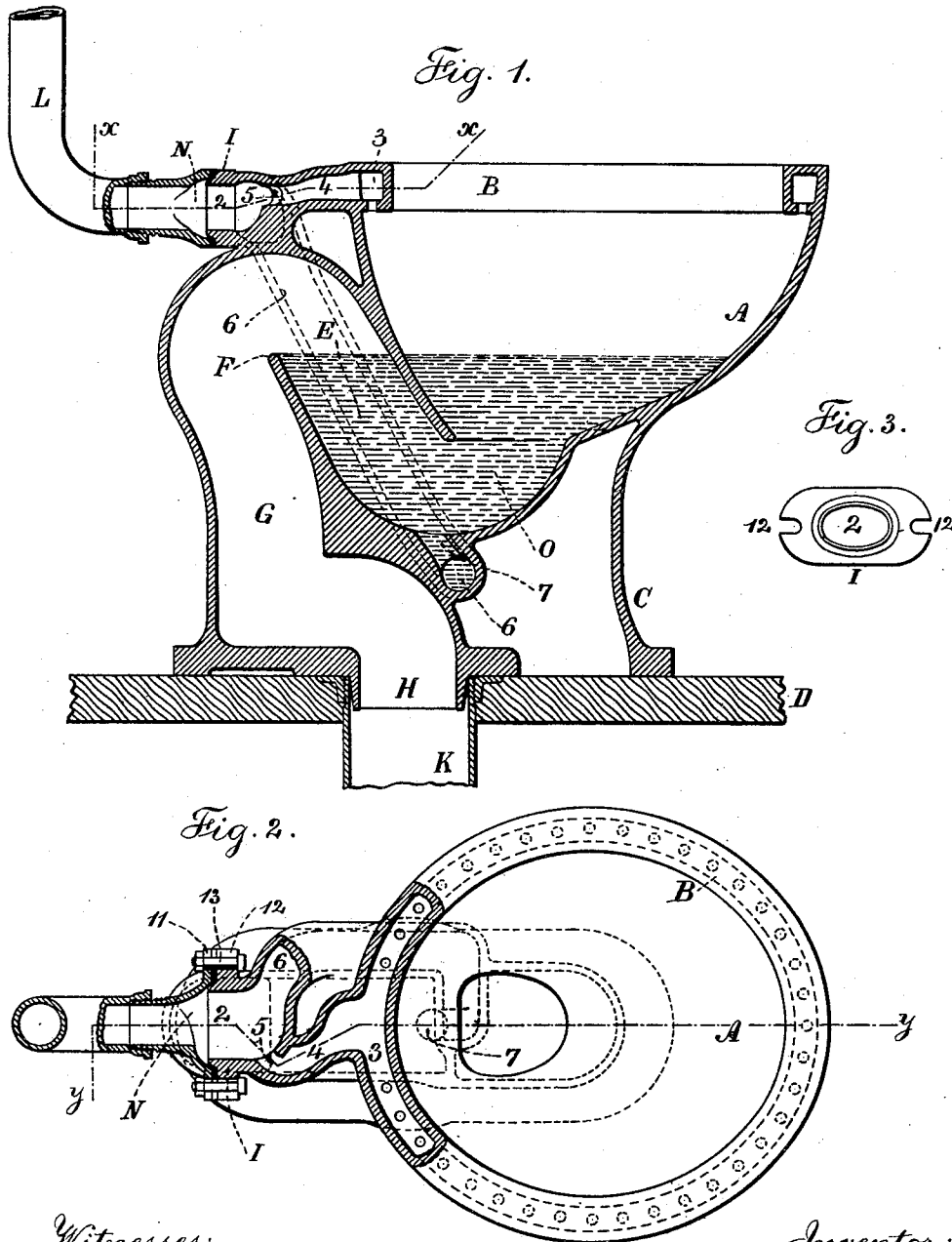


(No Model.)

E. HAMMANN.
WATER CLOSET.

No. 480,402.

Patented Aug. 9, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD HAMMANN, OF BROOKLYN, ASSIGNOR TO THE J. L. MOTT IRON WORKS, OF NEW YORK, N. Y.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 480,402, dated August 9, 1892.

Application filed December 30, 1891. Serial No. 416,542. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HAMMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Water-Closets, of which the following is a specification.

This closet is especially intended for use without any wooden inclosure, the bowl itself being more or less ornamental on its exterior surface and resting with a base or foot upon the floor.

Closets have heretofore been made in which there is an upward jet of water to carry the contents of the bowl over a dam in the trap and cause the flow of water to act as a siphon in discharging the contents of the bowl. Closets of this description will be found in English Patent No. 9,272, of 1842, and in William Smith's United States Patent No. 206,049, granted July 16, 1878, in the latter of which a connection is made to the rim of the bowl for supplying water to the same.

In closets that are made for use without an inclosing case it is advantageous both for the symmetrical appearance and for the ease of connection to the flushing-pipe for such flushing-pipe to be in a vertical plane, passing from front to back, through the center of the bowl, because where the connection for the flushing-pipe is either at one side or the other of this vertical plane the flushing-pipe is liable to be diverted from a vertical line and give the appearance of inaccurate workmanship; and, besides this, the wall-plate and connections for the swinging wooden seat are preferably adapted to the flushing-pipe being central, and in closets of the same general class as the present, where the flushing-pipe is at one side or the other of the central vertical plane, double bends or elbows usually have to be provided in the pipe, and the expense of the connection is increased and the liability of error in properly placing the closet in its relation to the cistern is very largely increased.

My present invention relates to the closet as a new article of manufacture, made in porcelain, the said closet having a bowl, a base or foot supporting the bowl and resting on the floor, a trap having an upwardly-extending

dam and a downwardly-extending limb to the sewer-pipe, a jet-pipe for an upwardly-directed jet toward the dam, and a central connection for the flushing-pipe in a plane passing vertically through the center of the bowl and through the trap. This connection for the flushing-pipe has a lateral deflecting passage-way and a downwardly-extending tube to the jet-opening in the lower part of the trap, there being a hole in the deflecting-wall for water to pass to the flushing-rim, these parts all being made together of porcelain, so as to be complete and ready for use.

In the drawings, Figure 1 is a vertical section through the trap, the bowl, and the base of the flushing-pipe at the line Y Y, Fig. 2. Fig. 2 is a plan view with a portion of the water-ways in section at the line X X, and Fig. 3 is a rear view of the coupling-flange for the flushing-pipe.

The water-closet is made, as aforesaid, of one piece of porcelain or vitrified material, with the bowl A, having a flushing-rim B and a supporting-base C to rest upon the floor D, and at the bottom of the bowl is a trap formed of a curved water-way O, an uptake E to the dam F, and a downtake or leg G to the discharge-opening H, that communicates with the waste or sewer pipe K, and at the back of the closet, above the downtake G of the trap, is the coupling-flange I, having an elliptical opening or water-way 2 therein, and between this water-way 2 and the water-way 3 in the flushing-rim B is a passage-way 4, that is curved, as represented in Fig. 2, and there is an opening 5 in the curved deflecting-wall of the passage-way 2, leading into this passage-way 4 and water-way 3, so that, according to the size of this opening 5, more or less water will pass to the flushing-rim. This is of considerable importance, because it is necessary that the proper proportion of water shall be directed down through the water-way or pipe 6 to the jet-opening 7 at the bottom of the trap for the volume of water passing through the jet-opening 7 and upwardly toward the dam F to be sufficient to give motion to the contents of the bowl and throw the water over the dam F and fill the downtake-pipe G H, so that the trap becomes a siphon to rapidly and thoroughly discharge the contents of the

bowl, and the volume of water passing through the opening 5 only requires to be sufficient for flushing the inner surface of the bowl. The curved deflecting-wall of the passage-way 2 throws the main volume of the water downwardly by the pipe 6 to the jet 7; but the opening 5, being in that wall and nearly at the same level as the lower end of the flushing-pipe, receives its proper proportion of water for the flushing-rim regardless of the pressure or rapidity of flow of the water.

In consequence of the water-way 2 being elliptical the lower end of the flushing-pipe L has a flaring thimble N, therewith connected, and this flaring thimble sets over a backwardly-projecting lip around the edge of the water-way 2, and there is a flange 11 at the edge of the flaring thimble and projecting horns or slotted flanges 12 at opposite sides of the water-way 2 for the reception of the connecting-bolts 13, and in consequence of these bolts passing through the slots of the respective parts the thimble can be easily connected to or disconnected from the water-way, and a rubber washer or similar packing introduced between the respective parts renders the same water-tight, and the connection can be made with great facility, because in setting the closet and cistern and in applying the flushing-pipe it is only necessary to mark out the vertical plane passing through the center of the discharge-pipe K at the floor and to regulate the length of the thimble N, so that the flushing-pipe L will set properly against the surface of the wall or at as slight distance therefrom as may be desired.

I do not claim any of the separate parts of this improved water-closet, as there have been closets heretofore constructed having the separate features before referred to.

I claim as my invention—

1. As a new article of manufacture, a water-closet, of porcelain or similar vitrified material in one piece, having a bowl A, a trap with an uptake E, downtake G, escape-pipe H and dam F, and a connection for the flushing-pipe, having a water-way 2, a branch connection 4 to the hollow flushing-rim, with an opening 5 in the deflecting-wall of the water-way 2, and a descending pipe or water-way 6 to the upward jet-pipe 7 at the bottom of the trap, the water-way 2 being in a vertical plane passing through the center of the bowl and the trap, substantially as set forth.

2. As a new article of manufacture, a water-closet, of porcelain or similar vitrified material in one piece, having a bowl A, a base or support C, a trap with an uptake E, downtake G, escape-pipe H and dam F, and a connection for the flushing-pipe, having a water-way 2, a branch connection 4 to the hollow flushing-rim, with an opening 5 in the deflecting-wall of the water-way 2, and a descending pipe or water-way 6 to the upward jet-pipe 7 at the bottom of the trap, the water-way 2 being elliptical, substantially as set forth.

Signed by me this 23d day of December, 1891.

EDWARD HAMMANN.

Witnesses:

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