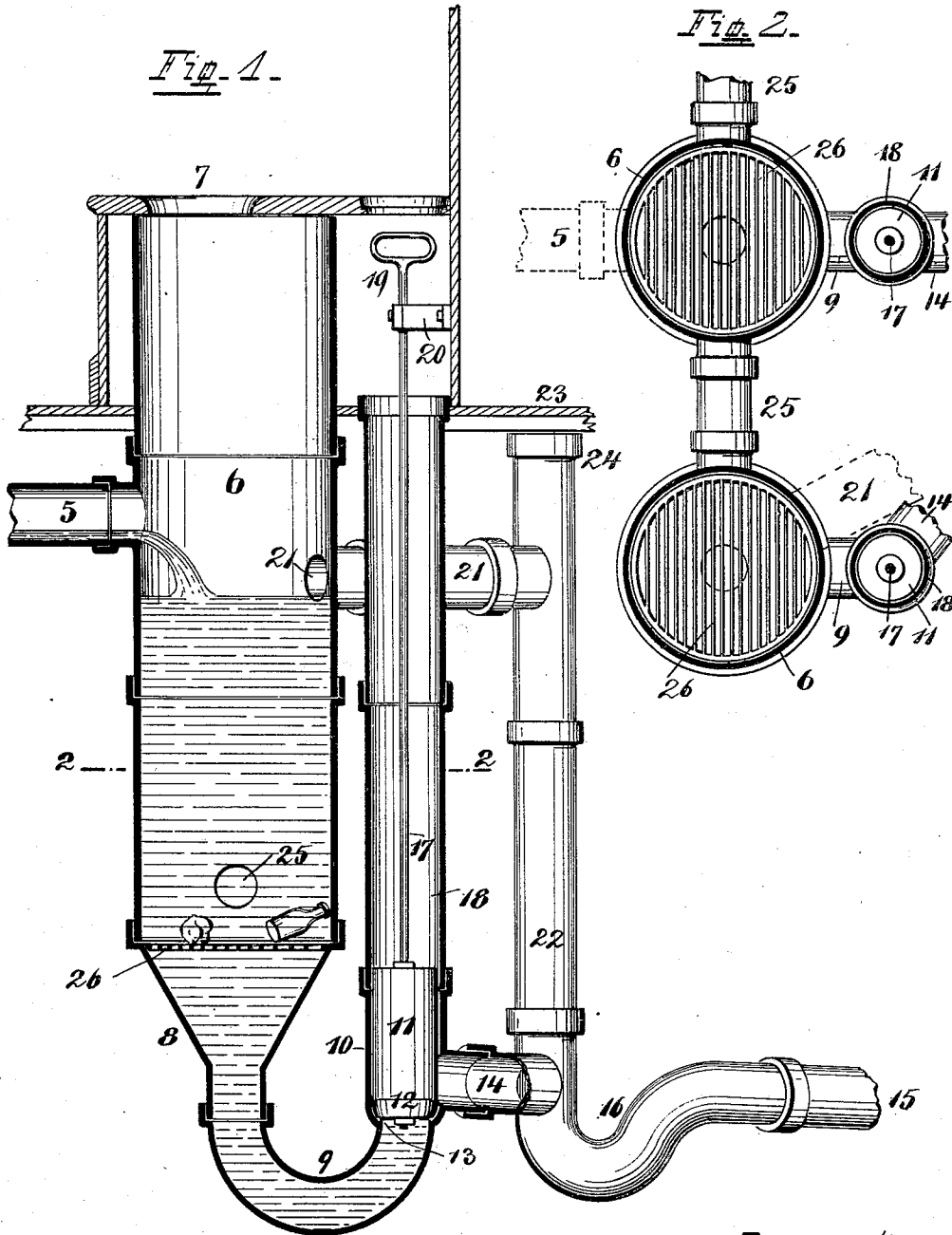


(No Model.)

H. C. BUDDENBERG.
CATCH BASIN WATER CLOSET.

No. 486,428.

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UNITED STATES PATENT OFFICE.

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CATCH-BASIN WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 486,428, dated November 22, 1892.

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To all whom it may concern:

Be it known that I, HENRY C. BUDDENBERG, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Catch-Basin Water-Closets; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to water-closets where a catch-basin is provided below the seat which is adapted to always hold a certain quantity of water, whereby the excrements dropping into it are prevented from sticking against the interior walls and by which they are diluted, so as to facilitate their periodical removal.

The special features of my invention consist of the construction whereby the water is supplied to the catch-basin and a certain supply of it constantly maintained, and in combination therewith of means whereby this water and diluted excrements are periodically discharged, and of means whereby access may be had to the lowest portions of the structure for the purpose of removing obstructions, repair, and cleaning out. This construction and means are described in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of my water-closet and catch-basin complete, and Fig. 2 is a horizontal section of it taken on a line 2 2 of Fig. 1, showing a series of catch-basins.

The water-supply necessary for the operation of the catch-basin is derived from different sources—such as surface-water, waste-water, water from down-spouts, &c.—and enters the former, preferably, through one common pipe 5. The catch-basin 6 is preferably constructed out of sewer-pipe of suitable diameter and of which the required number of lengths are joined together. The uppermost length or joint reaches up to the under side of the seat 7, while to the lowest one a hop-

per 8 connects. The narrow outlet of this hopper communicates with a trap-shaped outlet-pipe 9, which terminates in its rising branch in a valve-chamber 10. This latter is occupied by a valve 11, provided with a leather or rubber seat 12, and resting when closed on an annular ridge 13, which by reason of its narrowness prevents any substance which might interfere with the closing of the valve from lodging on it. From valve-chamber 10 the outlet-pipe continues by a branch 14, which connects with the main outlet-pipe 15, which leads to the sewer. A trap 16 is interposed between branch 14 and pipe 15, which prevents the entrance of gases and smell from the sewer.

17 is a rod connecting to valve 11, whereby this latter is operated. It passes up through a pipe 18 of sufficient diameter to permit a complete removal of the valve for purposes of repair and terminates in a handle 19, located at a height where it may be conveniently reached. A suitable baring 20 is preferably provided near the upper end of rod 17, whereby this latter is kept in its proper position.

21 and 22 are overflow-pipes which prevent the water-supply in the catch-basin from rising beyond a certain level and carry all surplus to the general outlet, joining this latter at the junction of branch 14 and trap 16. The upright part of the overflow-pipes—to wit, pipe 22—is continued on toward the surface and terminates under the floor-covering 23, where at 24 it is provided with a hand-hole opening, which on removal of part of the floor-covering gives access to trap 16 for the purpose of removing obstructions and cleaning out. Part of branch 14 may also be reached in the same manner and for the same purpose, while the other part of branch 14 and trap 9 may be reached through pipe 18 after the valve and its rod have been lifted out. This same construction may be repeated where there are more than one closet side by side, in which case, however, all their catch-basins are connected by pipes 25, which equalize the water-level in all of them and distribute the surplus in one to all of them before it reaches the overflow. In such a case one supply-pipe 5 and one overflow 21 22 may do for all of them. A grate 26 is interposed be-

tween the lower end of the catch-basin and hopper 8, which prevents objects improperly thrown into the closet and which would cause obstruction from passing on down into the narrower parts of the structure. Such objects may be removed from time to time by means of a suitable grapple or gripper passed down through the opening in the seat 7.

As will be seen, the catch-basin of this water-closet is always full of water, whereby any matter is prevented from sticking to the walls, while the surplus water passing off through the overflow carries the lighter and floating substances constantly off. Heavier matter which has settled down may be removed from time to time through outlets 9 and 14 by an operation of valve 11.

This water-closet structure is very efficient and clean, owing to the constant coaction of the water-supply and the periodical complete flushings of the catch-basin. It is designed with a view to permit the use of the ordinary sewer or drain pipe manufactured out of vitrified clay, which may be purchased in almost any size and shape and whereby the cost of construction is kept very low.

Having described my invention, I claim as new—

1. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a combined trap and outlet-pipe 9, a valve 11, which controls the outlet, and an overflow 21 22, all as substantially shown and described.

2. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a combined trap and outlet-pipe 9, a valve 11, which controls the outlet, a valve-rod 17, whereby the valve is operated, a bearing 20, which keeps the valve-rod in proper position, a pipe 18, leading up to the surface, through which the valve may be removed and access gained to parts below, and an overflow 21 22, all as substantially shown and described.

3. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a combined trap and outlet-pipe 9, a valve 11, which controls the outlet, an outlet 14 15, which leads to the sewer, a trap 16, and an overflow 21 22, connecting the catch-basin with the sewer-outlet, the upright portion 22, leading to the surface and provided with the hand-hole opening 24, through which access to trap 16 may be had, all as substantially shown and described.

4. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a grate above the hopper, a combined trap and outlet-pipe 9, terminating in its rising branch into a valve-chamber 10, a narrow-ridged valve-seat 13 within this valve-chamber, and a rubber or leather seated valve 11, all as substantially shown and described.

5. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper below the catch-basin, a combined trap, outlet-pipe, and valve-chamber 9 10, a valve 11, provided with a valve-rod 17, a pipe 18, leading to the surface and permitting access to the valve-chamber and parts below, a sewer-outlet 14 15, a trap 16, provided in the same, and an overflow 21 22, connecting the catch-basin with the sewer-outlet, its upright portion 22 leading to the surface and having hand-hole opening 24, by which access to trap 16 is had, all as substantially shown and described.

6. In a catch-basin water-closet when arranged in series, the combination of the seats 7, catch-basins below them, pipes 25, connecting all the catch-basins, hoppers below the catch-basins, outlet-pipes 9, connecting to the hoppers, valves 11, controlling the passage from outlet-pipes 9, sewer-outlets 14 15, provided with traps 16, a water-supply pipe 5, connecting to one of the series of catch-basins, and an overflow connecting the series with one of the sewer-outlets, all as substantially shown and described.

7. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a combined trap and outlet-pipe 9, a valve 11, located externally from the catch-basin and connected with it by pipe 9, and an overflow, all as substantially shown and described.

8. In a catch-basin water-closet, the combination of a seat 7, a catch-basin below it, a water-supply pipe 5, a hopper 8 below the catch-basin, a combined trap and outlet-pipe 9, a valve 11, located externally from the catch-basin and connected with it by pipe 9, an external passage 18, reaching up to the surface, and an overflow, all as substantially shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY C. BUDDENBERG.

Witnesses:

EDMUND GRUBER,
A. C. SCHUMANN.