

J. H. DOUGLAS.
VENTILATED WATER CLOSET.
APPLICATION FILED APR. 11, 1914.

1,122,264.

Patented Dec. 29, 1914.

Fig. 1.

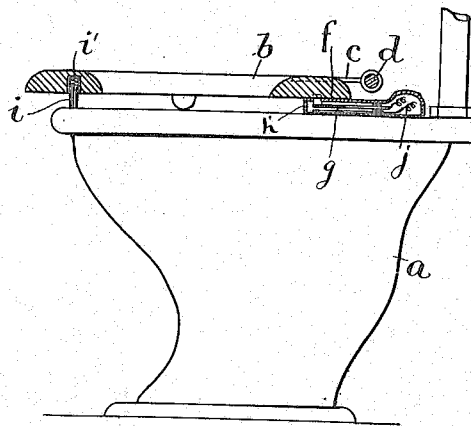


Fig. 2.

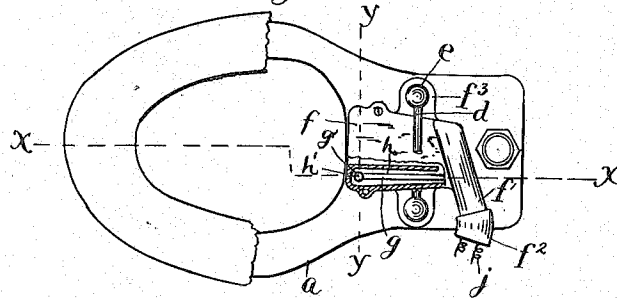
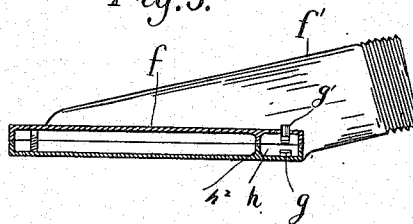


Fig. 3.



Witnesses:
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Att'y

UNITED STATES PATENT OFFICE.

JOHN H. DOUGLAS, OF PORTLAND, MAINE.

VENTILATED WATER-CLOSET.

1,122,264.

Specification of Letters Patent. Patented Dec. 29, 1914.

Application filed April 11, 1914. Serial No. 831,309.

To all whom it may concern:

Be it known that I, JOHN H. DOUGLAS, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Ventilated Water-Closets, of which the following is a specification.

My invention relates to a ventilated water closet of that class in which a flat ventilating pipe is interposed between the seat and the bowl and extends rearwardly of the seat with an offset at its rear which connects with some suitable ventilating pipe. As these closets have been made, the joint between the flat ventilating pipe and the offset was either an elbow or else some form of connection which took up so much room that it interfered with the operation of the seat.

The object of my invention is to construct a ventilating pipe and its connections which will be self contained and which will be capable of being applied to any water closet now on the market.

A further object is to provide such a closet with an automatically operated electric switch which will start a ventilating fan when the closet is used and to locate the electric connection where they will be protected from injury while being readily accessible.

The invention may be best understood by reference to the accompanying drawings which show a closet constructed according to my invention.

In the drawing, Figure 1 is a side elevation of the closet with a portion in elevation on the line $x-x$ of Fig. 2, Fig. 2 is a plan with a portion of the ventilating pipe in section, and Fig. 3 is an enlarged section on the line $y-y$ of Fig. 2.

The ventilating attachment is designed to be used in connection with an electric fan or blower by which the air is drawn from the bowl while the seat is being occupied. The fan and motor are located at any convenient point and they are started by an automatic switch which closes when the seat is depressed.

Referring to the drawings, a represents the bowl and b is the seat hinged to the rear portion of the bowl by hinges c pivoted on a rod d , the rod being held by two stud bolts e .

The ventilating pipe designated generally by F is composed of a thin flat pipe f , resting

on the top of the bowl in rear of the opening in the bowl and is interposed between the seat and the top of the bowl when the seat is down.

The front end of the pipe opens into the space beneath the seat and it connects at the rear end with a cylindrical offset f' through which the air passes on its way to the blower. The pipe f and the offset f' are preferably cast in two pieces bolted together, the offset being integral with the body of the pipe f . This cylindrical offset connects with the rear end of the flat pipe f in such a manner as to have plenty of room over it so that the seat may be raised and swung back without interference by the pipe.

As here shown, the offset pipe f' extends transversely of the flat pipe and at an upward inclination thereto and the connection between the offset and the pipe f is an elongated slot which gives a full discharge capacity. A suitable elbow f^2 is provided at the end of the pipe f' and this elbow connects with the ventilating pipe which leads to the fan. The pipe is secured in place by the stud bolts e which pass through ears f^3 formed on the sides of the pipe f' .

Means are provided for automatically starting and stopping the fan and motor. As here shown, I form in the body of the pipe f and on one side thereof, a chamber or elongated cavity h in which is placed the conductors g of a spring switch. This cavity is formed by a partition h' which closes the front end of the cavity and a partition h^2 which separates it from the ventilating space. The rear end of the cavity opens into the rear portion of the pipe. The terminals of the two conductors g are normally separated but they are brought together by a push button g' which extends upwardly through the seat to a point where it will be depressed when the seat is down to its lower position. Wires i connect with the conductors of the switch and are led off through the rear of the cavity and thence inside of the offset f' and the ventilating pipe to the motor.

The seat is held slightly raised when not in use by a spring support i composed of a bolt held in a recess in the under side of the seat and forced downward by a spring j' . When in its upper position the lower surface of the seat just depresses the push button enough to close the switch.

A ventilating device made as here shown, may be fitted to any closet. The fan is automatically started and stopped.

The electric switch is located where it is conveniently acted upon by the seat while it is perfectly protected from any dirt or dust which may be brought into the pipe with the air.

I claim;—

10 1. In a water closet, the combination of a bowl, a seat hinged to said bowl, a flat ventilating pipe interposed between the seat and bowl and extending rearwardly of the seat, said ventilating pipe having a longitudinal recess closed at its front sides and open at the rear, a pair of electric conductors in said recess the terminals of which form a spring switch and a push button for closing said switch and extending upwardly through the top of the ventilating pipe to a position where it will be struck by the under surface of said seat.

20 2. In a water closet, the combination of a bowl, a seat hinged to said bowl, a flat ventilating pipe interposed between the seat and bowl and extending rearwardly of the seat, said ventilating pipe having a longitudinal recess closed at its front sides and open at its rear end, a cylindrical offset pipe for said ventilating pipe in the rear end thereof, said offset pipe extending transversely of the ventilating pipe and upwardly at an inclination thereto, a pair of electric conductors in said recess, the terminals of which form a spring switch, a push button for closing said switch and extending upwardly through the top of the ventilating pipe to a position where it will be struck by the under surface of the seat and a pair of conductors extending through said offset pipe and connecting with said first mentioned conductors.

25 and bowl and extending rearwardly of the seat, said ventilating pipe having a longitudinal recess closed at its front and sides and open at its rear end, a cylindrical offset pipe for said ventilating pipe in the rear end thereof, said offset pipe extending transversely of the ventilating pipe and upwardly at an inclination thereto, a pair of electric conductors in said recess, the terminals of which form a spring switch, a push button for closing said switch and extending upwardly through the top of the ventilating pipe to a position where it will be struck by the under surface of the seat and a pair of conductors extending through said offset pipe and connecting with said first mentioned conductors.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOHN H. DOUGLAS.

Witnesses:

S. W. BATES,

C. B. CREIGHTON.