

J. H. STEVENS.  
Water-Closets.

No. 140,797.

Patented July 15, 1873.

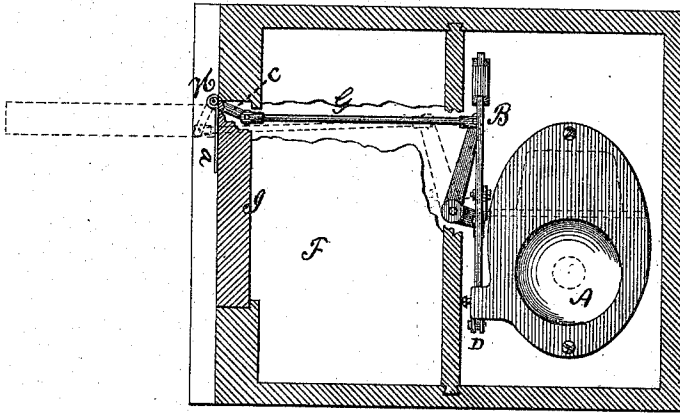


FIG. 1.

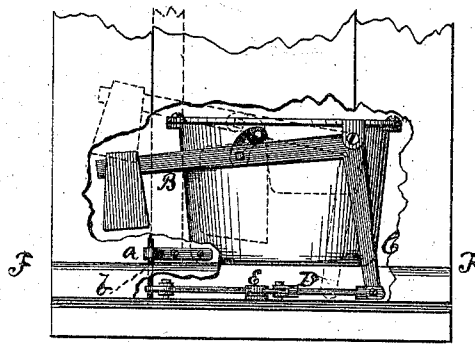


FIG. 2.

WITNESSES,

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# UNITED STATES PATENT OFFICE.

JOHN H. STEVENS, OF CAMBRIDGE, MASSACHUSETTS.

## IMPROVEMENT IN WATER-CLOSETS.

Specification forming part of Letters Patent No. **140,797**, dated July 15, 1873; application filed May 29, 1873.

### *To all whom it may concern:*

Be it known that I, JOHN H. STEVENS, of Cambridge, county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Water-Closets; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

My improvement is especially designed to be applied to water-closets of hotels and public buildings; and consists in a means for insuring the tilting of the pan, and consequently the injection of a charge of water for rinsing the bowl upon each occasion that the door of the apartment in which the commode is located is opened.

I am aware that it is not unusual to operate the water-supply by means of a chain or cord connecting the valve with the door of the apartment; but such commodes do not have a pan which is filled with water and which serves as a stench-trap to arrest the escape of odors from the soil-pipe.

So far as I know, no means has heretofore existed for discharging the contents of a water-closet pan and introducing a supply of water for rinsing the bowl and refilling the pan, to furnish a water-trap, by the opening and closing of the door of the apartment in which the commode is placed. A means to accomplish this end is the purpose of my invention.

Figure 1 is a plan of a water-commode and the closet in which it is located. Fig. 2 is a side elevation of the same.

A indicates the pan of a water-commode of common construction. This pan is tilted so that its contents will be discharged by raising the weighted end of the lever B to the position shown in dotted lines, Fig. 2, and a supply of water introduced in a way and by means well understood, and which form no part of the present invention. The lever B has an arm, C, which extends downward behind the user of the seat, and its end is connected, by a shackle-link, D, with the short arm of the horizontal bell-crank lever E, Fig. 1, the location of which is below the false floor F of the closet or apartment. The long arm of the lever E is also connected by means of a shackle-

link, G, with one arm of a bell-crank lever, H. This latter bell-crank lever has its hinge-joint set in the same line as the axes of the hinges of the door I of the apartment, and the arm *a* of such crank is secured to the door by screws in the same way as a leaf of a strap-hinge would be.

It is obvious that whenever the door I of the closet is opened the several levers and their connections will occupy the position shown by dotted lines in the drawings, and the pan A will be tilted in the same manner that it would be if, in place of the devices shown, the ordinary hand-pull were used to raise the weighted end of the lever B.

The effect of the weight upon the end of the lever B is to close the door I, but it is advisable to apply directly to the door a spring to close it. In order, also, that all the levers and their connections may not interfere with the use of the apartment, I prefer to have a false floor to the closet, and in Fig. 1 the same is shown as cut away to expose the attachments.

It is sometimes desirable that the door of the closet shall open without tilting the pan A. I therefore make the arm *a* of the crank-lever H loose on its joint-pin, which latter is attached to the shorter arm *c* so that it will act as a common hinge when it is not desired that the door I in opening shall tilt the pan of the closet; but I make use of a set-screw, *b*, to secure the hinge-leaf *a* to its joint-pin so that it cannot turn thereon, and, with the short arm *c*, constitute a bell-crank whenever it is desired that the door I in opening shall work the water-closet pan and water-supply.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the door I of a retiring-closet with the tilting-pan A of a commode located therein by means of a system of lever connections, substantially as described.

2. The convertible bell-crank or hinge connection H, composed of the members *a c* and clamping device *b*, in combination with the door I and the lever connection, to tilt the pan A, substantially as described.

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Witnesses:

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