April 24, 1928. 1,667,593

R. T. FRYE

WATER CLOSET SUPPORT

Filed Feb. 4, 1927 2 Sheets-Sheet 1

Fig. 1.

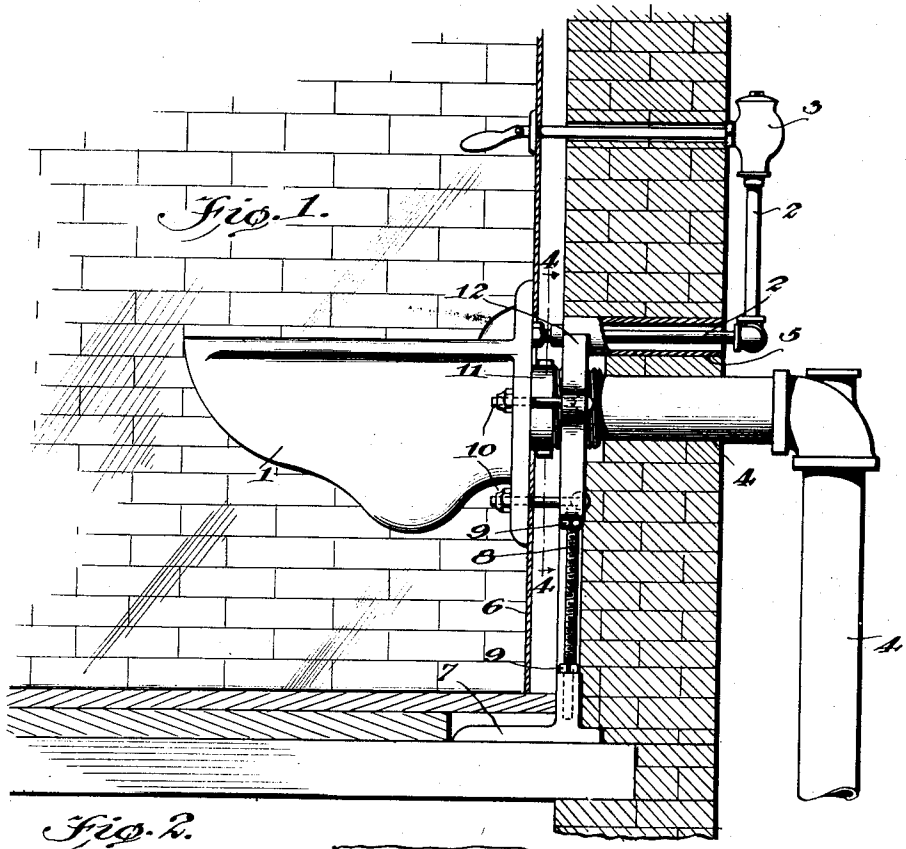


Fig. 2.

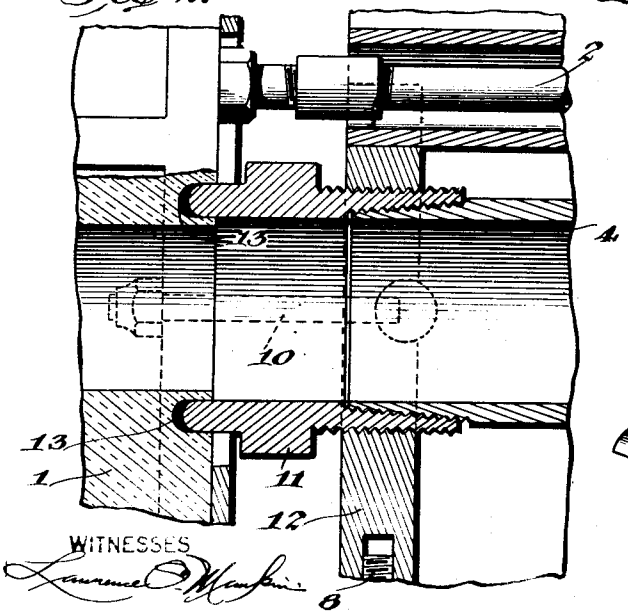
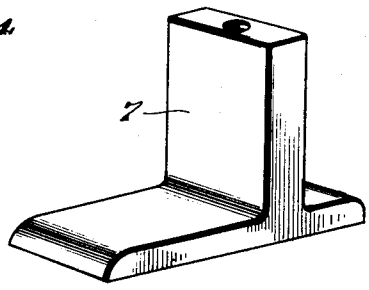


Fig. 3.



WITNESSES

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Fig. 4.

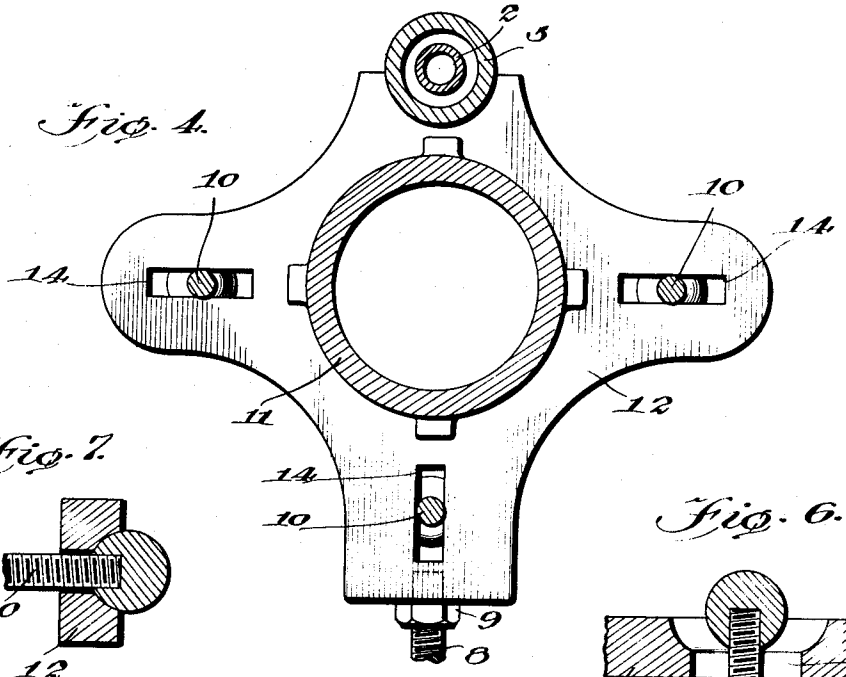


Fig. 7.

Fig. 6.

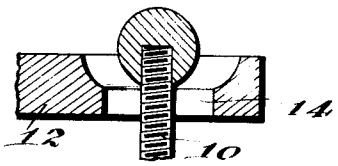
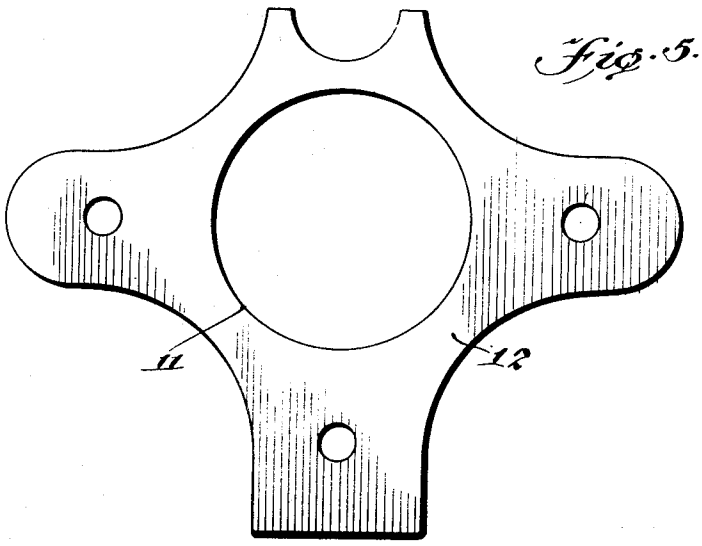


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

RICHARD T. FRYE, OF NEWBURGH, NEW YORK.

WATER-CLOSET SUPPORT.

Application filed February 4, 1927. Serial No. 165,923.

This invention relates to a water closet support, which may however, be used to support slop sinks, urinals, baths and other fixtures as will be apparent to those skilled in the art.

The object of my invention is to provide a support for apparatus of this character which will be concealed in the wall and floor and which may be adjusted to conform to the varying sizes of the fixtures. The device may also be adjusted to conform to the thickness of the wall or its coatings such as tiles, it may be adjusted to compensate for unevenness or unplumbness and the provision of an exact distance between the mouths of the water supply pipe and the waste pipe where they project from the wall.

Referring now to the drawings,

Figure 1 shows a side elevation of the support as applied to a wall,

Fig. 2 is a detailed view of a side elevation in section of the joint between the wall and water closet bowl,

Fig. 3 is a perspective view of the foot of the support,

Fig. 4 is a front elevation of the wall plate of the device,

Fig. 5 is a front view of a modification of the wall plate,

Figs. 6 and 7 are sections of the ball and socket joint used to keep the bowl tight to the wall.

Referring now to Fig. 1, numeral 1 indicates the bowl, 2 is the fresh water supply pipe, 3 is the valve, 4 is the waste pipe, 5 is a sleeve through which the fresh water pipe is usually introduced, but which may be omitted, 6 is the false front of the wall made merely to conceal the plumbing, 7 is the foot of my support, this being made preferably of iron, 8 is an elevating screw which is provided near each of its ends with securing nuts 9. The foot of the support is preferably sunk beneath the floor level as shown.

The elevating screw supports the wall plate 12 of the device, which is an iron plate, the front of which has a contour as shown in Figs. 4 or 5. 10 represents bolts for anchoring the bowl to the wall plate, each of such bolts, of which I prefer to use three having on their rear ends a ball which fits into a corresponding recess in the rear of wall plate to make a ball and socket joint.

11 is a flange or coupling between the bowl and the waste pipe and is shown sectioned in Fig. 2. In this figure, 2 indicates the fresh water pipe run through a sleeve in the wall, 1 is the bowl and 10 a bolt to draw the bowl up to the coupling. The end of the coupling nearest the bowl is preferably rounded and fits into a circular groove of corresponding shape 13—13 formed in the back of the bowl. Between the bowl and coupling there is placed before the coupling and bowl are brought together, a gasket which may be of any usual gasket material, preferably rubber. The other end of the coupling is screwed on to the threaded end of the waste pipe.

Fig. 3 shows the foot which is a right angled support containing in its vertical wall a threaded deep hole to receive elevating screw 8.

Figs. 4 and 5 show the wall plate in two modifications, the one shown in Fig. 4 being preferred.

In this form the balls on bolts 10 fit into rectangular slots 14 which are arranged with their longer dimensions horizontal, preferably with respect to the two upper ones and the third one vertical. The back of the plate adjacent these slots is dished to make a channel which will accommodate the balls of the bolts in any position for the full length of the slot. Fig. 6 illustrates this construction clearly by means of a sectional view. Fig. 7 constitutes a modification of Fig. 6. There the channel takes the form of a hemisphere so that lateral movement of the ball is possible.

The operation of the device is as follows:—

The bolts are inserted into the wall plate and the coupling is screwed into the wall plate and onto the waste pipe. The foot is then placed in position with the screw shortened until it can enter the hole in the wall plate which has preferably, however, no thread. The screw is then elevated until it fully enters the hole in the wall plate and elevated as much farther as will place the wall plate in alignment. The securing nuts on the screw are then tightened. The tiling

is then completed to hide the support and the bowl applied to the wall by means of the bolts, care being taken that the coupling fits into the depressed ring 13.

The fresh water connection is made by means of a union with the fresh water pipe which passes through an already provided sleeve in the wall.

Other modifications are possible which I claim as my own if they fall within the scope of the appended claims.

I claim:—

1. In combination with the bowl of a water closet or the like, a wall plate, adjustable supporting means for said bowl and said wall plate and means adjustable to angular irregularities comprising ball and socket joints, for bringing said bowl and said wall plate together, an exit pipe through said wall plate from said bowl and a water supply therefor.

2. A water closet comprising a concealed adjustable support for the bowl, a concealed wall plate, a ball and socket joint in the rear face of said wall plate and bolts having balls on their ends in operative relation with the back plate sockets and with the bowl to bring said members together.

3. In combination with the bowl of a water closet or the like, and an exit pipe therefrom, a pedestal having an elevating screw, a wall plate with an opening adapted to receive the end of said elevating screw, a coupling joining said bowl and said waste pipe and passing through said wall plate and means for holding said bowl to said wall plate, said means comprising ball and socket joints, and a fresh water supply for the assemblage.

4. In combination with the bowl of a water closet or the like, a pedestal having a flat base, a wall rising vertically therefrom, a threaded hole in the top edge of said wall, a threaded rod adapted to fit into said hole and rise from the pedestal, an exit pipe and a fresh water pipe for the water closet bowl, a wall plate supporting said exit pipe and fresh water pipe and said bowl, semi-circular dished recesses in the rear of said wall plate, slots in said recesses, ball-headed bolts passing through said slots, the ball heads fitting into the semi-circular recesses and slidable therein before they are tightened, said bolts supporting the back plate of said water closet, toilet or the like, said wall plate being supported by means of the threaded rod rising from the pedestal.

5. A wall plate for supporting a water closet or the like, comprising a central portion having an opening therein adapted to receive the exit pipe of a water closet or the like, a plurality of portions extending vertically and horizontally from the central portion, a semi-circular notch in the upper edge of the top portion, said notch adapted to fit around the fresh water pipe casing of the water closet, the lower cap portion having a recess in its lower edge adapted to receive a threaded rod, and dished recesses having openings therein in the back of the plate, said recesses adapted to receive the ball ends of ball-ended bolts and said openings adapted to receive the stems of said bolts.

6. A device for attaching toilet fixtures to a wall plate wherein the bolt receiving openings of the toilet fixture may be offset from the bolt receiving openings in the wall plate, a wall plate provided with slots and concave recesses communicating therewith, bolts for attaching the fixture to the plate passing through the slots and having spherical heads universally adjustable in the recesses whereby to permit the bolts to line up with the bolt receiving openings in the toilet fixture.

7. An attaching device for toilet fixtures comprising a wall plate having transverse openings, a plurality of bolts universally mounted in the openings and projecting from one face of the wall plate and insertable through openings in the base of a toilet fixture located either in true registration with the openings in the wall plate or off-set therefrom.

RICHARD T. FRYE.