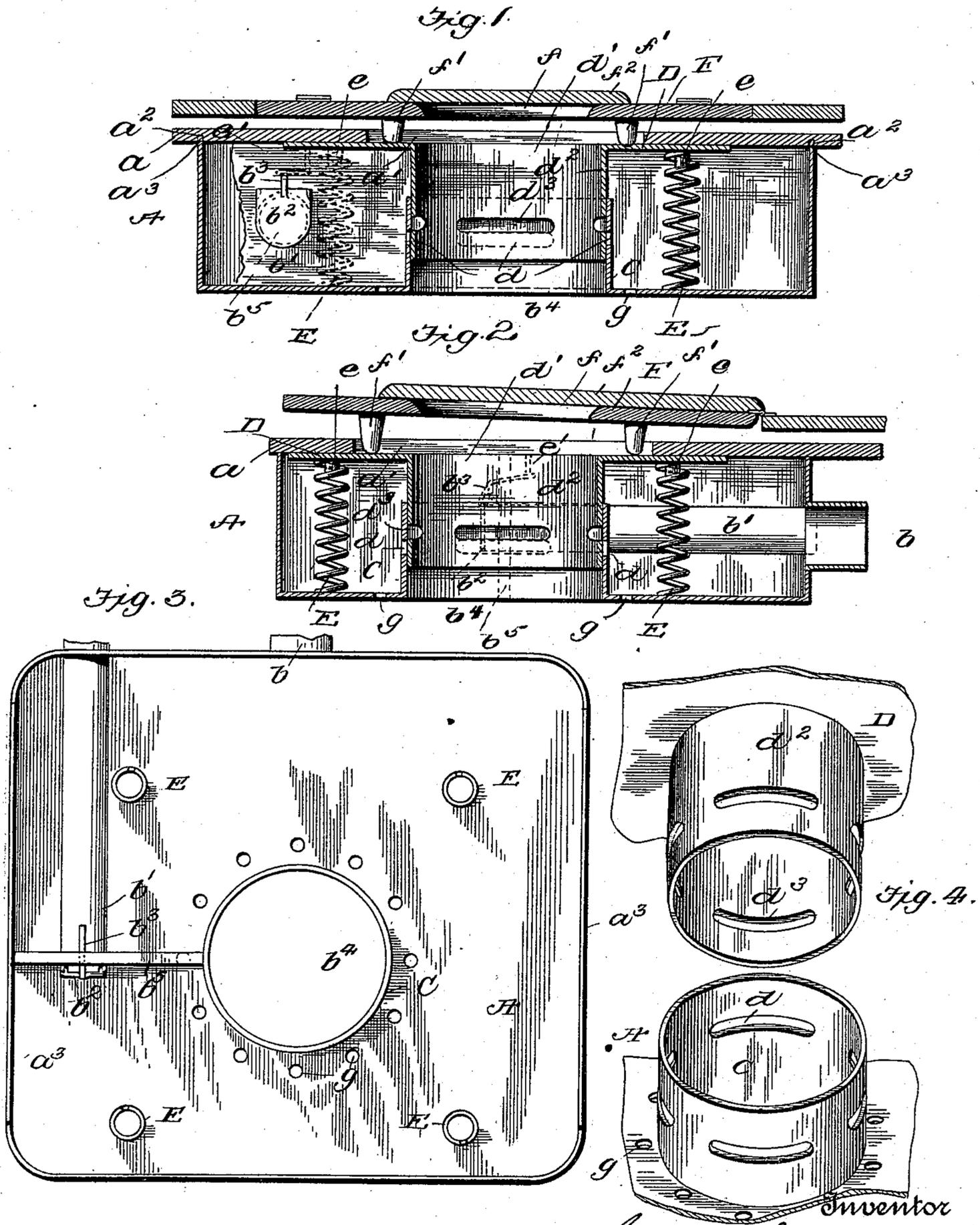


(No Model.)

J. B. MAHONEY.  
WATER CLOSET SEAT.

No. 532,977.

Patented Jan. 22, 1895.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES B. MAHONEY, OF BOSTON, MASSACHUSETTS.

## WATER-CLOSET SEAT.

SPECIFICATION forming part of Letters Patent No. 532,977, dated January 22, 1895.

Application filed March 29, 1894. Serial No. 505,614. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES B. MAHONEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Water-Closet Seats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention contemplates certain new and useful improvements in water-closet seats and has for its object to thoroughly ventilate the seat proper and its adjuncts and carry off any odor around the same.

The invention consists, broadly, of a water closet seat having two parts or members yieldingly connected together and telescoping hollow cylindrical portions having corresponding slots which are designed to coincide when the seat is occupied, and a vent pipe opening at its inner end into the space between said parts or members, whereby when the seat is occupied communication is established between the interior of said hollow or cylindrical portions and the space between said parts or members and the draft created by this communication and the top of the seat and the hopper will serve to carry any odor, or the greater portion thereof, off through the vent-pipe, any remaining odor in the top of the hopper being conveyed away by any suitable vent with which the hopper may be supplied. Any odor remaining in the space between the said parts or members after the seat is vacated is prevented from passing into the room or building by the closing of the openings formed by the slots in the hollow or cylindrical portions.

The invention also comprises the details of construction, combination and arrangement of parts, substantially as hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—Figures 1 and 2 are vertical cross-sectional views taken at right angles to each other. Fig. 3 is a plan view of the lower part of the seat. Fig. 4 is a detail perspective view.

Referring to the drawings, A designates a box or chamber, and  $a$  the cover therefor having a wide opening  $a'$  and provided with two

grooves  $a^2$  in its under side for the reception of tongues or mortises  $a^3$  of the sides of box A. Thus the cover can be easily drawn forward, free of the box, which latter is stationary. In the rear wall of a box A opens a pipe  $b$  for conveying off odor, while along one side of said box and through an opening in the rear thereof extends an air-inlet pipe  $b'$  over the inner end of which is a valve  $b^2$  having an arm  $b^3$ .

In the center of the bottom of box A is a hole or opening  $b^4$  which is surrounded by an upwardly extended cylindrical portion C having a series of narrow slots  $d$  therein. A partition plate  $b^5$  extends from inlet pipe  $b'$  to cylindrical portion C, so as to cause the air to travel around the latter before reaching the vent.

D is a movable plate or section having a central opening  $d'$  and a depending cylindrical portion  $d^2$  designed to telescope or fit in the cylindrical portion of the box A, and the same is provided with narrow slots  $d^3$  corresponding to the slots  $d$  but normally held out of alignment therewith by spiral springs E. These springs are preferably secured at their lower ends to the bottom of box A and at their upper ends they encircle short lugs or posts  $e$  depending from the plate D. From the under side of plate D extends a short rod  $e'$  which engages the arm  $b^3$  of valve  $b^2$ . When sufficient pressure is exerted on the plate D to overcome the tension of the spiral springs the slots of the telescoping portions are caused to coincide and permit any odor in the cylindrical portion leading to the drainage to pass into the box or chamber and out through the vent pipe, the valve  $b^2$  being opened by rod  $e'$ , allowing the free inlet and circulation of air. The plate D being larger than the opening in cover A normally bears against the under side of the latter.

To insure the uniform depression of the spring-held plate or section at every point the hinged seat F, having a central hole or opening  $f$  is provided on its under side with four, more or less, knobs or buttons  $f'$ , preferably made of rubber and designed to bear upon the plate or section D and effect the lowering thereof when the seat is occupied. A hinged cover  $f^2$  is designed to cover the hole in seat F when the latter is not in use. For the pur-

pose of carrying off any water that may accumulate in the box or chamber A and to permit any odor remaining in the hopper, after the seat is unoccupied, to pass into said chamber, I form in the bottom of the latter a circular series of holes or openings *g* surrounding the slotted cylindrical portion. Thus water can readily pass from the box into the bowl and any remaining odors are collected in said box and there confined until the seat is again used.

It is well known that in water closets the greater odor is at the upper portion of the hopper, or immediately beneath the seat secured thereon. By my invention the space between the top of the hopper and the outer surface of the seat is increased and through this increased space the fecal matter has to pass to the hopper. By establishing communication between this increased passage-way (wherein is all or the greater portion of the odor) and the vent-pipe opening into the box or chamber the draft thus created, aided by the draft from the top of the hopper and what space is left around the upper end of the central passage-way, the odor is effectually and quickly carried off by the vent-pipe. If, however, the seat should be vacated before all the odor passes from the interior of the box or chamber through the vent-pipe it is confined in the former until the seat is again used and is prevented from entering the room or building by the closing of the openings formed by the slots when coincident.

The advantages of my invention are apparent and from what has been said it will be seen that I have produced a water-closet seat capable of perfect ventilation and having free circulation of air when the seat is being used; that the same is composed of but few parts, is simple in construction, strong, durable and inexpensive, and that the lower box or chamber, together with the yielding plate or section, can be readily removed for the purpose of inspection, cleansing or repairing and the like.

It will be understood that my improved water-closet seat is designed to be used in connection with any preferred form of hopper or water-closet bowl in the upper portion of which latter foul odors are prevented from accumulating since they will pass out through the coincident slots of the telescopic portions of the seat. After the fecal matter passes out of the trap or main portion of the hopper ventilation in the remaining portion of the drainage apparatus can be accomplished in any of the well known ways. Hence when the seat is occupied odors are prevented from accumulating in or around the upper portion of the bowl or hopper.

I claim as my invention—

1. A water-closet seat having two parts or members yieldingly connected together and provided with telescoping cylindrical portions having slots or ports which are caused

to coincide when the seat is occupied, substantially as set forth.

2. A water-closet seat having a fixed part or section provided with a hole or opening and a cylindrical portion having slots, and a movable part or section having a corresponding hole or opening and slotted cylindrical portion fitting said former cylindrical portion, substantially as set forth.

3. A water-closet seat having two parts or sections having coincident holes or openings, and two telescoping slotted cylindrical portions, one of which is movable whereby the slots of said cylindrical portions are caused to coincide when the seat is occupied, substantially as set forth.

4. A water-closet seat having a fixed part or section provided with a hole or opening and an upwardly extended slotted cylindrical portion, a movable part or section having a corresponding hole or opening and slotted cylindrical portion, and springs interposed between said parts or sections, substantially as set forth.

5. A water-closet seat having a box or chamber provided with a hole or opening and a cylindrical portion having slots therein, a plate or section having a corresponding hole or opening and a depending cylindrical portion fitting in said former cylindrical portion and having corresponding slots, the springs supporting said plate or section, and the vent pipe leading from said box or chamber, substantially as set forth.

6. A water-closet seat having a box or chamber provided with a hole or opening, and a slotted cylindrical portion, and a series of holes in the bottom of said box, the upper plate or section having a depending, slotted cylindrical portion fitting said former cylindrical portion, and springs secured in said box or chamber and supporting said plate or section, substantially as set forth.

7. A water-closet seat having a box or chamber provided with a hole or opening, an upper yielding plate or section, telescoping slotted cylindrical portions coincident with said holes or openings, and the hinged seat bearing on said yielding plate or section and designed to depress the same when the seat is occupied, substantially as set forth.

8. A water-closet seat having a box or chamber provided with a hole or opening, an upper yielding plate or section having a corresponding hole or opening, telescoping slotted cylindrical portions coincident with said holes or openings, the cover for said box or chamber which latter is removably secured thereto, and the seat having knobs or buttons designed to bear upon said yielding plate or section, substantially as set forth.

9. The herein-described improved water-closet seat, comprising the box or chamber having a hole or opening, a slotted cylindrical portion, air and vent pipes opening into said box or chamber, and a series of holes or openings

in the bottom of the latter, a plate or section  
having a hole or opening, a depending slotted  
cylindrical portion, and short lugs or posts,  
springs bearing in said box or chamber and  
5 surrounding said lugs or posts, the cover for  
said box or chamber, and the hinged seat  
having a hole or opening and knobs or but-  
tons designed to rest upon said plate or sec-  
tion, substantially as set forth.

10 10. A water-closet seat having two parts or  
sections, one stationary and the other mov-  
able, two telescoping slotted cylindrical por-  
tions, a vent-pipe, an air inlet pipe having a

valve provided with an arm, and a rod de-  
pending from said movable part or section 15  
and engaging said valve-arm, whereby said  
valve is unseated as said movable part or sec-  
tion is depressed, substantially as set forth.

In testimony whereof I have signed this  
specification in the presence of two subscrib- 20  
ing witnesses.

JAMES B. MAHONEY.

Witnesses:

ALONZO F. ANDREWS,  
HENRY J. LAMSON.