

(No Model.)

W. J. GIBSON.
WATER CLOSET COUPLING.

No. 537,192.

Patented Apr. 9, 1895.

FIG. 1.

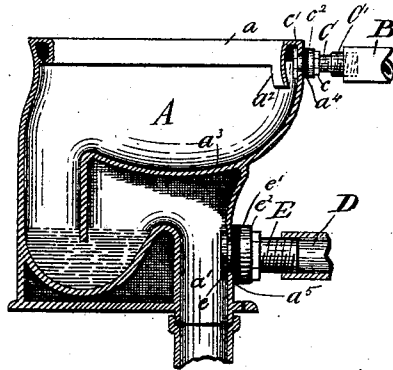


FIG. 2.

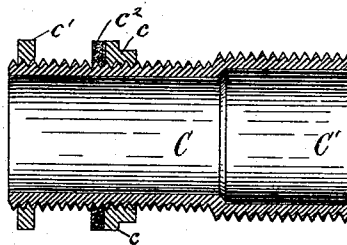
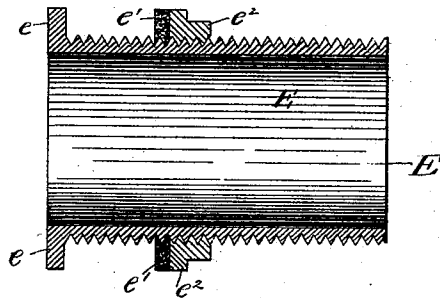


FIG. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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WATER-CLOSET COUPLING.

SPECIFICATION forming part of Letters Patent No. 537,192, dated April 9, 1895.

Application filed December 16, 1893. Serial No. 493,813. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GIBSON, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Water-Closet Couplings, of which the following is a specification.

My invention relates to that class of water closets made of porcelain and having flushing rim and openings for coupling the flushing and vent pipes. Its object is to cheapen the manufacture of the bowl and provide a more secure and reliable means of coupling the flushing and vent pipes thereto.

My invention also provides a cheap and convenient means for repairing the old style of wash out closets.

The invention will be first fully described in connection with the accompanying drawings, and then particularly referred to and pointed out in the claims.

Before proceeding to describe my invention in detail it should be understood that the closet bowls of this class commonly in use are provided with external projecting bosses to receive the coupling for the flushing and vent pipes, which are held in place with sulphur or similar material. In the manufacture of these bowls, it has been found impracticable to mold the bowl and bosses to receive the couplings integral and the bowls have been uniformly molded without the bosses but with a flat seat to receive them. The bosses being molded separately and stuck on to the flat seat, and the bowl then glazed or enameled in the usual manner, it necessarily follows that there is no perfect union between the bosses and the bowl and the glazing or porcelain covering is almost entirely relied upon for uniting the bowl and bosses, in rough usage or jarring of either the bowl or pipe breaks the boss or bosses from the bowl and as there is no means for repairing them, the entire bowl must be replaced by a new one at a considerable expense. This expense and trouble are entirely overcome by my invention.

Referring to the accompanying drawings in which like parts are indicated by similar reference letters wherever they occur throughout the various views: Figure 1 is a central vertical section of one of the well known forms of closet bowls provided with my im-

provements. Fig. 2 is a diametrical sectional view upon a greatly enlarged scale of the coupling for the flushing pipe connecting the same with the rim of the bowl. Fig. 3 is a diametrical sectional view of the coupling for the vent pipe.

Referring to the parts by reference letters, A, represents one well known form of wash out closet, provided with a flushing rim *a*, the duct leading to the soil pipe *a'*, the enlarged rear portion of the flushing rim *a*², which is opened at the bottom and side of the main rim down to flush out the receiving pan *a*⁵.

The bowl at its rear end is perforated at *a*⁴, to receive the coupling of the flushing pipe C, and at *a*⁵, to receive the coupling of the vent pipe. As before stated opposite these openings on the outside of the common form of bowl there are projecting tubular bosses to receive the pipes and their packing, which in my improved bowl are entirely omitted. The coupling for the wash out pipe B, consists of the tube C, having an enlarged outer portion C', the part C, being screw threaded externally to receive the nut *c*, and the screw tapped disk or washer *c'*, the large portion C', being similarly screw threaded to be coupled to the lower end of the flushing pipe B. To secure the coupling in place, the nut *c*, and gasket *c*², are run back some distance on the diminished neck C. The disk or washer, *c'*, is then passed up under the opening in the rear portion of the flushing rim *a*³, and the coupling screwed into it. The flushing pipe B, is then brought into position, and the enlarged end C', of the coupling is screwed into it after which the gasket *c*², and nut *c*, are brought up against the outer portion of the bowl surrounding the opening *a*⁴, firmly clamping the parts together. The same form of coupling may also be used to couple the soil pipe branch *a'*, and the vent pipe D, but I prefer to employ the coupling shown in Fig. 3, which consists of a plain cylindrical tube E, having an outwardly projecting flange *e*, which may be inserted from the soil branch *a'*. The screw threaded neck passing through the perforation *a*⁵, the gasket *e'* and nut *e*², are first passed over the tube E, the end of which is then screwed into the vent pipe D, as far as desired, after which the nut and gasket are tightened up against the outer wall of the bowl.

I have shown what I believe to be the simplest and best form of my invention, but it is obvious that many mere mechanical variations may be made without departing from its spirit and scope; and I do not desire to be limited to the specific details of construction shown, as the essence of the invention consists in dispensing with the weak and expensive external bosses or projections and providing a coupling extending through the perforation in the bowl, said coupling provided on the inside of the bowl with a bearing adapted to be drawn against the inner wall of the bowl by an exterior movable member which, in connection with the interior bearing, clamps the bowl firmly and holds the coupling in position.

What I claim is—

1. In a washout bowl for water closets, the combination of the bowl having a flushing rim, a perforation to receive the coupling for the flushing pipe, and a plain or non-projecting seat upon the exterior of said bowl around the perforation, the exteriorly screw threaded coupling tube passing through said perforation and extending into the chamber formed by the wall of the bowl and flushing rim, the screw threaded disk adapted to pass within the flushing rim to receive the inner extended end of the coupling tube, and the exterior nut upon the coupling to clamp it firmly in place, substantially as shown and described.

2. The combination of the bowl having a flushing rim and perforated to receive the coupling tube, a screw threaded coupling tube passed through said perforation and extending into the flushing rim, a disk adapted to pass within the flushing rim and into which the end of the tube is screwed, a gasket and a nut on said tube outside of the bowl to clamp the bowl body firmly between said disk and nut.

3. The coupling for washout water closet bowls of the character described, consisting of an exteriorly screw threaded tube to pass through the rear wall and into the flushing rim of the bowl, a threaded disk to pass through said flushing rim and engage the thread upon the end of the said tube, a gasket to pass over said tube and bear against the outside wall of the bowl, and a nut to press against the gasket and clamp the bowl between said gasket and disk.

4. The combination with the closet bowl, of a coupling projecting through an aperture formed in the shell of the bowl, and a fastening piece applied to the interiorly-protruding extremity of the coupling, said fastening piece lying wholly within the bowl which it is adapted to engage on the inside.

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Witnesses:

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