April 29, 1941. W. H. FOREMAN 2,240,094

VENTILATED TOILET BOWL

Filed May 11, 1939 3 Sheets-Sheet 1

Fig. 1.

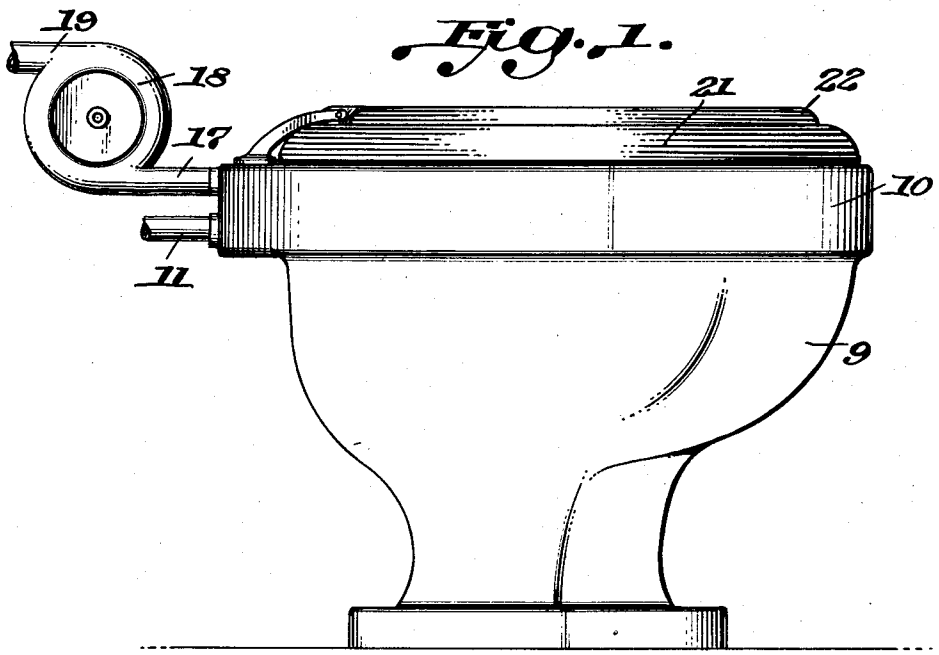
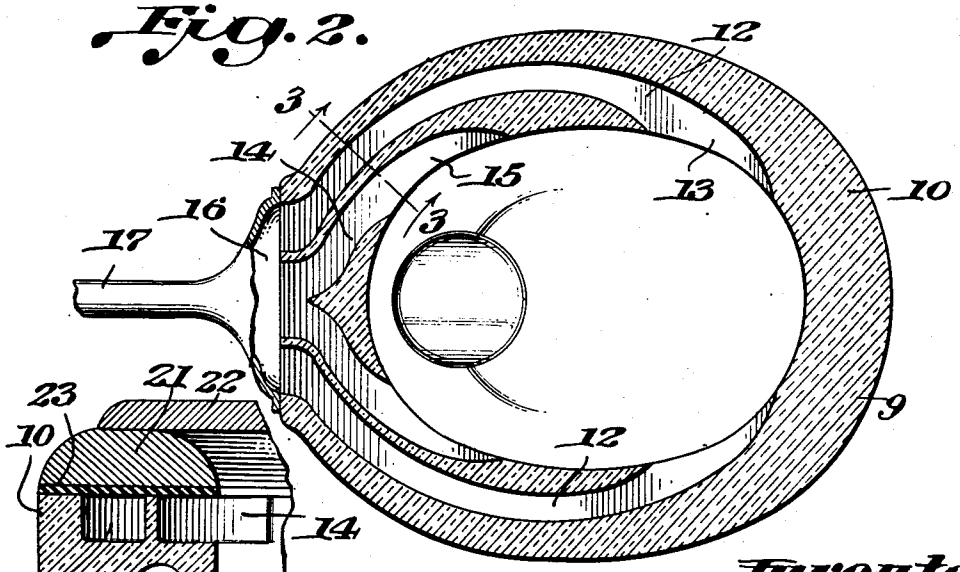


Fig. 2.



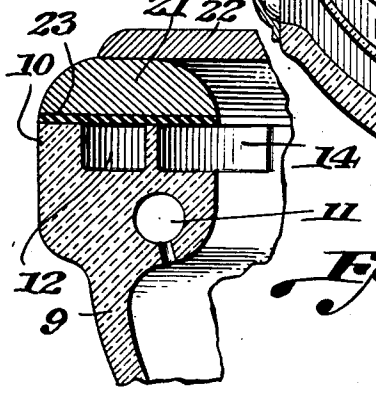


Fig. 3.

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Filed May 11, 1939 3 Sheets-Sheet 2

Fig. 4.

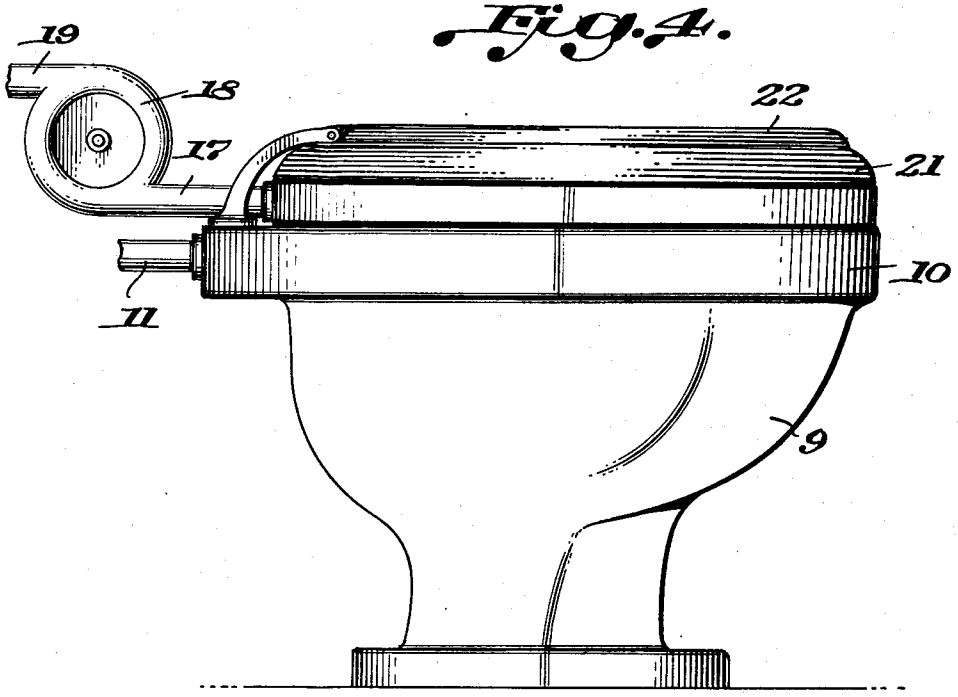
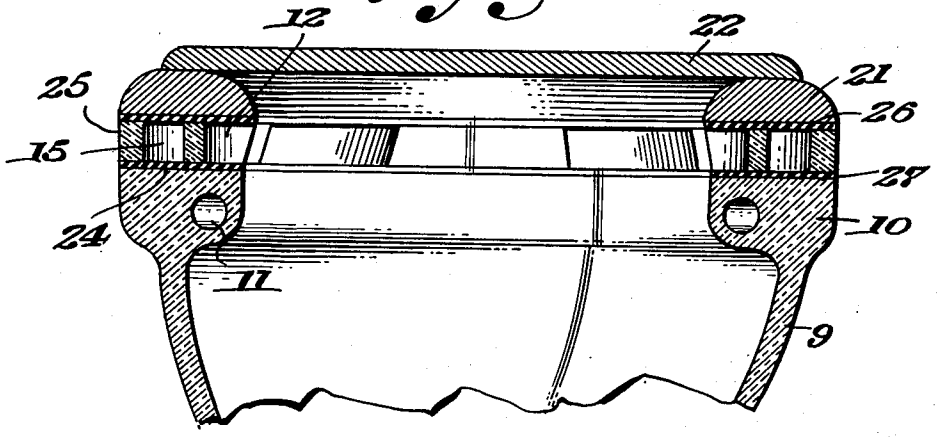


Fig. 5.



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April 29, 1941. W. H. FOREMAN 2,240,094

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Filed May 11, 1939 3 Sheets-Sheet 3

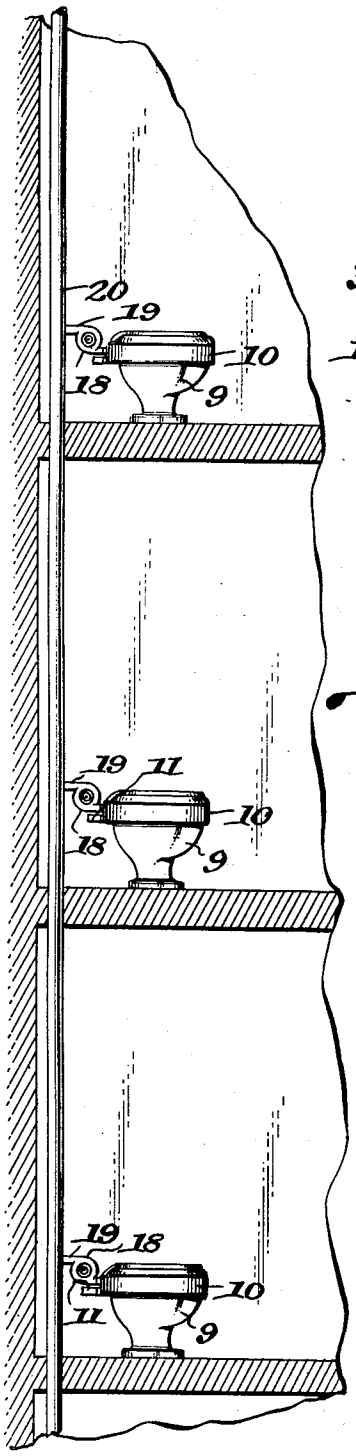


Fig. 6.

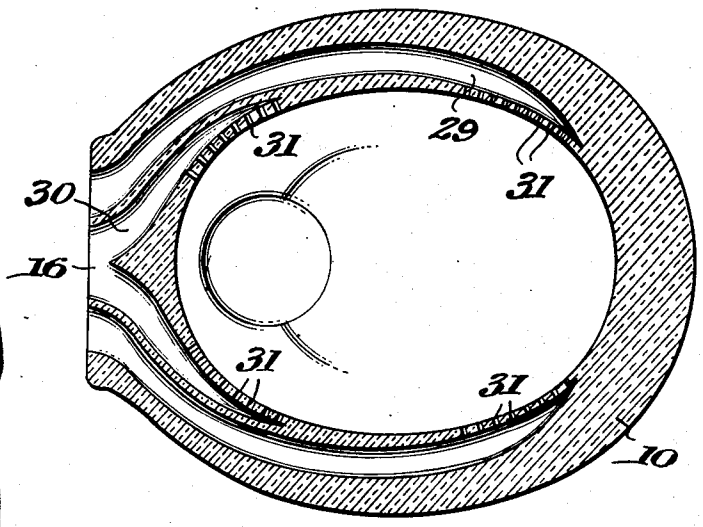
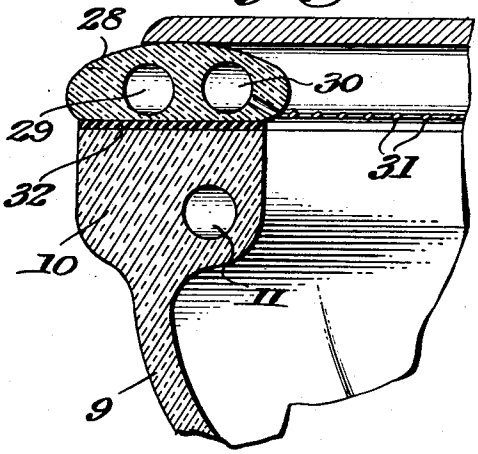


Fig. 8.

Fig. 7.



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UNITED STATES PATENT OFFICE

2,240,094

VENTILATED TOILET BOWL

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Application May 11, 1939, Serial No. 273,097

4 Claims. (Cl. 4—217)

The present invention relates to ventilated toilet bowls and consists in the combinations and arrangements of elements hereinafter described and particularly set forth in the accompanying claims.

It has heretofore been proposed to provide a sanitated bowl which is characterized in having means incorporated therein for carrying off noxious gases, but insofar as known these devices have not succeeded in fulfilling the purpose desired and it is understood that the main reason contributing to this failure is the fact that there is no effective means within the bowl itself for preventing the escape of such gases. Accordingly, it is the purpose of the present invention to provide a toilet bowl which will avoid this difficulty and at the same time not appreciably increase the initial cost of the equipment, and which will not in any wise add to the installation thereof.

In addition to the foregoing objectives it is the further purpose of the invention to provide this desired and needed element to bathroom equipment by a novel arrangement wherein the following advantages are also added, to wit:

A. To provide a toilet bowl having means incorporated within the internal structure thereof for carrying off noxious gases.

B. To provide a device which may be interposed between the bowl and seat of an installed fixture without appreciable expense which will accomplish the purpose intended, and;

C. To further construct the apparatus within the seat proper of the toilet fixture and which may be readily applied to toilet equipment now in use without any appreciable expense.

Summarily stated, it is the essential objective of the invention to provide an article or arrangement of this character to the end that it may be employed in buildings or houses in course of construction, or in bathroom fixtures already in use, at nominal expense and all to the end of providing an installation which will readily suggest itself as desirable for adoption by the public in general.

The invention is shown by way of illustration in the accompanying drawings wherein:

Figure 1 is a side elevational view thereof.

Figure 2 a horizontal sectional view on a plane through the top of the bowl.

Figure 3 a transverse sectional view on the line 3—3 of Figure 2.

Figure 4 a side elevational view of a modified construction.

Figure 5 a transverse sectional view of the construction shown in Figure 4.

Figure 6 a horizontal sectional view of a further modified construction.

Figure 7 a transverse sectional view of the construction shown in Figure 6; and,

Figure 8 is a diagrammatic illustration of the system as applied to a building.

Referring to the construction in further detail and wherein like reference characters designate corresponding parts in the different figures shown, 9 represents an ordinary bowl, the top portion 10 of which has the usual water channelway 11 for the ordinary flushing system and at its upper rim portion there are located two outer channels 12 that terminate with enlarged or flaring openings 13 located adjacent the front portion of the bowl, and at the rear there is a similar pair of channels 14 having enlarged inlet openings 15 as shown. Said inner and outer channels are evenly located on opposite sides of the bowl and their obvious function is to conduct noxious gases therefrom into a common discharge 16 whence they are conducted by pipe 17 to a blower 18 having discharge flue 19 that communicates with a vent or outlet flue 20 that extends through the building and discharges into the atmosphere.

The ordinary seat 21 and cover therefor 22 is provided and to obtain the desired hermetic seal or air-tight closure between the seat proper and the bowl there is a strip of rubber 23, or other suitable material so located that the desired air-tight condition is obtained.

In the construction shown in Figures 4 and 5 the invention is characterized in that the bowl portion 9—10 is not appreciably enlarged beyond its present proportions, but the top or rim surface 24 is substantially horizontal or flat to the end of having mounted thereon the correspondingly shaped part or section 25 that is formed with pairs of inner and outer channel-ways 12 and 15 substantially after the manner shown and described above with reference to Figures 1 and 2. Said part or portion 25 constitutes a unit in itself that may be fitted or interposed between the bowl portion 10 and the seat 21 and thereby the full advantages of the device may be obtained without the necessity of constructing or modelling the special type of bowl as indicated in Figure 1. In this instance the unit or portion 25 interposed between the bowl rim 10 and the seat 21 is fitted both above and below with pliable strip members 26 and 27 and thereby the requisite seal

between the several parts of the bowl construction as a unit are obtained.

Referring to the construction shown in Figures 6 and 7 the invention is characterized in that the exit flues or channel-ways are provided within the seat structure 28 and in this instance said channel-ways 29—30 are designed after the manner shown in Figure 7 but are further characterized in that their respective communications within the bowl proper are by means of a plurality of small vents or ducts 31 which are sufficient in number and communicate within the bowl proper as shown. The seal between said seat proper 28 and the rim of the bowl top portion 10 is here also obtained by means of the pliable or strip of insulation 32 that is interposed between said parts as indicated.

It will be understood the invention as herein disclosed is not limited to the details of construction shown and described, since these may be varied without departing from the principles of the invention as defined by the claims.

What is claimed as new is:

1. A ventilated toilet fixture comprising a bowl, and a member superimposed upon the bowl and conforming in contour to the rim part of the bowl, said member being constructed with outer and inner channels at each side thereof having outlet ends opening through the rear portion of said member and having inlet ends opening through the inner face of said member respectively at spaced points in front and rear of the transverse center thereof, said member having a rounded, shaped upper surface forming a seat portion.

2. A ventilated toilet fixture comprising a bowl, and a seat therefor constructed at each side thereof with a pair of outer and inner channelways adapted to carry off noxious gases, said channelways having inlet ends respectively communicating with the front and rear portions of the opening in the seat and outlet ends opening outwardly at the rear of the seat.

3. A ventilated toilet fixture comprising a bowl, a seat and a cover therefor, said seat constructed at each side with a plurality of channelways having outlets at their rear ends opening through the rear of the seat and inlets and having their forward ends respectively communicating with the front and rear portions of the bowl, and a hermetic seal interposed between the rim of the bowl and said seat portion.

4. A ventilated toilet fixture comprising a bowl having a level top rim portion, a seat member having a base portion provided with a plurality of channelways to carry off noxious gases, said channelways extending vertically between the top and bottom of said base portion and having outlet ends opening through the rim of the base portion and inlet ends opening through the inner side of the base portion at the front and rear thereof, and hermetic seals interposed between said rim and the base portion of the seat and between the seat and its base portion.

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