(No Model.) 2 Sheets—Sheet 1.

C. H. MOORE.

WATER CLOSET.

No. 496,426. Patented May 2, 1893.

Fig. 1.

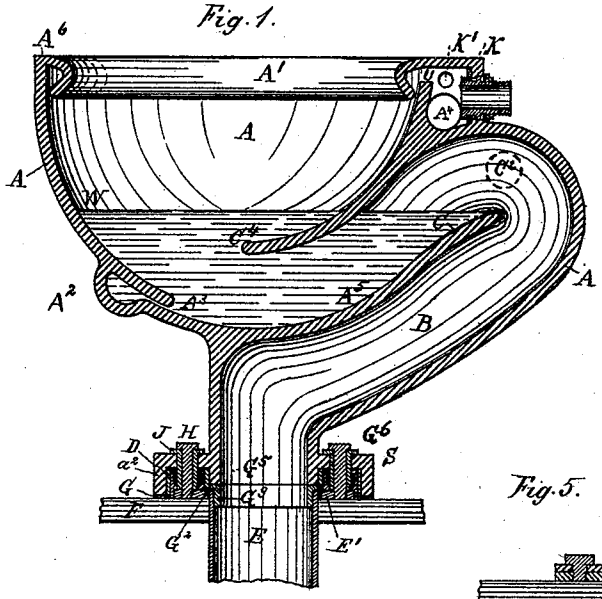


Fig. 4.

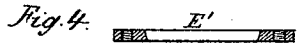


Fig. 2.

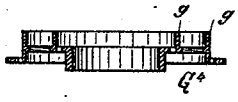


Fig. 5.

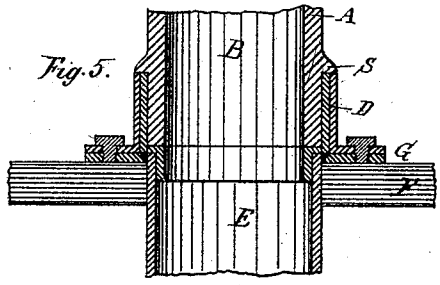


Fig. 3.

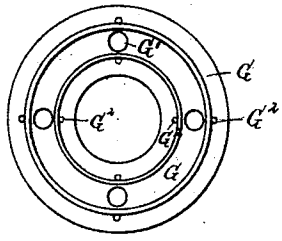
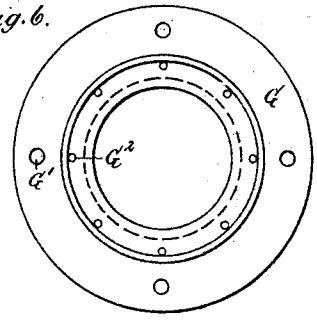


Fig. 6.



Witnesses.
Abraham Fetterly
C. H. Moore

Inventor.
C. H. Moore

(No Model.) 2 Sheets—Sheet 2.

C. H. MOORE.

WATER CLOSET.

No. 496,426. Patented May 2, 1893.

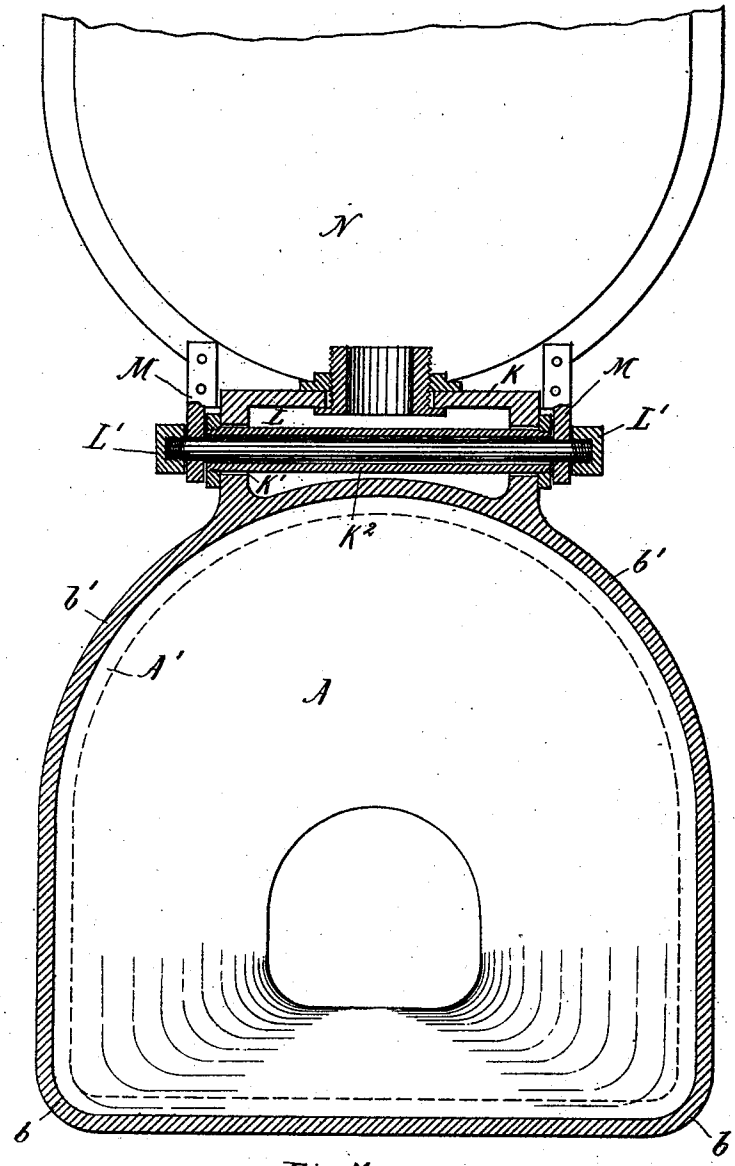


Fig. 7.

Witnesses.
Wm. Saml. Fitch Jr.
C. H. Moore

Inventor.
C. H. Moore

UNITED STATES PATENT OFFICE.

CHARLES H. MOORE, OF YONKERS, NEW YORK.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 496,426, dated May 2, 1893.

Application filed October 17, 1892. Serial No. 449,169. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MOORE, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented a new and useful Water-Closet, of which the following is a specification.

The object of my invention is to produce a water closet bowl and trap combined either made in one or separate parts, that shall be so constructed that the water in the bowl and trap and any deposit therein can be washed or forced up the ascending limb A^5 of the trap and over the convex shaped dam C by the natural velocity of the water from a cistern placed above it, or any other source, and not by siphon action.

It is likewise my object to provide a simple and effective means of securing the discharge limb of the closet rigidly to the soil pipe, and it is likewise my object to secure the hinged seat to the earthenware closet.

To accomplish the cleansing of the closet, I purpose making the ascending limb A^5 of a considerable less curve than has heretofore been used in closets that are constructed so as to retain a quantity of water in the bowl above the partition C^4 without the use of a valve, and to introduce a jet of water at a place (below the normal water level by preference) that will cling to the surface of the ascending limb A^5 and force any deposit up the ascending limb and over the dam.

Heretofore several attempts have been made to cleanse a water closet in this manner, but in every instance a failure has been the result more particularly on account of making the bottom wall of the ascending limb of a greater curve than would allow any deposit in the bowl and trap to flow away over the dam by the force of the water through the jet, and heretofore closets having earthenware flanges on the outlet limb by which the closet is supported on the floor and secured to the soil pipe have not had metal flanges permanently secured on the outlet limb, nor flanged tubes extending through holes in the earthen flange to prevent the screws which hold the closet to the soil pipe and floor from coming in contact with the earthen flange, and heretofore seats have been secured directly on earthen closets by fastening bolts in the earthenware at each side of the closet.

In the accompanying drawings forming a part of this specification, Figure 1 represents a central vertical section of my invention. Fig. 2 represents a central vertical section of the metal fitting. Fig. 3 shows a top view of the fitting, Fig. 2. Fig. 4 shows a metal floor plate which is secured to the soil pipe and to which the metal fitting, Fig. 2, is bolted. Fig. 5 shows the outlet limb with the large portion of the flange S removed. Fig. 6 shows a modified shape of the fitting. Fig. 7 represents the top of the closet bowl and seat attached.

A represents a closet bowl formed into a square shape at the front section of the top by the corners *b*, *b*, for convenience of using as a slop sink and urinal, and into a round shape at the back section of the top by the curves *b'*, *b'*, for the purpose of simplifying the manufacture and reducing the cost.

K is a water box having holes K' made in it at each end for the purpose of receiving the tube L which is fastened permanently to the water box by lock nuts at each end.

K^2 represents a rod which passes through the tube L.

M represents hinges having holes in them for the rod K^2 to pass through and L' represents nuts which are screwed on the ends of the rod K^2 to keep the hinges in position.

N shows a section of the seat which is secured to the hinges M in a manner to allow it to be swung to and from the rim of the bowl. By this arrangement the seat can be fitted to the closet complete by the manufacturer, which avoids the trouble of having to fasten a section of it to the wall.

A' is the flush rim.

A^2 shows a water channel which is joined to the water box K and extends down at either side of the bowl to supply the water jet A^3 and is constructed to give the descending water velocity enough up the ascending limb A^5 to force any deposit in the closet over the dam.

A^5 shows the ascending limb and concave partition that form the bottom of the trap. This partition from its lowest point to the discharge end has a curve, and takes a convex form at the dam C for the purpose of

lessening the resistance of the discharging water and aiding in the discharge of refuse when the water is being forced through the jet or water spread A^3 and up the surface of the partition A^5.

C^4 shows the partition that forms the trap and a portion of the bottom of the closet bowl.

B shows the outlet limb of the trap and is made larger in diameter than the ascending limb of the trap so as to avoid the possibility of its clogging. The discharge limb B has an outwardly projecting flange S made on it at the lower end. This flange S is recessed on the under side to receive a metal fitting G which is put up into the recess a^2 and held in position by the flanged ferrules J. These ferrules J are threaded at the lower end and corresponding threads are made in the metal fitting G, and when the fitting G is put in place in the earthen recess a^2, the ferrules J are put through holes G^6 in the earthen flange and are screwed to the said fitting G until a rigid bearing is made. I then fill the space around the metal flange with cement D for the purpose of making a more rigid and air tight joint, but the cement joint can be omitted. It will be seen that when the ferrules J are screwed to the fitting G and the fitting G is made rigid to the earthen flange with cement there will not be any pressure on the earthen flange from the head of the bolt H, when the said bolt H is being screwed to the floor plate E', and it is for the purpose of obtaining a rigid joint at the floor without any liability of breaking the earthen flange that these flanged ferrules J are used.

The fitting G can be made any particular shape to suit, as the principal object is to fasten it permanently on the discharge limb so that a perfectly air tight joint can be made to the metal floor plate E'.

G' shows holes made in the fitting G to which the ferrules J are screwed.

G^4 shows a recess in the under side of the fitting G for the purpose of admitting the floor plate E'.

G^2 are holes made in the fitting for the purpose of pouring the cement through and around the fitting when the closet is turned bottom up.

G^3 shows the end of the fitting G extending down below the flat portion of the said fitting G for the purpose of entering the soil pipe.

G^5 shows the end of the discharge limb B projecting down below the under side of the earthen flange S for the purpose of allowing the inner ring g to encircle it. If the two rings g g and the depending neck G^3 are dispensed with, the end G^5 of the closet can be made long enough to extend down into the soil pipe E.

E' represents a metal plate which encircles the leaden soil pipe and is secured thereto by a solder joint. If the soil pipe E is iron or brass the plate E' can be screwed or bolted to it. When the plate E' is soldered or otherwise fastened to the soil pipe, a thin layer of cement is put on the plate and the closet is then placed, and the bolts H are entered through the flanged ferrules J and engaged to the plate E', and when they are screwed into the said plate E' sufficiently, the two fittings G and plate E' are joined so completely that it would be quite impossible for gas to escape between them, as they both have planed surfaces to make them perfectly true, whereas with only an earthen flange on the closet a true surface cannot be obtained, and a permanent sewer gas tight joint cannot be made on account of shrinkage of the packing between the flanges, or the destruction of it by sewer gas. When the closet is being screwed down the heads of the bolts H rest upon the flanges of the ferrule J, and any pressure brought to bear upon the bolts H does not affect the earthen flange, as all the pressure is on the flanges J. If the closet is formed straight at the back the rod, or the tube and rod can extend through the flushing rim instead of through the water box K, or through a water box made the width necessary for a straight back closet.

The advantages I claim are: First, the large opening in the bottom of the bowl and the slight curve in the ascending limb admits of the entire water holding surface to be cleaned with a cloth by the hand; second, noiseless and positive action of the closet; third, perfect security at the floor fittings againt any ingress of sewer gas; fourth, simple and effective manner of securing the seat to the earthenware bowl; fifth, usefulness of the bowl as a slop hopper and urinal.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the discharge limb B of an earthenware water closet, of the earthen flange S, the fitting G secured to the discharge limb B under the flange S and having one or more holes for the purpose of pouring cement in the space between the metal and the earthenware, the plate E' fitted to the fitting G, and the bolts H extending through holes in the fitting G and secured to the plate E', as and for the purpose set forth.

2. The combination with the discharge limb B of an earthenware water closet, of an earthenware flange S having holes G^6 made in it, the fitting G secured to the flange S and to the discharge limb, the plate E' fitted to the fitting G and the bolts H extending through the holes G^6 and through the holes in the fitting G and secured to the plate E' as and for the purpose set forth.

3. The discharge limb B of an earthenware water closet having a flange S made integral with it, the metal fitting G secured to the end of the discharge limb B under the flange S, the plate E' fitted to the fitting G, and the bolts H extending through holes in the fitting G and screwed to the plate E', as and for the purpose set forth.

4. The combination with the discharge limb

B of an earthenware water closet, of a recessed earthen flange S, the metal fitting G let up into the earthen flange S and secured therein, the ferrules J, the metal plate E′ fitted to the metal fitting G, the bolts H extending through ferrules J and screwed to the plate E′, and the heads of the flanged bolts H resting upon the flanged ferrules J, as and for the purpose set forth.

5. The combination with the discharge limb B of an earthen water closet, of the recessed flange S having holes G^6 in it, the metal fitting G having a recess G^4 in it, the flanged ferrules J screwed to the fitting G, the metal plate E′ fitted in the recess G^4 and prepared to be secured to the drain pipe, and the bolts H extending through the flange S and fitting G and screwed to the plate E′ for the purpose of securing the closet to the drain pipe.

6. In an earthenware water closet bowl having a round form at the top and back portions, of a chamber made on the back side of the bowl and integral with it, a rod extending from one side of the said chamber to the other and secured at each side, hinges secured to the rod, and a seat secured to the hinges.

7. The combination with a water closet bowl, of a water box K having apertures K′ at each side, a tube L extending through the water box K and apertures K′, a rod K^2 extending through the tube L and secured at each end, the hinges M secured on the rod K^2, and the seat N secured to the hinges M, as and for the purpose set forth.

C. H. MOORE.

Witnesses:
ALLEN TAYLOR,
E. CURTICE.