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FEMALE URINAL

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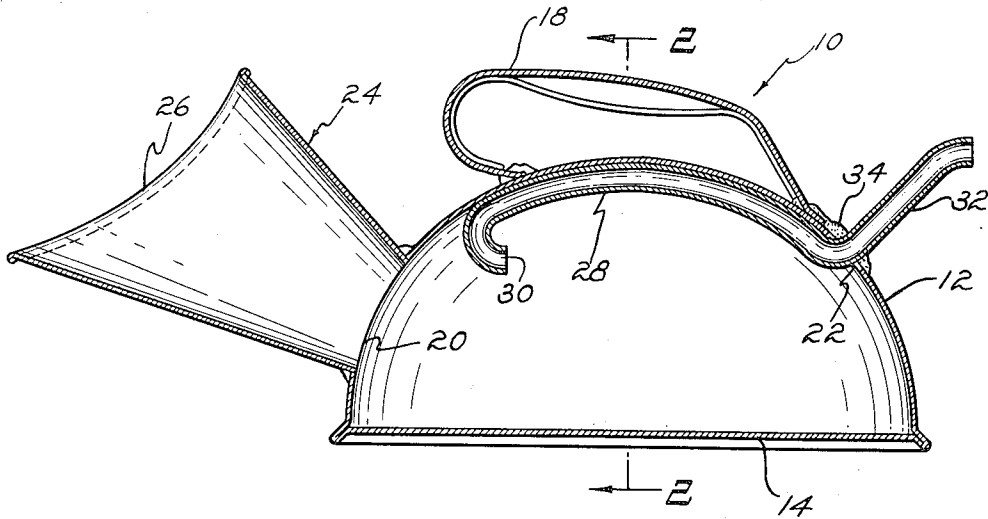


Fig. 1

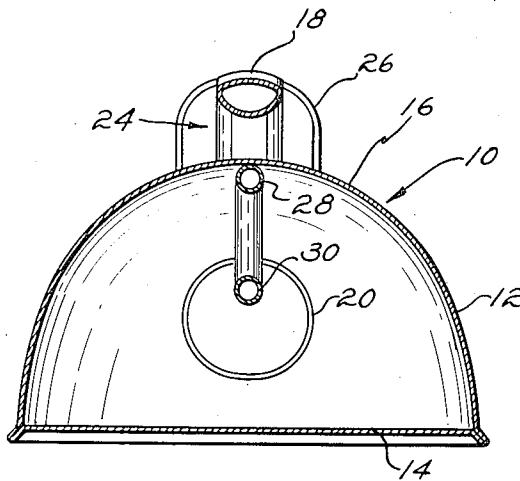


Fig. 2

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FEMALE URINAL

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3 Claims. (Cl. 4-110)

The present invention pertains to improvements in female urinals and more specifically to the provision of vent means therefor.

In the construction of female urinals it is common practice to provide the receptor with a spout-like extension terminating in a portion shaped closely to conform to the contours of the pubic region of the female anatomy. In use, this terminal portion is placed over the genito-urinary organs and pressed firmly against the body. Thus, an effective seal is formed with the mouth of the urinal spout preventing the escape of air which must be displaced from the receptor as the urine is discharged thereinto. On the other hand, if the urinal is not tightly pressed against the user's body, there is danger of undesirable leakage around the mouth of the spout.

The invention, basically, resides in the provision in a female urinal of a specially designed vent tube which will permit the escape of displaced air but will prevent the spillage of the contents of the urinal.

Therefore, it is a basic object of this invention to provide a female urinal comprising means for venting same.

It is a further object to provide a vent for female urinals which will permit the escape of displaced air therefrom but which will not allow spillage of urine even when the urinal is carried in the normal upright position.

It is a still further object to provide a vent for female urinals which will allow the emptying of the receptor without spillage of urine through the vent.

It is a further object to provide a vent for female urinals which is simple, easily cleaned, has no moving parts and can be easily provided in the construction of conventional urinals without substantial increase of production cost.

These, and other objects and advantages of the invention will become apparent as the present description of a preferred embodiment is read in connection with the annexed drawing in which:

Figure 1 is a longitudinal section of the present invention; and

Figure 2 is a cross-section taken on line 2-2 of Figure 1.

In the drawing, reference numeral 10 designates, generally, a female urinal preferably constructed of enameled ware, stainless steel, aluminum, glass or any similar material susceptible to hygienic cleansing and sterilization. The urinal comprises a receptor 12 having a flat bottom 14 and a domed upper wall 16. A carrying handle 18 is conveniently located on and fastened to the upper surface by any suitable means.

The upper wall 16 contains two perforations 20 and 22. The perforation 22 communicates with a tapering upwardly inclined spout 24 which is attached to the receptor wall by any suitable method. The spout ends in a beaded over terminal portion 26 so curved and proportioned as to accommodate the female genitalia and closely conform to the contours of the pubic region.

Along the inner surface of the domed upper wall 16 of the receptor is provided a vent tube 28, which conforms and is attached to said surface by any suitable means, for example, by soldering, brazing, etc. The end 26 of the tube 28 nearest the spout terminates in a sharp reverse

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bend so that the open end of the tube faces away from the spout. The opposite end of the tube passes through perforation 22 in the upper wall of the receptor and terminates in an exterior extension 32, directed away from the user, thereby placing the interior of the receptor in communication with the atmosphere via tube 28. The perforation 22 through which the vent tube passes is sealed around the tube, for example, by soldering or brazing, as shown at 34, Figure 1.

The urinal is used in the conventional manner hereinbefore described. As the urine passes down the spout and collects in the receptor, the air displaced by the rising liquid level escapes via tube 28 and extension 32 passing off to the atmosphere in a direction away from the user. Thus, the air trapped in the urinal cannot impede the filling of the receptor. When the urinal is carried after use it may be tipped up with the spout portion elevated in order to preclude spilling of the contents. The vent is so designed and installed that there is no possibility of spillage through the vent even while the urinal is in the carrying position, i. e., with the spout end elevated. Furthermore, as the urinal is tilted forward for disposal of the contents or for collection of samples, the position assumed by the vent tube remains such that no liquid can escape therethrough.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed and desired to be secured by United States Letters Patent is:

1. A female urinal having a receptor, a spout and a vent for permitting the escape of air from the interior of said receptor, said vent comprising a tube extending along the inner surface of the upper wall of said receptor, said tube terminating at one end in a reverse curve near said spout, the other end of said tube protruding through said wall to the exterior of said receptor in a direction away from said spout.

2. A device of the character described comprising a receptor formed of a flat bottom wall and a domed upper wall, an upwardly inclined, tapering spout attached to one end of the receptor and communicating with the interior thereof, a vent tube having an intermediate portion extending longitudinally along the interior surface of said upper wall and having a first terminal portion extending through said wall to the exterior of said receptor, said tube having a second terminal portion sharply bent back upon itself so as to face away from said spout.

3. A female urinal comprising a receptor, a spout at one end of said receptor communicating with the interior thereof, and a vent tube extending longitudinally along the upper wall of said receptor and terminating at one end in a sharp reverse curve adjacent the inner end of said spout, the other end of said tube extending through said wall at the opposite end of the receptor and in a direction away from said spout.

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