A. SWARZMAN.

TOILET VENTILATOR.

APPLICATION FILED SEPT. 29, 1916.

1,247,176. Patented Nov. 20, 1917.

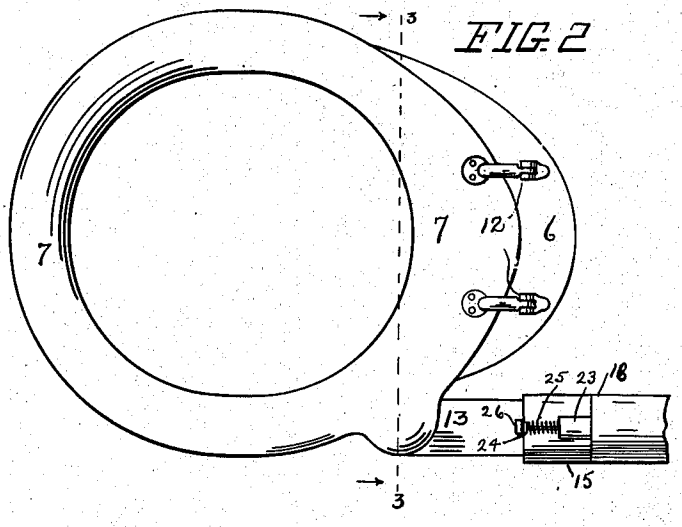


FIG. 2

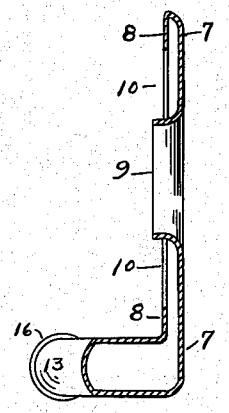


FIG. 3

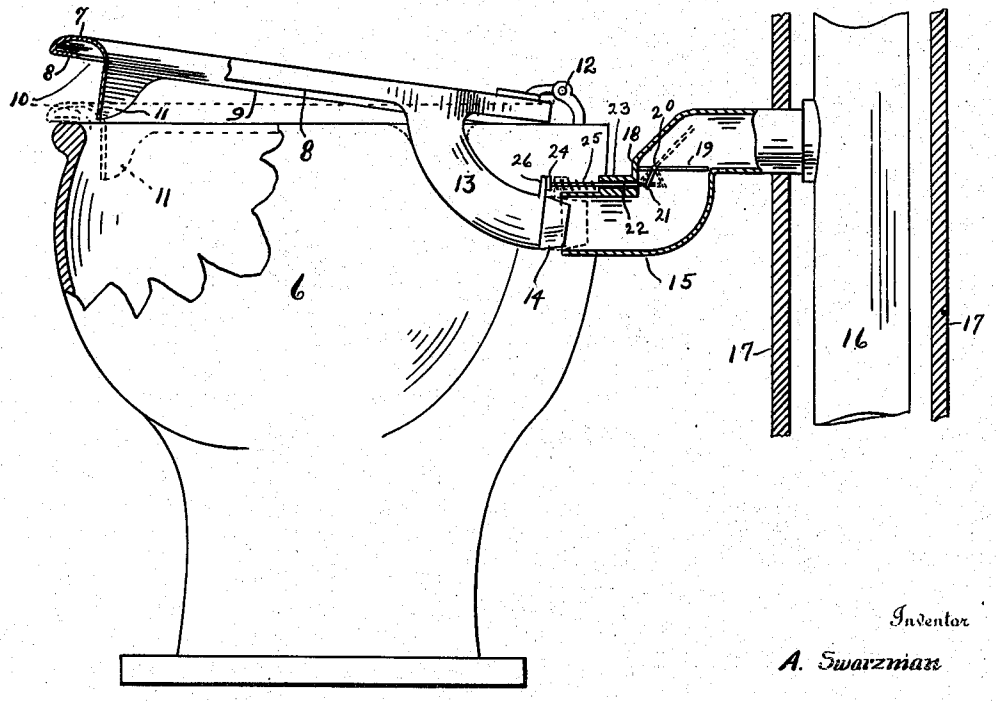


FIG. 1

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TOILET-VENTILATOR.

1,247,176. Specification of Letters Patent. Patented Nov. 20, 1917.

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To all whom it may concern:

Be it known that I, ABRAM SWARZMAN, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Toilet-Ventilators, of which the following is a specification.

The present invention relates to means for ventilating toilets.

The invention has for its primary object the production of an improved sanitary ventilating device adapted to convey the foul air and gases from water-closet bowls.

Another object of the invention is the production of an improved toilet-ventilator simple and inexpensive in production, thoroughly efficient in operation and adapted to be readily applied to water-closets now in use.

Still another object of the invention is the production of a ventilator embodying an improved toilet-ventilating seat adapted to supplant the seats now in common use on water-closets.

With these and other objects in view, the invention, consisting in the construction, combination and novel arrangement of parts, will be fully understood from the following description, reference being had to the accompanying drawings, which form a part of this application and in which like characters of reference indicate corresponding parts throughout the several views, of which,—

Figure 1 is a side elevation of the preferred embodiment of the invention, parts being cut away and shown in section;

Fig. 2 is a plan of the same, the valve chamber being cut away and the draft flue omitted;

Fig. 3 is a transverse section of the seat, taken on the line 3—3, of Fig. 2.

Although I have illustrated and hereinafter described the preferred embodiment of the invention, I would not be understood as being limited to the specific structure chosen for illustration, for various alterations and modifications may be made in the details of construction and arrangement of parts, without departing from the spirit and scope of the invention as defined in the appended claims.

Referring now, to the illustrations, 6, represents the usual closet-bowl.

In the present embodiment a seat forms the conduit and consists of a tubular rim, of any suitable material and including an upper wall, 7, the edges of which are rounded; a bottom wall, 8, extending inwardly from the outer, lower edge of the top wall, and a flange, 9, depending from the inner edge of the top wall. The flange extends a distance below the top plane of the bowl and is disposed in spaced relation to both the bowl and the bottom wall of the seat, to afford a passage, 10, to admit foul air and gases from the bowl to the conduit.

The flange serves also to prevent splattering of water into the conduit. The front portion of the flange depends a relatively greater distance than the other portions, as shown at 11, as the liability of water entering the conduit at this point is much greater than at the sides and rear.

The rear of the seat is suitably hinged to the rear of the bowl, as at, 12, to permit the seat to be swung vertically.

The seat is formed integrally with a rearwardly directed conduit elbow, 13, which receives from the interior of the seat and has its rear end reduced as at 14, to enter a horizontal conduit 15, communicating with an upright draft-flue, or ventilating pipe, 16, preferably concealed within a partition wall, 17.

The conduit, 15, is formed with a vertical offset, 18, which affords a convenient valve-chamber. Within the offset portion, or valve-chamber, is a suitable valve, preferably comprising a disk, 19, having pintles, 20, on its edges which penetrate the adjacent walls of the conduit. The valve extends normally horizontally across the valve-chamber and thus closes the passage.

Depending from the under side of the valve, and from a point coincident the pivotal axis thereof, is an arm, 21, which normally declines toward the front wall of the offset portion and is engageable by a plunger-rod, 22, protruding through the front wall of the offset portion and slidable in a bearing, 23, thereon. The outer end of the rod is provided with a shoulder, 24, between which and the bearing is interposed a compression spring, 25.

The elbow, 13, is provided with an ear, 26, engaging the outer end of the plunger-rod.

The pivotal axis of the valve is positioned between the front edge and the diametrical axis of the disk, to increase the weight of

the valve in the rear of its pivot, whereby the valve will close by gravitation when released by the plunger-rod.

The yieldable plunger-rod serves normally to hold the seat slightly raised, as shown in Fig. 1, and depression of the seat to the dotted position shown, causes the elbow to enter the conduit 15, and coact with the plunger to open the valve, thus exposing the air passage under the seat to the action of the draft to carry away the gases.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is,—

1. A ventilator for a water-closet having a bowl, including a tubular rim comprising a top and outer wall, a bottom wall secured to the outer wall and adapted to rest on the top of the bowl, and a flange depending from the inner edge of the top wall a distance below the plane of the top of the bowl, and disposed in spaced relation to the bowl and the bottom wall.

2. A ventilator for a water-closet having a bowl, including a tubular rim comprising a top and outer wall, a bottom wall secured to the outer wall and adapted to rest on the top of the bowl, and a flange depending from the inner edge of the top wall a distance below the plane of the top of the bowl and disposed in spaced relation to the bowl and the bottom wall, the front portion of said flange being extended downward a relatively greater distance than the side and rear portions.

3. A seat for a water-closet having a bowl, comprising a tubular rim including a top wall having rounded inner and outer edges, a bottom wall extending inwardly from the lower outer edge of the top wall and adapted to rest on the top of the bowl, and a flange depending from the inner edge of the top wall a distance below and disposed in spaced relation to the bottom wall, the front portion of the flange being extended downward relatively a greater distance than the rear and side portions.

In testimony whereof, I have hereunto set my hand this 25th day of September, 1916.

ABRAM SWARZMAN.