

Sept. 8, 1925.

P. PANHORST

1,552,501

BATH FIXTURE

Filed July 21, 1924

2 Sheets-Sheet 1

Fig. 1.

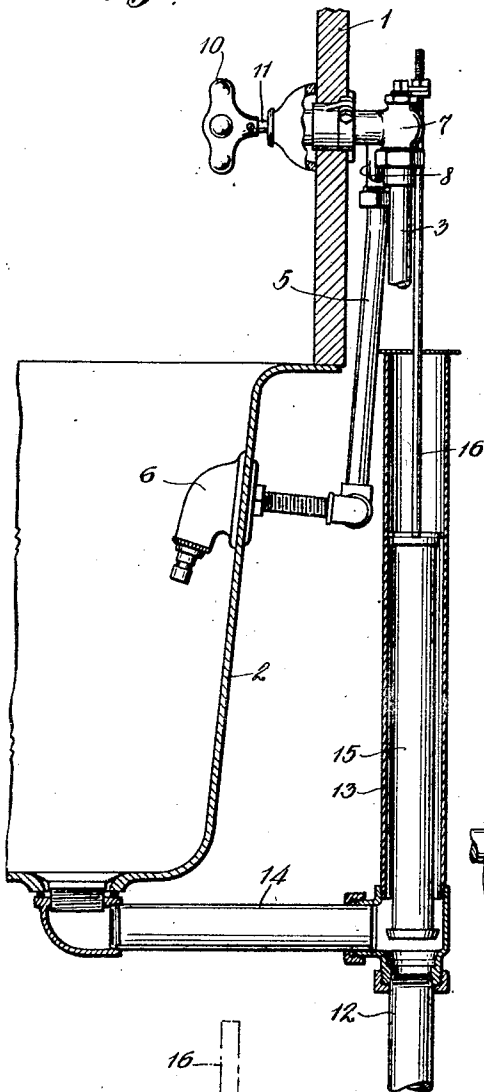


Fig. 2.

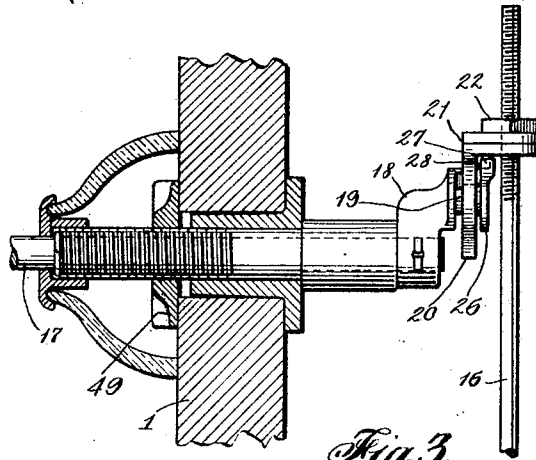
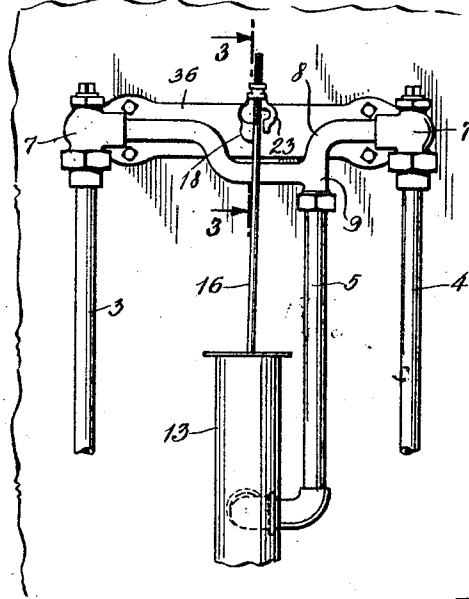


Fig. 3.

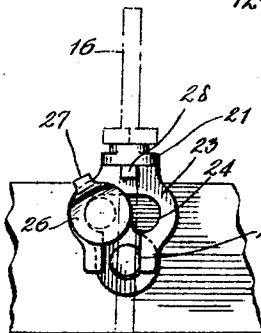


Fig. 4.

Inventor
PAUL PANHORST

By his Attorney
J. H. Williams

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P. PANHORST

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2 Sheets-Sheet 2

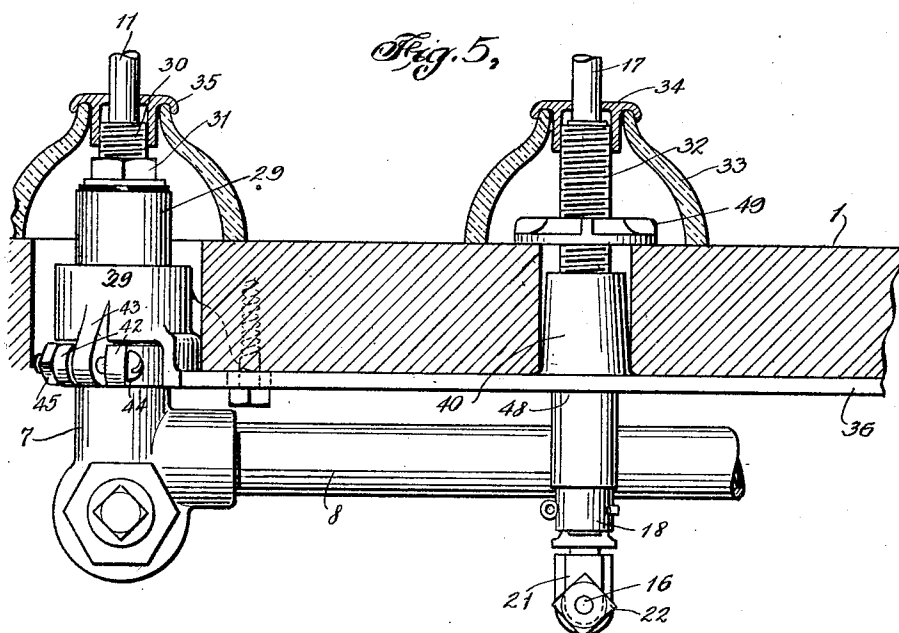


Fig. 6,

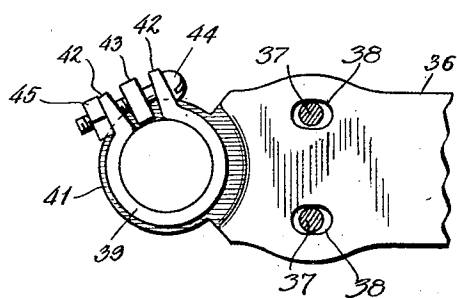


Fig. 7,

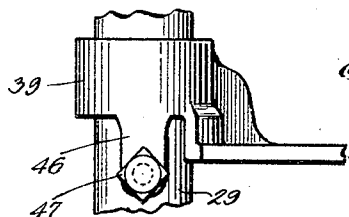
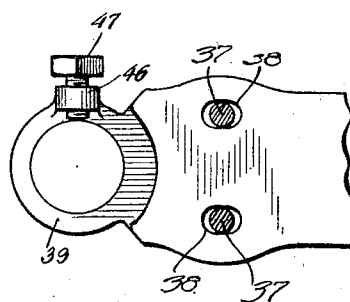


Fig. 8,

Inventor
PAUL PANHORST

By his Attorney
J. Franklin Meyer

UNITED STATES PATENT OFFICE.

PAUL PANHORST, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO TEST-TITE COMPANY, A PARTNERSHIP CONSISTING OF PAUL PANHORST AND JOHN G. ZOLLEIS, OF PHILADELPHIA, PENNSYLVANIA.

BATH FIXTURE.

Application filed July 21, 1924. Serial No. 727,239.

To all whom it may concern:

Be it known that I, PAUL PANHORST, a citizen of the United States, and resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bath Fixtures, of which the following is a specification.

This invention is an improvement in bath fixtures, and with respect to its more specific features to transmitting mechanism for the discharge outlets of the water supply pipes.

In the usual arrangement, bath fixtures, such as the controlling means for the hot and cold water supply and for the waste are on one side of the bath room wall, while the supply and waste pipes, and the valves controlling them, are on the other side, or within the wall. From this results that the discharge outlet pipes for the hot and cold water supply, and the conduit for the connection between the waste valve controlling means and the valve, pass through the wall or a part thereof. Such connections are built into the wall, that is they are placed before the wall receives its finish of plaster or tile..

As a consequence, the pipes or conduits are solidly held in the wall and if the thickness of the finish, that is the depth of the plaster or tiling does not correspond with the expectations of the workmen who place the pipes, they may extend from the wall too far, or not far enough.

Escutcheons are relied upon to hide the joints between them and the wall and the escutcheons are held in place usually by a ring or collar threaded onto the pipe. If the pipes extend too far from the surface of the wall, the escutcheon cannot be drawn close enough to perfectly hide the joint, and if the pipes do not extend far enough the wall must be dug away for the escutcheon. In either case the joint is unsightly, and the result is unsatisfactory.

Loosely held pipes, while permitting a degree of adjustment, because of the resiliency of the supply pipes, are objectionable for many reasons, among which may be men-

tioned the relative movement of the pipes with respect to the wall, due to unequal expansion and contraction. Moreover, when so held adjustment is only possible in one direction. The escutcheon may be drawn tight, and the resiliency of the supply pipes will hold it so, but if it is too loose, the loosely held pipes are of no advantage.

A primary object of the present invention is the provision of an arrangement, such that the advantages of the loose connection are retained, without the disadvantages usually attending such conditions. With this object in view, mechanism is provided for supporting the pipes in the wall free therefrom, and freely movable transversely thereof for purposes of adjustment, with means to secure them to the wall in a desired position of adjustment, capable of easy release when necessary and not affected by temperature changes.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, my invention consists in the elements and their relation one to the other, as hereinafter defined in the appended claims, reference being had to the accompanying drawings forming a part hereof, which show a preferred embodiment of the invention, and in which:

Fig. 1 is a vertical section showing the relative arrangement of the fixtures,

Fig. 2 is a rear view of the connection between the waste valve stem and its operating mechanism,

Fig. 3 is a section on the line 3—3 of Fig. 2,

Fig. 4 is an enlarged detail in rear elevation of a part of Fig. 2,

Fig. 5 is a horizontal section of the wall at the line of the fixtures,

Fig. 6 is a detail in rear elevation of a form of clamp,

Fig. 7 is a similar view of an alternate form,

Fig. 8 is a top plan view of Fig. 7.

The present embodiment of the invention is shown in connection with the wall 1 of a bath room having the usual tub 2, to which

the hot and cold water supply pipes 3 and 4 deliver, through a mixing pipe 5 having a delivery nozzle 6 within the tub. The supply pipes 3 and 4 are connected at their upper ends by elbows 7 with a cross pipe 8, and the upper end of the pipe 5 is connected with a nipple 9 on the cross pipe, as shown in Fig. 2.

As indicated in Fig. 1, the water supply pipes are arranged on the opposite side of the wall 1 from the tub, while the controlling mechanism for the said pipes is on the same side of the wall as the tub, the said mechanism including handles 10 connected with the stems 11 of the valves, not shown, which place the pipes 3 and 4 in communication with the cross pipe 8. The valves are of usual construction, arranged within the elbows 7, and operated by the turning of the stems to open and close the valves.

The waste pipe 12 for the tub, on the opposite side of the wall from the same, has at its upper end a valve casing 13, which is connected to the waste outlet of the tub by a length of pipe 14. A valve 15 controls the flow of the waste water from the pipe 14 into the waste pipe 12; and this valve moves vertically in the casing 13 before mentioned. A stem 16 is connected with the upper end of the valve, and the operating mechanism for the valve is connected with the stem, the said mechanism being on the same side of the wall as the tub, and the handles 10.

A shaft or rod 17 is journaled in an opening in the wall 1, and one end of the shaft, namely that adjacent to the tub, has a handle, not shown. The other end of the shaft is provided with a crank arm 18 having a wrist pin 19 at the end remote from the shaft. A connecting plate 20 is adjustably connected with the upper end of the stem 16, the said member having an angular lug 21 threaded onto the shaft and held in place in adjusted position by a lock nut 22.

This connecting member, as shown more particularly in Figs. 2 and 4, has a slot 24 extending transversely of the stem 16, in which the wrist pin 19 is received. At the bottom of the slot the member is cut away or notched as shown at 25, over a width sufficient to receive the wrist pin, in order to facilitate engagement and disengagement of the valve stem from the wrist pin. Referring to Figs. 3 and 4, it will be noted that the outer end of the wrist pin carries a disk 26, which has a radial lug 27 at the side remote from the shaft 17, and extending radially with respect to the shaft. The underside of the lug 21 has a stop lug 28, which is positioned to engage the lug 27, when the crank arm is substantially vertical, at which time the valve 15 is in open position, as indicated in Fig. 1.

The lug 28 is placed to engage the lug 27 to check the movement of the crank arm 18,

and that of the operating mechanism for the valve, with the valve in open position and to prevent overthrow by the operating mechanism beyond a position where the valve is fully opened. With this arrangement the valve can be opened by turning the shaft 17 in either direction, but the shaft cannot be turned beyond a position where the valve is fully open to again close the valve.

The controlling mechanism for the supply pipes 3 and 4, and for the waste pipe 12 of the tub, are on the tub side of the wall, while the pipes themselves are on the opposite side, either entirely beyond the wall, or between the faces thereof. In the usual arrangement, the elbows 7 have housings 29 extending through the wall for housing valve stems 11. Bushings 30 are provided for the stems, and reducing collars 31 are arranged between the bushings and the housings, the bushings being externally threaded, as shown in Fig. 5. The shaft 17 is arranged within a housing 32 which extends through the wall 1, and the housing is threaded over a portion of its length, as shown.

In the usual practice, the supply and waste pipes, and the fittings at the tops thereof, that is the cross pipe 8 and the elbows 7, with the valves in place are set before the finishing coat of the wall is applied, as for instance, plaster or tiling. The joints between the wall and the stems 11 and 17 are covered and concealed by escutcheons 33, which are bell or petticoat-shaped, as shown in Fig. 1. The escutcheons encircle the stems, the large ends thereof abutting the wall surface, while the small end is engaged by a holding nut 34, threaded onto the bushing 30 or 32, as the case may be. Each of these holding nuts has a marginal flange 35 which engages outside the small end of the escutcheon covering and concealing the end thereof, and the space between the same and the stem. The supply and waste pipes are so placed, and the bushings 30 and 32 are of such length, that they will extend beyond the wall a distance sufficient to permit the placing of the escutcheons, the workman who places the pipes estimating the thickness of the finish of plaster or tile, and arranging the parts accordingly. When the finish is applied, however, it does not always correspond in depth with the expectations of the plumber, and the bushings 30 and 32 may extend too far from the wall, in which case the escutcheons cannot be made to abut the wall closely, or not far enough, in which case the finish must be dug away to permit the placing of the bushing. In either case the joint is unsightly.

In the present invention, I provide a mounting for those portions of the fixtures

which pierce the wall, such that the said portions are free from the wall and freely movable transversely thereof, but may be anchored to the wall when they have been properly adjusted. The said mounting comprises a plate 36, which may be secured to the rear face of the wall, by means of screws 37, or the like, which engage slots 38 extending longitudinally of the plate. The plate has a bushing or collar 39 at each end, and another collar 40 intermediate its ends, the former collars being for the passage of the housings 32, while the latter is for the passage of the bushing 29. The collars are properly spaced to register with the respective elements they are to receive and they are of a diameter greater than the elements, so that the said elements will move freely through the collars. Suitable mechanism is provided for rigidly connecting the housings 32 to the respective collars, and the said mechanism may be of the character shown in Fig. 6, or of a character shown in Figs. 7 and 8. In Fig. 6 the clamping mechanism comprises a split ring 41 of a diameter to encircle the housing 32. The ends of the ring have radial lugs 42, which are on opposite sides of a lug 43 integral with the adjacent collar 39. A screw bolt 44 passes through registering openings in the three lugs, and is engaged by a nut 45 at the opposite side of the lugs from the head of the bolt. By means of the bolt and nut, the split ring may be tightened on the bushing, and since the ring is anchored to the bushing by the lug 43, it will anchor the bushing to the collar.

In the alternate construction shown in Fig. 7, the lug 46 of the collar, corresponding to lug 43 of Fig. 6, has a set screw 47 threaded therethrough, the said screw being adapted to engage the bushing 29, as shown in Fig. 8, thereby to anchor the bushing to the collar 39.

Referring to Fig. 5, it will be noticed that a shoulder 48 is provided between the body and the housing 32 and the threaded portion thereof. This shoulder engages the rear face of the plate 36, to limit the movement of the housing toward the bath room. On the opposite side of the wall a nut 49 is threaded onto the housing, and bears against the wall about the opening through which the collar 40 extends, the collar and the shoulder determining the position of the housing 32 with respect to the wall.

In case it should be necessary, for any reason, the supply and waste pipes may be loosened from the plate 36, by loosening the nut 45 or the set screw 47, as the case may be. When the handles 10, which are usually held in place by set screws, as shown in Fig. 1, are removed, and the escutcheons, there is sufficiently resiliency in the pipes 3 and 4, to permit the discharge outlets of the said

pipes to be entirely disengaged from the collars 39 and 40. By releasing the unions which connect the tops of the pipes 3 and 4, to the valve casing 7, the entire construction shown at the top of Fig. 2 may be detached and removed from the wall. The waste pipe valve stem may be also disconnected, merely by lifting the stem to disengage the member 20 from the wrist pin.

In the usual practice when the supply and waste pipes are within the wall, a panel is provided for permitting access to the parts. With a panel of this character, and the present arrangement of connection between the outlets and the wall, the entire construction may be placed after the wall is finished, and the parts exactly fitted into place.

What I claim is:—

1. In combination with a wall having openings for the passage of discharge outlets for water supply pipes, a plate having bushings for each pipe in the corresponding opening, the pipe freely movable in the bushing, and means rigidly connecting each pipe with the bushing.

2. In combination with a wall having openings for the passage of discharge outlets for water supply pipes, a plate having bushings for each pipe in the corresponding opening, the pipe freely movable in the bushing, and means rigidly connecting each pipe with the bushing, said plate having means to secure the same to the wall.

3. In combination with a wall having openings for the passage of discharge outlets for water supply pipes, a plate having bushings for each pipe in the corresponding opening, the pipe freely movable in the bushing, means rigidly connecting each pipe with the bushing, said means comprising lugs on the bushings, and means in connection with the lugs for clamping the pipes to the bushings.

4. Mechanism for attaching cross pipes to walls, comprising a plate for attachment to the wall and carrying bushings for the passage of the pipes, and means in connection with the bushings for locking the pipes thereto.

5. In combination, bath fixtures including waste and water supply controlling mechanism adapted to extend transversely of a wall, means to secure the said mechanism to the wall for adjustment transversely thereof, the securing means including a plate having bushings for the controlling mechanism, and means in connection with the bushings to lock said mechanisms to the bushings.

6. In combination, bath fixtures including waste and water supply controlling mechanism adapted to extend transversely of a wall, means to secure the said mechanism to the wall for adjustment transversely thereof, said mechanism including valve stems, and housings for the stems, the securing means

engaging the housings and including a plate having a bushing for each housing, and means in connection with each bushing to lock the housing thereto.

- 5 7. Mechanism for attaching a cross pipe to a wall, comprising a bushing through which the pipe passes, means in connection with

the bushing for locking the pipe thereto, and means for securing the bushing to the wall.

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Signed at Philadelphia in the county of Philadelphia and State of Pennsylvania this twelfth day of July, A. D. 1924.

PAUL PANHORST.