

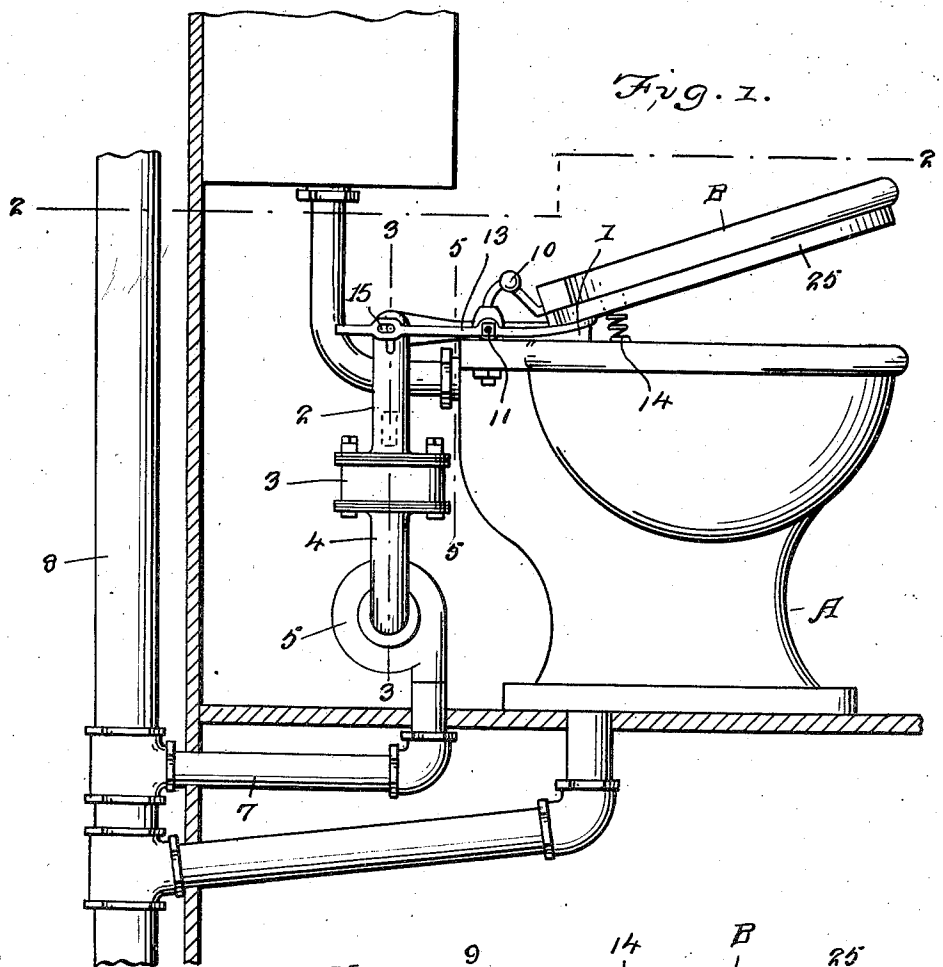
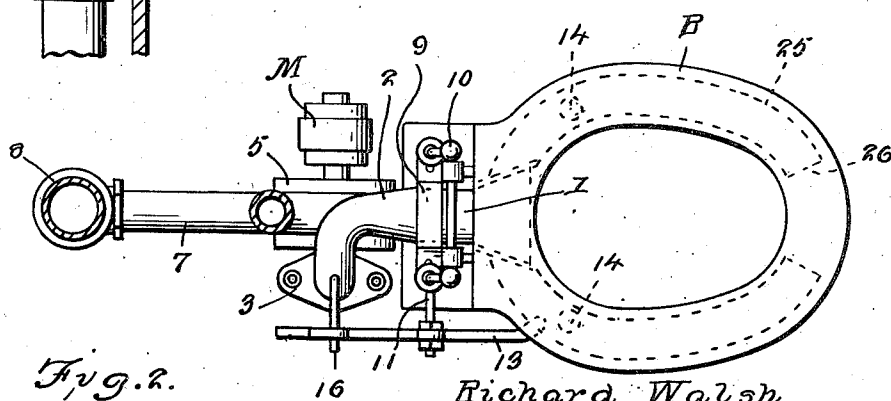
Oct. 25, 1938.

R. WALSH ET AL
LAVATORY VENTILATOR

2,134,629

Filed May 3, 1937

3 Sheets-Sheet 1



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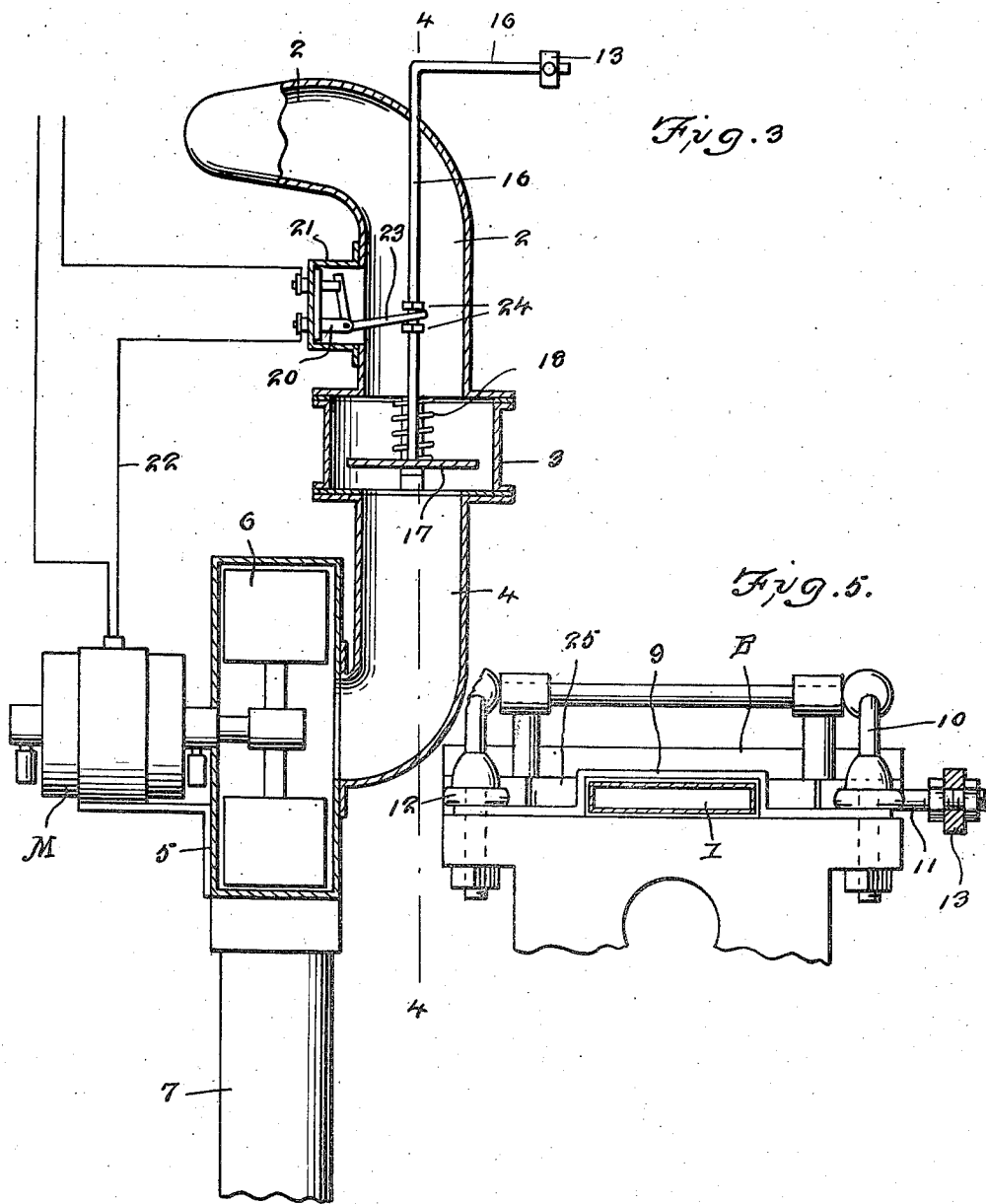
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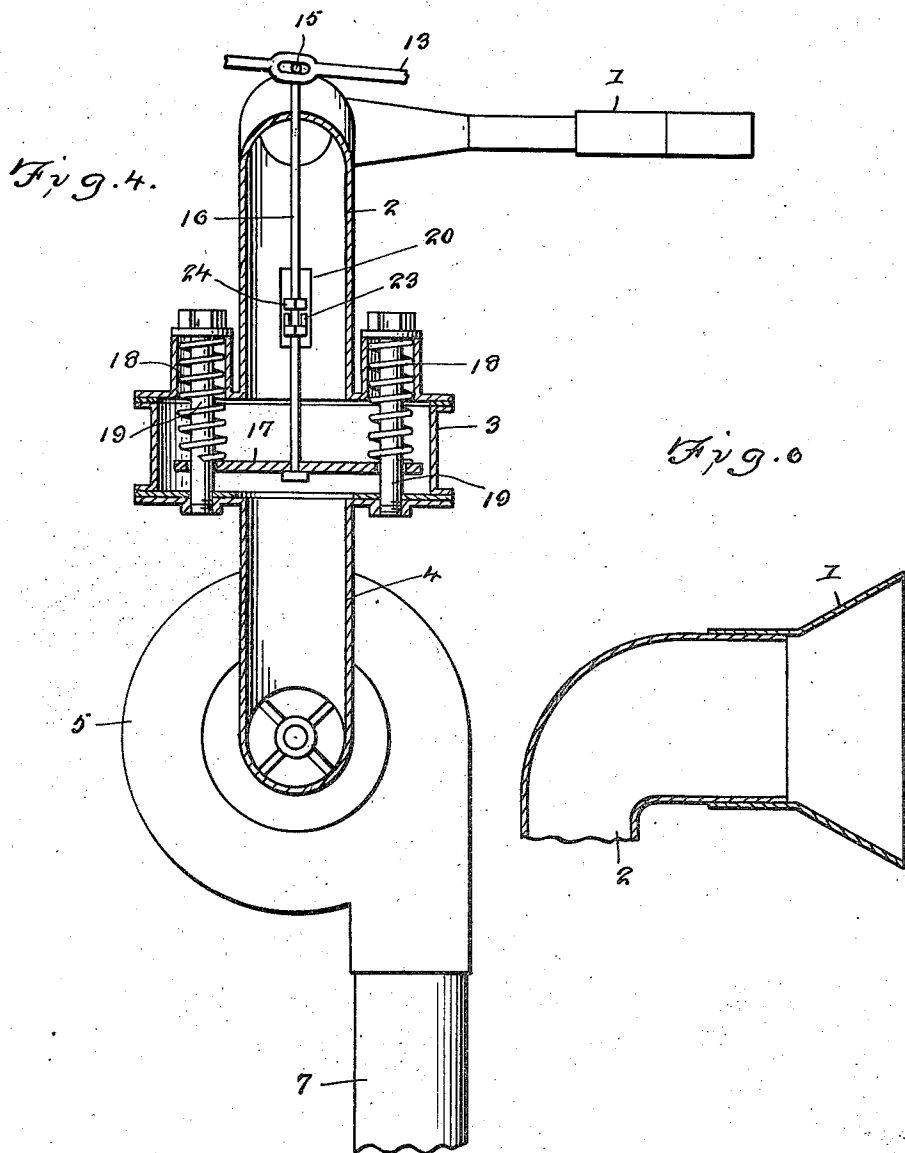
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UNITED STATES PATENT OFFICE

2,134,629

LAVATORY VENTILATOR

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Application May 3, 1937, Serial No. 140,511

2 Claims. (Cl. 4—213)

This invention relates to a ventilator for a lavatory, the general object of the invention being to provide a motor driven fan, the inlet of which is connected with the bowl and the outlet with either the vent pipe or drain pipe, with means for closing the circuit of the motor of the fan when the seat is occupied so that the fan will draw air from the bowl.

Another object of the invention is to provide a normally closed valve in the connection between the fan inlet and the bowl, with means for opening the valve when the seat is depressed.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation showing the invention in use.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a section on line 5—5 of Figure 1.

Figure 6 is a sectional view through the member which enters the bowl.

In these drawings, the numeral 1 indicates a nozzle shaped member which enters the rear part of the bowl A at the top thereof and this member is connected to a curved pipe 2 which has its lower end connected with a valve casing 3. A pipe 4 connects the lower part of the valve casing, with the inlet of a fan casing 5, the fan 6 of which is driven from the motor M. The outlet of the fan is connected by the pipes 7 with the vent pipe 8 or it may be connected with the drain pipe of the toilet. A bracket 9 holds the member 1 in place and the ends of this bracket are perforated to receive hinge bolts 10 of the seat B of the bowl. An eye bolt 11 has its eye so located that one of the bolts 10 passes through the same and the other bolt 10 passes through a washer 12. A lever 13 is pivotally supported by the bolt 11 and has one end extending under the seat B which is normally held in raised position by the springs 14. The other end of the lever has a slot 15 therein through which extends the upper bent end of a valve stem 16 which extends downwardly through the pipe 2 and has a valve 17 connected with its lower end. Springs 18 carried by the

bolts 19 in the valve casing normally hold the valve upon the bottom of the casing, where it closes the pipe 4. A switch 20 is arranged in a casing 21 attached to the pipe 2 and this switch is located in the circuit 22 of the motor. The switch arm 23 has a part extending into the pipe 2, where it is engaged by the nuts or projections 24 on the stem so that when the valve is resting upon its seat, the switch arm is moved to a position to break the circuit of the motor, but when the valve is raised by the raising of the stem 16, the switch arm is moved to a position to close the circuit.

From the foregoing it will be seen that when the seat is unoccupied, it is held in raised position by the springs 14 and in this position, the valve is held closed so that sewer gas or the like is prevented from entering the bowl through the parts which are connected with the member 1. When the seat is depressed, however, it will rock the lever 13 so that the rear end of the lever is raised, thus raising the valve stem 16 and the valve 17 and this movement of the stem will close the switch so that current will flow to the motor and start the fan. The fan will draw air from the bowl and force it into the pipe 8. As soon as the seat raises, the valve 17 will close and the circuit to the motor is broken so that the device is only inoperative when the seat is occupied.

The device may be constructed with the fixtures and in this case the parts can be otherwise attached to the fixtures.

A gasket 25 is attached to the under face of the seat with an opening 26 at the front of the seat so that when the seat is lowered, air will pass into the bowl through the opening 26 and this air must travel entirely across the bowl to reach the nozzle member 1.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What we claim is:—

1. Ventilating means for a lavatory comprising an incased motor driven fan, pipes connecting the inlet thereof with the interior of the bowl of the lavatory, pipes connecting the outlet of the fan with a waste pipe of the lavatory, a valve normally closing the communication between the inlet and the bowl, a lever, a valve stem connected

with the valve and with the lever, means for normally holding the seat of the bowl in raised position, the lever extending under a part of the seat whereby the lowering of the seat will move the lever to a position to raise the stem and valve to move the valve to open position, a circuit for the motor and means operated by the raising of the valve and its stem to close the circuit and to break the circuit when the valve moves downwardly.

2. Ventilating means for a lavatory comprising a motor driven fan, a casing therefor, pipes connecting the inlet of the casing with the interior of the bowl of the lavatory, pipes connecting the outlet of the casing with a waste pipe of the lavatory, a spring pressed valve normally closing the communication between the inlet and the bowl, a lever pivoted intermediate its ends and having a slot therein adjacent one end, a valve stem having one end connected with the valve and its

opposite end mounted in the slot of the lever, springs normally holding the seat of the bowl in raised position, the lever having its opposite end extending under a part of the seat whereby the lowering of the seat will move the lever to a position to raise the stem and valve to move the latter to open position, spaced means on the stem, a circuit for the motor, a switch for controlling the circuit, an arm included in the switch for actuating the same and mounted between the spaced means for the latter to act thereon upon the raising of the valve and its stem to close the circuit and to break the circuit when the valve and its stem moves downwardly, and gasket means on the under face of the seat and engaging the upper edge of the bowl when the seat is in lowered position.

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