Aug. 18, 1925. 1,549,871

S. B. HATCH

TOILET BOWL

Filed Oct. 12, 1923

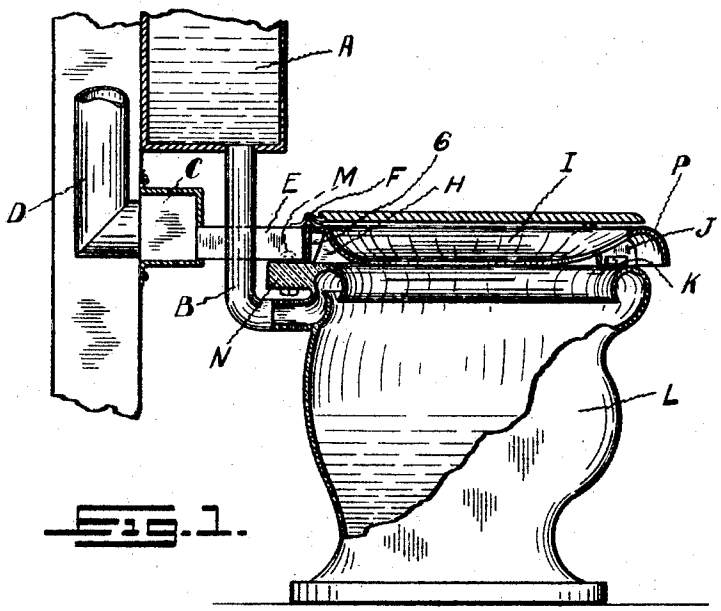


Fig. 1.

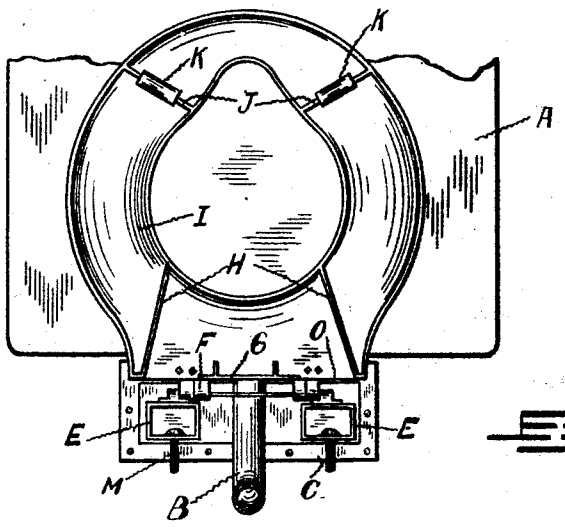


Fig. 2.

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Patented Aug. 18, 1925. 1,549,871

UNITED STATES PATENT OFFICE.

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TOILET BOWL.

Application filed October 12, 1923. Serial No. 668,216.

To all whom it may concern:

Be it known that I, SALEM B. HATCH, of the city of Toronto, in the county of York, Province of Ontario, Canada, a subject of the King of Great Britain, have invented certain new and useful Improvements in Toilet Bowls, of which the following is a specification.

This invention relates to toilet bowls of the type in which means are provided for carrying off objectionable odors directly from the bowl instead of allowing them to pass into the room, and the object of my invention is to devise improved means for this purpose which will be very effective in carrying off said odors, which will be simple and cheap to manufacture, which will have a good appearance, which will not be uncomfortable in use, and which will be perfectly sanitary.

I attain my object by means of the constructions hereinafter described and illustrated in the accompanying drawings in which

Fig. 1 is a side elevation of a toilet bowl, partly broken away, showing the seat thereof in lowered position; and

Fig. 2 a section on the line 2—2 in Fig. 1 showing the seat in raised position the bowl being omitted.

L is a toilet bowl, and A a water reservoir, which is adapted to supply water to the bowl through the usual pipe B. The bowl will be of any ordinary type, and is provided with the usual flange N at the rear thereof. E are ventilating flues, preferably rectangular in cross section, the forward ends of which are secured to the flange N by means of bolts M. As the pipe B is usually located substantially midway of the width of the bowl, the flues E will preferably be located one at each side of the pipe B. The rear ends of the flues E may be connected directly with the vent D, which will usually be located in the wall of the building, but preferably connected with a common receptacle C with which the vent D communicates.

The seat I is secured to the forward ends of the flues E by means of the hinges F. This seat I is of special construction, being preferably formed of aluminum or other light metal. The seat in the main is of concavo-convex form in cross section. At the rear of the under side of the seat are formed partitions or baffles H, forming between them a passage O adapted to communicate with the flues E. A depending flange or plate G is provided at the rear of the seat between the mouths of the flues E to cut off the space between the flues and prevent the passage of objectionable odors into the room.

Towards the front of the seat are formed the transverse projections or ribs J, which are adapted to hold the under side of the seat spaced from the upper edge of the bowl, and thus permit the ingress of air from the room to the bowl when the seat is occupied, as the admission of a certain amount of air to the bowl is necessary to cause proper ventilation through the vent D. The ribs J will preferably be provided with resilient bumpers K to avoid damaging the bowl.

When the seat is down, ventilation will be effected through the compartment O, while if the seat is raised, ventilation will be effected directly through the mouths of the flues E. As the vent D will in practice be connected with a chimney or other flue in which there is considerable draft, there will always be a suction which will tend to draw the foul odor rising from the bowl into the flues E, instead of allowing it to pass into the room, even while the seat is raised, while when the seat is down and occupied, very little foul odor may pass into the room. The efficiency of the device is greatly increased by the baffles H, which direct a large proportion of the air from the room, which enters the channel formed in the under side of the seat, into the bowl instead of allowing it to pass directly to the flues E, thus causing a circulation of air in the bowl itself which would not otherwise occur.

The seat will preferably be given a coating P of celluloid, or similar sanitary germ acid and sweat-proof material.

From the above description it will be seen that I have devised a construction which will satisfactorily attain the objects of my invention as set out in the preamble of this specification.

What I claim is:

1. A toilet bowl having one end of a vent flue secured thereto; and a seat hingedly connected with said end of the vent flue, said seat being substantially concavo-convex in cross section; a pair of partitions formed across the under side of said seat, one at each side of the vent flue, to form a passage, the rear end of which is adapted to com-

municate with the mouth of the flue said partitions forming baffles to direct air passing along the under side of said seat into the bowl; and means on the under side of said seat adjacent the front thereof adapted to hold the under side of the seat spaced from the upper edge of the bowl to permit ingress of air into the bowl when the seat is occupied.

2. The combination with a toilet bowl of a pair of spaced vent flues, each secured at one end to said bowl, and a seat hingedly connected with the said ends of the flues, said seat being substantially concavo-convex in cross section; a pair of partitions formed across the under side of said seat, to form a passage, the rear end of which is adapted to communicate with the mouths of the flues said partitions forming baffles to direct air passing along the under side of said seat into the bowl, a plate adapted to close that portion of the passage between the flues; and means on the under side of the seat adjacent the front thereof adapted to hold the under side of the seat spaced from the upper edge of the bowl to permit ingress of air into the bowl when the seat is occupied.

3. A toilet bowl having one end of a vent flue secured thereto; a seat hingedly connected with said end of the vent flue, said seat being substantially concavo-convex in cross section; and a pair of partitions formed across the under side of said seat, one at each side of the vent flue, to form a passage, the rear end of which is adapted to communicate with the mouth of the flue; and a pair of transverse ribs on the under side of the seat adjacent the front thereof adapted to hold the under side of the seat spaced from the upper edge of the bowl to permit ingress of air into the bowl when the seat is occupied, said partitions and ribs forming baffles to direct air passing along the under side of said seat into the bowl and a common receptacle with which the other ends of said flues communicate.

4. A toilet bowl having one end of a vent flue secured thereto; and a seat hingedly connected with said end of the vent flue, said seat having a channel formed in its under side; a pair of partitions formed across said channel, one at each side of the vent flue, to form a passage the rear end of which is adapted to communicate with the mouth of the flue, said partitions forming baffles to direct air passing along the under side of the said seat into the bowl; and means on the under side of said seat adjacent the front thereof adapted to hold the under side of the seat spaced from the upper edge of the bowl to permit ingress of air into the bowl when the seat is occupied.

Signed at Toronto, Canada, this 6th day of October 1923.

SALEM B. HATCH.