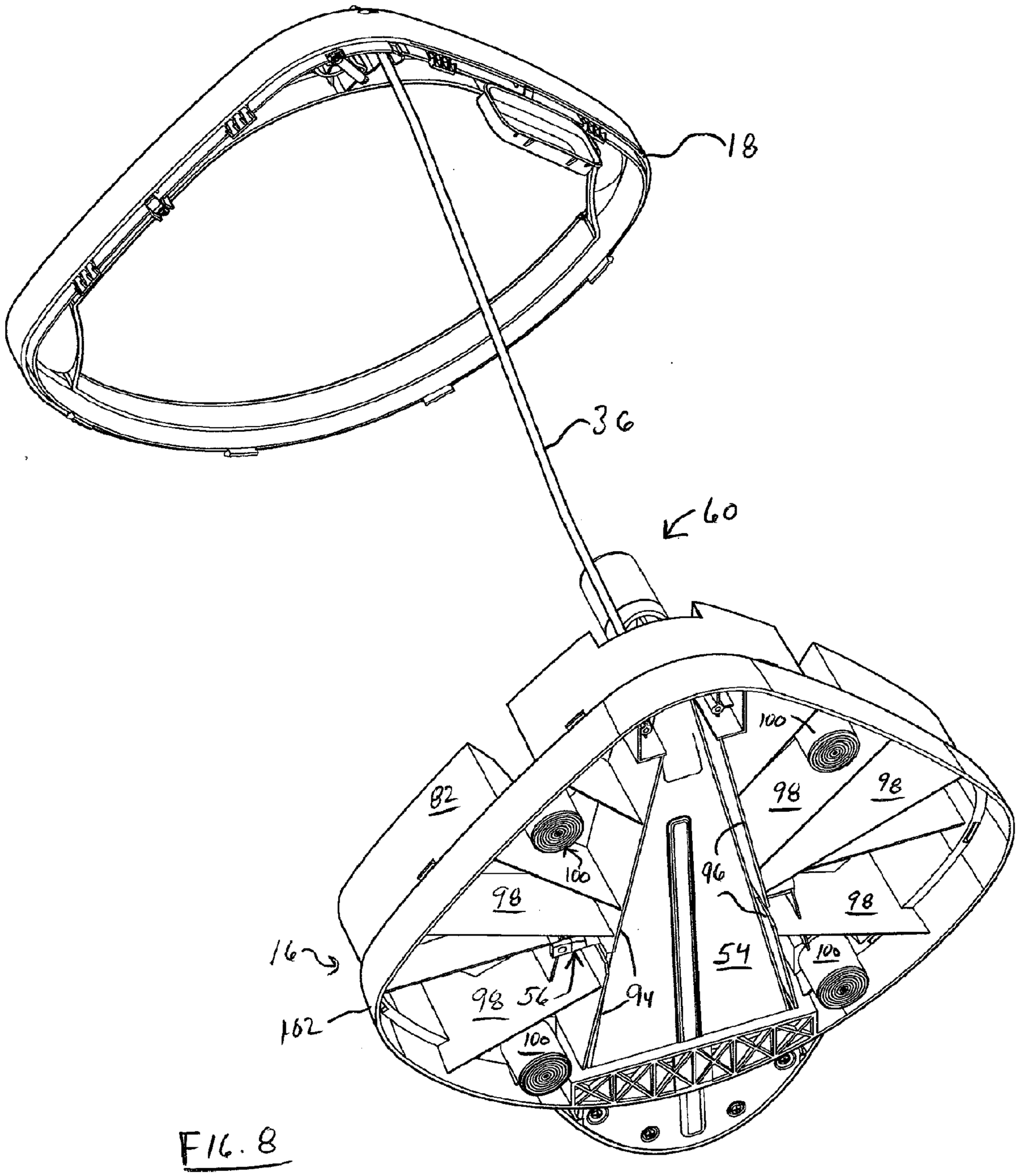


FIG. 8

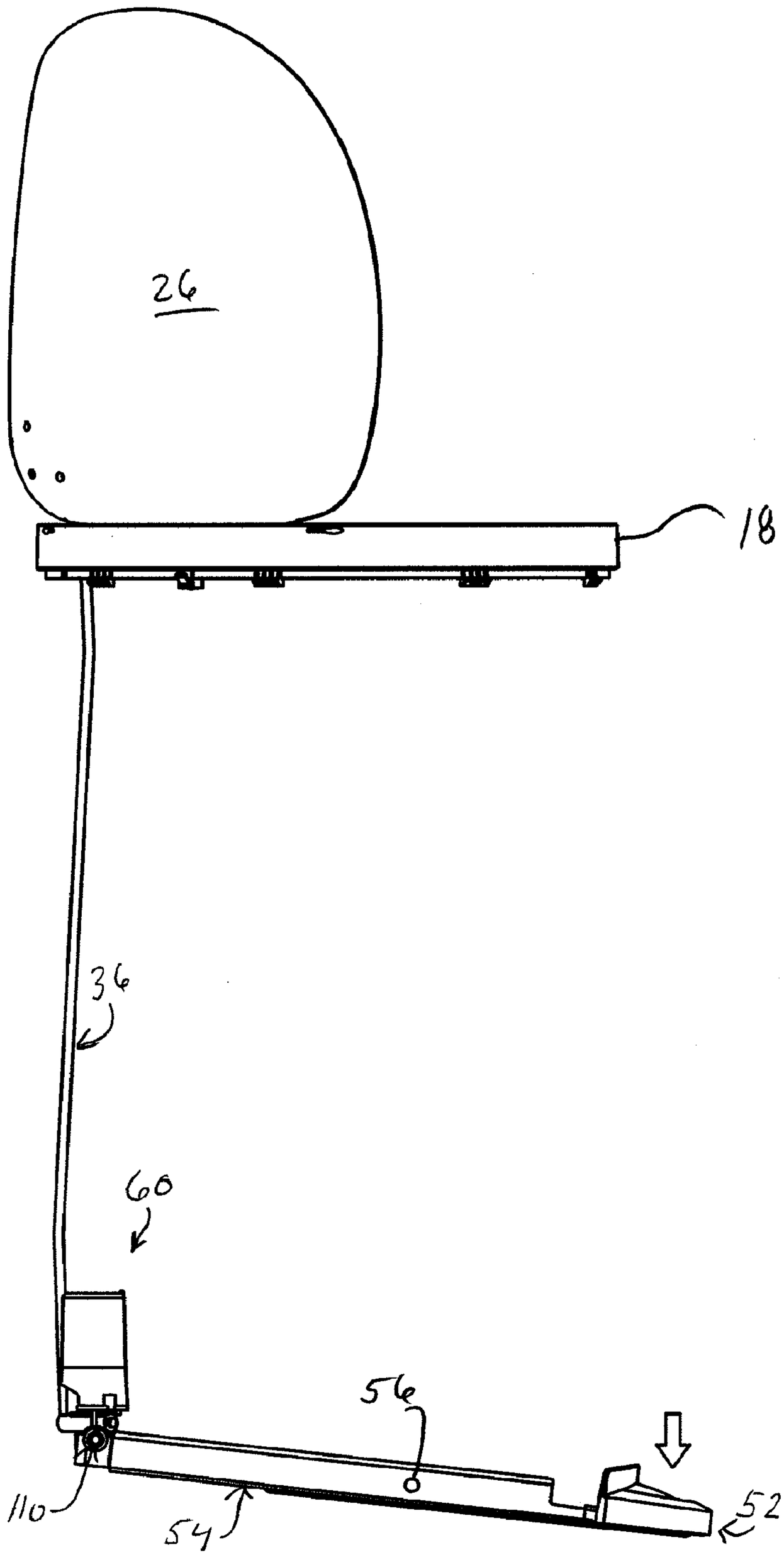


FIG. 9

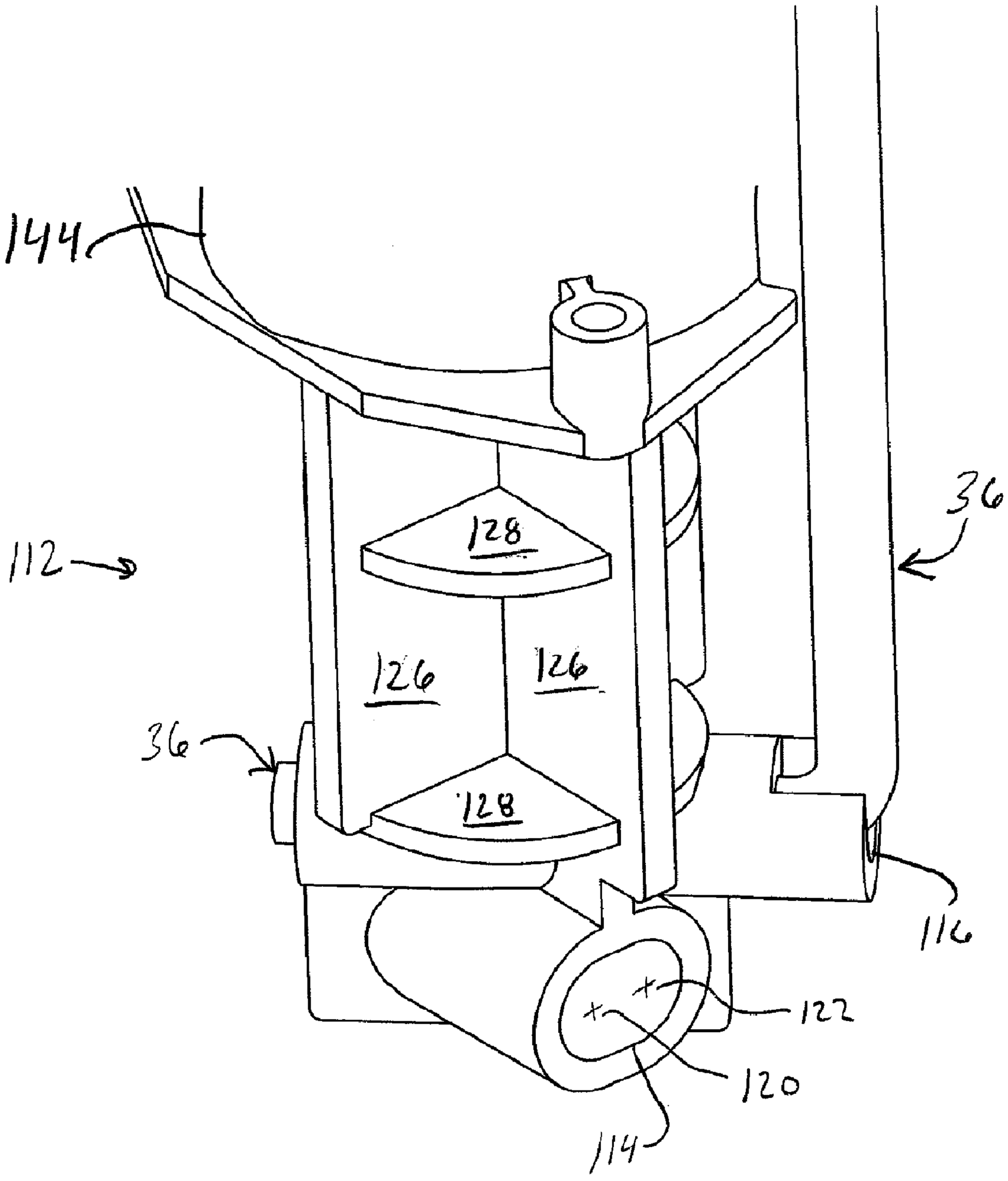


FIG. 10

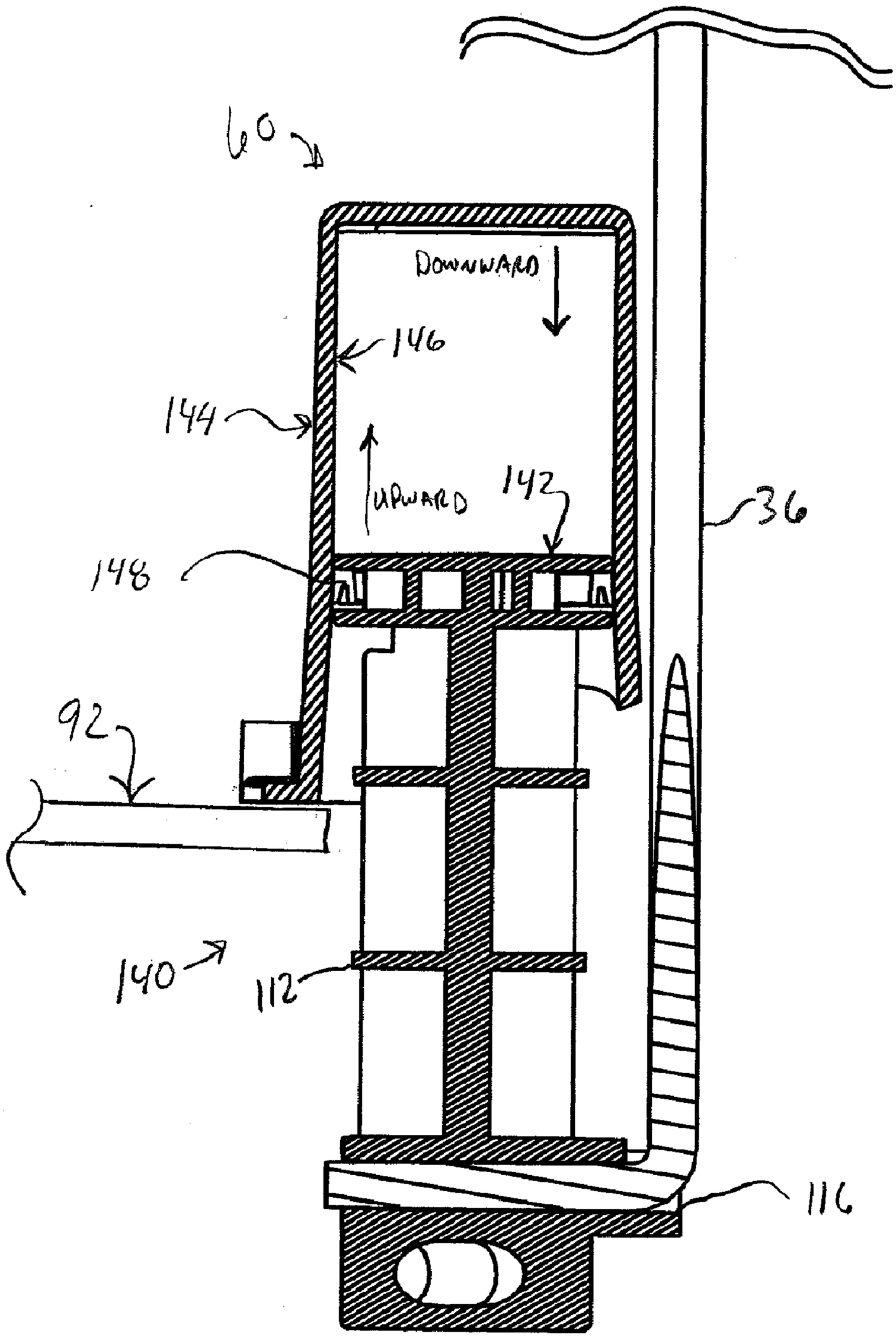


FIG. 11

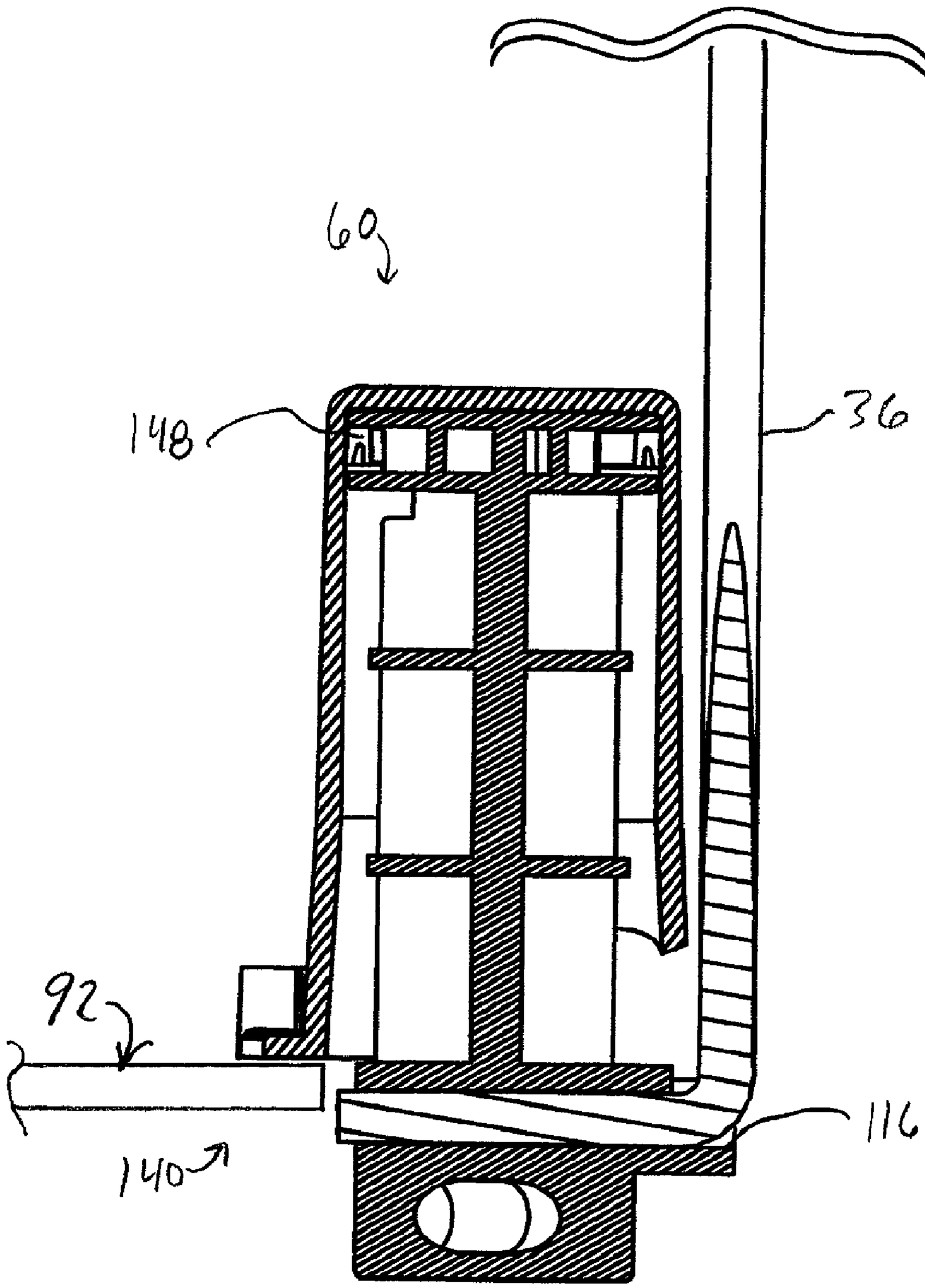


FIG. 12

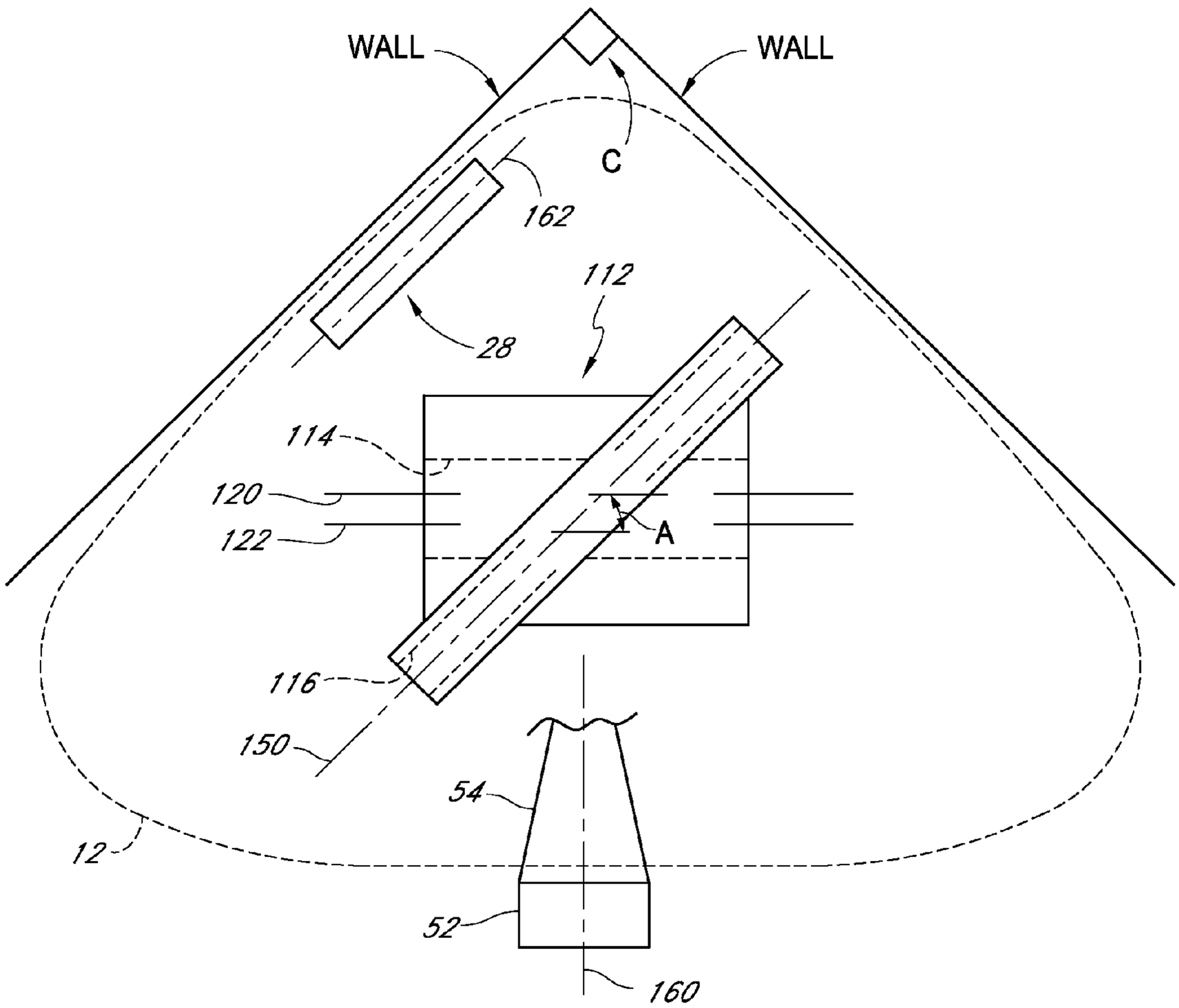


FIG. 13

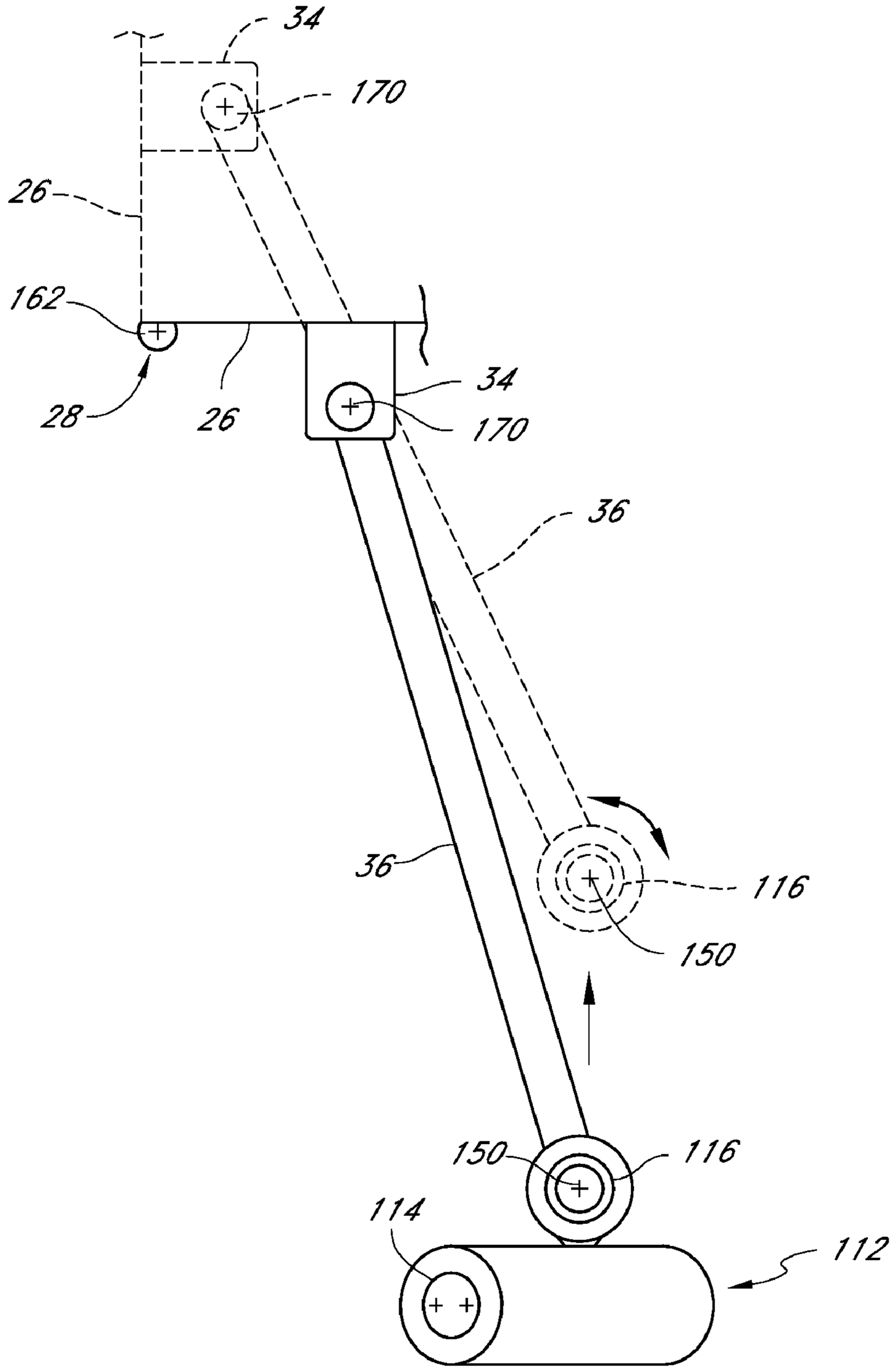


FIG. 14

CORNER TRASHCAN

[0001] This application is a non-provisional of and claims benefit under 35 U.S.C. § 119(e) to U.S. Provisional Patent Application No. 60/969,502, filed Aug. 31, 2007, the entire contents of which is hereby expressly incorporated by reference.

BACKGROUND OF THE INVENTIONS

[0002] 1. Field of the Inventions

[0003] The present inventions relate to receptacles, such as trashcans, and more particularly, to receptacles that are configured to fit into the corner of a room.

[0004] 2. Description of the Related Art

[0005] Receptacles and other devices having lids or doors are used in a variety of different settings. For example, in both residential and commercial settings, trashcans and other devices often have lids or doors for protecting or preventing the escape of the contents of the receptacle. In the context of trashcans, some trashcans include lids or doors to prevent odors from escaping and to hide the trash within the receptacle from view. Additionally, the lid of trashcan can help prevent contamination from escaping the receptacle.

[0006] Many designs of such trashcans include a pedal actuated lid. In these designs, a user can step on a pedal to open the lid. Additionally, many of these designs also include a damper, such as a rotary damper or a gas damper, for slowing the closing motion of the lid and thereby preventing a loud slamming noise when the lid is moved from an open position to a closed position.

SUMMARY OF THE INVENTIONS

[0007] As aspect of at least one of the inventions disclosed herein includes the realization that with regard to receptacles that are shaped to be placed in the corner of a room, an advantage can be achieved by mounting the lid such that when it is opened, it lies approximately flat against one of the walls in a corner of the room. For example, such a trashcan have a lid that is hinged along its right side edge such that when the lid is opened, it lies generally flat against the wall on the right side of the can, i.e., the wall that would be on the left side of a user facing the front of the trashcan. In this position, the lid of the trashcan can act as a backboard when a user throws a piece of trash into the trashcan. Additionally, because this lid would be oriented on the left side of a user facing a trashcan, the backboard use of this lid is convenient for a user because most users are right-handed. A right-handed user would tend to throw a piece of trash across the front of their body toward the left side of their body. As such, the lid would be in a proper orientation to act as a backboard, thereby preventing trash from staining the wall.

[0008] Thus, in accordance with an embodiment, a trash can comprise a lower portion and a wall extending upwardly from the lower portion and defining a cavity, the wall defining a generally triangular cross-section with left and right sides joined at a first corner and extending generally normal to each other and a front side connecting distal ends of the left and right sides. A lid can be configured to close an upper end of the cavity defined by the wall. A hinge can be configured to allow the lid to pivot between open and closed positions, the hinge extending along an axis generally parallel to the right side and being mounted in the vicinity of an upper portion of the right side.

[0009] Another aspect of at least one of the invention herein includes the realization that a damper member can be provided with two apertures oriented in a skewed relation to one another so as to allow the damper to be mounted in an appropriate location to provide a balanced load on the pedal and provide a smooth, low-resistance, attachment for operating the lid opening mechanism. For example, in some embodiments, a trashcan can be generally triangular or pie-shaped with one corner of the triangle disposed toward a corner of a room and the pedal projecting outwardly at roughly 45° from that corner. In this orientation, the damper can be located in a portion of the trashcan adjacent the corner and oriented such that it is generally symmetrically oriented relative to the pedal. This provides a more optimum placement and load generation against the movement of the pedal and the associated lid. With the lid hinged to one of the sides of the trashcan adjacent a wall of the room, a lifting rod connecting an end of the pedal mechanism to the lid will pivot about an axis that is skewed relative to the aperture connecting the damper to the pedal. Thus, by providing another aperture skewed relative to the main aperture, for connecting the lifting rod to the damper, the lifting rod can operate in a smoother fashion.

[0010] In accordance with another embodiment, a trash can comprise a lower portion and a wall extending upwardly from the lower portion and defining a cavity. A lid can be disposed at an upper end of the wall and can be configured to be movable between an open position in the closed position. A pedal actuator assembly can be configured to allow a user to open and close the lid. A damping mechanism can be configured to slow the movement of the lid from the open position toward the closed position. The dampening mechanism can comprise a first member having first and second apertures skewed relative to each other. Additionally, the pedal actuator assembly can comprise a pedal bar having a first end connected to the first aperture and a link member having a first end connected to the second aperture.

[0011] In accordance with yet another embodiment, an air damper can comprise a housing defining an inner bore, a piston configured to reciprocate within the bore, and a piston rod connected to the piston. The piston rod can comprise first and second apertures extending along first and second axes, respectively, the first and second axes being skewed relative to each other.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The above mentioned and other features of the inventions disclosed herein are described below with reference to the drawings of preferred embodiments. The illustrated embodiments are intended to illustrate, but not to limit the inventions. The drawings contain the following figures:

[0013] FIG. **1** is a top, front, and left-side perspective view of a receptacle in accordance with an embodiment, shown with its lid in an open position.

[0014] FIG. **2** is an enlarged perspective view of the upper end of the receptacle with the lid in the opened position.

[0015] FIG. **3** is a schematic elevational view of the trashcan of FIG. **1**, with a pedal mechanism and lid illustrated in phantom line and in an inner liner illustrated in solid line.

[0016] FIG. **4** is a top, front, and left-side perspective view of the liner illustrated in FIG. **3**.

[0017] FIG. **5** is a bottom, rear, and left-side perspective view of the liner of FIG. **4**.

[0018] FIG. **6** is another schematic side elevational view of the trashcan of FIG. **1**, with the pedal mechanism and lid illustrated in phantom line and the liner illustrated in solid line and resting on top of a damper mechanism.

[0019] FIG. **7** is a front, top, and left-side perspective view of a base, a lifting rod, and a lid assembly of the trashcan of FIG. **1**, with an outer shell of the trashcan removed.

[0020] FIG. **8** is a bottom, rear, and left-side perspective view of the components illustrated in FIG. **7**.

[0021] FIG. **9** is a side elevational view of the components illustrated in FIGS. **7** and **8**, with the pedal in a depressed position which corresponds to an open position of the lid.

[0022] FIG. **10** is a front, top, and left-side perspective view of a lower portion of a piston rod of the damper mechanism.

[0023] FIG. **11** is a sectional view of the damper mechanism, illustrated in a position corresponding to a closed position of the lid.

[0024] FIG. **12** is a sectional view of the damper mechanism of FIG. **10** in the position achieved when the lid is open.

[0025] FIG. **13** is a schematic plan view of the trashcan showing the relative orientations of a lower portion of the piston rod, a pedal bar, a lid hinge, and sides of the shell of the trash can of FIG. **1**.

[0026] FIG. **14** is a schematic view illustrating a motion of a portion of the damping mechanism and the lifting rod.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0027] The embodiments of a receptacle with a lid configured to fit into a corner of a room is disclosed in the context of a trashcan. The inventions disclosed herein are described in the context of a trashcan because they have particular utility in this context. However, the inventions disclosed herein can be used in other contexts as well, including, for example, but without limitation, large commercial trashcans, food containers, and/or other types of storage devices, actuators, linkages for actuators, pistons, etc.

[0028] The figures illustrate embodiments of a receptacle **10**. The receptacle **10** can include an outer shell **12** and an inner liner **14** (FIGS. **3-5**) adapted to be retained within the outer shell **12**.

[0029] The outer shell **12** can be optionally supported on a base **16**. An upper support frame **18** can be secured to the top of the outer shell **12**. The support frame **18** can be made from the same or a different material from that used to form the outer shell.

[0030] The outer shell **12** and the support frame **18** can be made from any material, such as, but without limitation, aluminum, steel, stainless steel, plastics, etc. Additionally, as noted above, the frame **18** can be made from a different material from that used from the shell **12**.

[0031] The outer shell **12** can be formed in any configuration. The exemplary, non-limiting embodiment illustrated in FIG. **1** includes a shell **12** having a generally three-sided triangular or pie-shaped configuration with a front wall **20**, a right-side wall **22**, and a left-side wall **24**. The liner **14** can have generally the same or a different shape, roughly complimentary to the shape of the outer shell **12**.

[0032] Additionally, in the illustrated embodiment, the transitions between the walls **20**, **22**, **24**, are generally rounded. However, this is merely one optional configuration. The outer shell **12** can have sharp corners between the walls **20**, **22**, **24** and/or other configurations.

[0033] A lid **26** can be pivotally connected to an upper edge of the shell **12** or the frame **18**. In the illustrated embodiment, the lid **26** can be hinged to the frame **18** with a hinge device **28**. Additionally, as illustrated in FIGS. **1** and **2**, the lid **26** is hinged to the portion of the frame **18** disposed above the right-side wall **22** with the hinge device **28**. The hinge device **28** can be any type of hinge, including, for example, but without limitation, two halves pivotally connected by a hinge pin. However, other configurations can also be used.

[0034] With continued reference to FIG. **2**, the lid **26** can also include a bracket **30**, configured to connect the lid **26** to a lifting mechanism, described in greater detail below, for opening and closing the lid **26**. In some embodiments, the bracket **30** can include a first leg **32** connected to the lid **26** and a second leg **34** connected to a lifting rod **36**. In some embodiments, the leg **34** can include an aperture for receiving an upper end of the lifting rod **36**.

[0035] As such, when the lifting rod **36** is pushed upwardly, the upper end of the rod **36** presses against the aperture, and thereby pivots the lid **26** upwardly about the hinge **28**. Similarly, as the lid **26** closes, the lifting rod **36** can fall together with the leg **34** of the bracket **30**.

[0036] Additionally, in some embodiments, the receptacle **10** can include a lid locking mechanism **38** configured to allow a user to lock the lid **26** in an open position (illustrated in FIG. **2**). In some embodiments, the locking mechanism **36** can be in the form of a simple pivoting member. For example, in the illustrated embodiment, the lifting rod **36** and leg **34** can move reciprocally through an aperture **40**. When the leg **34** is in the raised position, as illustrated in FIG. **2**, the locking mechanism **38** can be slid under a portion of the leg **34**, thereby preventing the leg **34** from passing downwardly through the aperture **40**. As such, the locking mechanism **38** locks the lid **26** in the open position. However, other configurations can also be used to form a locking device.

[0037] The frame **18** can also include a retaining lip **42** extending around an upper inner periphery of the frame **18**. The lip **42** can be configured to engage with a corresponding lip on an outer surface of the liner **14** and thereby support the weight of the liner **14** and any contents thereof.

[0038] The frame **18** can also include finger recesses **44**, **46** shaped in size to allow a user to easily insert their fingers below the upper lip on the outer surface of the liner **14**, thereby allowing the user to easily lift the liner out of the receptacle **10**. In some embodiments, the recesses **44**, **46** can be disposed on opposite sides of the front wall **20** of the receptacle **10**. However, other configurations can also be used.

[0039] Optionally, the receptacle **10** can also include an aperture **48** in any one of the walls **20**, **22**, **24** configured to allow a user to insert their fingers through the aperture **48** and thereby carry or move the receptacle **10**. In the illustrated embodiment, the aperture **48** is provided on wall **22**, near the upper end of the shell **12**, below the frame **18**. However, other positions can also be used.

[0040] With reference to FIGS. **1** and **3**, the receptacle **10** can also include a foot pedal assembly **50** configured to cooperate with the lifting rod **36** to open and close the lid **26**. The foot pedal assembly **50** can include a foot pedal portion **52** and a pedal bar **54**.

[0041] The pedal bar **54** can be pivotably coupled to the receptacle **10**, for example, using a fulcrum rod **56**, as is well

known in the art. As such, the fulcrum rod **56** can define a pivot axis located at about a center of the pedal bar **54**. In some embodiments, the pivot axis can be spaced from the center of gravity of the pedal bar **54**. As such, the weight of the pedal bar **54** can be used to bias the orientation of the pedal bar toward a position corresponding toward the closed position of the lid **26**. Optionally, other biasing devices can be used to bias the lid **26** toward the closed position.

[0042] The pedal bar **54** can be made from any material. Preferably, the pedal bar is made from a relatively heavy metal, so as to provide some ballast to the receptacle **10** and/or as noted above, a biasing effect for biasing the lid **26** toward the closed position. However, the pedal bar **54** can be made from any material, including light-weight material, such as plastic, aluminum, or heavier material such as steel, or any other metal or plastic or wood. The front end of the pedal bar **54** can be connected to the pedal member **52** in any known manner. The rear end of the pedal bar **54**, on the other hand, can be connected to a dampening mechanism **60**, described in greater detail below.

[0043] With reference to FIGS. **4-6**, the receptacle can include an upper peripheral lip **60** configured to engage the inner peripheral lip **42** (FIG. **2**) of the frame **18**. In some embodiments, the liner **14** can include a plurality of stiffening ribs **62** configured to reinforce the lip **60**.

[0044] In some embodiments, with reference to FIG. **5**, a bottom **64** of the liner **14** can include a recessed area **66** configured to engage a projection on the top of the dampening mechanism **60** (FIG. **3**). As such, the recessed portion **66** can engage the projection and thereby rest in the position illustrated in FIG. **6**, which can help a user adjust the liner **14** and/or install a new trash bag into the liner **14**. Additionally, with reference to FIG. **5**, the liner **14** can include a bag retention aperture **70**, the aperture **70** can include a plurality of deflectable petals **72**, configured to engage a portion of a plastic bag pushed through the aperture **70**. As such, a plastic bag can be more securely retained on the liner **14**.

[0045] With reference to FIGS. **7** and **8**, as noted above, the base **16** can be configured to pivotally support the pedal assembly **50**. In the illustrated embodiment, the base **16** includes a raised upper wall **80** that can include an outer peripheral wall **82** and a tapered inner wall **84**. The outer wall **82** can be configured to rest against the shell **12**. The inner tapered wall **84** can be tapered so as to guide the lower end of the liner **14** (FIG. **5**) into a centered position as it is lowered into the receptacle **10**. However, other configurations can also be used.

[0046] As shown in FIG. **7**, the base **16** can also include a damper mounting portion **90** configured to receive the dampening mechanism **60**. In the illustrated embodiment, the damper mounting portion **90** includes a platform **92** which includes an aperture (not shown) through which a portion of the dampening mechanism **60** extends. A lower end of the dampening mechanism can be connected to the rear end of the pedal bar **54**.

[0047] With reference to FIG. **8**, the base **16** can include a plurality of walls **94**, **96** defining a channel in which the pedal bar **54** can be disposed. Optionally, the base **16** can include a plurality of additional stiffening ribs **98** extending in a generally radial direction away from the walls **94**, **96**, to the outer periphery of the base **16** to provide further stiffening of the base **16**. However, other configurations can also be used.

[0048] The base **16** can also include one or a plurality of legs **100** configured to support the base **16** on a flat surface, such as a floor. However, other configurations can also be used. In some embodiments, the base **16** can include a peripheral skirt portion **102** disposed below the outer peripheral wall **82** so as to provide a clean aesthetically pleasing outer appearance. As noted above, the fulcrum rod **56** can be supported by the base **16** to allow the pedal bar **54** to pivot thereabout.

[0049] With reference to FIG. **9**, as noted above, a rear end of the pedal bar **54** can be connected to a dampening mechanism **60**. In some embodiments, the rear end of the pedal bar **54** includes a pivot rod **110** that connects to an aperture disposed in the lower portion of the dampening mechanism **60**. In the position illustrated in FIG. **9**, the pedal bar **54** is pressed downwardly at the end on which the pedal member **52** is mounted, thereby pressing the rear end of the pedal bar **54** upwardly, which in turn, pushes the lifting rod **36** upwardly opening the lid **26**.

[0050] FIG. **10** illustrates an optional design for a lower portion **112** of the dampening mechanism **60**. As shown in FIG. **10**, the lower portion **112** of the dampening mechanism **60** can include first and second apertures **114**, **116** that are skewed relative to one another. For example, the aperture **114** can be configured to receive the pin **110** (FIG. **9**) mounted at the rear of the pedal bar **54**. On the other hand, the aperture **116** can be configured to receive a lower end of the lifting rod **36**. These two apertures **114**, **116** are disposed at skewed angles relative to one another, described in greater detail below with reference to FIG. **13**.

[0051] As shown in FIG. **10**, the aperture **114** can have an O-void or oblong bore. For example, the aperture **114** can include two centers of radiuses **120**, **122**. As such the pin **110** can slide transversely to the vertical direction of FIG. **10**. This allows the lower portion **112** of the dampening mechanism **62** to follow a generally vertical path as it is pushed upwardly by the pin **110**. In other words, because the pedal bar **54** pivots about the fulcrum rod **56**, the pin **110** follows a generally arcuate path. Thus, when the pedal bar is moved from the closed position to the open position, the pin **110** translates in a lateral direction relative to the aperture **114**, for example, between the centers **120**, **122**, as the lower portion **112** moves in a more purely vertical direction. Thus, the lower end of the lifting rod **36** is also pushed in a more purely vertical direction.

[0052] In some embodiments, the lower portion **112** can include additional stiffening walls **126**, **128** to provide additional stiffness for the lower portion **112**.

[0053] With reference to FIGS. **11** and **12**, the lower portion **112** can define a lower end of a piston assembly **140** of the dampening mechanism **60**. For example, as shown in FIGS. **11** and **12**, the lower portion **112** can include, at its upper end, an air piston **142**, with the lower portion **112** forming a piston rod for the piston **142**. The piston **142** is disposed within a housing **144** having an internal bore **146**. The bore **146** and the piston **142** are sized such that the piston **142** can move reciprocally within the bore **146**.

[0054] For example, the piston **142** can be sized to fit snuggly within the bore **146**. In some embodiments, the piston **142** can be configured to provide relatively little resistance to the upward movement of the piston **142**, but provide greater resistance against the downward movement of the piston **142**. This can be accomplished in any known manner.

[0055] For example, the piston **142** can be formed from a pair of plate members having an outer diameter that is close to the inner diameter of the bore **146**. A lubricant can be disposed in the housing **144** so as to reduce the sliding friction

between the outer edges of the piston plates **142** and the inner bore **146**. In some embodiments, the piston **142** can include check valves to allow air to pass through the piston **142** during the upward movement of the piston **142** but to generate resistance against the flow of air through the piston **142** during the downward movement of the piston **142**.

[0056] In some embodiments, this effect can be provided by a lip seal **148** which can be connected to an outer periphery of the piston **148** and can be configured to operate similarly to a check valve. Such a design is disclosed in U.S. patent application Ser. No. 11/475,349 filed Jun. 27, 2006 published as U.S. Patent Publication No. 2007/0012699A1 on Jan. 18, 2007, the contents of which is hereby expressly incorporated by reference. Additionally, the disclosure of the lip seal as incorporated into the housing of the damper, its manufacture and use are incorporated herein by reference. The lip seal from the U.S. 2007/0012699A1 publication can also be used as the lip seal **148** of FIG. **12** herein. Thus, a further description of the lip seal **148** is not repeated herein.

[0057] With reference to FIG. **13**, as noted above, the respective axes of the apertures **114**, **116**, can be skewed relative to each other. To illustrate this relationship, FIG. **13** is a schematic top plan view of the lower portion **112** and its location relative to the shell **12**, hinge **28** and pedal bar **54**.

[0058] As shown in FIG. **13**, the aperture **116** extends along an axis **150**. Additionally, the aperture **114**, in the illustrated embodiment includes two axes **120**, **122**. As described above, the use of an oblong cross-section aperture provides clearance for the pin **110** (FIG. **9**) to slide laterally during operation of the pedal bar **54**.

[0059] In some embodiments, the relative angles A between the axis **150** and axes **120**, **122** can be any angle, depending on the configuration of the receptacle **10**. In some embodiments, the angle A can be about 45°.

[0060] A 45° orientation can provide additional advantages. For example, also illustrated in FIG. **13**, is the longitudinal axis **160** of the pedal bar **54**. Additionally, the hinge device **28** connecting the lid **26** to the frame **18** is also illustrated along with its axis **162**. Finally, the shell **12** is illustrated in phantom line as well as walls of a room that form a corner C.

[0061] With the receptacle **10** placed such that the shell **12** has its rear corner disposed adjacent to corner C of a room, which is formed by walls that extend in a generally 90° angle, the axis **162** of the hinge device **28** extends generally parallel to one of the walls. Additionally, axis **160** of the pedal bar **54** extends generally directly toward the corner C, roughly at a 45° angle relative to the walls and the axis **162**. In this orientation, although not illustrated in FIG. **13**, the longitudinal axis of the pin **110** extends through the aperture **114** generally parallel to the axes **120**, **122**.

[0062] Additionally, the lower end of the lifting rod **36** extends through the aperture **116** generally parallel to the axis **150**. Thus, during operation, the lower end of the lifting rod **36** and the upper end of the lifting rod **36** can pivot about axes that are parallel to the axis **150** and axis **162**. Thus, the pedal bar **54** and the pin **110** pivot about axes that are parallel with each other and the lower and upper end of the lifting rod **36** as well as the lid **26** also pivot about axes that are parallel with each other, while the lower portion **112** moves in a generally vertical direction. This provides a smooth operation as well as a secure fixation of the spacing between the apertures **114**, **116**.

[0063] With the apertures **114**, **116** disposed in the lower portion **112**, which is formed as a single component, these apertures are fixed relative to each other. In some embodiments, the lower portion **112**, including the apertures **114**, **116**, can be formed from a single monolithic piece of material, such as a plastic, metal or any other material. However, in other embodiments, the components of the lower portion **112**, including those components forming the apertures **114**, **116**, can be from separate components connected together.

[0064] FIG. **14** illustrates a motion of the lifting rod **36** during vertical movement of the lower portion **112**. For example, in FIG. **14**, the lower portion **112** is illustrated in solid line, in the lower position, i.e., the position corresponding to a closed position of the lid **26**. The open position of the lid **26** is illustrated in phantom line, along with the corresponding orientation of the lifting rod **36** and the aperture **116**.

[0065] As noted above, the lower end of the lifting rod **36** pivots about the axis **150** as the lower portion **112** moves in a vertical direction. For example, as is apparent from FIG. **14**, the lifting rod pivots slightly in a counterclockwise direction when the lower portion **112** is moved from the lower position to the upper position.

[0066] Additionally, the upper end of the lifting rod **36** pivots about an axis **170**. Thus, during movement from the lower portion from the lower position to the upper position, the upper end of the lifting rod **36** also pivots in a clockwise direction about the axis **170**. These pivoting motions, about the axes **150**, **170** are both parallel to the axis **162** of the hinge device **128**.

[0067] Although these inventions have been disclosed in the context of certain preferred embodiments and examples, it will be understood by those skilled in the art that the present inventions extend beyond the specifically disclosed embodiments to other alternative embodiments and/or uses of the inventions and obvious modifications and equivalents thereof. In addition, while several variations of the inventions have been shown and described in detail, other modifications, which are within the scope of these inventions, will be readily apparent to those of skill in the art based upon this disclosure. It is also contemplated that various combination or sub-combinations of the specific features and aspects of the embodiments may be made and still fall within the scope of the inventions. It should be understood that various features and aspects of the disclosed embodiments can be combined with or substituted for one another in order to form varying modes of the disclosed inventions. Thus, it is intended that the scope of at least some of the present inventions herein disclosed should not be limited by the particular disclosed embodiments described above.

What is claimed is:

1. A trash can comprising a lower portion and a wall extending upwardly from the lower portion and defining a cavity, a lid disposed at an upper end of the wall and configured to be movable between an open position in the closed position, a pedal actuator assembly configured to allow a user to open and close the lid, a damping mechanism configured to slow the movement of the lid from the open position toward the closed position, the dampening mechanism comprising a first member having first and second apertures skewed relative to each other, the pedal actuator assembly comprising a pedal bar having a first end connected to the first aperture and a link member having a first end connected to the second aperture.

2. The trashcan according to claim **1**, where in the first aperture extends along a first axis and the second aperture extends along a second axis, the first and second axes being skewed relative to each other.

3. The trash can according to claim **2**, wherein the first and second axes extend at an angle of about 45° relative to each other.

4. The trash can according to claim **1**, wherein the wall extends in a generally annular shape and has first and second sides that meet at a corner and are generally normal to each other, the wall further comprising a third side connecting distal ends of the first and second sides, the pedal actuator assembly comprising a foot pedal disposed in a central portion of the third side.

5. The trash can according to claim **4**, where in the dampening mechanism is disposed adjacent to the corner.

6. The trash can according to claim **1**, wherein the first member defining both the first and second apertures is made from a monolithic piece of material.

7. The trash can according to claim **1**, wherein the first member defines a piston rod of the dampening mechanism.

8. A trash can comprising a lower portion and a wall extending upwardly from the lower portion and defining a cavity, the wall defining a generally triangular cross-section with left and right sides joined at a first corner and extending generally normal to each other and a front side connecting distal ends of the left and right sides, a lid configured to close an upper end of the cavity defined by the wall, a hinge configured to allow the lid to pivot between open and closed positions, the hinge extending along an axis generally parallel to the right side and being mounted in the vicinity of an upper portion of the right side.

9. The trash can according to claim **8**, wherein an inner surface of the lid acts as a backstop when it is in the open position to prevent trash from striking a wall of a room adjacent to the right side when a person throws trash toward the inner surface of the lid with their right hand.

10. The trash can according to claim **8**, where in the lid is configured to close substantially the entire open upper end of the cavity defined by the wall.

11. The trash can according to claim **8**, wherein the lid is made from a single piece of material.

12. An air damper comprising a housing defining an inner bore, a piston configured to reciprocate within the bore, and a piston rod connected to the piston, the piston rod comprising first and second apertures extending along first and second axes, respectively, the first and second axes being skewed relative to each other.

13. The air damper according to claim **12**, where in the first aperture comprises an oblong cross-section.

14. The air damper according to claim **13**, where in the first aperture is connected to a pedal bar of a trash can.

15. The air damper according to claim **14**, where in the second aperture is connected to a lifting rod of the trash can.

16. The air damper according to claim **14**, where in the trash can is triangular.

17. The air damper according to claim **16**, were in the trashcan includes a lid connected to the trashcan with a hinge, an axis of the hinge being parallel to the second aperture.

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