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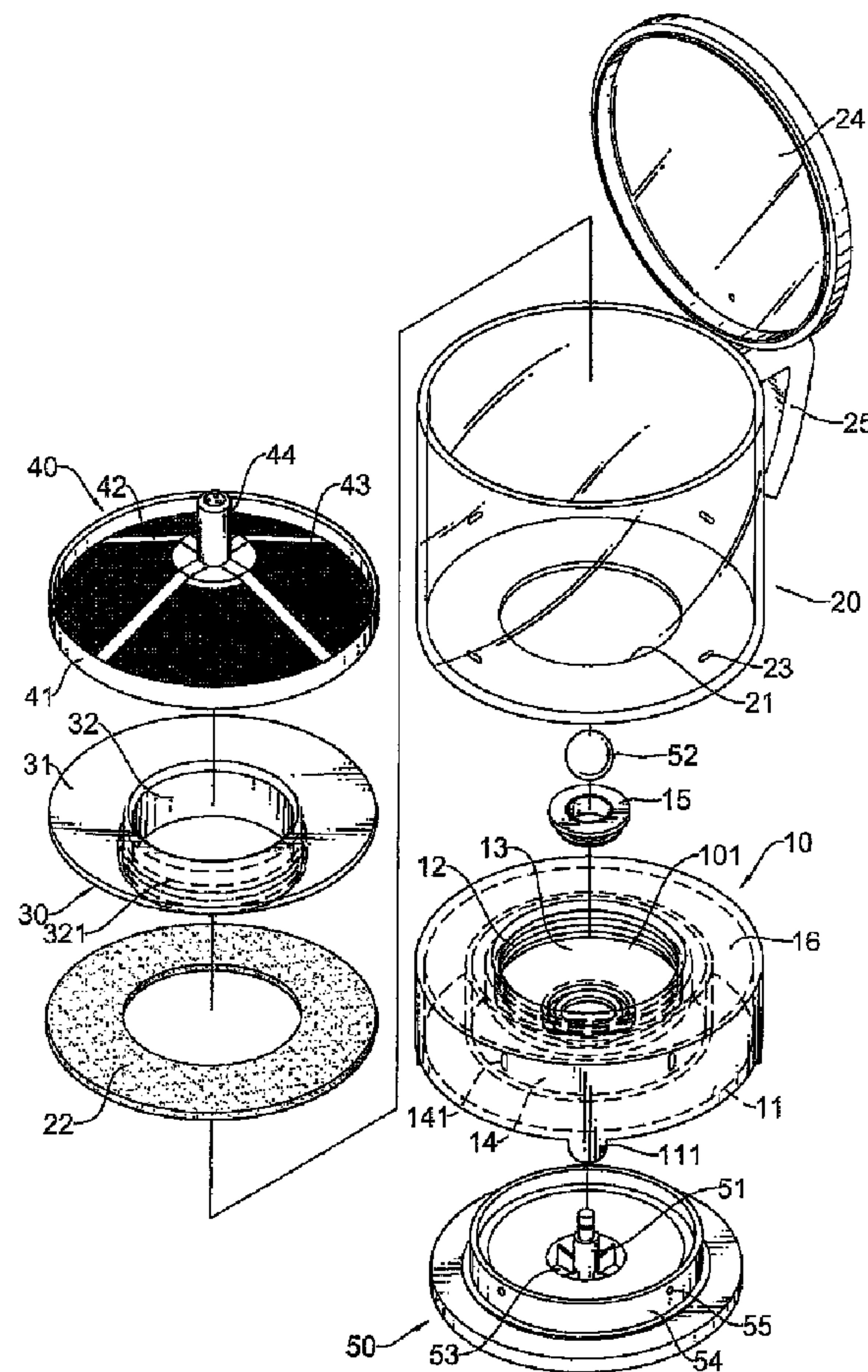
(72) Inventeur/Inventor:
LIU, MING-TUNG, TW

(73) Propriétaire/Owner:
LIU, MING-TUNG, TW

(74) Agent: ADE & COMPANY INC.

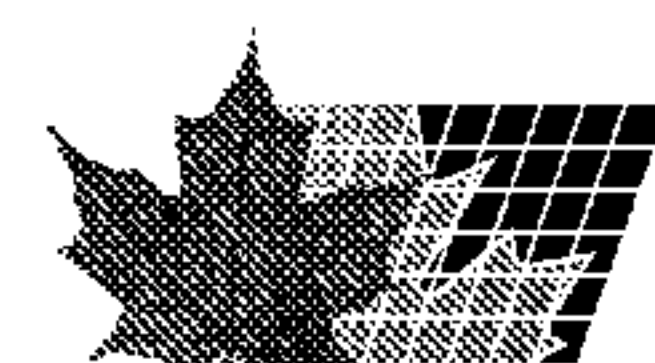
(54) Titre : CONTENANT CREPINE COMPOSITE

(54) Title: COMPOSITE STRAINER POT



(57) Abrégé/Abstract:

A composite strainer pot has a base (10), a container (20) mounted on the base (10), a connecting dish (30) combining the base (10) and the container (20), a filter assembly (40) mounted in the container (20) and a valve assembly (50) mounted between the



(57) **Abrégé(suite)/Abstract(continued):**

base (10) and the container (20). The container (20) that is usually filled with hot water can be made with glass to maintain the quality and the lifespan. The base (10) that is placed on a table or the like can be made with plastic to reduce the cost and is not easily damaged. Therefore, the strainer pot is durable and has a prolonged useful life.

1 **COMPOSITE STRAINER POT**

2 **ABSTRACT**

3 A composite strainer pot has a base (10), a container (20) mounted on the
4 base (10), a connecting dish (30) combining the base (10) and the container (20),
5 a filter assembly (40) mounted in the container (20) and a valve assembly (50)
6 mounted between the base (10) and the container (20). The container (20) that is
7 usually filled with hot water can be made with glass to maintain the quality and
8 the lifespan. The base (10) that is placed on a table or the like can be made with
9 plastic to reduce the cost and is not easily damaged. Therefore, the strainer pot is
10 durable and has a prolonged useful life.

1 **COMPOSITE STRAINER POT**

2 BACKGROUND OF THE INVENTION

3 1. Field of the Invention

4 The present invention relates to a pot, especially to a composite strainer
5 pot that has a base and a container of different materials combined with each
6 other.

7 2. Description of the Prior Arts

8 Parts of plant such as but not limited to: leaves such as tea and herbs;
9 beans, seeds nuts or fruits such as coffee; flowers, such as rose; and the like are
10 steeped alone or in combination in water to extract and flavor the water. Since
11 parts of plants are not pleasant to drink, and steeping for too long causes tannin
12 to build up and impair taste, tea pots and strainers were designed to separate the
13 plants and the water. However, since using teapot with strainer causes waste and
14 spillage, strainer pots were designed.

15 With reference to Fig. 7, a conventional strainer pot (70) comprises a
16 container (71), a strainer (72) and a release valve (73). The container (71) is
17 plastic and has a bottom (711). The strainer (72) is mounted on the bottom (711)
18 of the container (71). The release valve (73) is mounted slidably under the
19 bottom (711) of the container (71). When the container (71) is filled with water,
20 the release valve (73) is closed by hydraulic pressure. To open the release valve
21 (73), the conventional strainer pot (70) is mounted on top of a glass or mug and
22 the release valve (73) slides into the container (71) to allow steeped water to flow
23 through the release valve (73) and to trap the parts of plants with the strainer
24 (72).

1 The conventional strainer pot (70) as described has transparent container
2 (71) such as plastic, glass or the like to allow users to see quantity or condition of
3 the steeped water. Although the plastic container (71) is durable and can be made
4 integrally, however, with long term use and filling with hot water, the plastic
5 container (71) is aged and stained and the conventional strainer pot (70) appears
6 dirty. While if the container (71) is glass, the glass container (71) will not be aged
7 and stained with long term and filling with hot water. However, since structure of
8 the container (71) is complicated, the glass container (71) is hard to be
9 manufactured integrally and cost a lot. Therefore, no glass container (71) of the
10 conventional strainer pot (70) currently exists.

11 To overcome the shortcomings, the present invention provides a
12 composite pot to mitigate or obviate the aforementioned problems.

13 SUMMARY OF THE INVENTION

14 The main objective of the present invention is to provide a composite
15 strainer pot. The composite strainer pot has a base, a container being mounted on
16 the base, a connecting dish combining the base and the container, a filter
17 assembly being mounted in the container and a valve assembly being mounted
18 between the base and the container.

19 The container that is usually filled with hot water can be made with glass
20 to maintain the quality and the lifespan. The base that is placed on a table or the
21 like can be made with plastic to reduce the cost and is not easily damaged.
22 Therefore, the strainer pot is durable and has a prolonged useful life.

23 Other objectives, advantages and novel features of the invention will
24 become more apparent from the following detailed description when taken in

1 conjunction with the accompanying drawings.

2 BRIEF DESCRIPTION OF THE DRAWINGS

3 Fig. 1 is a perspective view of a first embodiment of a composite strainer
4 pot in accordance with the present invention;

5 Fig. 2 is an exploded perspective view of the composite strainer pot in
6 Fig. 1;

7 Fig. 3 is a side view in partial section of the composite strainer pot in Fig.
8 1;

9 Fig. 4 is an exploded perspective view of a second embodiment of a
10 composite strainer pot in accordance with the present invention;

11 Fig. 5 is a side view in partial section of the composite strainer pot in Fig.
12 4;

13 Fig. 6 is an operational side view of the composite strainer pot in Fig. 1,
14 shown mounted on a bottle in phantom lines; and

15 Fig. 7 is a cross-sectional perspective view of a conventional strainer pot
16 in accordance with the prior art.

17 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

18 With reference to Figs. 1, 2 and 4, a composite strainer pot in accordance
19 with the present invention comprises a base (10), a container (20), a connecting
20 dish (30), a filter assembly (40) and a valve assembly (50).

21 With further reference to Fig. 3, the base (10) may be plastic and has a
22 top ring (16), an outer wall (11), an inner wall (101), an optional limiting wall
23 (14) and a valve seat (15).

24 The top ring (16) has an outer edge, an inner edge, a lower surface and

1 an upper surface.

2 The outer wall (11) is formed around the outer edge of the top ring (16)
3 on the lower surface of the top ring (16), has a distal edge and may have multiple
4 standing protrusions (111). The standing protrusions (111) are separately formed
5 on the distal edge of the outer wall (11) to allow the base (10) to be stably placed
6 up on a plane.

7 The inner wall (101) is formed around the inner edge of the top ring (16)
8 on the lower surface of the top ring (16) and has a connecting ring (12) and a
9 funneling bottom (13). The connecting ring (12) is formed around the inner edge
10 of the top ring (16) and has an inner surface (121) and a distal edge. The inner
11 surface (121) may be threaded. The funneling bottom (13) is formed around the
12 distal edge of the connecting ring (12), is tapered and has an inner edge and a
13 mounting hole. The mounting hole is formed through the funneling bottom (13).

14 The limiting wall (14) is formed around the lower surface of the top ring
15 (16) between the outer wall (11) and the inner wall (101) and has multiple slots
16 (141). The slots (141) are separately formed through the limiting wall (14). Each
17 slot (141) has a lower end and an upper end.

18 The valve seat (15) may be rubber, plastic or the like, is mounted around
19 the inner edge of the funneling bottom (13) of the inner wall (101) and has a
20 through hole (151). The through hole (151) is formed through the valve seat (15).

21 The container (20) may be glass, is mounted on the upper surface of the
22 top ring (16) of the base (10), has an open top, a circular bottom, an inner surface,
23 an outer surface, a top edge, a mounting hole (21) and may have a washer (22,
24 22A), multiple stopping protrusions (23), a lid (24) and a handle (25).

1 The circular bottom of the container (20) corresponds to and is mounted
2 on the upper surface of the top ring (16) of the base (10).

3 The mounting hole (21) is formed through the circular bottom of the
4 container (20).

5 With further reference to Fig. 5, the washer (22, 22A) is circular and is
6 mounted on the circular bottom of the container (20). The washer (22A) has an
7 outer circular wall and a holding recess. The holding recess is formed in the outer
8 circular wall of the washer (22A) and is mounted around the circular bottom of
9 the container (20) to cushion the circular bottom of the container (20).

10 The stopping protrusions (23) are separately formed on and around the
11 inner surface of the container (20).

12 The lid (24) is pivotally connected to the top edge of the container (20)
13 and selectively uncovers the open top of the container (20) to allow water to be
14 poured into the container (20) and covers the open top of the container (20) to
15 prevent the water from being contaminated.

16 The handle (25) is attached to the outer surface of the container (20)
17 adjacent to the open top of the container (20) to allow the strainer pot to be
18 moved easily.

19 The connecting dish (30) is mounted in the container (20) and on the
20 circular bottom of the container (20), may be mounted on the washer (22, 22A)
21 of the container (20), is attached to the connecting ring (12) of the inner wall
22 (101) of the base (10) to combine the base (10) and the container (20) and has a
23 mounting ring (31) and a connecting ring (32).

24 The mounting ring (31) is mounted on the circular bottom of the

1 container (20), may be mounted on the washer (22, 22A) of the container (20)
2 and has an inner edge.

3 The connecting ring (32) of the connecting dish (30) is transversely
4 formed around the inner edge of the mounting ring (31) of the connecting dish
5 (30) and has an outer surface (321). The outer surface (321) may be threaded and
6 engages the inner surface (121) of the connecting ring (12) of the inner wall (101)
7 of the base (10).

8 The filter assembly (40) is mounted in the container (20) and on the
9 connecting dish (30) and may have an outer frame (41), multiple reinforcing
10 spokes (42), a net (43) and a rod (44).

11 The outer frame (41) is a loop, is mounted on and around the mounting
12 ring (31) of the connecting dish (30) and may abut the stopping protrusions (23)
13 of the container (20).

14 The reinforcing spokes (42) are formed on the outer frame (41) to
15 strengthen the filter assembly (40) and are beveled. Each reinforcing spoke (42)
16 has a distal end. The distal end of the reinforcing spoke (42) is connected to the
17 distal ends of the other reinforcing spokes (42).

18 The net (43) is mounted within the outer frame (41) and may be mounted
19 between the reinforcing spokes (42).

20 The rod (44) is formed on and protrudes transversely from the distal
21 ends of the reinforcing spokes (42) to allow the rod (44) to be pulled to easily
22 remove the filter assembly (40).

23 The valve assembly (50) is mounted in the base (10) and has a plug (52)
24 and a valve disc.

1 The plug (52) may be rubber, plastic or the like, is mounted on the
2 funneling bottom (13) of the inner wall (101) of the base (10) and selectively
3 plugs the through hole (151) of the valve seat (15) of the base (10).

4 The valve disc is mounted within the distal edge of the outer wall (11) of
5 the base (10), has a rod (51) and multiple outlets (53) and may have a circular
6 wall (54) and multiple limiting protrusions (55).

7 The rod (51) is formed on and protrudes from the valve disc, is mounted
8 through the through hole (151) of the valve seat (15) of the base (10) and
9 selectively pushes the plug (52) to unplug the through hole (151) of the valve
10 seat (15) of the base (10).

11 The outlets (53) are separately formed through the valve disc and are
12 arranged around the rod (51).

13 The circular wall (54) is formed on the valve disc and around the outlets
14 (53) of the valve disc, is mounted adjacent to the limiting wall (14) of the base
15 (10) and has an engaging surface. The engaging surface of the circular wall (54)
16 corresponds to the limiting wall (14) of the base (10).

17 The limiting protrusions (55) are separately formed on the engaging
18 surface of the circular wall (54), respectively correspond to and are mounted in
19 the slots (141) of the limiting wall (14) of the base (10). Therefore, the valve disc
20 can move up and down relative to the base (10) and cannot rotate relative to the
21 base (10).

22 When the strainer pot as described is placed on the plane, the valve disc
23 of the valve assembly (50) slides down to allow the limiting protrusions (55) of
24 the valve disc of the valve assembly (50) to be mounted in the lower end of the

1 slot (141) of the limiting wall (14) of the base (10) and the plug (52) of the valve
2 assembly (50) plugs the through hole (151) of the valve seat (15) of the base (10).
3 As water is poured into the container (20), a hydraulic pressure of the water
4 presses the plug (52) to ensure the plug (52) securely plugs the through hole (151)
5 of the valve seat (15) of the base (10) and to prevent the water from flowing
6 through the through hole (151) of the valve seat (15) of the base (10).

7 With further reference to Fig. 6, when the strainer pot as described is
8 placed on a container (60), a distal edge of the container (60) pushes the valve
9 disc up to allow the rod (51) of the valve disc to push the plug (52) and unplug
10 the through hole (151) of the valve seat (15) of the base (10). Therefore, the
11 water in the container (20) flows through the through hole (151) of the valve seat
12 (15) of the base (10), the outlets (53) of the valve disc and into the cup (60).

13 The strainer pot as described has the following advantages. Because the
14 container (20) and the base (10) are separated structures, the container (20) and
15 the base (10) may be made with different material as desired. The container (20)
16 has a simple structure and, therefore, may be made with glass to maintain the
17 quality and the lifespan. The base (10) has a complicated structure and, therefore,
18 may be made with plastic to reduce the cost. Then, the connecting dish (30)
19 combines the container (20) and the base (10). The container (20) that is usually
20 filled with hot water does not age and stain with long term use and filling with
21 the hot water and the base (10) is not easily damaged. Therefore, the strainer pot
22 is durable and has a prolonged useful life.

23 Even though numerous characteristics and advantages of the present
24 invention have been set forth in the foregoing description, together with details

1 of the structure and features of the invention, the disclosure is illustrative only.
2 Changes may be made in the details, especially in matters of shape, size, and
3 arrangement of parts within the principles of the invention to the full extent
4 indicated by the broad general meaning of the terms in which the appended
5 claims are expressed.

1 **WHAT IS CLAIMED IS:**

2 1. A composite strainer pot comprising

3 a base having

4 a top ring having

5 an outer edge;

6 an inner edge;

7 a lower surface; and

8 an upper surface;

9 an outer wall being formed around the outer edge of the top ring

10 on the lower surface of the top ring and having a distal edge;

11 an inner wall being transversely formed around the inner edge of

12 the top ring on the lower surface of the top ring and having

13 a connecting ring being formed around the inner edge of

14 the top ring and having

15 an inner surface; and

16 a distal edge; and

17 a funneling bottom being formed around the distal edge of

18 the connecting ring, being tapered and having

19 an inner edge; and

20 a mounting hole being formed through the

21 funneling bottom; and

22 a valve seat being mounted around the inner edge of the funneling

23 bottom of the inner wall and having a through hole being formed through the

24 valve seat;

1 a container being mounted on the upper surface of the top ring of the
2 base and having
3 an open top;
4 a circular bottom corresponding to and being mounted on the
5 upper surface of the top ring of the base; and
6 a mounting hole being formed through the circular bottom of the
7 container;
8 a connecting dish being mounted in the container and on the circular
9 bottom of the container, being attached to the connecting ring of the inner wall of
10 the base and having
11 a mounting ring being mounted on the circular bottom of the
12 container and having an inner edge; and
13 a connecting ring being transversely formed around the inner
14 edge of the mounting ring of the connecting dish and having
15 an outer surface engaging the inner surface of the
16 connecting ring of the inner wall of the base;
17 a filter assembly being mounted in the container and on the connecting
18 dish; and
19 a valve assembly being mounted in the base and having
20 a plug being mounted on the funneling bottom of the inner wall of
21 the base and selectively plugging the through hole of the valve seat of the base;
22 and
23 a valve disc being mounted between the distal edge of the outer
24 wall of the base and having

1 a rod being formed on and protruding from the valve disc,
2 being mounted through the through hole of the valve seat of the base and
3 selectively pushing the plug; and
4 multiple outlets being separately formed through the valve
5 disc and being arranged around the rod.

6 2. The composite strainer pot as claimed in claim 1, wherein the
7 container further has a washer being circular and being mounted on the circular
8 bottom of the container.

9 3. The composite strainer pot as claimed in claim 2, wherein the washer
10 further has

11 an outer circular wall; and

12 a holding recess being formed in the outer circular wall of the
13 washer and being mounted around the circular bottom of the container.

14 4. The composite strainer pot as claimed in claims 1, 2 or 3, wherein the
15 inner surface of the connecting rings of the inner wall of the base and the outer
16 surface of the connecting rings of the connecting dish are threaded.

17 5. The composite strainer pot as claimed in claims 1, 2 or 3, wherein
18 the base is plastic;
19 the valve seat of the base and the plug of the valve assembly are rubber;
20 and
21 the container is glass.

22 6. The composite strainer pot as claimed in claim 4, wherein
23 the base is plastic;
24 the valve seat of the base and the plug of the valve assembly are rubber;

1 and

2 the container is glass.

3 7. The composite strainer pot as claimed in claims 1, 2 or 3, wherein

4 the base further has a limiting wall being formed around the lower

5 surface of the top ring between the outer wall and the inner wall and having

6 multiple slots being separately formed through the limiting wall; and

7 the valve disc of the valve assembly further has

8 a circular wall being formed on the valve disc and around the

9 outlets of the valve disc, being mounted adjacent to the limiting wall of the base

10 and having an engaging surface corresponding to the limiting wall of the base;

11 and

12 multiple limiting protrusions being separately formed on the

13 engaging surface of the circular wall, respectively corresponding to and being

14 mounted in the slots of the limiting wall of the base.

15 8. The composite strainer pot as claimed in claim 4, wherein

16 the base further has a limiting wall being formed around the lower

17 surface of the top ring between the outer wall and the inner wall and having

18 multiple slots being separately formed through the limiting wall; and

19 the valve disc of the valve assembly further has

20 a circular wall being formed on the valve disc and around the

21 outlets of the valve disc, being mounted adjacent to the limiting wall of the base

22 and having an engaging surface corresponding to the limiting wall of the base;

23 and

24 multiple limiting protrusions being separately formed on the

1 engaging surface of the circular wall, respectively corresponding to and being
2 mounted in the slots of the limiting wall of the base.

3 9. The composite strainer pot as claimed in claim 7, wherein the filter
4 assembly further has

5 an outer frame being a loop and being mounted on and around the
6 mounting ring of the connecting dish; and

7 a net being mounted within the outer frame.

8 10. The composite strainer pot as claimed in claim 8, wherein the filter
9 assembly further has

10 an outer frame being a loop and being mounted on and around the
11 mounting ring of the connecting dish; and

12 a net being mounted within the outer frame.

13 11. The composite strainer pot as claimed in claim 9, wherein
14 the filter assembly further has

15 multiple reinforcing spokes being formed on the outer frame,
16 being beveled and each reinforcing spoke having a distal end being connected to
17 the distal ends of the other reinforcing spokes; and

18 a rod being formed on and protruding transversely from the distal
19 ends of the reinforcing spokes, wherein,

20 the net of the filter assembly is mounted between the reinforcing spokes.

21 12. The composite strainer pot as claimed in claim 10, wherein
22 the filter assembly further has

23 multiple reinforcing spokes being formed on the outer frame,
24 being beveled and each reinforcing spoke having a distal end being connected to

1 the distal ends of the other reinforcing spokes; and
2 a rod being formed on and protruding transversely from the distal
3 ends of the reinforcing spokes, wherein,
4 the net of the filter assembly is mounted between the reinforcing spokes.
5 13. The composite strainer pot as claimed in claim 11, wherein
6 the container further has
7 an inner surface; and
8 multiple stopping protrusions being separately formed on and
9 around the inner surface of the container; and
10 the outer frame of the filter assembly abuts the stopping protrusions of
11 the container.
12 14. The composite strainer pot as claimed in claim 12, wherein
13 the container further has
14 an inner surface; and
15 multiple stopping protrusions being separately formed on and
16 around the inner surface of the container; and
17 the outer frame of the filter assembly abuts the stopping protrusions of
18 the container.
19 15. The composite strainer pot as claimed in claim 7, wherein the outer
20 wall of the base further has multiple standing protrusions being separately
21 formed on the distal edge of the outer wall.
22 16. The composite strainer pot as claimed in claim 8, wherein the outer
23 wall of the base further has multiple standing protrusions being separately
24 formed on the distal edge of the outer wall.

1 17. The composite strainer pot as claimed in claim 7, wherein the
2 container further has
3 an outer surface;
4 a top edge;
5 a lid being pivotally connected to the top edge of the container and
6 selectively uncovering the open top of the container; and
7 a handle being attached to the outer surface of the container adjacent to
8 the open top of the container.

9 18. The composite strainer pot as claimed in claim 8, wherein the
10 container further has
11 an outer surface;
12 a top edge;
13 a lid being pivotally connected to the top edge of the container and
14 selectively uncovering the open top of the container; and
15 a handle being attached to the outer surface of the container adjacent to
16 the open top of the container.

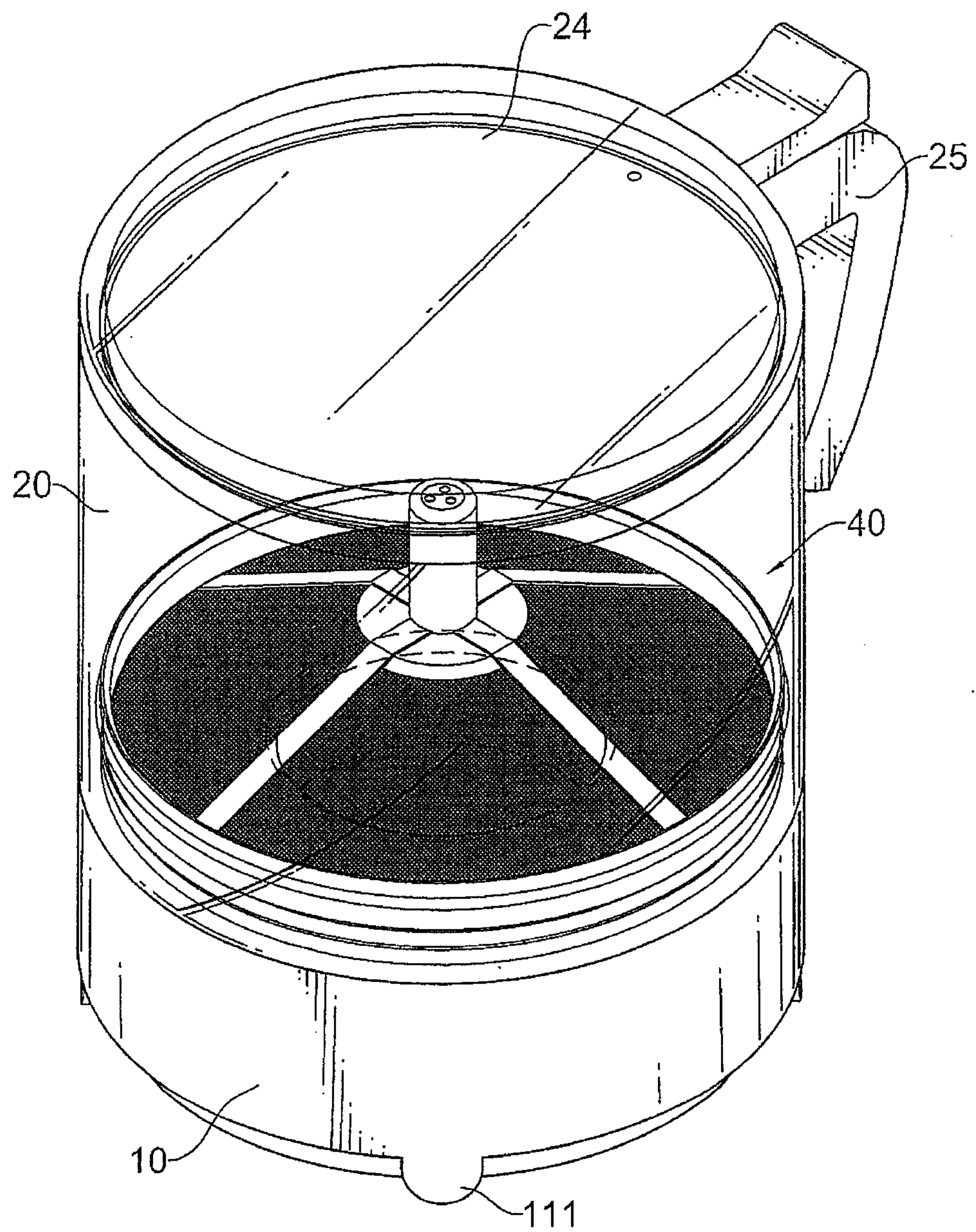
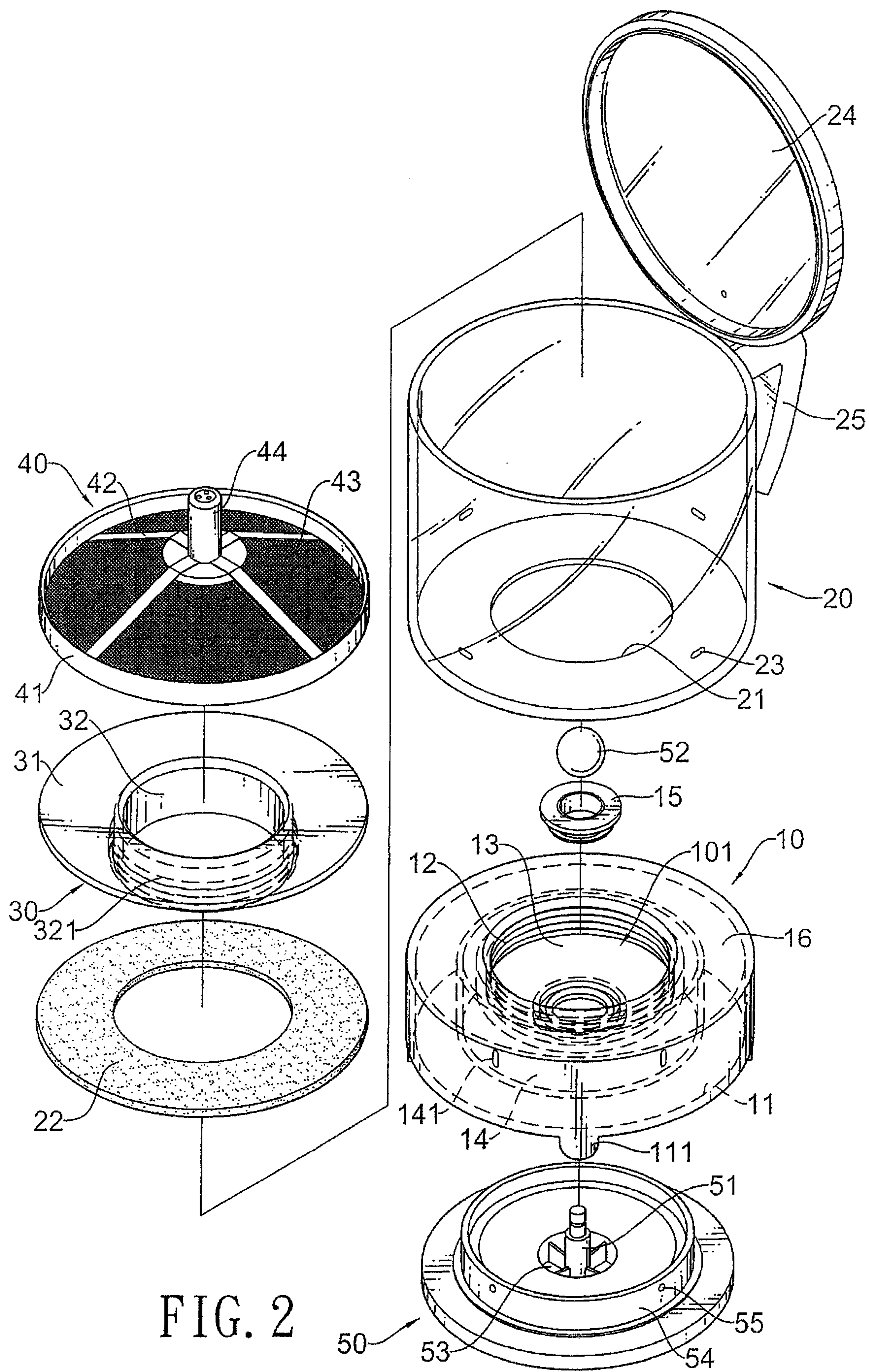


FIG. 1



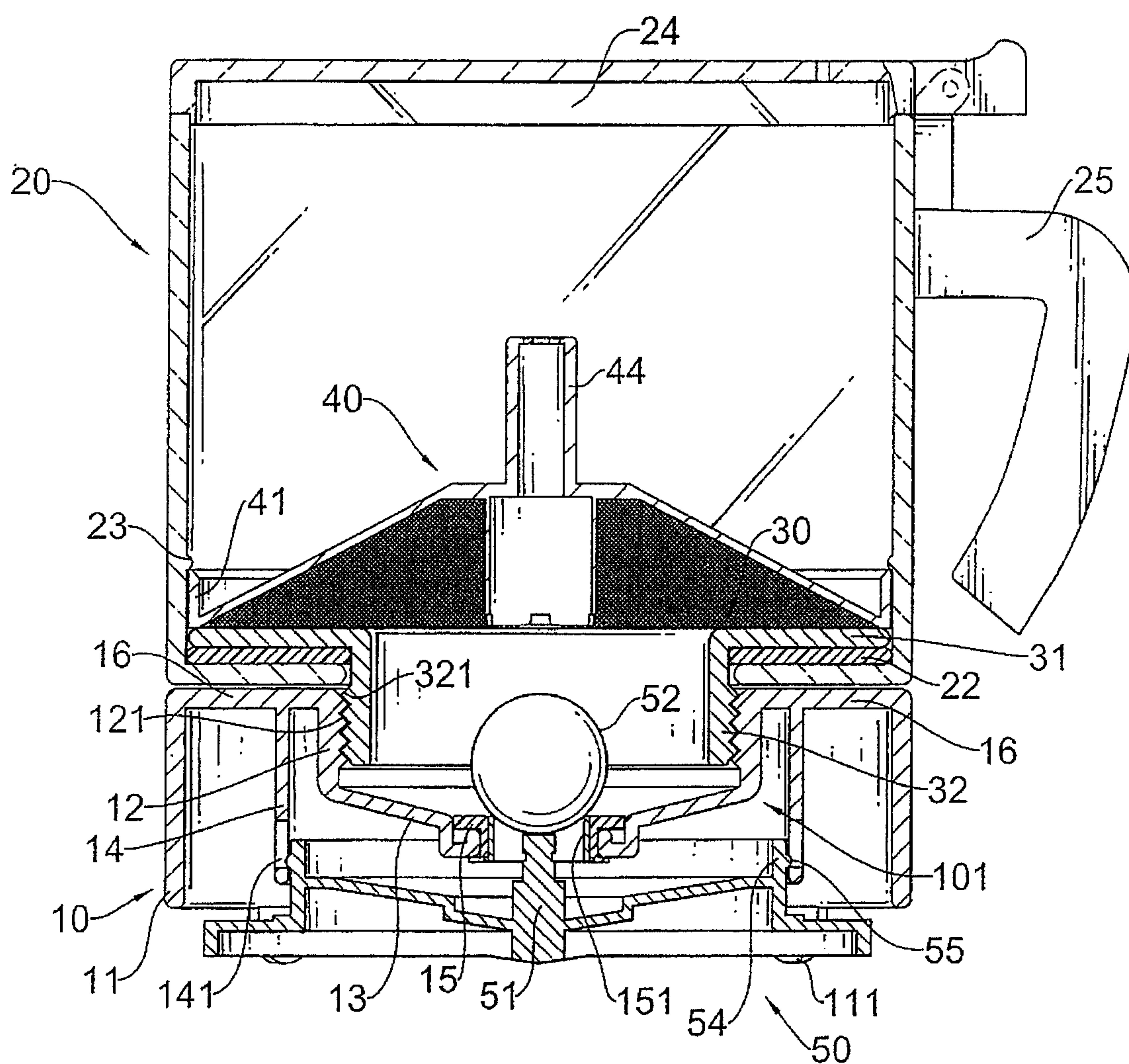


FIG. 3

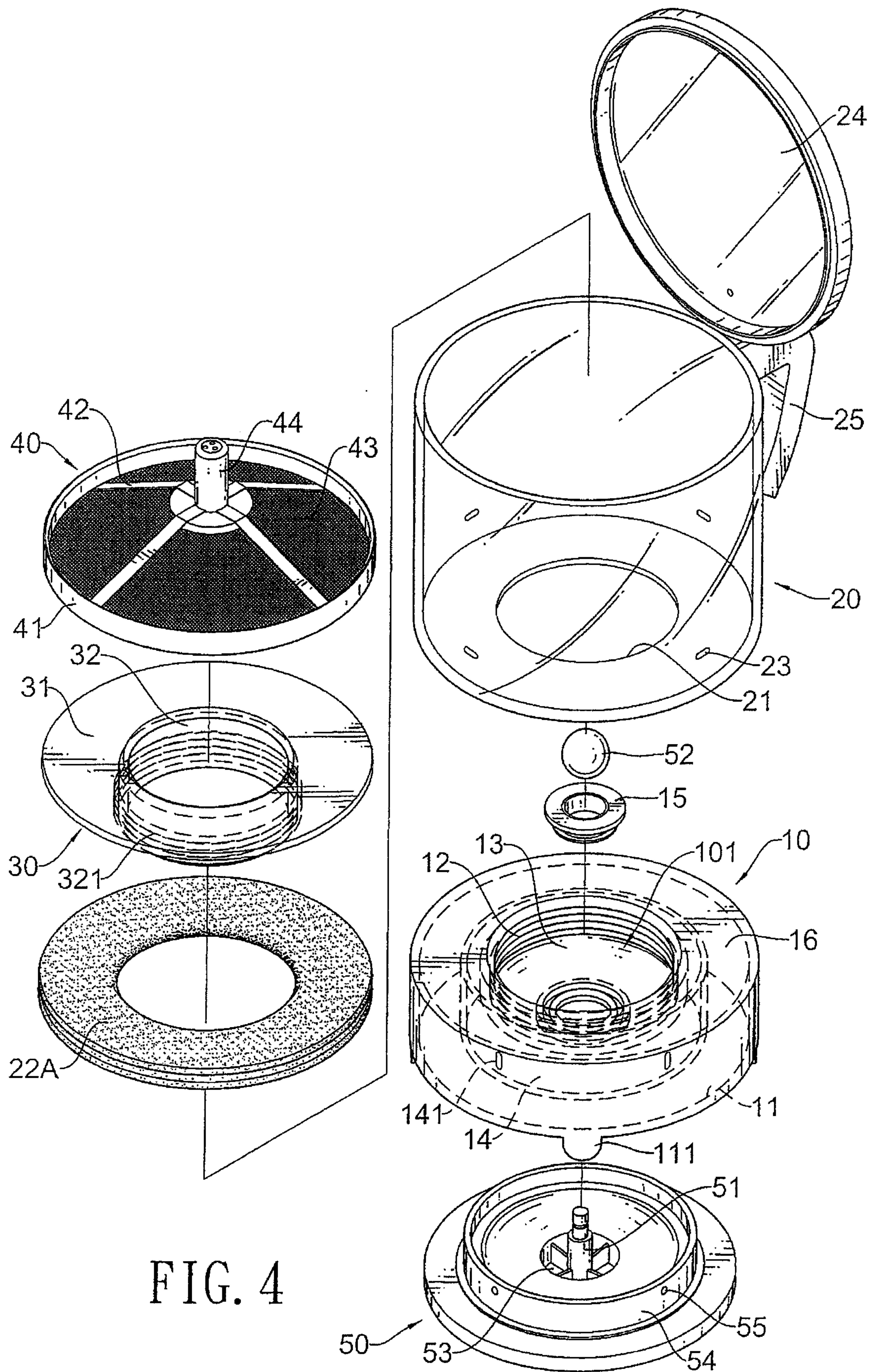


FIG. 4

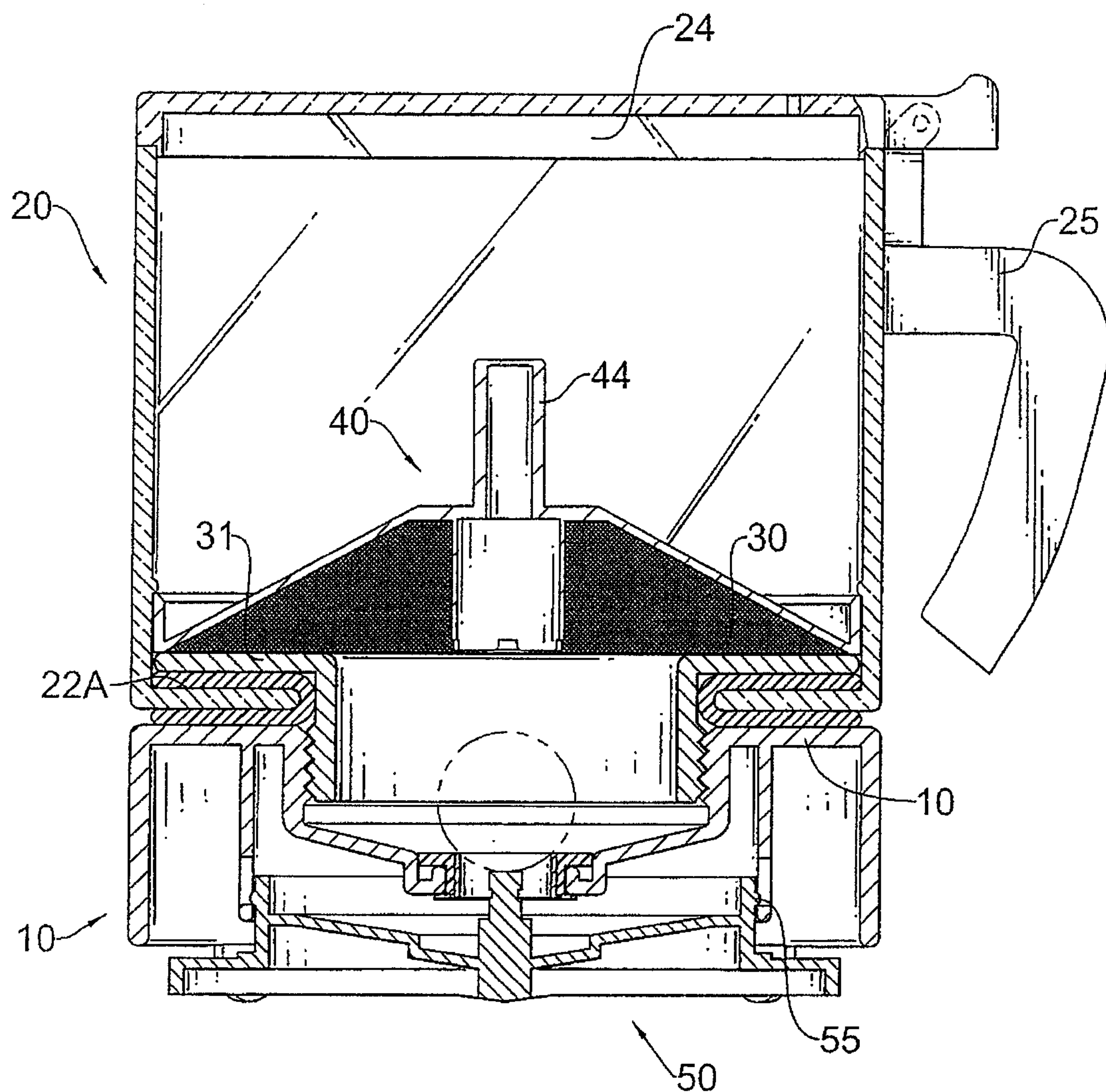


FIG. 5

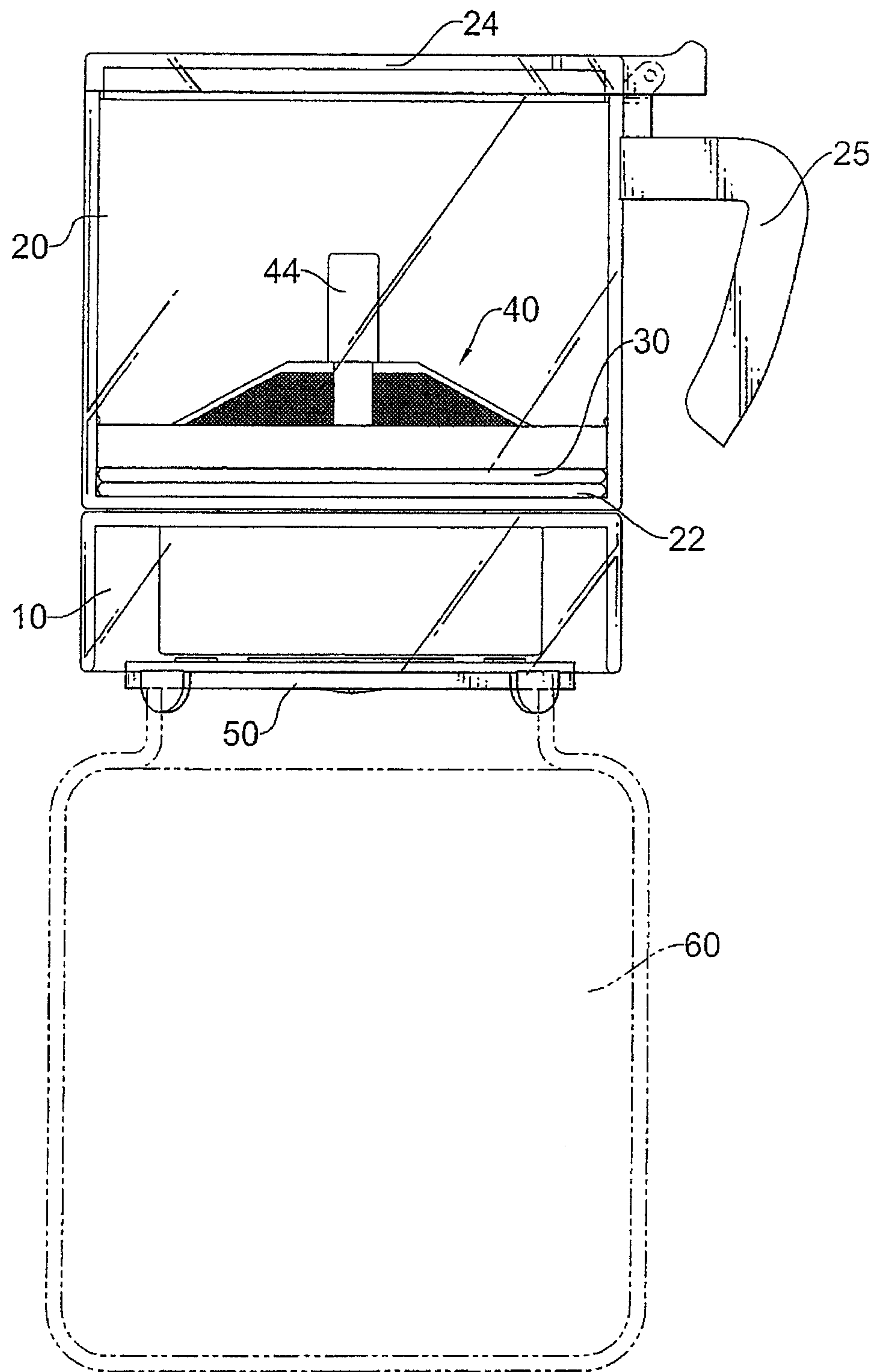


FIG. 6

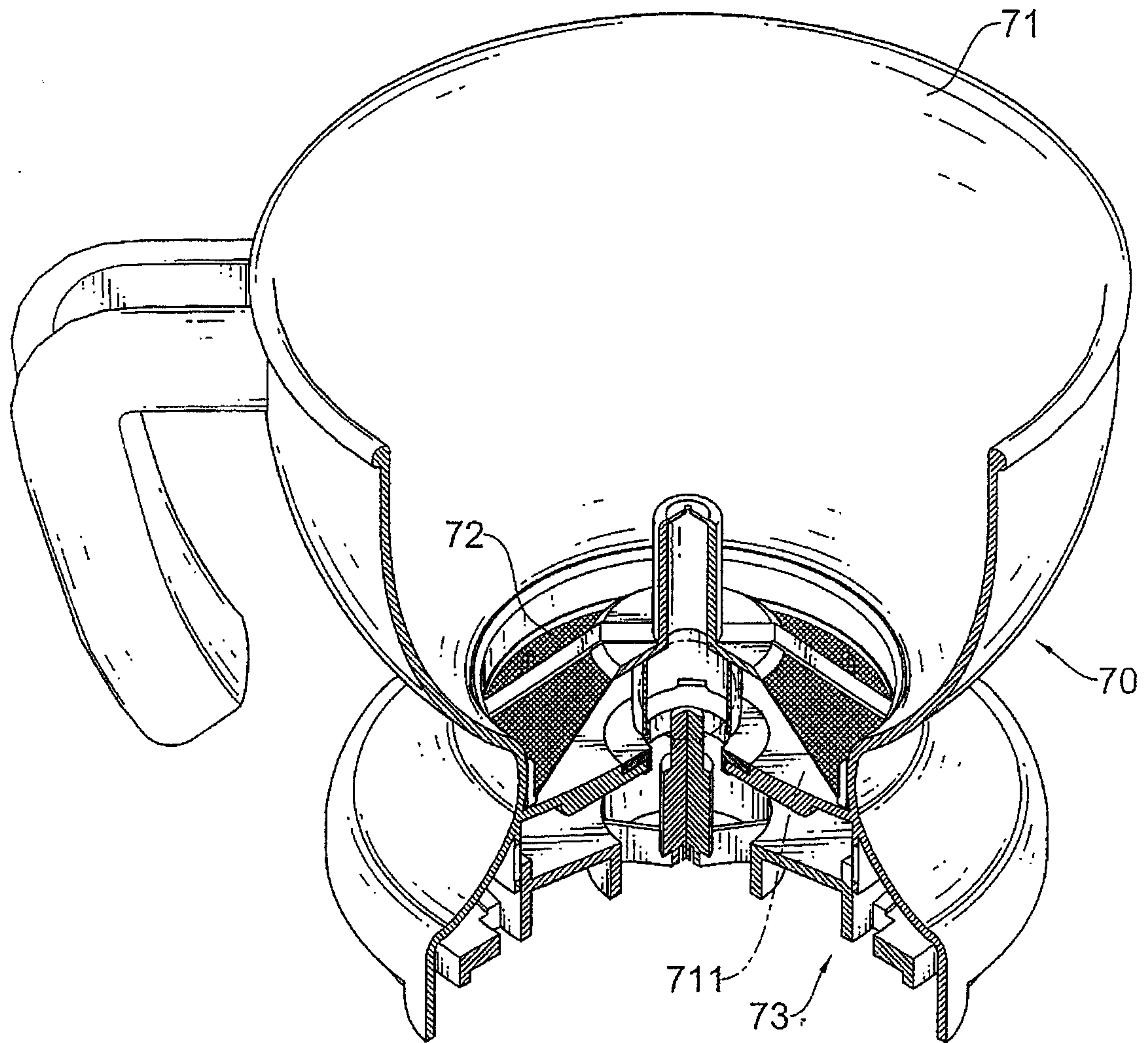


FIG. 7
PRIOR ART

