

(No Model.)

P. J. MADDEN.
WATER CLOSET.

No. 550,416.

Patented Nov. 26, 1895.

FIG. 1.

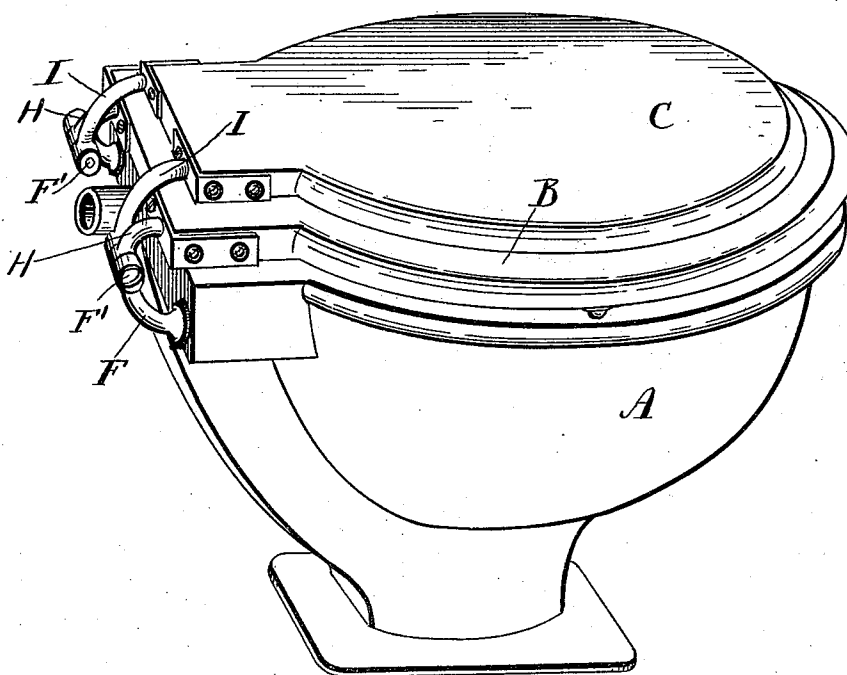


FIG. 2.

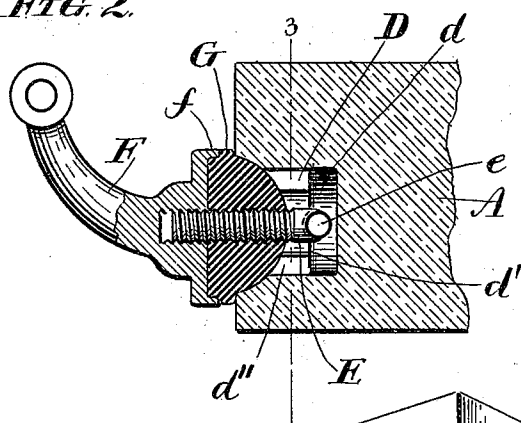


FIG. 3.

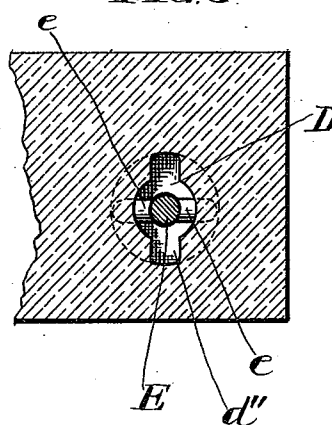
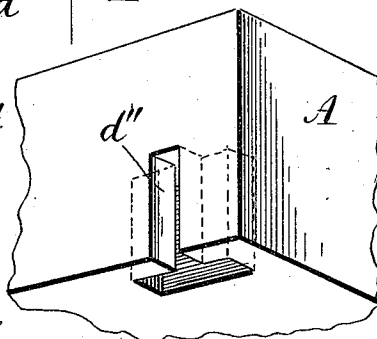


FIG. 4.



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PATRICK J. MADDEN, OF CHICAGO, ILLINOIS.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 550,416, dated November 26, 1895.

Application filed March 1, 1895. Serial No. 540,161. (No model.)

To all whom it may concern:

Be it known that I, PATRICK J. MADDEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Water-Closets, of which the following is a specification.

The present invention relates to that class of water-closets in which the seat (and the lid also, where one is used) is attached directly to and is supported by the bowl, as distinguished from that class in which the seat (and the lid, where one is used) is attached to and supported by a seat-rail or other part.

One object of the invention is to provide attaching devices of such construction that at their points of attachment to the bowl the latter is not weakened to such an extent that it will break with ordinary usage.

Another object of the invention is to provide a seat-attaching device of such construction that when its parts are properly assembled they cannot work loose.

Other objects of the invention are to simplify and cheapen the construction of these attaching devices.

To these ends the invention consists in the features of novelty that are particularly pointed out in the claims, and in order that it may be fully understood I will describe it with reference to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a perspective view of a water-closet embodying the invention. Fig. 2 is a sectional elevation of portions thereof on a larger scale, showing in detail the construction of the devices for attaching the seat and lid to the bowl. Fig. 3 is a section of portions thereof on the line 3 3, Fig. 2. Fig. 4 is a perspective view of a fragment of the bowl, showing a modification.

A represents the bowl, B the seat, and C the lid. In the back of the bowl are formed two sockets D, the essential characteristic of which is that each must have a laterally-extending portion or recess d , resulting in a shoulder d' . It is not material what cross-sectional shape is given that portion or branch d'' of the socket that extends from the recess d to the surface of the bowl so long as the socket, as a whole, will admit an anchor E, which has a lateral

projection e . As shown in the drawings, the anchor is of T shape and the branch d'' of the socket is of double-keyhole shape in cross-section, so that the anchor may be inserted head first until the head is in the recess d , after which it may be turned to bring its lateral projections e to a bearing upon the shoulders d' .

Preferably the engaging surfaces of the shoulders and anchor are complementary and one is hollowed out to receive the other, so as to prevent the anchor from turning without first disengaging it by an endwise movement; but this is a precautionary feature that may be dispensed with.

While I have shown an anchor of T shape and a socket having two shoulders for engaging its two lateral projections, still I desire to have it understood that my invention in its broadest aspect is not limited to this particular construction, but comprehends any anchor having a fixed lateral projection and any socket having a shoulder for engaging said projection.

Fig. 4 shows a socket of T shape in horizontal cross-section extending quite to the bottom of the rim of the bowl, and in this case the anchor is inserted at the bottom of the socket and moved laterally upward to place. I prefer, however, to use a socket of non-circular cross-section having only a single opening, because such a socket can be completely concealed by the bracket-arm F, which is separably united to the stem of the anchor. Preferably the stem of the anchor is threaded and the bracket has a threaded socket for receiving it. One end of the bracket is of sufficient diameter to span and conceal the socket, and upon it is an annular flange f , forming a depression in which fits a block G, of rubber or other yielding material, the normal shape of which is preferably hemispherical. It is of greater diameter than the socket of the bowl, so that when the bracket is screwed onto the stem of the anchor the block is compressed between the bowl and flange and a portion of it is squeezed into the space between the annular flange f and the bowl, thus causing the bracket to bear upon the bowl indirectly (through the buffer) rather than directly. This gives a firm support to the bracket and

at the same time relieves the bowl of much of the jar that would come upon it if the buffer were not used.

The outer end of the bracket has an eye for receiving a pintle F, which passes through an eye in the rear end of an arm H, that is secured to and projects rearward from the seat B and through an eye in the rear end of an arm I, that is secured to and projects rearward from the lid C. Thus the seat and lid have a common axis of motion, so that when they are raised and lowered together they will not rub against each other, and, furthermore, the axis of motion is so far from the bowl that when they are raised they will be out of the way of water that may be splashed over the bowl and complete and easy access may be had to all parts of the seat, lid, and bowl for cleaning them.

It will be seen that the brackets F are active elements (practically nuts) in effecting their attachment to the bowl and that they cannot be detached therefrom excepting by rotating them, and since they cannot be rotated without first disconnecting them from the seat it follows that when once the parts are assembled they cannot work loose.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a water closet the combination of a bowl, having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted, when the anchors are rotated, to engage or disengage the shoulders of the sockets, brackets proceeding from the anchors, and a seat attached to the brackets and preventing their rotation, substantially as set forth.

2. In a water closet the combination of a bowl having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted, when the anchors are rotated, to engage or disengage the shoulders of the sockets, brackets adapted to bear upon the bowl, means securing the anchors and brackets together so that they clamp the bowl between them, and a seat attached to the bracket and preventing their rotation, substantially as set forth.

3. In a water closet the combination of a bowl having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted, when the anchors are rotated, to engage or disengage the shoulders of the sockets, brackets adapted to bear upon the bowl, elastic buffers interposed between the brackets and the bowl, means for securing the anchors and brackets together so that they clamp the bowl between them, and a seat attached to the brackets, substantially as set forth.

4. In a water closet the combination of a bowl having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted when the anchors are rotated to engage or disengage the shoulders of the sockets, brackets

adapted to bear upon the bowl and having rotative engagement with the anchors, said anchors and brackets having engaging screw threads so that by rotating the brackets the bowl may be clamped between them and the lateral projections of the anchors, and a seat attached to the brackets, substantially as set forth.

5. In a water closet the combination of a bowl having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted, when the anchors are rotated, to engage or disengage the shoulders of the sockets, said anchors having also threaded stems, brackets adapted to bear upon the bowl and having threaded sockets for receiving the threaded stems of the anchors so that by rotating the brackets the bowl may be clamped between them and the lateral projections of the anchors, and a seat attached to the brackets, substantially as set forth.

6. In a water closet the combination of a bowl having sockets, each having a single opening, and being shaped to provide an internal shoulder, anchors occupying the sockets and having lateral projections adapted when the anchors are rotated to engage or disengage the shoulders of the sockets, brackets secured to the anchors and concealing the openings of the sockets, and a seat attached to the brackets, substantially as set forth.

7. In a water closet the combination of a bowl having sockets shaped to provide internal shoulders, anchors occupying the sockets and having lateral projections adapted, when the anchors are rotated, to engage or disengage the shoulders of the sockets, brackets proceeding from the anchors and adapted to bear upon the bowl, elastic buffers interposed between said brackets and the bowl, and a seat attached to the brackets, substantially as set forth.

8. The combination with the seat and the bowl provided with a socket, of an anchor occupying said socket and having a lateral projection, and a bracket fixed to the anchor, the socket having a branch so shaped as to permit the insertion of the anchor and a laterally extending portion resulting in an internal shoulder and permitting the anchor to be rotated to bring its lateral projection into engagement with said shoulder, substantially as set forth.

9. The combination with the seat and the bowl having a socket, of an anchor occupying said socket and having a lateral projection and a bracket having rotative engagement with the anchor and adapted to bear upon the bowl, the anchor and bracket having engaging screw threads, so that by rotating the bracket it may be brought to bear upon the bowl, and the socket having a branch so shaped as to permit the insertion of the anchor and a laterally extending portion resulting in a shoulder and permitting the anchor to be rotated to bring its lateral

projection into engagement with said shoulder, substantially as set forth.

10. The combination with the seat and the bowl, having a socket, of an anchor of T shape occupying said socket and a bracket secured to the stem of the anchor, said socket having a branch of double key-hole shape in cross-section, permitting the insertion of the anchor, head first, and a laterally extending portion, resulting in internal shoulders and permitting the anchor to be rotated to bring its lateral projections into engagement with said shoulders, substantially as set forth.

11. The combination with the seat and the bowl having a socket, of an anchor of T-shape occupying said socket and a bracket adapted to bear upon the bowl and having rotative engagement with the stem of the anchor, said anchor and bracket having engaging screw threads, so that by rotating the bracket it may be brought to bear upon the bowl, and said socket having a branch of double key-hole shape in cross-section, permitting the

insertion of the anchor, head first, and a laterally extending portion resulting in internal shoulders and permitting the rotation of the anchor to bring its lateral projections into engagement with said shoulders, substantially as set forth.

12. The combination with a bowl having two sockets, of two anchors fitting in said sockets, means for preventing their rotation while in place, two brackets having rotative engagement with the anchors, and adapted to bear upon the bowl, the anchors and brackets having engaging screw-threads so that by rotating the brackets they may be brought to bear upon the bowl, and the bowl thereby clamped between them and the anchors, and a seat hinged to the brackets, and preventing their further rotation, substantially as set forth.

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