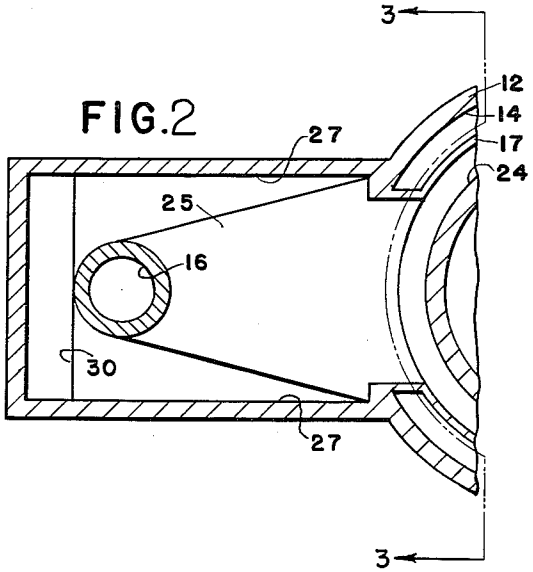
Nov. 20, 1962 J. L. GLEASON 3,064,274

VENTILATED TOILET

Filed Aug. 24, 1959

FIG.2



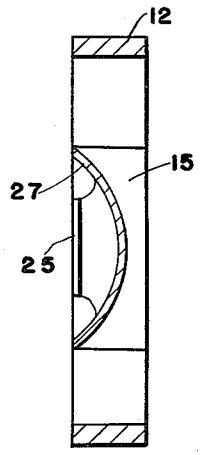


FIG.3

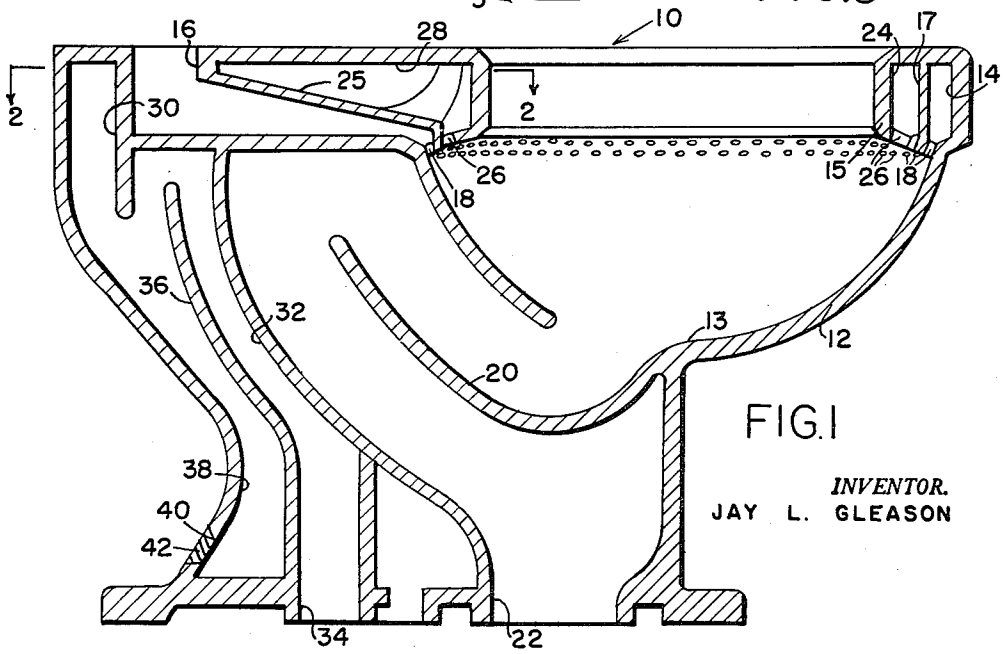


FIG.1

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VENTILATED TOILET

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2 Claims. (Cl. 4—216)

This invention relates to toilets and, more particularly, to a ventilated toilet.

It is an object of the present invention to provide a ventilated flush type toilet which will ventilate the interior thereof and remove undesirable fumes during actual use.

Another object of the present invention is to provide a flush type toilet having a combination flush and ventilation ring encircling the periphery of the bowl, each of which is provided with individual outlet and surfacing ducts, both of which are independently arranged.

Still a further object of the present invention is to provide a ventilated flush type toilet of the above type in which the ventilation ducts thereof are provided with a special safety outlet device for preventing damage to the ventilation equipment in the event that the bowl overflows.

Other objects of the invention are to provide a ventilated toilet bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture, and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

FIGURE 1 is a longitudinal cross sectional view of a ventilated toilet made in accordance with the present invention;

FIGURE 2 is a fragmentary cross sectional view taken along line 2—2 of FIGURE 1;

FIGURE 3 is a gragmentary transverse cross sectional view taken along line 3—3 of FIGURE 3.

Referring now more in detail to the drawing, and more particularly to FIGURES 1, 2, and 3 thereof, a ventilated toilet 10 made in accordance with the present invention is shown to include a casting 12 having a central bowl portion 13 defined by an annular ring 15. The interior of the ring 15 is divided by a concentric wall 17 into two separate annular ducts 14, 24, the outer one 14 of which is in communication with the flush water supply line 16 and has a plurality of spaced apart water inlets 18 for emptying flush water into the bowl 13. The flush water and contents of the bowl are drawn through the trap 20 and emptied through the outlet 22 in a conventional manner.

The inner duct 24 is also provided with individual inlets 26, and communicates with a chamber 28 that is in communication with a ventilation duct 30 which empties into a blind duct 38 that is separated from a draft duct 32 by means of a partition wall 36. Any suitable draft producing apparatus, such as a blower, may be connected to the outlet 34 of the draft ventilating duct 32 for drawing fumes outwardly from the interior of the bowl 13 through the ports 26, chamber 28, and ventilation duct 30.

The lowermost portion of the blind duct 38 is provided with an opening 40 which is normally closed by a knock out plug 42. This knock out plug 42 is maintained within the opening 40 by the draft created in the draft duct 34 by any suitable draft creating equipment, such as a fan or blower, and or by gravity, so that any liquid emptying

into the blind duct 38 would automatically knock out the plug 42 so that such liquid will empty outwardly upon the floor supporting the toilet, rather than overflow he partition wall 36 and empty into the draft duct 34, which would damage the draft producing equipment. For this reason, the ventilation duct 30 empties into the dead end duct 38, so that in the event the toilet overflows, the water will flow into this duct, rather than the draft duct 34, thus preventing any damage.

As is more clearly shown in FIGURES 2 and 3 of the drawing, the chamber 28 encircles the flush water inlet 16, and such air passes over the separating wall 25 and into the wings 27, thus providing for two completely separate duct systems.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United states is:

1. A ventilated toilet comprising, in combination, a main housing having a central bowl portion, a ring encircling the top of said bowl portion, said ring including a concentric partition dividing the interior thereof into a pair of concentric annular ducts comprising an inner annular duct and an outer annular duct, a trap emptying outwardly from the bottom of said bowl portion, a flush water inlet communicating with the interior of said outer annular duct, flush water outlets communicating with said outer annular duct with the interior of said bowl portion, ventilation means comprising integral outlet ports in said inner annular duct communicating with the interior of said bowl portion above the water level therein for withdrawing fumes from said bowl portion, draft-inducing means provided with passageways means effectively communicating said inner annular duct through said ventilation means with said draft-inducing means, said passageway means being provided with an extension portion including baffle plate means dividing the interior thereof into two separate conduits, one of said conduits being connected directly to said draft-inducing means and the other of said conduits comprising a safety water-overflow conduit normally closed and defining a dead end when filled with air but being provided with a removable closure adjacent the bottom end openable in response to the presence of overflow water in said water-overflow dead end conduit whereby to by-pass such overflow water around the other conduit and the draft-inducing means connected thereto under water-overflow conditions, said water-overflow dead-end conduit being directly connected to said passageway means and effectively interposed between said passageway means and the other conduit which is connected directly to said draft-inducing means.

2. The combination according to claim 1 wherein said removable closure comprises a pressure-responsive knock-out plug in the wall of said safety water over-flow conduit defining a dead end, said plug being responsive to the presence of a head of water within said closed safety water-overflow conduit to dislodge said knock-out plug to empty the water from said closed safety water-overflow conduit in response to flooding of said toilet.

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