March 3, 1931. W. W. MILLS 1,794,635

VENTILATING DEVICE

Filed Nov. 13, 1929

Fig. 1.

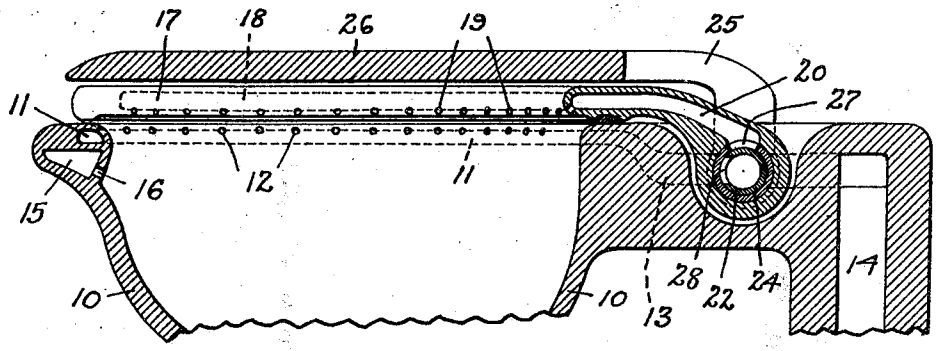


Fig. 2.

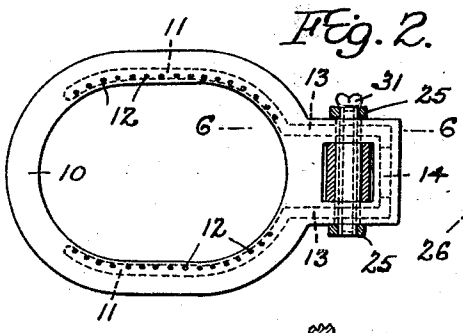


Fig. 3.

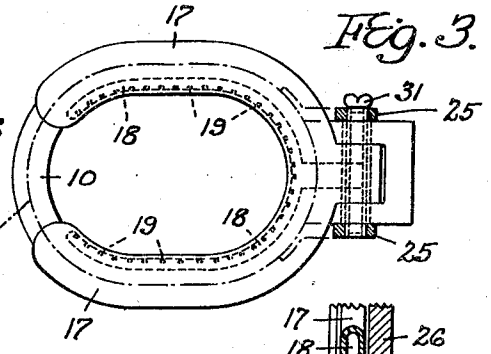


Fig. 4.

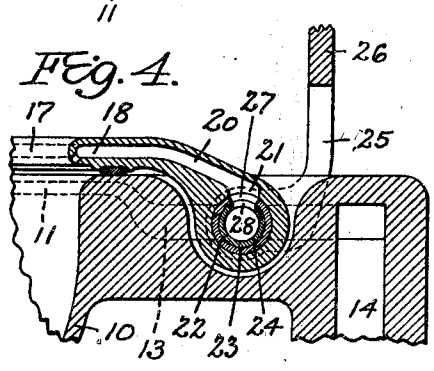


Fig. 5.

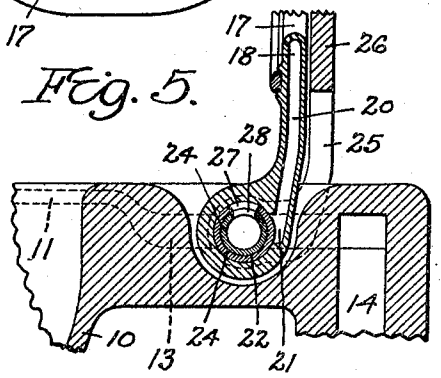


Fig. 6.

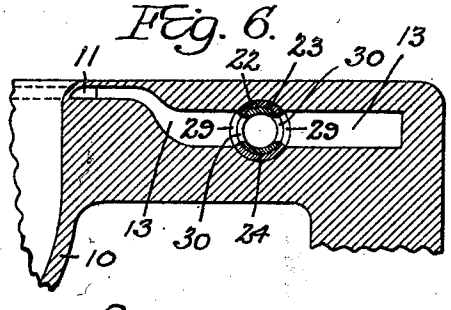
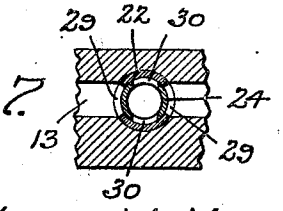


Fig. 7.



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UNITED STATES PATENT OFFICE

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VENTILATING DEVICE

Application filed November 13, 1929. Serial No. 406,895.

This invention relates to improvements in toilet bowls, an object being to provide means for carrying off offensive odors at the time of or after the use of the bowl, means being provided for establishing communication with an outlet or vent pipe, and for regulating this communication so that the same may be effective either when the bowl is open or closed.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a fragmentary sectional view illustrating the invention, the bowl and ventilator being closed.

Figure 2 is a plan view of the bowl with the cover and cover connection in section.

Figure 3 is an similar view showing the seat closed with the arms of the cover shown in section.

Figure 4 is a fragmentary view similar to Figure 1 with the cover raised and the ventilator open.

Figure 5 is a like view showing the seat raised and the seat ventilator closed.

Figure 6 is an enlarged fragmentary section on the line 6—6 of Figure 2, with the bowl ventilator open.

Figure 7 is a similar view showing the bowl ventilator closed.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference character 10 indicates a portion of a toilet bowl which is provided around the opposite sides of its upper edge with a ventilating passage 11 having openings 12 providing communication between the passage and bowl. The passage extends rearwardly as indicated at 13 and communicates with an outlet passage 14 which may in turn communicate with a suitable outlet or vent pipe. As shown in Figure 2, the vent passage is interrupted at the front of the bowl, but it is obvious that the passage may be continuous if desired. In addition, the bowl is provided with a water passage 15 which is located below the passage 11 and which is provided with outlet openings 16.

The passage 15 communicates with a suitable source of water supply.

The bowl is provided with a seat 17 and this seat is provided with a ventilating passage 18 having inlet openings 19. The passage 18 extends rearwardly as at 20 and is provided with an outlet port 21 which communicates with a transversely arranged sleeve 22.

Located within the sleeve 22 is a valve seat 23, and extending through this seat is a sleeve valve 24. The valve 24 extends beyond the opposite sides of the bowl 10 and has secured thereto spaced arms 25 which extend from cover 26.

The member 23 which comprises the valve seat is stationary, while the sleeve 22 of the seat 17 rotates about this member, and the valve 24 of the cover 26 rotates within this member. The valve seat 23 is provided with a port 27 and the valve 24 is provided with a port 28.

The ports 27 and 28 located centrally of the length of the valve seat and sleeve valve, while located within the sleeve valve 24 upon opposite sides of the center are diametrically spaced ports 29. The valve 24 is also provided with diametrically spaced ports 30 which are adapted to communicate with the spaced ports 29.

When the parts are arranged as shown in Figure 1 of the drawings, the outlet passage 14, which is open to the atmosphere, is in communication with the bowl through the openings 27, the passage 11 and the ports 29 and 30 which are arranged as shown in Figure 6 of the drawings.

By raising the cover 26, the ports 21, 27 and 28 are brought into register, so that the bowl is in communication with the outlet passage 14 through the passage 18 and the openings 19. The valve seat 23 is provided with a finger piece 31, by means of which the position of its ports may be changed so as to provide communication with the outlet passage 14 when the cover 26 is closed

and to cut off communication when the cover is open.

If desired a suitable forced draft or suction may be provided with a single power unit for a battery of bowls, and the valve may be adjusted so as to open the ventilating means only when the bowls are in use or vice-versa.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention what is claimed is:—

1. A ventilating device including a bowl having a ventilating passage and an outlet vent, a valve sleeve having ports intercepting the ventilating passage and the outlet vent, a seat having a ventilating passage journaled to said sleeve and when in one position adapted to register the passage thereof with one of the ports of the sleeve, a valve journaled in said sleeve and having ports, arms secured to the valve, a cover carried by said arms and when in one position adapted to register the port of said valve with the ports of the sleeves and when moved into a second position adapted to move said last named ports out of registration.

2. A ventilating device including a bowl having a ventilating passage and an outlet vent, a valve sleeve having ports intercepting the ventilating passage and the outlet vent, a seat having a ventilating passage journaled to said sleeve and when in one position adapted to register the passage thereof with one of the ports of the sleeve, a valve journaled in said sleeve and having ports, arms secured to the valve, a cover carried by said arms and when in one position adapted to register the ports of said valve with the ports of the sleeve and when moved into the second position adapted to move said last named ports out of registration, and a finger piece carried by the valve to permit the changing of the positions of the ports of said valve relative to the ports of the sleeve.

In testimony whereof I affix my signature.

WILLIAM W. MILLS.