Feb. 9, 1943. L. STRITE ET AL 2,310,658

URINAL

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Fig. 2.

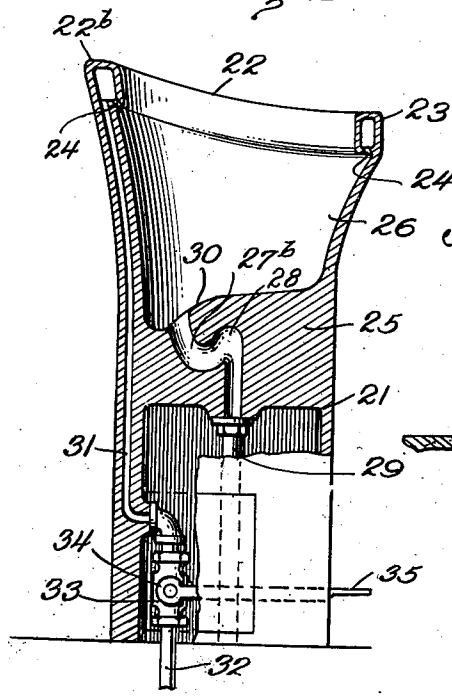


Fig. 3.

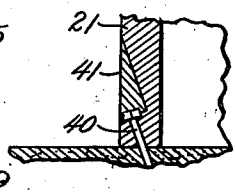
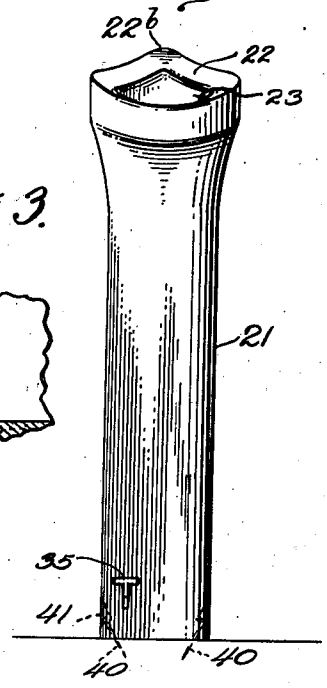


Fig. 1.



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URINAL

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2 Claims. (Cl. 4—102)

This invention relates to certain new and useful improvements in toilet structures and has special reference to a type of urinal designed particularly for use by females, constructed in such a manner that it will be hygienic, sanitary, and safe and aid in the prevention of the spread of diseases both when installed and used in public rest rooms and in private toilets.

Another object resides in the provision of a type of urinal which will be easier and more convenient to use by females as an urinal without the necessity or danger of any part of the user contacting any portion of the urinal and thereby risking possible transfer of germs or diseases.

A further object of the invention resides in the provision of a type of urinal of the character stated which is constructed in such a manner that it may be flushed as desired by the user without the necessity of employing the hands for this purpose or otherwise contacting any part of the person with any portion of the urinal structure or its flushing mechanism.

A still further object of the invention resides in the provision of a type of urinal of the character stated which is constructed in such a manner that while being especially designed for use by females may nevertheless be equally adapted and still be just as sanitary, safe, and convenient for persons of either sex of various ages.

The foregoing and other objects and advantages will be apparent from the following detailed description taken in connection with the accompanying drawing in which:

Figure 1 is a side elevation of the preferred form of the improved urinal, looking at one of the narrow sides thereof.

Figure 2 is a side view at right angles to Figure 1 with a portion thereof broken away and thus showing the urinal partly in vertical section.

Figure 3 is a detail section illustrating an appropriate manner of securing the urinal in set position at the bottom thereof.

Referring more particularly to the drawing, wherein like characters indicate like and corresponding parts in the several views, the improved urinal which may be manufactured from various materials is illustrated in several forms in this application as being produced in a single section from porcelain or the like and in the preferred form shown in Figures 1 and 2, consists of a vertically elongated body 21 which is substantially oval shape in cross section and top plan and uniform exterior shape throughout its length. The top 22 has an inwardly turned or rolled edge 23 entirely around the same and provided with discharge openings 24, this edge 23 being hollow. The top 22 is open and some distance downwardly therefrom the body 21 is provided with a transverse partition 25 or solid portion thus providing a reservoir 26 in the upper portion of the body 21 which empties or discharges through the outlet or discharge passage 27 extending downwardly through the transverse partition 25 or solid portion for emptying the reservoir 26 into the conventional form of trap 28 connected to the lower end of the outlet or discharge passage 27 and which trap 28 in turn connects with and empties into the waste pipe 29 which continues downwardly through the floor to carry off the flushings for complete disposition. The upper face 30 of the transverse partition 25 or solid portion slopes downwardly from every direction toward the outlet or discharge passage 27 to enable complete emptying of the reservoir 26. A passage 31 is provided in the wall of the body 21 from a point near the lower end or bottom thereof upwardly to the hollow passage in the inwardly turned or rolled edge 23 and the lower end of the passage 31 opens inwardly in the body 21 and is connected with the fresh water pipe 32 after the extension of this pipe 32 upwardly through the floor and into the lower hollow portion of the urinal, a control valve 33 being positioned in the fresh water pipe 32 just below connection thereof with the passage 31 so as to control passage of the fresh water into the reservoir 26 by way of the discharge openings 24 for flushing of the urinal. An actuating lever 34 for the valve 33 extends outwardly through one side of the urinal body 21 near the bottom thereof with a treadle 35 on its outer extremity or any other appropriate means which may be actuated by the foot pressing thereon or by other means whenever it is desired to flush the urinal without the necessity of any contact of any part of a person with the urinal. It is apparent at this point that after each flushing of the urinal a small quantity of clean and clear water remains in the reservoir 26 until the next flushing of the urinal, at which time the reservoir is again completely flushed and all contents thereof carried down to and through the trap 28. The body is long in one direction horizontally and exceedingly narrow crosswise or at right angles thereto, at all portions correspondingly, from top to bottom. In order that access may be readily had to the valve 33 and other plumbing fixtures and connections in the lower portion of the body 21 of the urinal an opening 36 is provided in one side

of the body 21 at an appropriate location and closed by a closure member 37 fitting flush therein and held in place in any appropriate and well known manner without providing any exterior projections.

As will be clearly apparent under the form of urinal as shown in Figures 1 and 2 the top 22 is inclined in one direction from end to end with the higher end 22b narrowed considerably from the lower end and practically pointed. In this form the discharge passage 27b through the solid portion of the urinal body 21 is extended so as to serve also as a trap for direct connection at its lower end with the waste pipe 29. Figure 2 also clearly shows that the inclined feature of the top 22 in combination with the location of the upper end of the discharge passage 27b through the solid portion of the body 21 beginning near this same end of the urinal results in considerably increasing the depth of the reservoir 26 at this end of the urinal as well as providing for more increased sloping of the upper face 30 of the transverse partition 25 or solid portion and which also serves as the bottom wall of the reservoir 26. This should result in more effective flushing of the urinal.

In Figure 3 a preferred method of securing the urinal body 21 firmly in position on the floor without any exterior extensions therefrom is illustrated, as by employing counter-sunk securing members 40 extending on an angle through the lower portion of the body 21 and into the floor and then applying a filler 41 over and above the heads of the securing members 40 to retain them firmly in position and prevent such securing members 40 from working loose and projecting beyond the exterior face of the urinal body 21. This method of firmly anchoring or securing the urinal in position is shown also in Figure 1 and applies to all forms as an equally effective and approved method.

From the foregoing detailed description taken in connection with the drawing, it will be readily apparent that this new type of urinal requires very little space, does not necessarily need to be located close to a wall or fastened thereto, is well adapted for use by all with convenience and comfort without necessity or danger of the user contacting any part of the urinal structure at any time wherever it is installed, regardless of the size, shape, or design of which it is produced and therefore is truly clean, hygienic, sanitary, and safe for both public and private installation and use.

The principle herein involved is of such construction and operation as to thoroughly and completely accomplish the purposes for which it is intended and the structure and installation may be altered as desired, within the scope of the terms of the following claims, without departing from the spirit of the invention.

What is claimed is:

1. A urinal including a hollow body of transversely elongated and narrowed formation as well as vertically elongated; said body having a reservoir in its upper portion and its top open and inclined in one direction; means extending upwardly in the lower portion of said body to receive and carry off the contents of said reservoir; means extending upwardly in the lower portion of said body to provide for flushing of said reservoir; and means projecting to the exterior of said body for controlling the flushing of said reservoir.

2. A urinal including a hollow body of transversely elongated and narrowed formation as well as vertically elongated; said body having a reservoir in its upper portion and its top open and gently sloping in one direction.

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