

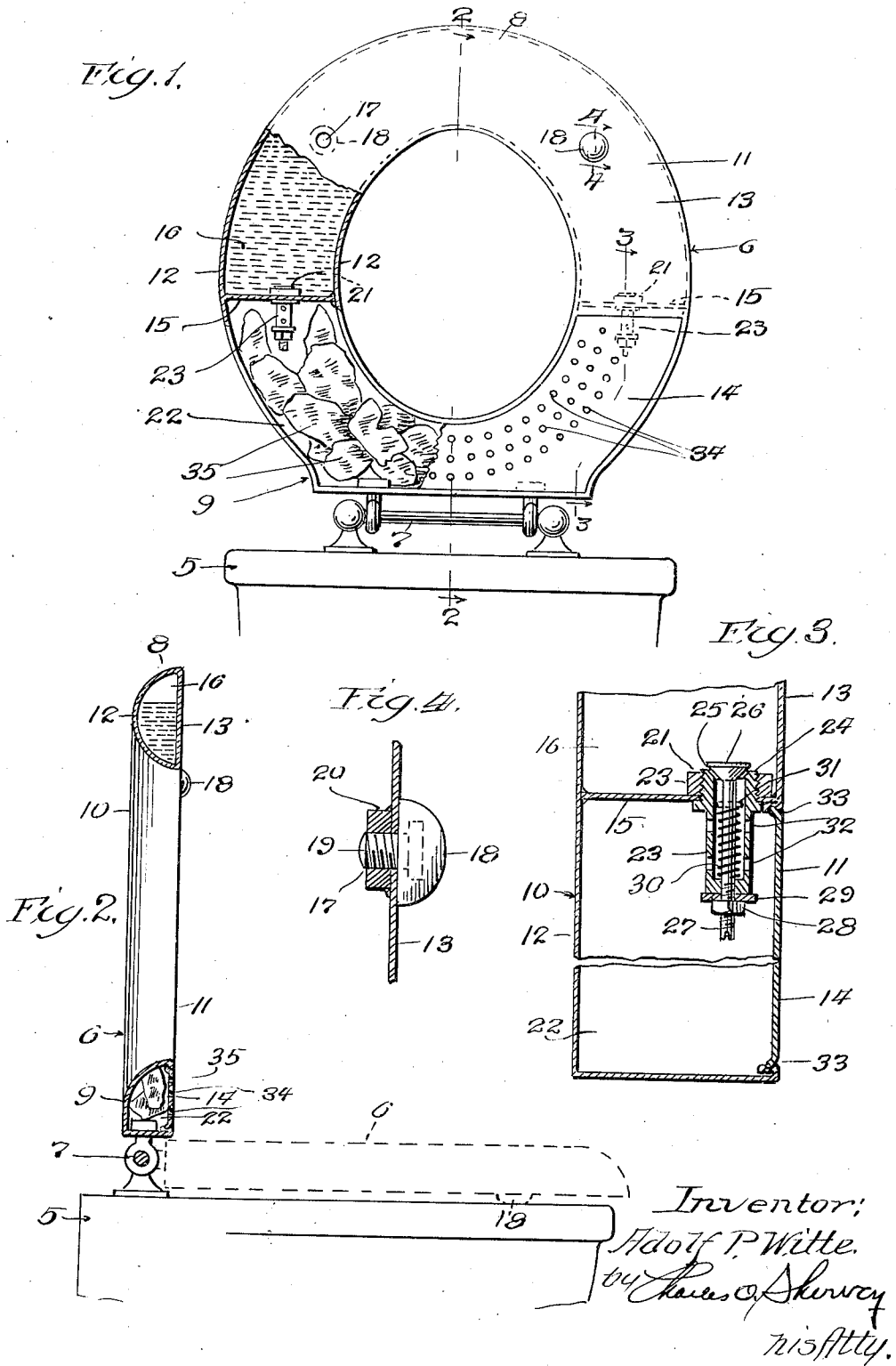
March 10, 1936.

A. P. WITTE

2,033,663

TOILET SEAT

Filed Sept. 9, 1935



UNITED STATES PATENT OFFICE

2,033,663

TOILET SEAT

Adolf P. Witte, Chicago, Ill., assignor of one-fourth to Anthony J. Landvogh and one-fourth to Anton J. Imhahn, both of Chicago, Ill.

Application September 9, 1935, Serial No. 39,667

7 Claims. (Cl. 4—229)

This invention relates to toilet seats. One of the objects of this invention is to provide, in a toilet seat, a reservoir opening to a vaporizing chamber, whereby a quantity of disinfectant or deodorant, either liquid or in the form of crystals, may be contained in the reservoir and released in small quantities into the vaporizing chamber, from which the vapors are dissipated into the room.

Another object is to provide one or more valves between the reservoir and vaporizing chamber having adjustment means whereby the rate of discharge of liquid disinfectant from the reservoir into the vaporizing chamber may be regulated.

Another object is to provide one or more filler openings to the reservoir, each closed by a resilient buffer.

The invention consists therefore in a hollow seat having a reservoir for containing a quantity of disinfectant or deodorant, or both, and a vaporizing chamber opening thereto through one or more valve controlled ports, and desirably, but not necessarily, containing absorbent material for absorbing liquid entering the vaporizing chamber and permitting the vapors therefrom to escape through perforations in a wall of the vaporizing chamber.

It further consists in a toilet seat provided with a vaporizing chamber having a removable perforated cover.

It further consists in a toilet seat having regulatable valve between the reservoir and vaporizing chamber whereby the rate of discharge of the liquid from the reservoir to the vaporizing chamber is governed.

It further consists in the several novel features of construction, arrangement and combination of parts hereinafter fully set forth and claimed.

The invention is clearly illustrated in the accompanying drawing, in which—

Fig. 1 is a front elevation of a hollow seat, partly broken out, and fragment of a bowl, showing the seat raised;

Fig. 2 is a central, vertical section taken on the line 2—2 of Fig. 1;

Fig. 3 is a detail, fragmental, vertical cross-section, taken on the line 3—3 of Fig. 1; and

Fig. 4 is a detail, fragmental, vertical cross-section, taken on the line 4—4 of Fig. 1.

Referring to said drawing, which is illustrative of one embodiment of the present invention, the reference character 5 designates a bowl of conventional form, and 6 a seat hinged thereto by a hinge connection 7, as is customary.

The end of the seat, designated by the reference

character 8, I shall call the "top end" for convenience, and the end designated by the reference character 9, I shall call the "bottom end". The upper side of the seat is designated by the reference character 10 and the lower side thereof by the character 11.

The seat is formed of upper and lower sheets of metal 12, 13, 14, stamped up with suitable dies to give them the conventional shape. The upper side of the seat is convex in cross-section and the lower side is flat, as is customary.

The upper and lower metal pieces 12, 13 are soldered or seamed together at their edges to make tight joints. The seat is in the form of a hollow annular body, and the "top end" thereof is separated from the "lower end" by transversely disposed partitions 15 which are soldered or otherwise fastened to the upper and lower sheets of metal 12, 13, so as to form a reservoir 16 at the "top end" and a vaporizing chamber 22, at the "bottom end".

In the lower wall 13 at the "top end" of the seat is one or more filler openings 17, each closed by rubber or other resilient buffer 18, each buffer having a threaded stud 19 secured therein and adapted to be screwed into a nut 20 which is soldered or otherwise fastened to the inner face of the wall 13. The reservoir is filled with a disinfectant or deodorant, or both, either of liquid or crystal form. The reservoir may be filled by unscrewing one of the buffers and pouring the disinfectant through the filler opening.

One or more ports 21 are provided in the partitions 15 for permitting the contents of the reservoir to slowly escape into the vaporizing chamber 22. The ports 21 may be formed in nuts 23, soldered or otherwise secured to the upper sides of the partitions 15. When a liquid disinfectant is used, valves 23 are provided, the bodies 24 of which are screwed into the nuts 23. The body of each valve is hollow and is formed at its upper end with a tapered valve seat 25 upon which may seat a tapered valve head 26 which is formed upon one end of a valve stem 27 which extends down through the hollow of a body and out through its lower end and is threaded upon its lower end, and has an adjustment nut 28 threaded thereon, that bears against a washer 29 which, in turn, bears against the lower end of the valve body. A coiled compression spring 30, surrounding the valve stem, and bearing at one end upon the lower end of the cavity in the valve body and at the upper end against a pin 31, fastened in the valve stem, serves to yieldably hold the valve head off its seat. The nut 28 limits the size of

the clearance space between the valve head and its seat. By screwing up the nut 28, the valve head may be brought into very close proximity to the valve seat so that only a drop of the liquid may pass through the valve at a time. If desired, the nut may be unscrewed further, thereby increasing the size of the opening between the valve head and its seat to permit a more rapid discharge of the liquid. The valve body is provided with a number of perforations 32 in its side wall for the escape of the liquid into the vaporizing chamber.

When a disinfectant or deodorant of crystal form is employed the entire valve may be removed, thereby permitting the crystals to drop through the port 21.

The bottom side of the vaporizing chamber 22 is open, and is closed by a removable cover heretofore designated by the reference character 14.

Desirably the cover 14 is secured in place by a friction joint 33, which extends around its entire margin. Any form of joint, for instance a slip joint, may be used for removably securing the cover 14 in place. The cover 14 of the reservoir is provided with a plurality of perforations 34 through which the vapors may escape from the vaporizing chamber to the outer atmosphere and, as a preference, absorbent material, such as sponges 35, or the like, may be contained in the vaporizing chamber to absorb the liquids and permit of the slow vaporization thereof.

In operation, the disinfectant or deodorant is introduced through either of the filler openings 17, into the reservoir 16 and the buffer screwed back into place. When liquid disinfectant or deodorant is used, it escapes very slowly through the clearance between the valve head and valve seat of the valve and enters the vaporizing chamber, where it is absorbed by the sponges or other absorbent material, and as the disinfectant or deodorant vaporizes, it escapes through the perforations in the cover.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention. I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claims, to point out all of the invention disclosed herein.

I claim as new, and desire to secure by Letters Patent:

1. A toilet seat, comprising upper and lower walls providing a hollow seat portion, and partitions therein dividing the hollow part into a reservoir for a disinfectant, and a vaporizing chamber, there being ports in the partition between the reservoir and vaporizing chamber, and there be-

ing perforations in the lower wall of the vaporizing chamber through which the vaporized disinfectant may escape.

2. A toilet seat, comprising, upper and lower walls providing a hollow seat portion, and partitions therein dividing the hollow part into a reservoir for a liquid and a vaporizing chamber, there being ports between the reservoir and vaporizing chamber, and valves for said ports, and there being perforations in a wall of the vaporizing chamber through which vaporized liquid may escape.

3. A toilet seat, comprising a hollow seat portion, and partitions therein dividing the hollow part into a reservoir for a liquid and a vaporizing chamber, there being ports between the reservoir and vaporizing chamber, regulatable valves for said ports, absorbent material contained in said vaporizing chamber, and there being perforations in a wall of the vaporizing chamber through which vaporized liquid may escape.

4. A toilet seat, comprising a hollow seat portion, and partitions therein dividing the hollow part into a reservoir for liquid and a vaporizing chamber having a perforated wall, there being ports in said partitions, and valves removably secured in said ports and having means for regulating the size of the valve openings.

5. A toilet seat comprising a hollow seat portion, and partitions therein dividing the hollow part into a reservoir for liquid and a vaporizing chamber, provided with perforations in one of its walls, there being ports in the partitions, and valves removably secured in said ports, said valves having adjustable valve stems with heads thereon for regulating the size of the escape opening between the heads and the seats of the valves.

6. In a toilet seat, the combination of a hollow annular seat portion, and partitions therein dividing the hollow part into a reservoir for liquid, and a vaporizing chamber communicating with the reservoir through ports, said vaporizing chamber having a removable and replaceable perforated cover.

7. A toilet seat comprising a hollow annular portion, and partitions therein dividing the hollow part into a reservoir, and a vaporizing chamber, there being valve controlled ports between the reservoir and vaporizing chamber, and the latter having perforations in one of its walls for the escape of vapors, a wall of the reservoir having the threaded filler opening, and a resilient buffer provided with a threaded stud, adapted to be screwed into said filler opening to thereby close the same.

ADOLF P. WITTE.