

June 3, 1969

D. B. HARDING
PORTABLE TOILET CABANA

3,447,167

Filed May 22, 1967

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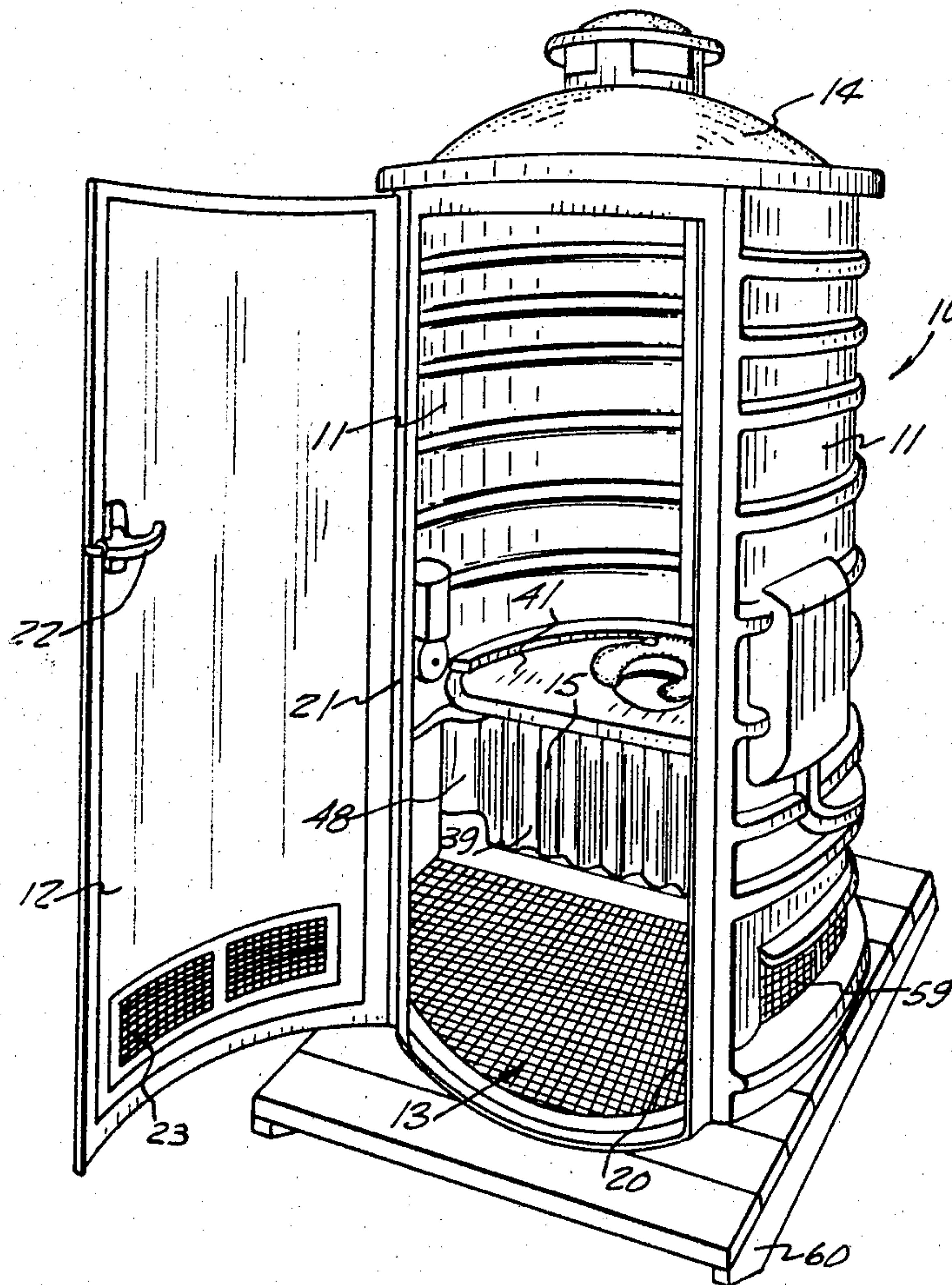


FIG. 1

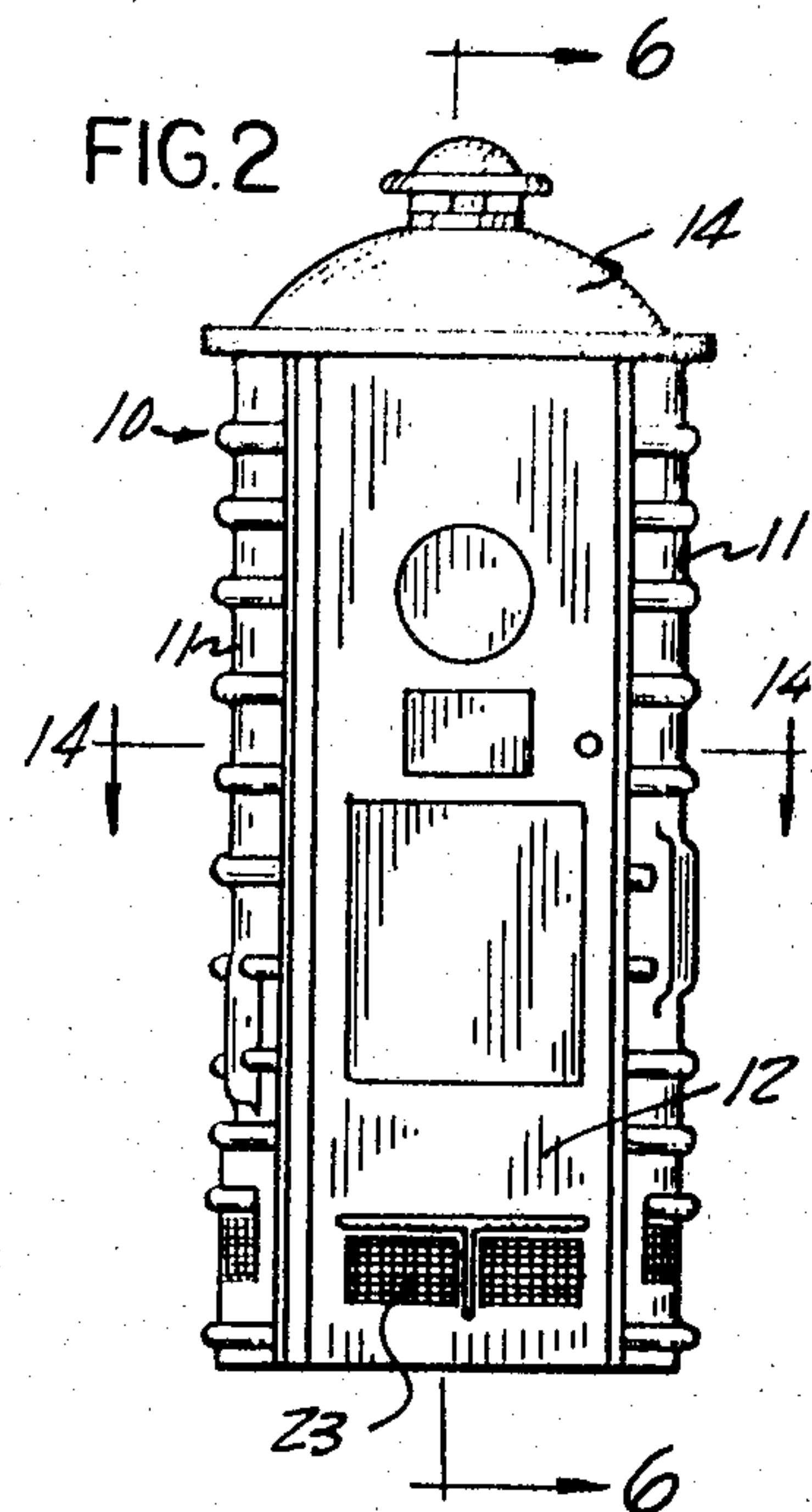
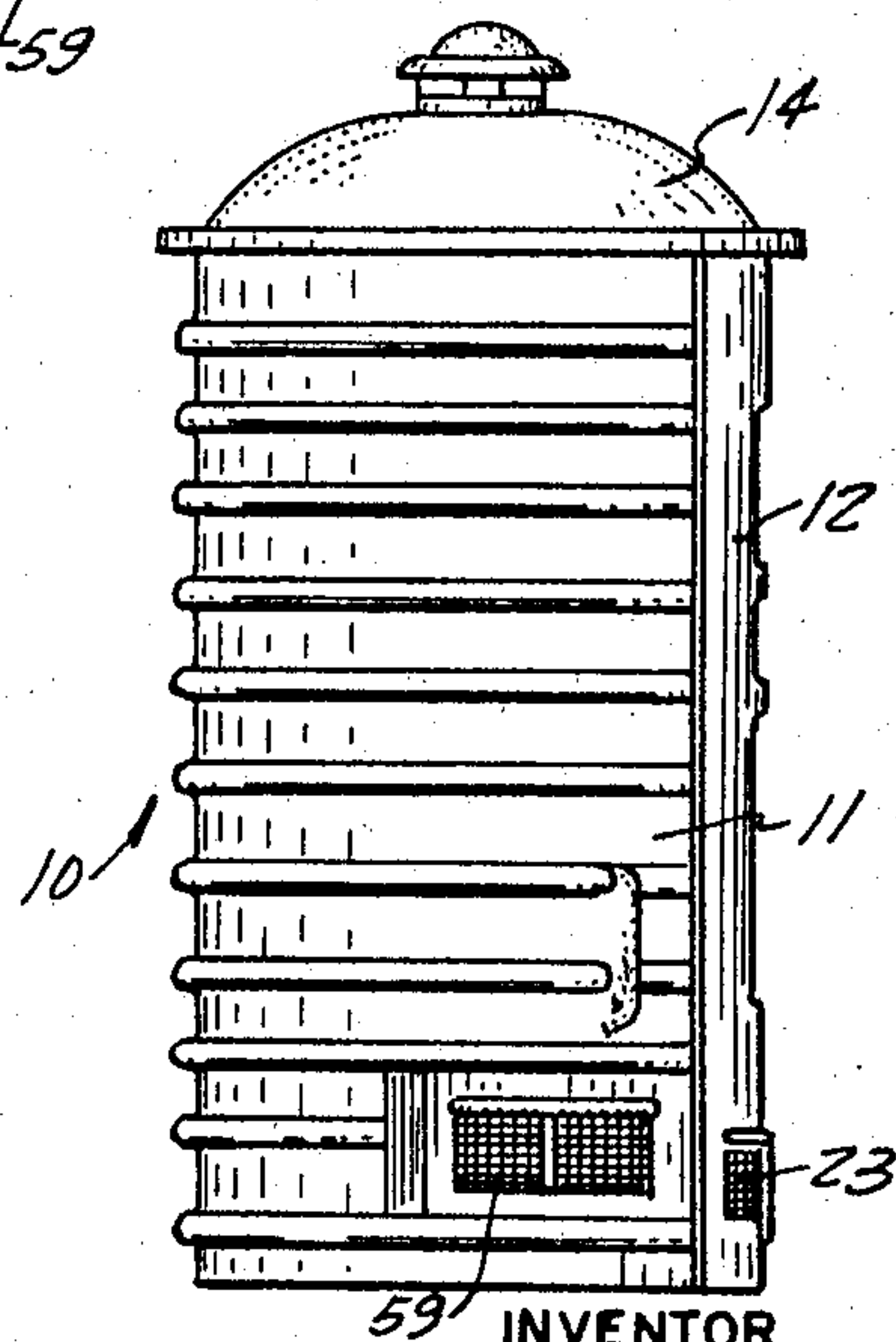


FIG. 3



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FIG. 4

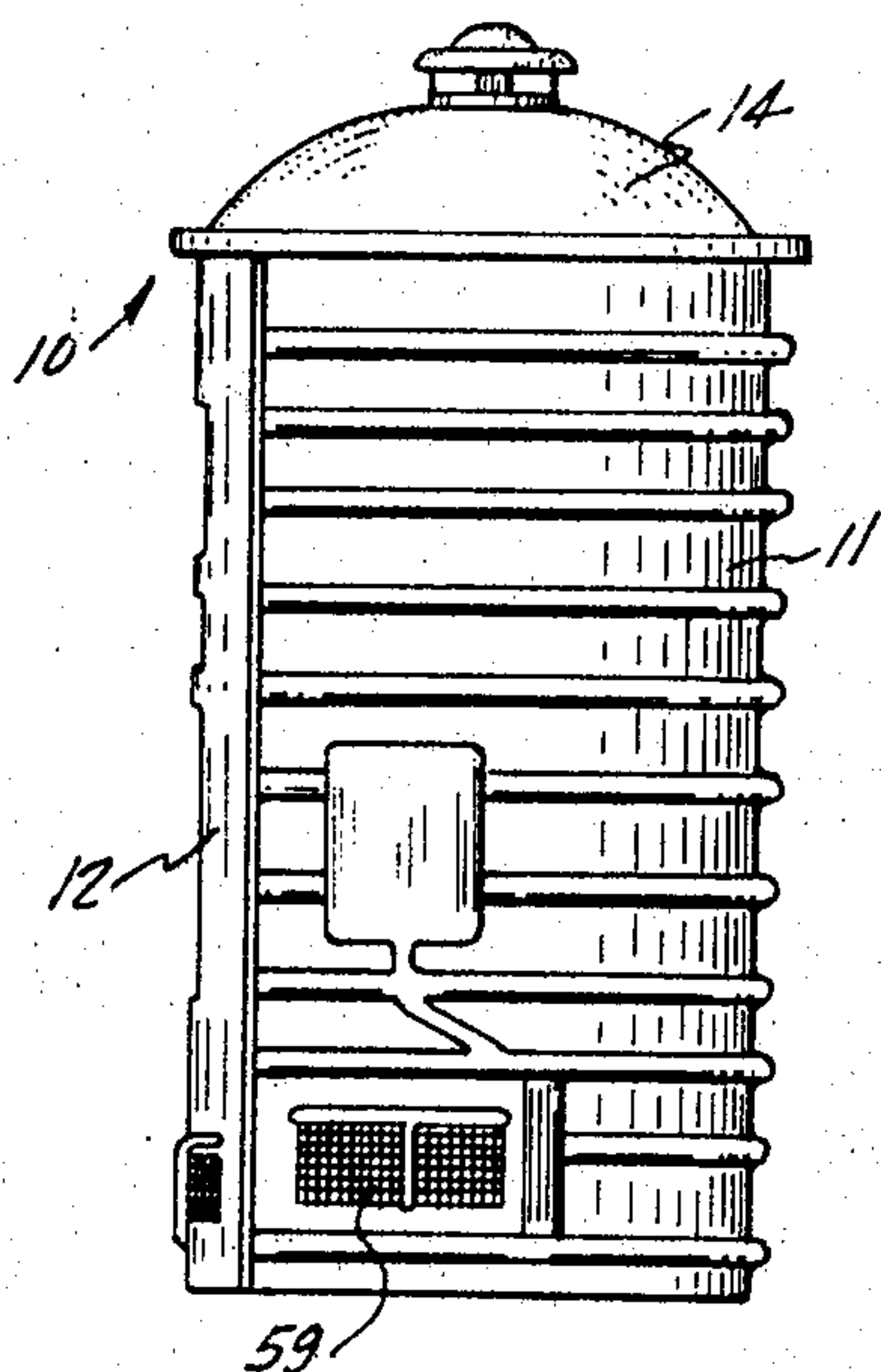


FIG. 5

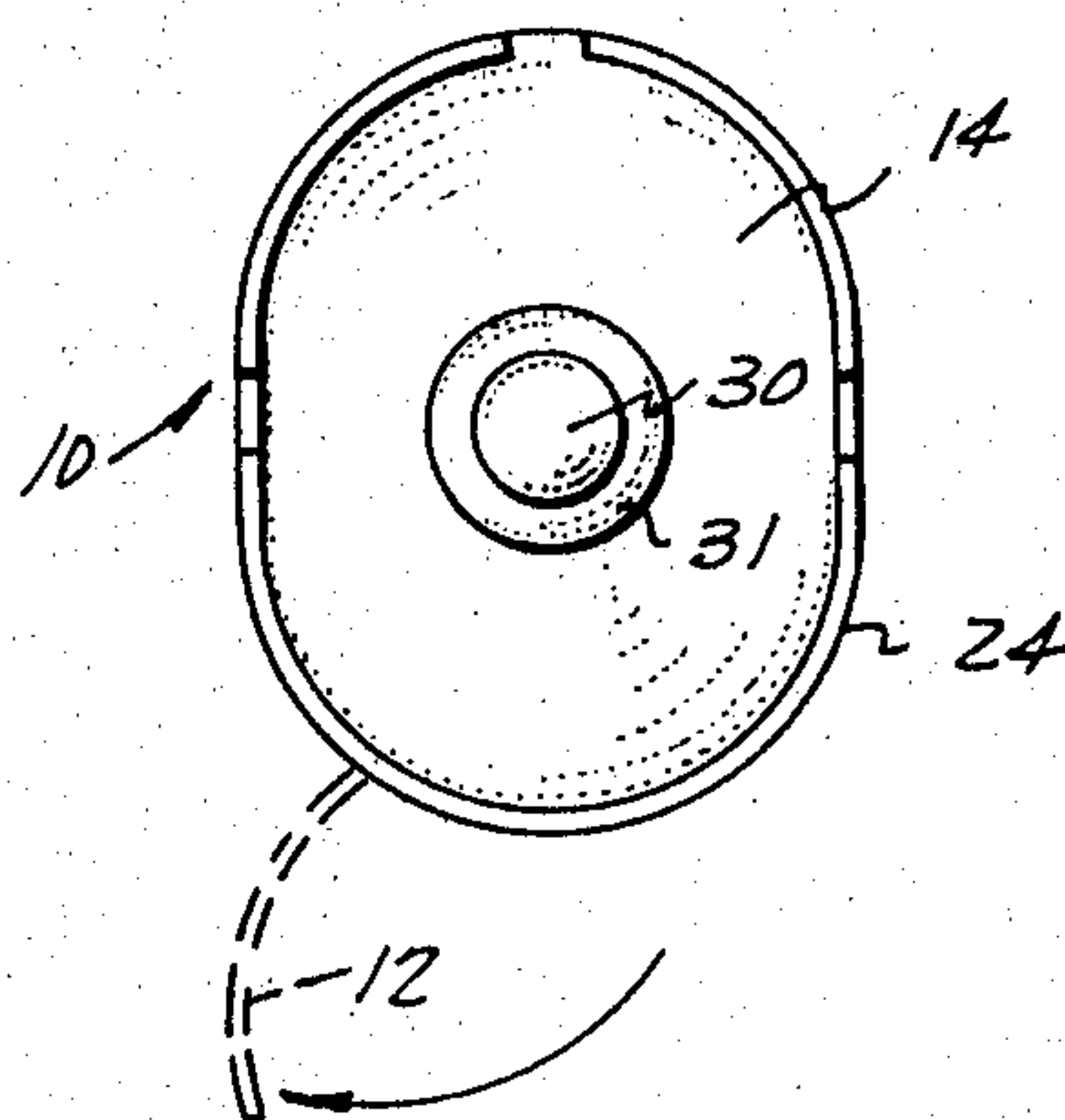


FIG. 6

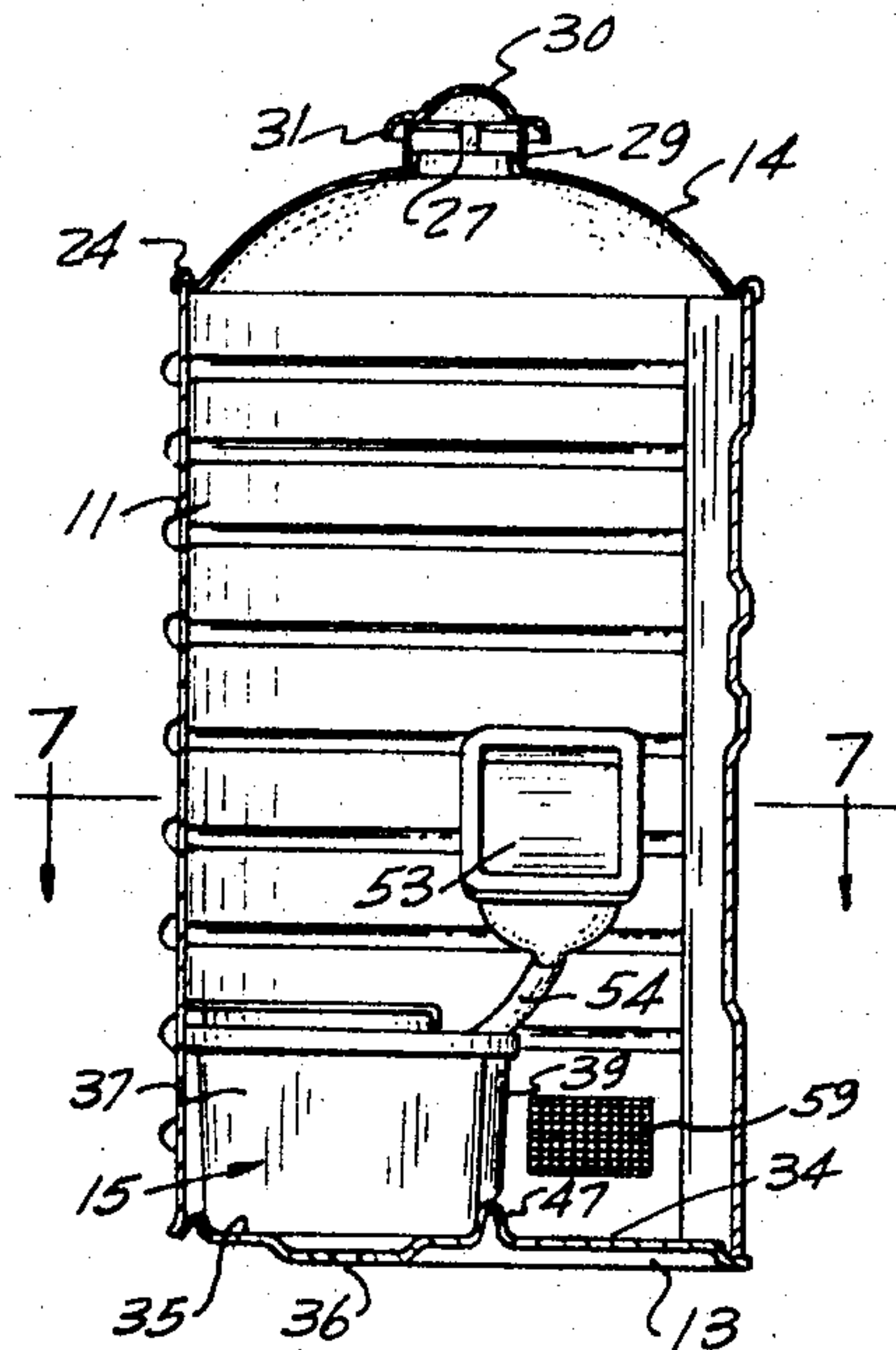
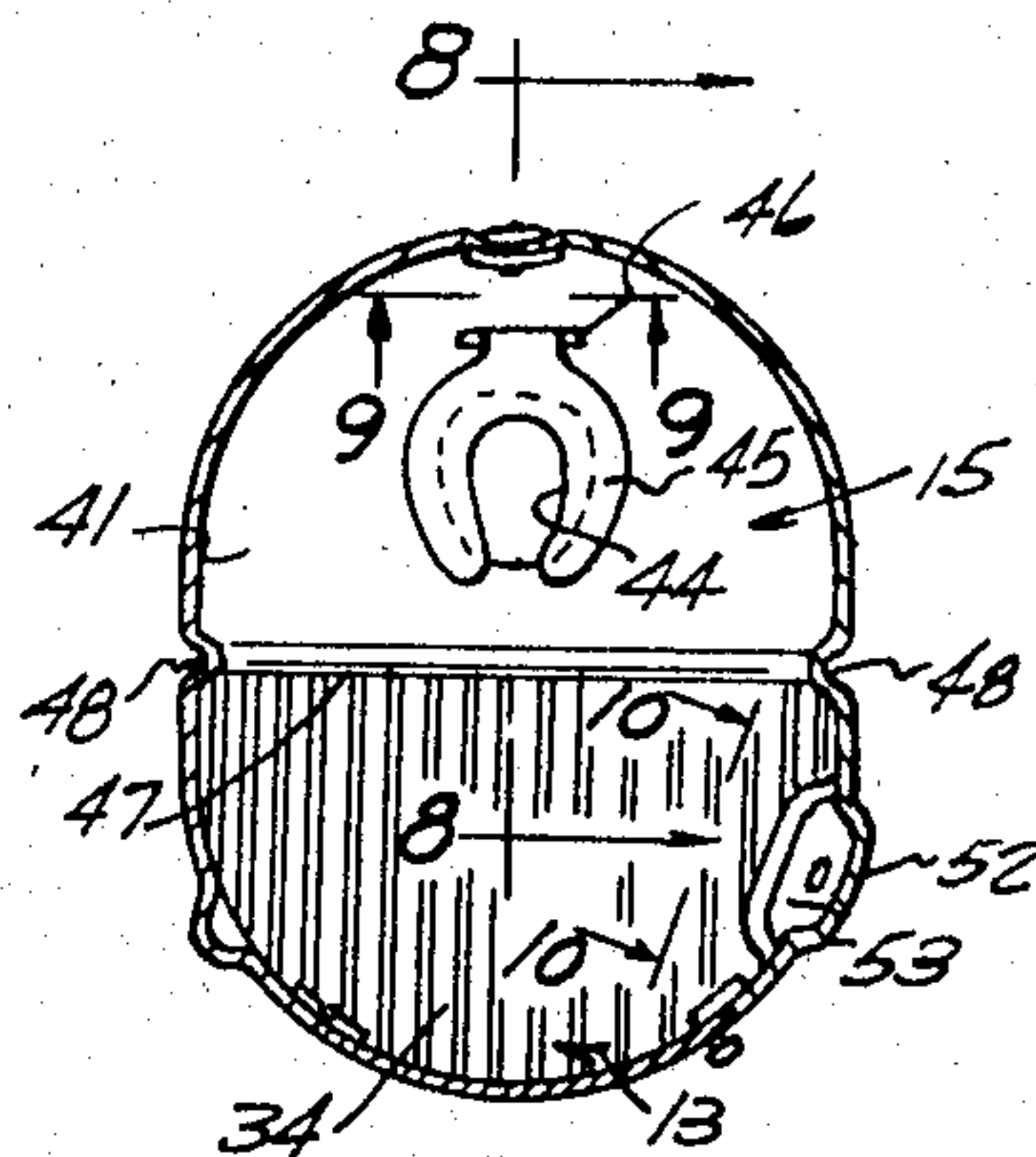


FIG. 7



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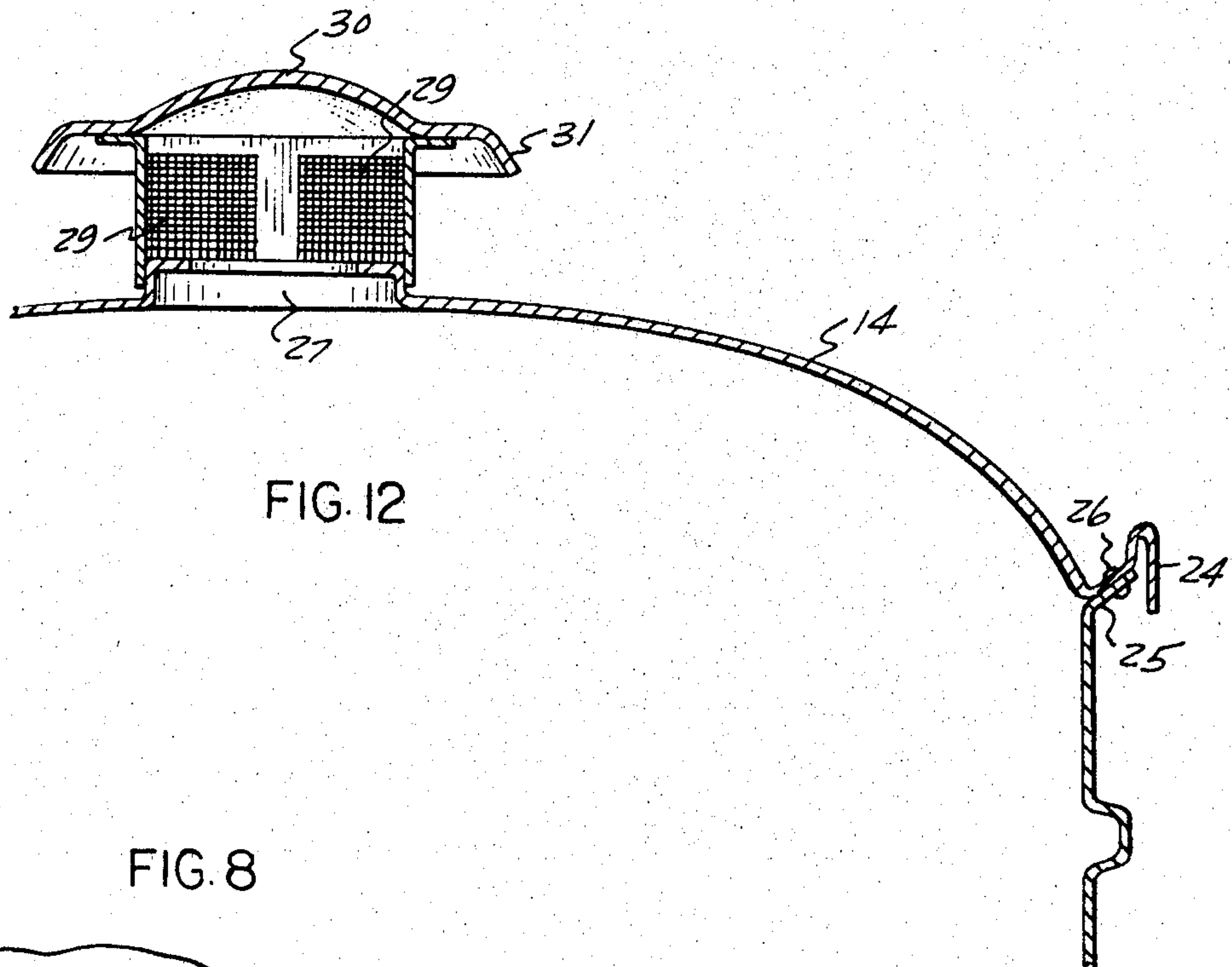


FIG. 12

FIG. 8

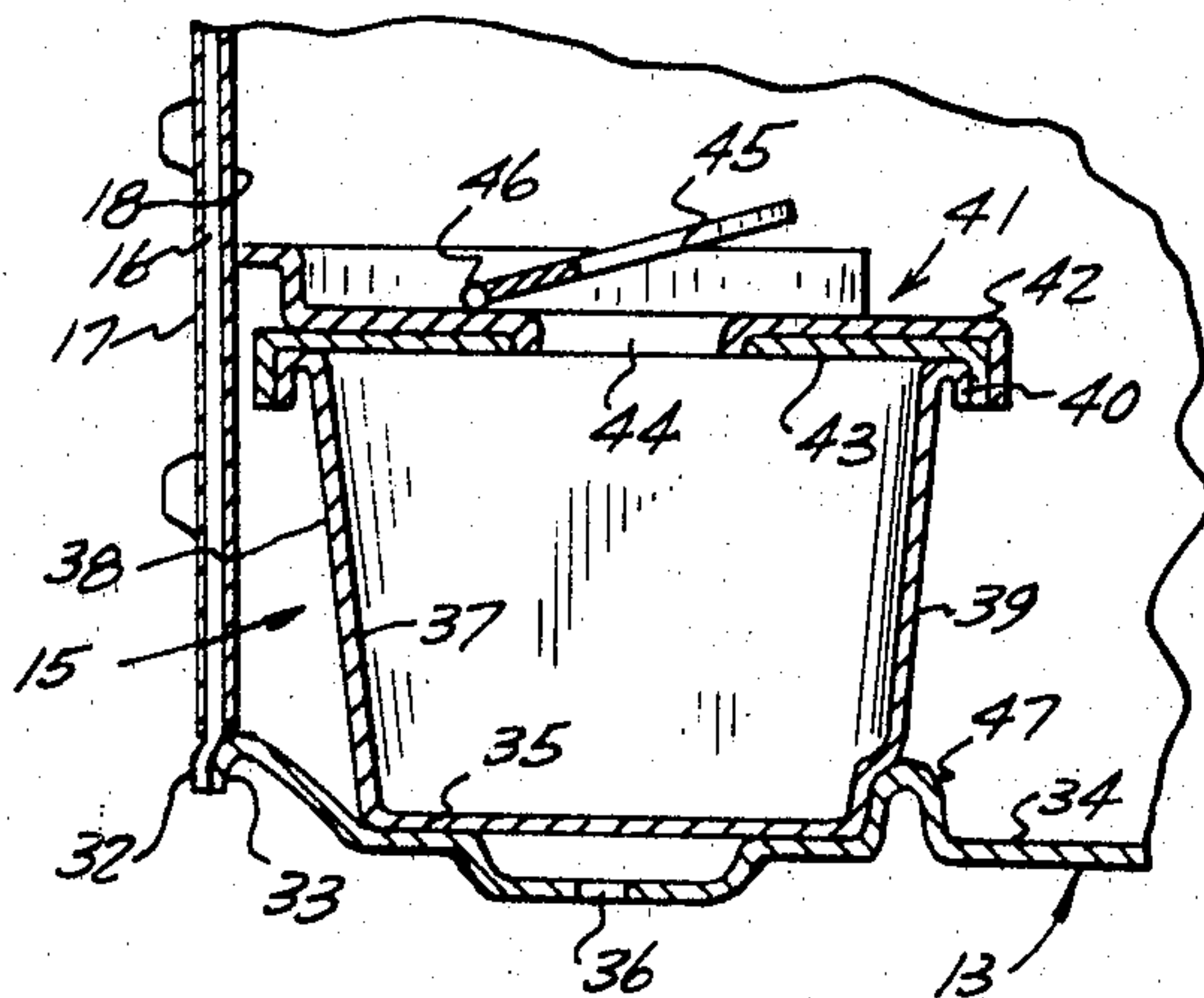
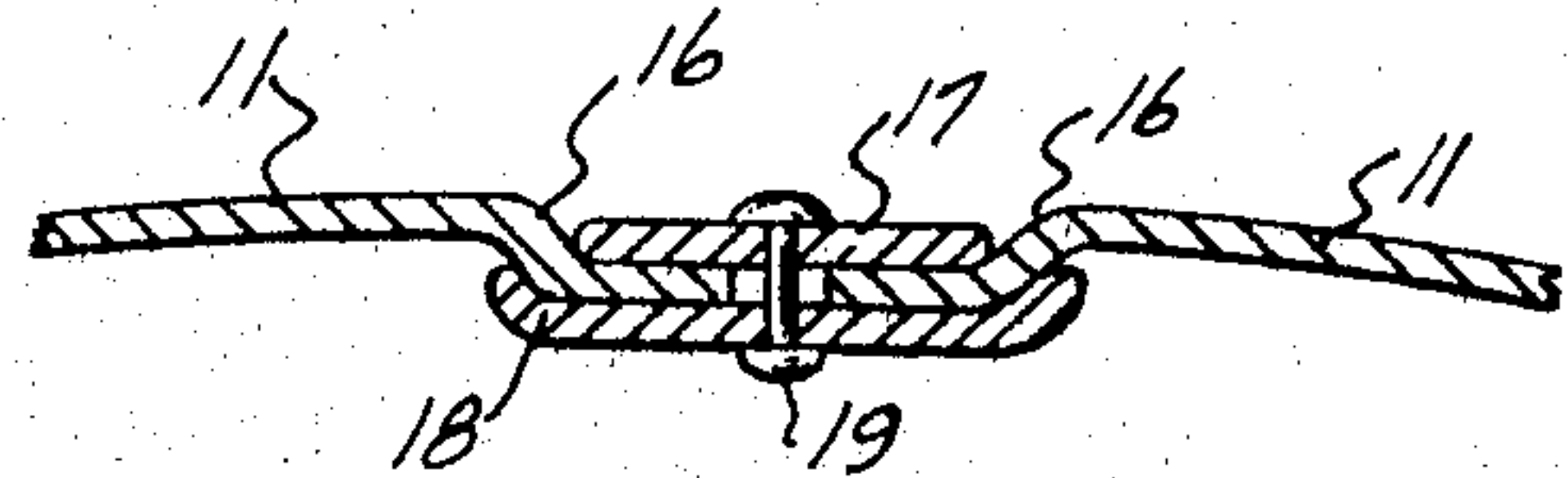


FIG. 9



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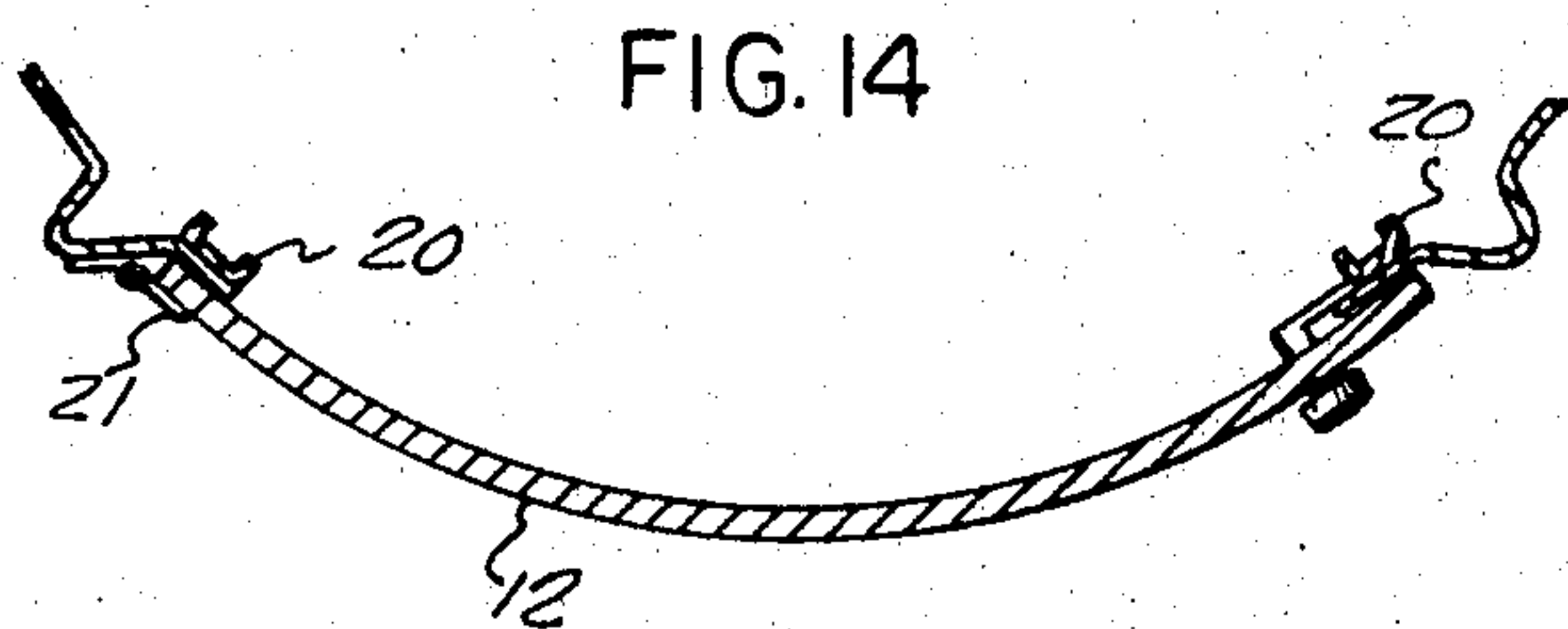
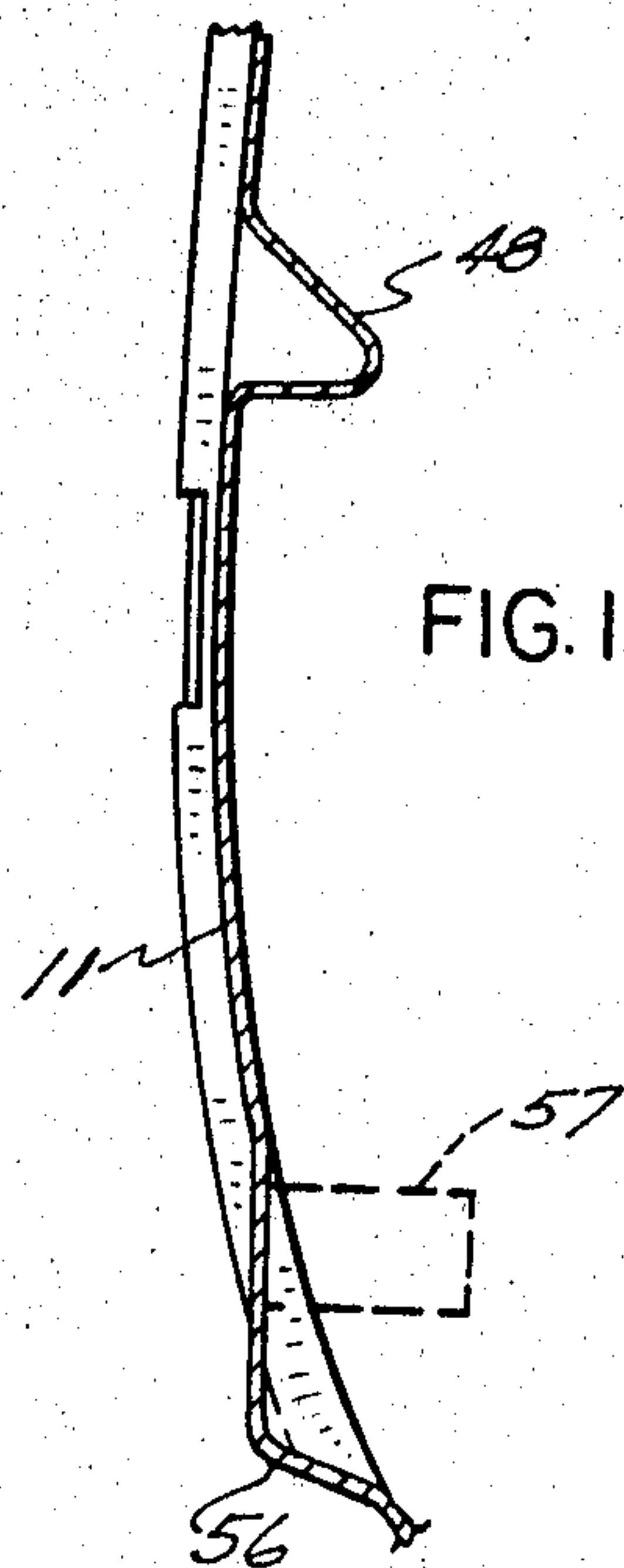
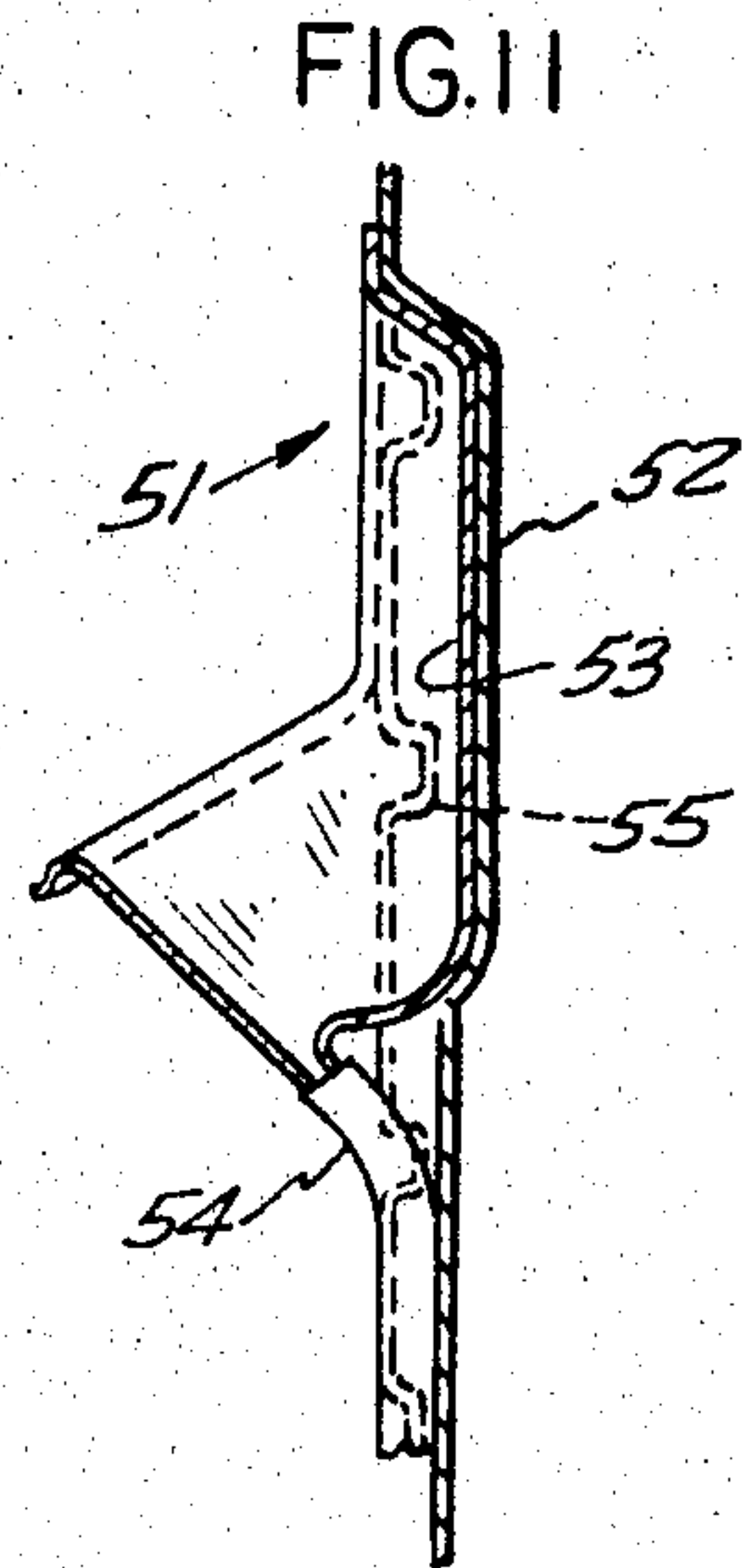
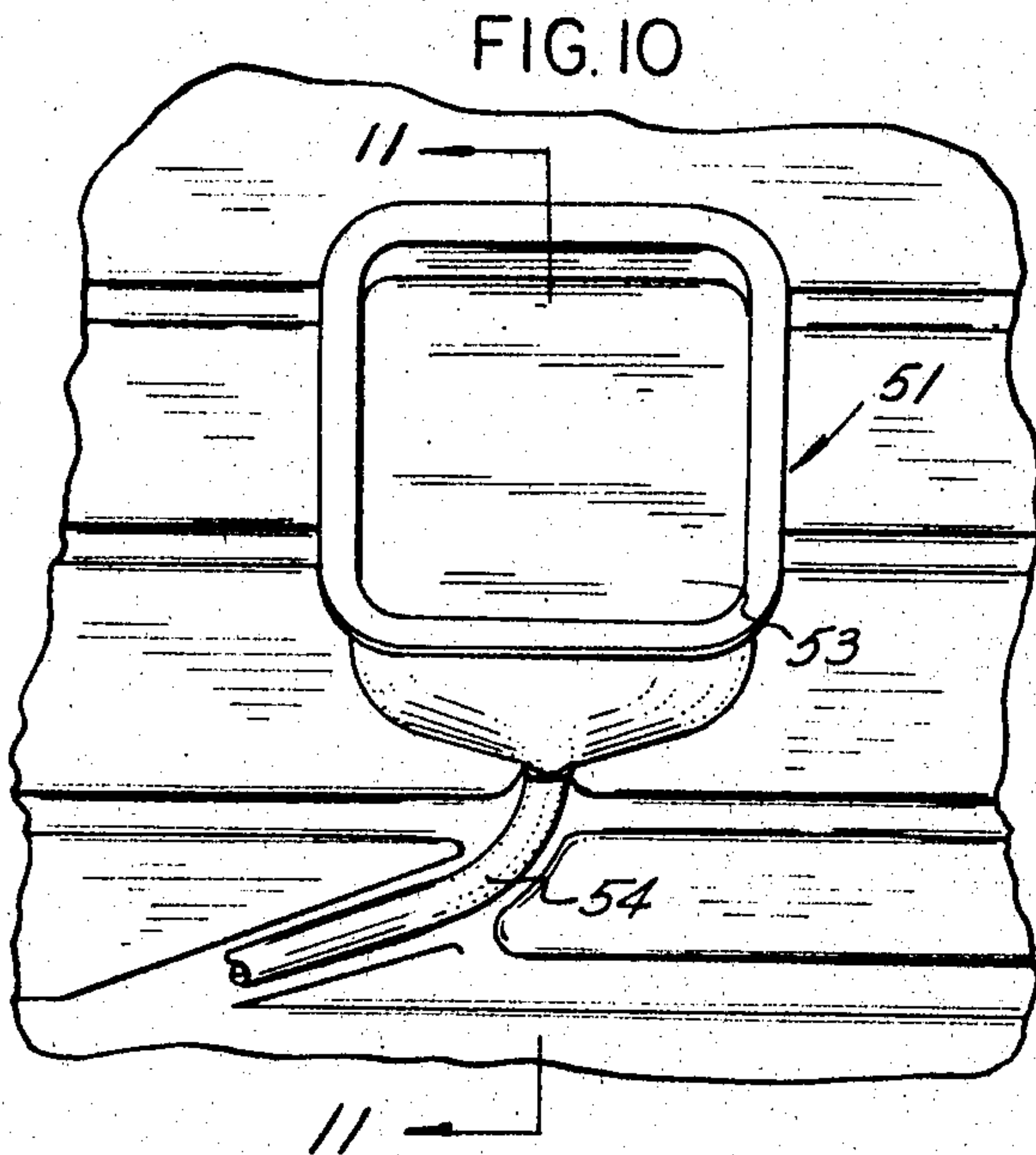
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Filed May 22, 1967

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PORTABLE TOILET CABANA

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Filed May 22, 1967, Ser. No. 642,654

Int. Cl. A47k 11/00; E04h 14/00

U.S. Cl. 4-116

5 Claims

ABSTRACT OF THE DISCLOSURE

A portable cabana for outdoor chemical type toilets, formed of light-weight, thin, sheet plastic panels, configured for rigidity, and suitably indented to form toilet, toilet paper and urinal receiving sockets, joined together at their edges to form an unframed, approximately elliptical in horizontal cross-section closed structure.

Background of invention

Conventional "out-house" types of toilets used, for example, at construction and recreation sites, have been conventionally made of wood or metal, resulting in large, heavy structures, difficult to move or formed to be immovable. These structures have generally been formed of a suitable framing covered with wood or metal panels and with the toilet and urinal formed integral therein. Because of the nature of their construction as well as the nature of their materials, they have tended to deteriorate rapidly and have been virtually impossible to keep completely clean, sanitary and insect proof.

For use at construction sites, as well as temporary recreation sites, such out-house type of toilets have been made of smaller size, but these still have had the disadvantage of being heavy, difficult to move, and formed as above, of materials and structures which deteriorate rapidly and are unsanitary.

Summary of invention

This invention relates to a portable cabana useful with portable outdoor toilets, formed of light-weight, rigid plastic panels assembled without framing, which cabana is particularly resistant to weather and insect deterioration and is so formed as to be relatively easy to clean and maintain in a sanitary condition.

Hence, it is an object of this invention to provide a portable cabana, useful for containing a portable chemical toilet, formed of large size, rigid, plastic panels interconnected to form an unframed, rigid building structure, particularly shaped to provide the maximum interior space and minimum exterior exposed surfaces with an attendant minimum wind resistance.

Another object of this invention is to provide a cabana formed of large, unframed panels of rigid plastic, which panels may be easily replaced, in the event of damage, but which are so formed as to resist normal weather deterioration, insect attacks, and which cabana is provided with an interior toilet tank receiving socket for holding a removable toilet tank and also is formed with integral indentations to receive urinal and toilet paper constructions.

Summarizing, the invention contemplates the formation of a rigid, unframed, cabana, formed of large plastic panels, which cabana is approximately elliptical in cross-sectional shape, and is provided with integral reinforcement configurations, toilet tank receiving sockets, urinal assembly sockets and the like, the entire structure being extremely light-weight and indestructible under normal conditions, as well as simple to maintain in a sanitary condition.

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These and other objects and advantages of this invention will become apparent upon reading the following description, of which the attached drawings form a part.

Drawings

FIG. 1 is a perspective view of the cabana, mounted upon a pallet, with the door opened to show the interior and toilet location.

FIG. 2 is a front elevational view of the cabana, and FIG. 3 is a right side elevational view.

FIG. 4 is a left side elevational view, and

FIG. 5 is a top plan view.

FIG. 6 is an elevational cross-sectional view taken in the direction of arrows 6-6 of FIG. 2, to an enlarged scale, and

FIG. 7 is a cross-sectional plan view taken in the direction of arrows 7-7 of FIG. 6.

FIG. 8 is an enlarged cross-sectional view showing the toilet tank within the cabana.

FIG. 9 is an enlarged fragmentary cross-sectional view showing the joint between the side panels and taken in the direction of arrows 9-9 of FIG. 7.

FIG. 10 is an elevational view of the urinal construction, and

FIG. 11 is a cross-sectional view taken in the direction of arrows 11-11 of FIG. 10.

FIG. 12 is an enlarged fragmentary, cross-sectional view of the roof construction.

FIG. 13 is an enlarged fragmentary, cross-sectional view of a portion of the left side panel.

FIG. 14 is an enlarged fragmentary, cross-sectional view showing the door constructions.

Detailed description

The cabana 10 is formed of a pair of side panels 11, a front or door panel 12, a floor panel 13, and a roof cover panel 14 which together provide a structure which is approximately circular, but actually more elliptical in cross-sectional shape, and arranged to contain therein a chemical toilet 15, (see FIG. 1).

As shown in FIG. 9, the rear, vertical edges 16 of the side panels 11, are bent and gripped between joint strips 17 and 18 and held therein by means of rivets 19.

Suitable strips are fastened to the front edges of the side panel to form a door frame 20 to one side of which a hinge 21 is fastened for securing the door panel 12. As shown in FIG. 1, the door panel is provided with a combination handle-lock 22 and at its lower end with screened vents 23.

Referring to FIG. 12, the roof cover panel 14 is in the shape of a downwardly bowed dish having an upwardly and then downwardly bent peripheral edge flange 24 which receives the upper edges 25 of the side panels 11. Suitable mechanical fastening means, such as rivets 26, interconnect the flanges 24 to the upper edges 25.

A central opening 27 is formed in the roof panel and a vent is secured to the panel over the central opening. The vent is formed of a cylindrically shaped, vertically extending tube 28, having screened openings 29, and covered by a downwardly dished cover 30 having wide overhang edges 31.

The lower edges of the side panels are provided with downwardly extending flanges 32 (see FIG. 8) which connect with peripheral edge flanges 33 formed on the floor panel.

The floor panel is divided roughly in half, with a forward half 34 having a roughened surface formed thereon by means of suitably corrugating or bending the plastic forming the panel, and a rear socketed half 35, having a lower drain opening 36 (see FIG. 8). The tank 37 of the chemical toilet 15 snugly fits within the socket. This tank

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is formed with a curved rear wall 38 and a substantially flat, vertically corrugated front wall 39, to form an approximate semi-circular in cross-section tank with a peripheral rim or flange 40 upon which a removable cover 41 is positioned. Such cover is preferably formed of an upper sheet 42 secured to a lower sheet 43 having an outer flanged edge to fit over the rim 40 of the tank for thereby sealing the cover against the tank.

The cover is provided with a central toilet opening 44 over which a conventional toilet seat 45 is mounted by means of a conventional toilet seat hinge 46.

The floor socket is provided with a forward rim or bend 47 which snugly fits under the lower ends of the vertical corrugations in the front wall 39 for additionally supporting the tank 30.

The side panels 11 are each provided with deeply inwardly extending side indentations 48 (see FIG. 7) which together embrace and frictionally hold the tank in position within the socket so that the tank can be removed only by lifting it upwardly and then outwardly.

One of the side panels 11 is provided with an outwardly bowed chamber 52 (see FIG. 11) which receives a urinal bowl 53 having a discharge tube 54 extending into the toilet tank 37. The tube is positioned within a groove 55 integrally formed in the side panel 11.

The side panels are also corrugated with integral, vertically spaced apart, horizontally extending corrugations which provide rigidity but which are so formed as to maintain ease of cleaning the structure. In addition, suitable screened vents 59 may be formed in the side panels.

The cabana assembly may be rested upon a floor or upon the ground, but preferably it would be rested upon and secured, as by screws, to a conventional wooden pallet 60 so that it may be easily lifted up upon a truck and carried from place to place as needed, making it more usable for short periods of time at varied locations.

While there are a number of suitable plastics available to form the panels, one particularly suitable one is of the class identified as linear polyethylene in sheet form of about 1/4 inch in thickness to provide the required rigidity and strength while maintaining lightness. This material is smooth so that the entire structure is easily washed or otherwise cleaned and will not deteriorate under ordinary weather conditions.

As can be seen, the overall construction can be closed up so that, for all practical purposes, it is insect proof and it may be easily maintained in a sanitary, clean condition at all times particularly since there are no sharp crevices or edges which would otherwise tend to accumulate dirt and dust.

The elliptical cross-section not only rigidifies the structure, but also permits the structure to be arranged relative to the wind so as to reduce the force of wind upon it, which might otherwise tend to knock-over a structure of this type, which has no foundation.

This invention may be further developed within the scope of the following claims. Accordingly, it is desired that the foregoing description be read as being merely illustrative of an operative embodiment of this invention, and not in a strictly limited sense.

I now claim:

1. A portable cabana comprising a pair of opposed, curved side panels having rear vertical edges joined together and spaced apart front edges bridged by a curved door panel hingedly connected to one of the front edges

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and closing against the other of the vertical edges to form an elliptical horizontal cross-section;

a unitary floor panel having its peripheral edge secured to the lower edges of the side panels;

and a roof cover panel forming the cabana roof and joined at its peripheral edge to the upper edges of the side panels;

said panels each being formed of a single sheet of thin, rigid plastic material;

the panels together forming a rigid, unframed structure said cabana further characterized by the addition of a depressed socket formed in the rear half portion of the floor panel receiving the lower portion of a toilet tank having a curved rear wall positioned adjacent the side panels and a substantially flat front wall spanning the cabana from side to side thereof; deep indentations formed in each side wall adjacent the opposite sides of the toilet tank to embrace and hold the tank against forward movement.

2. A construction as defined in claim 1, and including integral horizontally arranged spaced-apart corrugations formed in the side walls along their entire height.

3. A construction as defined in claim 1, and said toilet tank being removably fitted into said socket for manual removal thereof.

4. A construction as defined in claim 1, and including an outwardly bowed portion formed in one of the side walls to form a chamber, spaced above the floor, to receive a urinal bowl;

with an outwardly bowed channel formed in said one side wall, extending from the bottom of the bowl portion to the toilet tank location for receiving and holding a urinal bowl conduit extending into the toilet tank.

5. A construction as defined in claim 1, and said roof cover panel being in the form of a downwardly curved dish, having an upwardly and then downwardly bent peripheral edge flange receiving and securing to the upper edges of the side panels;

an opening formed in the center of the roof cover panel and a vent secured thereto, said vent being in the form of an approximately cylindrical shaped, vertically arranged tube, having screened openings formed therein and covered by a downwardly dished cover member of a substantially greater diameter of said tube.

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U.S. Cl. X.R.

4—119; 52—34, 82, 204, 244, 247