A. W. LUCAS.

VENTILATING APPARATUS FOR CLOSET BOWLS.

APPLICATION FILED JAN. 29, 1921.

1,401,091. Patented Dec. 20, 1921.

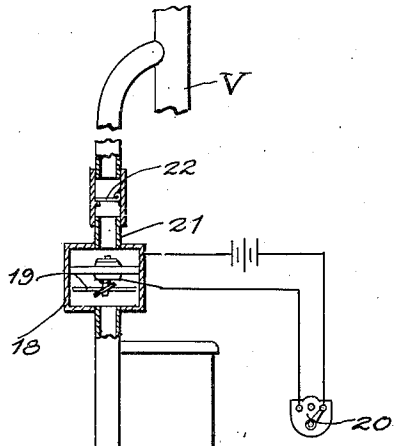


Fig. 1.

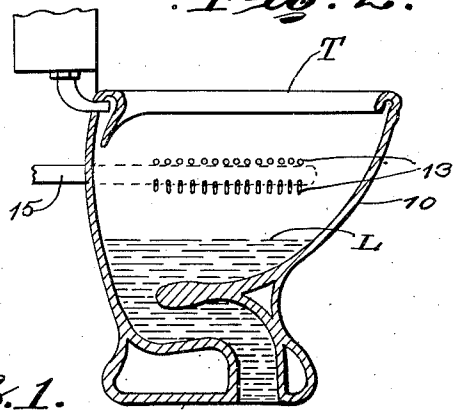
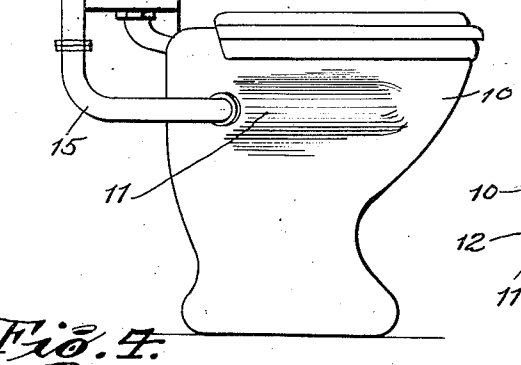


Fig. 2.



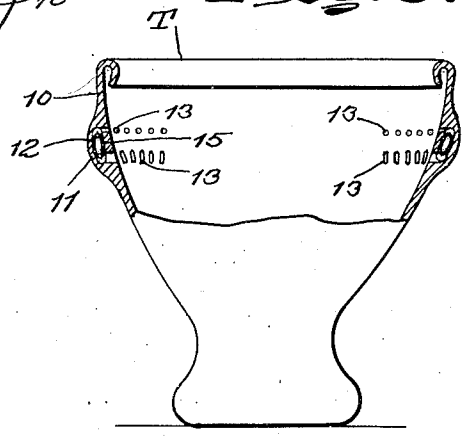


Fig. 3.

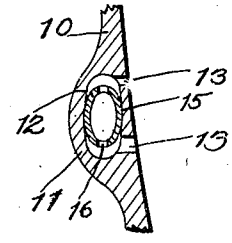


Fig. 4.

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VENTILATING APPARATUS FOR CLOSET-BOWLS.

1,401,091. Specification of Letters Patent. Patented Dec. 20, 1921.

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To all whom it may concern:

Be it known that I, ARTHUR W. LUCAS, a citizen of the United States, residing at Fremont, in the county of Dodge and State of Nebraska, have invented certain new and useful Improvements in Ventilating Apparatus for Closet-Bowls, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to ventilating apparatus for closet bowls and has for its principal object simple and efficient means for withdrawing the obnoxious fumes.

A further object of the invention is to provide a bowl having upon the sides thereof chambered enlargements, each having a plurality of openings communicating with the interior of the bowl and an enlarged opening communicating with the exterior of the bowl and permitting of the insertion of a suction pipe into the chamber.

The invention consists in the construction and arrangement of the various parts as my device is hereinafter more fully set forth and as shown in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, and partially diagrammatic, showing a closet embodying my invention;

Fig. 2 is a vertical sectional view taken through the bowl;

Fig. 3 is a front elevation, partially in section, of the bowl, and

Fig. 4 is an enlarged detail sectional view showing the mounting of the pipe within the chamber.

Referring now more particularly to the drawings, the numeral 10 indicates a closet bowl of any desired construction, the characters T and L representing the top of the bowl and the normal water level therein, respectively.

In accordance with my invention I provide upon each side of the bowl 10 an enlargement 11 extending horizontally and chambered, as at 12. The chamber 12 is in communication with the interior of the bowl in a series of spaced points, as indicated at 13. The chamber 12 is preferably oval in shape and the openings 13 communicate the upper and lower ends thereof.

The chamber 12 is provided at its rear end with an enlarged opening exteriorly of the bowl and permitting of the insertion of a lead pipe 15 having its forward end closed. The pipe 15 within the chamber is flattened so that its side walls engage the side walls of the chamber 12 and is of such size that it does not completely fill the chamber 12, but is spaced therefrom at the upper and lower ends, the oval formed by the pipe being shorter in its major axis than the oval of the chamber 12. The pipe 15 is provided in its side walls with slotted openings 16 communicating with the space thus formed and consequently communicating with the interior of the bowl 10.

The pipes 15 are preferably joined and communicate with one end of an exhaust pipe 16^a, the opposite end of which communicates with a casing 18 within which is arranged a motor driven suction fan 19, the speed of which is controlled through medium of a rheostat 20 located at a convenient point or by any other suitable means. The opposite end of the casing 18 communicates with an exhaust pipe 21 opening to the atmosphere or into the usual soil pipe vent V. Within this exhaust pipe 21 I preferably arrange a check valve 22 which is closed when the fan 19 is not in operation and which, accordingly, prevents return of obnoxious odors through the exhaust pipe.

From the foregoing it will be obvious that I have provided a closet bowl construction which is particularly well adapted for use in that it readily permits of the attachment of a suction apparatus for withdrawing from the bowl all obnoxious fumes; and it will likewise be obvious that the construction of the same, as hereinbefore set forth, is capable of some change without departing from the spirit of my invention. I, accordingly, do not limit myself to the specific construction, as hereinbefore set forth, except as so limited by the subjoined claims.

What I claim is:

1. In a ventilating apparatus for closet bowls, a bowl having the intermediate portion of its wall, above the water level, formed with an outwardly extending hollow thickened portion, the bowl being formed at its inner periphery with two series of holes leading into the upper and lower portions of the hollow within the thickened portion of the bowl, a pipe permanently located within the hollow thickened portion and provided at its uppermost and lowermost points with series of perforations, and means for creating suction through said pipe.

2. In a ventilating apparatus for closet bowls, a bowl having the intermediate por-

tion of its wall above the water level formed with an outwardly extended thickened portion formed hollow to define a chamber, the bowl being formed at its inner periphery with upper end lower series of holes communicating with the upper and lower portions of said chamber, a pipe located within said chamber and spaced from the uppermost and lowermost portions thereof to leave spaces into which said holes lead, the uppermost and lowermost portions of said pipe being formed with perforations, and means for creating suction through said pipe, the lower series of holes in the bowl wall permitting the automatic outlet of any water splashing into said chamber.

In testimony whereof I hereunto affix my signature.

ARTHUR W. LUCAS.