ODOR EXHAUST UNIT
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1 Claim

ABSTRACT OF THE DISCLOSURE
A toilet bowl odor removing apparatus consisting of an exhaust fan having an intake attached to it by means of an elongated rigid tube; the intake being located immediately under the toilet seat of the bowl. The fan is operated by an electric motor which is started and stopped by a cam activated switch. The cam on the switch is operated remotely by means of a bent rod which is located within the rigid tube and extends upwardly beyond the intake where it is equipped with a knob for manual operation.

This invention relates to apparatus for removing objectionable odors from toilet bowls and from general areas where such bowls are located.

The primary object of this invention is to provide a simple and compact exhausting unit which can be installed in existing toilet bowls without making any changes in the structure of such bowls or their seats.

Another object of the invention is to provide an apparatus such as described above which is easily installed with very little of it showing in the washroom, and causing very little fan noise in the washroom in which it is installed.

In describing the invention reference is made to the attached drawing in which:

FIG. 1 is a plan of a toilet bowl and seat showing the approximate location of the invention.

FIG. 2 is an elevation of the plan view shown in FIG. 1.

FIG. 3 is the intake part of the invention shown in plan, and

FIG. 4 is an elevation of the invention.

In the drawings is shown a toilet bowl C having a seat A. The said seat is attached to the bowl C but is separated from it by rubber rests B which are attached to the underside of the seat, thus providing a space between the bowl and the seat.

The exhaust unit consists of a flat intake 1 somewhat triangular in shape with the wide side being open. This part of the unit is inserted into the space between the seat A and the bowl C. To the rear of the intake 1 is attached a tube 2, the other end of which is connected to the intake of an exhaust fan 3. The said fan is operated by an electric motor 4.

Above the intake 1 is a tubular knob 5 which is used to start or stop the motor 4 and subsequently the action of the fan 3. To the knob 5 is rigidly fixed a rod 6 which is located inside the tube 2. The other end of the rod 6 is bent at right angles. The end of the right angle bend is indicated by 7.

On the outside of the tube 2 is located a bracket 8 which slides up or down on the said tube, and which can be fixed at any position upon the said tube. The bracket 8 is used for attaching the invention to a washroom floor D to hold it fixed in a required position.

To the side of the tube 2 is also attached a switch box 9, shown opened up to show the contained electric switch 10. A bent arm 11, extends from the switch 10. This arm turns the switch on or off. When the rod 6 is rotated by means of the knob 5, the right angle bend 7 lifts the arm 11 to push the switch 10 on, to start the motor 4 and the fan 3. Turning the knob 5 in the opposite direction shuts the fan 3 off.

The fan 3 has an outlet 12 which may remain as is or to which a duct can be attached.

In FIG. 2 is shown an approximate location of the exhaust unit. Below the washroom floor D is the basement in which the fan 3, the motor 4, and the electrical installation is located, so that only a small portion of the tube 2 is visible in the washroom. The tube 2 is usually chrome plated for better appearance and is in most cases inconspicuous.

Experimentation has shown that the exhaust of odors into the basement does not require additional duct work to lead away from the said fan.

Having described the invention, what I claim is:

1. A self-contained exhaust unit which is designed to remove objectionable odors from toilet bowls comprising in combination:
(a) a flat triangular intake which is located between the top of a toilet bowl and its toilet seat, the side of said intake facing the inside of the bowl being open to the entry of gases, and the corner opposite to the said open side having a circular hole therein,
(b) a long tube attached to the said intake at the circular hole to form an air tight passage from the said intake into the tube,
(c) an exhaust fan attached to the other end of the said tube to provide suction to the intake,
(d) an electric motor to operate the said fan,
(e) a cam operated switch, located on the outside of the said tube having an air tight passageway to the tube, for the purpose of starting and stopping the said motor
(f) a control for the said switch comprising a knob rotatably located above the said intake, a rod attached to the said knob located within the tube and having a short right angle bend at the other end thereof said bend penetrating the tube into the electric switch so that the turning of the said knob acts upon the cam of the said switch, and
(g) a bracket slidable attached to the outside of the said tube, for attaching the said unit to a floor.

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