

(No Model.)

W. S. COOPER.
WATER CLOSET.

No. 385,168.

Patented June 26, 1888.

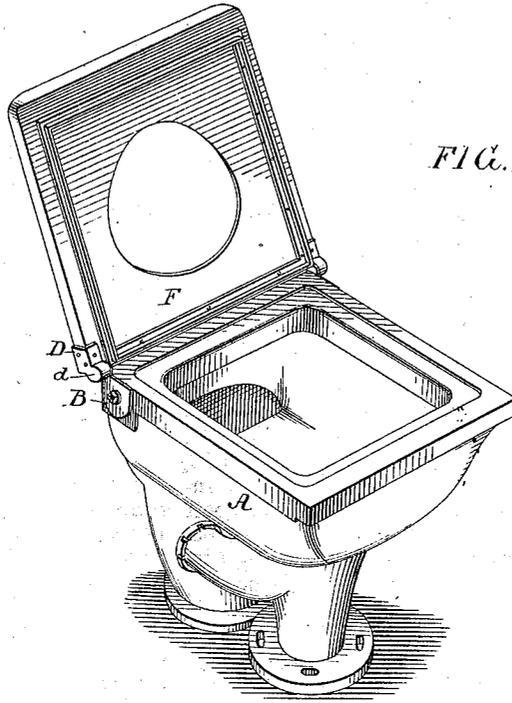


FIG. 1.

FIG. 2.

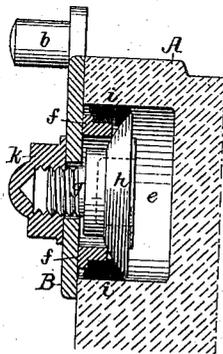
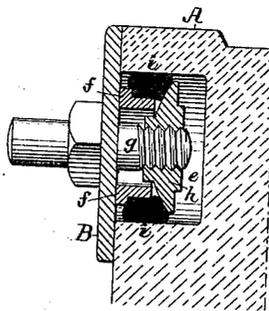


FIG. 3.



Witnesses:
Alex Barkoff.
Jno. E. Parker.

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UNITED STATES PATENT OFFICE.

WILLIAM S. COOPER, OF PHILADELPHIA, PENNSYLVANIA.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 385,168, dated June 26, 1888.

Application filed March 5, 1887. Serial No. 229,756. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. COOPER, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Water-Closets; of which the following is a specification.

The object of my invention is to provide means for hinging the lid or seat of a water-closet to the earthenware bowl without risk of breakage of the latter, due to the strain upon the hinge. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a water-closet bowl with seat hinged thereto in accordance with my invention, the seat being shown in the raised position. Fig. 2 is a longitudinal section on an enlarged scale, showing the means adopted for securing the hinge-plate to the earthenware bowl; and Fig. 3 is a similar section, showing a modification.

In carrying out my invention I secure to each side of the bowl A of the closet a plate, B, having a projecting pin, b, which is adapted to a socket, d, on a plate, D, secured to the lid or seat F of the closet. A lateral opening or recess, e, is formed in each of the side walls of the bowl A for the reception of the devices whereby the hinge plates are secured to said bowl. As shown in Fig. 2, these devices comprise a ring, f, and a bolt, g, having a beveled head, h, between which and the ring is clamped a flexible bushing, i, of rubber or equivalent material, the stem of the bolt passing through an opening in the plate B and receiving a nut, k, which bears upon the outer face of the plate. On screwing up this nut the bolt g is drawn outward and the flexible bushing i is clamped between the beveled head of the bolt and the

ring f, thus effecting the lateral expansion of said ring and the pressure of the same against the walls of the recess in the bowl. By this means each plate B is firmly secured to the bowl A of the closet through the medium of an interposed elastic bushing, so that the bowl cannot be subjected to such injurious shocks or jars as would tend to fracture the same.

In Fig. 3 I have shown another construction, in which the hinge-plate has an inwardly-projecting threaded stem adapted to a beveled nut, between which and the ring f the bushing i is compressed, so as to expand it against the walls of the opening.

When it is not desired to use the ring f, the bushing i may be compressed between the plate B and the head or nut of the bolt.

I claim as my invention—

1. The combination of the recessed bowl of a water closet, a hinge-plate, a securing-bolt therefor, having a head or nut contained within said recess, and an elastic bushing subjected to the pressure of said head or nut and expanded thereby against the walls of the recess, all substantially as specified.

2. The combination of the bowl of a water-closet having a recess therein, a hinge-plate, a ring, a bolt for securing the hinge-plate, and an elastic bushing compressed between said ring and the head or nut of the bolt, and expanded thereby against the walls of the recess, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. S. COOPER.

Witnesses:

WILLIAM D. CONNER,
HARRY SMITH.